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HOARD'S DAIRYMAN

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 1 Fort Atkinson, Wisconsin

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MILK STOOL PHILOSOPHY

J. J. SPRENGER, MINNESOTA

SOME time ago a farmer in an experimental way tried to light his house by wiring from a little dry cell battery, reasoning that if a battery could ring the doorbell, it could make a light, also. But he found that it takes more power to make a light than a noise and incidentally he learned one of life's great lessons. We should never talk because we think we have to say something, but because we have something to say. When we are unable to converse intelligently and do not have good sense enough to keep still, then we always discount ourselves. It always takes three things to say something: an occasion, a theme, and a life. However if we have furnished these things and are not heeded, then it is the one who might hear that discounts himself.

Occasions, however, are not made by ourselves but are from time to time offered to us, something like life's opportunities, making it a matter of judgment on our part to make our conversation timely or otherwise. But even tact and good judgment cannot take the place of profound thinking when it comes to making our conversation helpful. As a people, we are too busy to think.

At the beginning of another year we can well afford to stop and think. If we do, we will soon find out that thinking has its rewards, especially when it accompanies our work. Milking becomes a pleasure when we have something good to think about, and the same is true of other work. It is also true that work performed in such a way that it stimulates thinking, always is doubly remunerative.

The highest remuneration that work can offer is in building character. No work is really remunerative unless it helps to build character. In making comparisons of work's remunerations we find there is both a monetary and a character building reward and that as work varies, these rewards vary so that when the monetary reward increases, the character building reward so often decreases. On the other hand, the work which is so often poorly paid for in money brings a rich harvest in that it has built real men and women, and we need often to stop and think of that tireless, poorly paid little mother and the teachers of our youth and let their memory spur us on to see more in our daily work than simply the money that it brings.

"Let us then be up and doing
With a heart for any fate.
Still achieving, still pursuing,
"Learn to labor and to wait."

—LONGFELLOW.

Dairy Butter Scores a Win Over Coconut Produce

HOARD'S DAIRYMAN:—A new friend has been found for the dairy cow—one has been lost to the coconut butter producers of the South Sea Islands. Eskimo pie is the new dairy cow friend—the former friend of coconut butter producers.

Eskimo pie, as most Hoard's Dairyman readers probably know, is merely a little chunk of ice cream which has been coated with a chocolate preparation. In making this chocolate coating, it is the common practice to use coconut butter, but the active brains of C. A. Iverson, L. T. Anderegg, and W. D. Elliott, workers in the Dairy Department at Iowa State College, Ames, conceived the idea of using dairy butter in place of coconut butter. The idea worked. In fact, it worked so well that it may develop into something of great value to the dairymen of the nation.

To give some idea of the importance of this seemingly small item, the Iowa state dairy workers have calculated that if all of the coconut butter used in Ekimo pies were replaced with dairy butter and if the average person in the United States ate just one Eskimo pie each year (some people eat dozens annually), a market for 2,825,000 lbs. of dairy butter would be made. Actually, the market for dairy butter through this source would probably grow a great deal, for the new Eskimo pie has doubled in sales over the old one in Ames. This fact becomes the more notable when one considers that Eskimo pie sales have been dropping off in many parts of the country. In Ames they are taking on new life and this has been the case for several months now—ever since the new pie appeared.

"I do not believe that the demand we have had here for the new Eskimo pie is a mere fad," says Professor M. Mortenson, head of the Dairy Department at Iowa State College, "for this new product has real quality. It is more "tasty" than the old. People relish it more. Then, too, it is actually more nutritious and dairy butter is far more easily digested than coconut butter. If the use of dairy butter increases over the country in these chocolate coatings as we hope it shall, I feel that a fine new avenue of sale for dairy butter will be created."

To test out the preferences for the new and the old Eskimo pies, both were offered for sale in Ames after the new pie had been well introduced. Customers, without exception, chose the new pie and turned down the old. In fact, it was found impossible to sell the old pies after the new ones appeared. At some of the student functions at Iowa State College, as many as 1,000 of the new Eskimo pies have been sold in a single evening this fall.

The new Eskimo pie coating has one big advantage over the old from the consumer's standpoint—it will not shatter when eaten as will the one containing coconut butter. The old coating was brittle and would fall to pieces when one bit into the pie. The new coating made with dairy butter will not do this.

Not only is the use of dairy butter likely to make inroads on coconut butter in Eskimo pie manufacture, but dairy butter may also be used in the chocolate coating for candies and as a coating for the ice cream "lolly-pops," now sold in many quarters. The lolly-pops are merely ice cream on a stick which is dipped in a chocolate preparation.

In order that ice cream manufacturers and the public may become acquainted with the good qualities of the new Eskimo pie, the recipe for making the coating will be published soon in a circular or leaflet which will make it possible for manufacturers in all parts of the country to begin at once to sell the new product. If the Ames sales of the past few months are a fair indication, the new Eskimo pie will be a real friend to the dairymen.

Iowa. FRED E. FERGUSON.

"How is your new hired man?"

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"Working so hard?"

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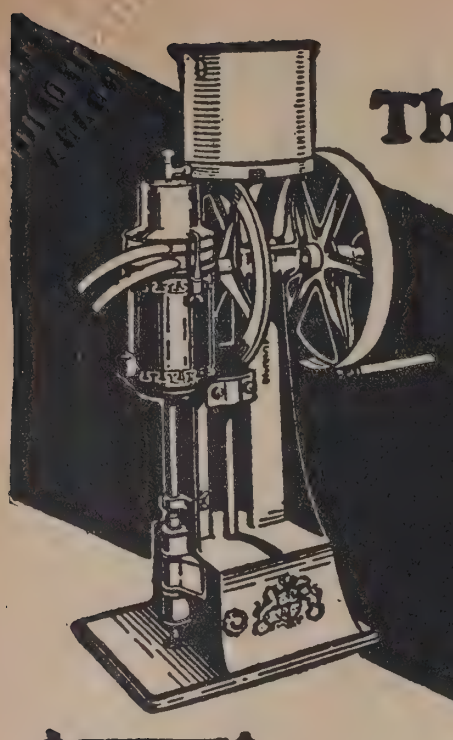
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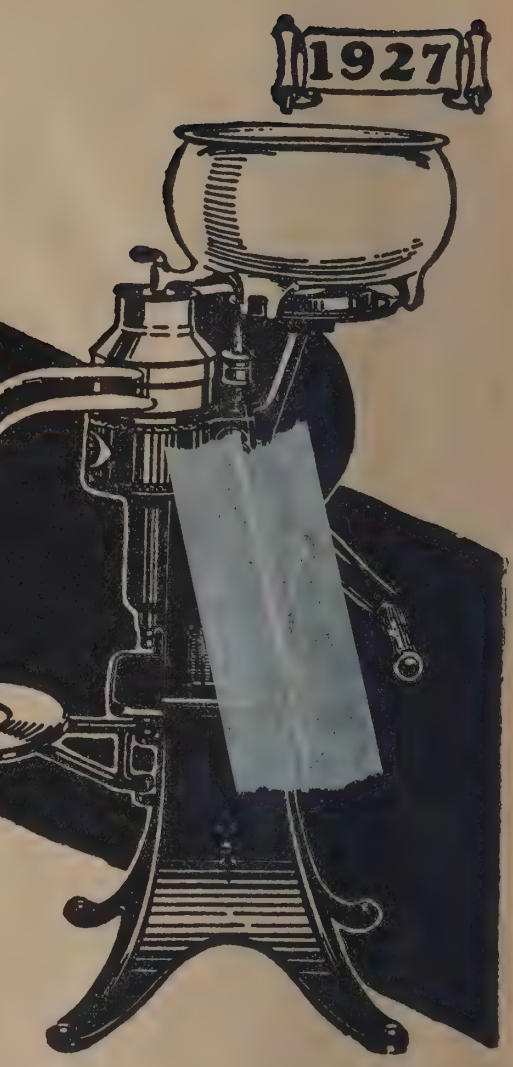
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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

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ARE YOU BUYING HAY?

P. H. STEWART, Nebraska College of Agriculture

RECENTLY an Iowa dairyman, whom we shall call Bill Jones, found that he was going to be hort of winter feed and began look- g about to see where he could buy a ar or two of good alfalfa hay at a easonable price. He found upon in- uiry that the nearest place he could et alfalfa at a reasonable price was the Platte Valley in Central ebraska where hundreds of tons are hipped out annually. It was quite a ays from Jones' farm to this part of ebraska, and besides Jones was busy ith work at home and found it diffi- lt to get away for the 2 or 3 days' me which it would take to make the ip into the alfalfa hay producing lley and hunt up someone who had r sale the sort of hay he wanted.

About this time Mr. Jones heard at at some of the important alfalfa ipping points between Kearney and orth Platte, Nebraska, it was pos- ble to buy alfalfa hay subject to in- ection by a government licensed in- ector at the loading station. The e for such an inspection, he found, as $2.00 per car. This was much ss than it would cost to drive the ord over to the hay country to say othing about the cost for meals, otel, and the time it would take to ake the trip. Upon further inquiry e learned that the hay was being raded according to the new govern- ent hay grades.

What Mr. Jones wanted was good, afy, first-cutting alfalfa free of dust d mold. He was not particularly xious about the color of the hay so ng as it was leafy and good other- ise. Jones found that the sort of y he had in mind would grade under e federal standards, as discussed ter in this article, as U. S. No. 3 falfa," with perhaps the special no- tion of "leafiness good enough for . S. No. 1 alfalfa." He also found at due to the general market prefer- ce for hay with lots of color he uld buy this good, leafy but rather or color hay for considerably less an the cost of hay of equal quality t with better color. So. Mr. Jones nt an order for a car of "U. S. No. alfalfa" and asked that the local in- ector pass on it and furnish a cer- icate of inspection, which he did. r. Jones received his car of hay and und it loaded with uniform hay of e kind grading No. 3 alfalfa.

It is very likely that many other dai- men, feeders, and farmers who must y hay this fall and winter might ofitably buy hay at shipping points bject to local inspection. The saving time and travel expense and the as- rance of getting the kind of hay de- ed at a lower price per ton are the vantages of buying in this way.

Prospective hay buyers may be in- ested in knowing a little more as where shipping point inspection is ailable in Nebraska, who the in- ectors are and their reliability, and to the requisites for the various grades of alfalfa hay under the U. S. Standards. At the present time there are only two licensed inspectors available for shipping point inspections in Nebraska. These men are both located in Dawson County but could be available for Buffalo County inspections with the additional payment for mileage costs to the point of inspection. These inspectors are both experienced hay growers who attended a training course at Kansas City and after passing a strict examination were licensed to grade hay. They are under the jurisdiction of and continually checked up by the federal supervisors of hay grading. Hay graded by these local inspectors, should it go on to the Kansas City or other hay markets, would not need to be inspected there but would sell on the grade given at the shipping point. Local inspection is optional. Inspectors cannot grade hay in which they have any financial interest and the public is assured of impartial, efficient work.



Local inspection of alfalfa hay is now available at several important hay shipping points in Central Nebraska.

Dairymen, farmers, and feeders who normally purchased considerable alfalfa or prairie hay would do well to become familiar with the federal hay grades. These are given in a concise and easily understood way in the "Handbook of Official Hay Grades" available upon request from the U. S. Department of Agriculture, Washington, D. C.

Some hay growers have held that it is impossible to develop satisfactory hay grades which are definite and yet applicable to hay produced in various parts of the United States. A study of the present federal grades will show, however, that standards have been developed which are definite and easily understood yet which are elastic enough to cover all of the important classes and grades of hay that are likely to be produced in commercial quantities.

Alfalfa hay, for instance, is graded on the three factors—color, leafiness, and foreign material. U. S. No. 1 alfalfa must have 60 per cent or more of color, 40 per cent or more of leaves, and not more than 5 per cent foreign material such as weeds, old rakings, etc. The grade is determined by the lowest grading factor. For instance, a car of alfalfa hay might have 45 per cent of leaves and less than 5 per cent foreign material but with only 20 per cent color. Such hay would, so far as leafiness and foreign material are concerned, grade U. S. No. 1, but due to the low color it would grade as U. S. No. 3 alfalfa. The certificate in this case would carry the special notation "Leafiness good enough for No. 1." This would show that the hay was leafy and clean but low in color. Such hay would be typical of alfalfa stacked a little green which would come out of the stack low in color but high in leafiness. For average feeding purposes such hay would be very desirable. Since the market demands a good color for hay of the highest grade, such off-color, but leafy hay, can often be bought at a considerable discount, which makes it a good buy. Much of the first-cutting alfalfa falls in this class.



Hay growers, dealers, and consumers should find when the federal hay grades are generally known and adopted that hay marketing will be better standardized and more satisfactory.

Special provisions are made to take care of hay of special merit such as, for instance, fourth-cutting alfalfa with extra fine color and high leaf content. Hay which has more than 75 per cent of the natural green color in addition to its other grade notations is marked "High Green Color" which indicates that it is especially desirable on the market, having been well cured. If the leaves are clinging and the stems fine, it would also have the extra notation on the grade certificate of "Soft Fine Alfalfa." Thus a very fine, high-quality car of fourth cutting alfalfa would be graded "U. S. No. 1, Soft Fine Alfalfa High Green Color." Anyone who was familiar with the federal grades would know at once from reading this certificate what the hay was like.

Equally definite grades have been worked out for prairie hay which is graded on the two points—color and foreign material. By foreign material is meant weeds, wire grasses, and such sedges and rushes and other plants as are coarse or not suitable for feeding purposes; also other objectionable matter which occurs naturally in hay. Prairie hay as well as alfalfa is put into different classes depending on the kinds of hay present. Thus in prairie hay, if upland grasses such as the blue-stems make up most of the hay, it would be classed as "Upland" and graded "U. S No. 1, 2, 3," or "Sample Grade," according to color and foreign material. If largely slough grass, it would be classed as "Midland" or if a mixture of upland and slough grasses, it would class as "Upland-Midland Mixed."

The reader, if he has had the patience and perseverance to read this far, may have decided in his own mind that hay grading is too complicated to be of much practical value. But after a little study, particularly if the hay is available to illustrate the various points, anyone who had had experience with hay will find that the fede- al grades are simple and that cal, important points are w- out by the government.

Hay can now be b- eral inspection at

(Continu

THE FEEDING OF DAIRY COWS

Number 6

Knowing How to Combine Feeds to Meet the Requirements of the Herd is the Important Part of Calculating Good Rations. This Article Tells How to do This



IN the fifth article of the series we learned how to determine what a cow of given weight and production needs in terms of proportion and quantity of nutrients. The next step is to determine what feeds and how much of them will supply these requirements and at the same time not violate other desirable requirements of a good ration.

It is not necessary to calculate rations separately for each cow in the herd. What is needed is to put roughages and concentrates together in such kind and proportion as will supply digestible protein and carbohydrates in the proportion of 1 unit of protein to each 6.5 to 7 units of carbohydrates and in addition to this to have reasonable assurance that by varying the quantity of feed to their individual size, production, and condition.

From the many inquiries on feeding cows that come to us we know that right here is the stumbling block. A dairyman has certain feeds and can buy others, how shall he put them together so as to make a balanced ration? This question directly or indirectly comes in every mail. Let us learn how to put feeds together to make a balanced ration. To do this it is necessary that we have before us a table giving the amount of digestible protein and of total digestible nutrients in a given quantity of each of the different feeds that may be used. We publish herewith such a table in addition to which the feeds listed are grouped according to the character of each.

A farmer has a herd of cows that average 1,100 lbs. in weight and produce an average of 25 lbs. of 4 per cent milk daily. He has corn silage and clover hay as roughage and corn and oats as concentrates. He can buy bran, gluten feed, linseed meal, cottonseed meal, and a high grade mixed feed that contains 30 per cent protein. With the information already given in the series and from the table giving the nutrients in different feeds, how can this farmer determine for himself a good ration for his cows?

A 1,100-lb. cow calls for 33 lbs. silage and 11 lbs. clover hay. Twenty-five pounds of 4 per cent milk require about 8 lbs. concentrates when fed 1 lb. for each 3½ lbs. of milk produced. Corn silage and clover hay call for a concentrates mixture containing between 13 and 14 per cent digestible protein. We can't get a mixture of this kind from corn and oats because the table tells us that corn contains only 7.5 lbs. and oats only 9.7 lbs. per hundred. There is no sure way of getting the right proportion of the right feeds the first time. We must proceed on the basis of trial and error. A little practice will reduce the extent of error.

For the concentrates mixture, let us try 3 lbs. ground corn, 2 lbs. ground oats, and 1 lb. each of bran, gluten feed, and linseed meal. Our next step is to find out how much of digestible protein and of total digestible nutrients are contained in these amounts of feed and in 33 lbs. of silage and 11 lbs. of clover hay.

By referring to the table we see that 100 lbs. of corn silage contain 1.1 lbs. of digestible protein and 17.7 lbs. of total digestible nutrients. Set these figures down, multiply each by 33, and divide the result in each case by 100 like this: 1.1x33 equals 36.3, divided by 100 equals .363; 17.7x33 equals 584.1 divided by 100 equals 5.841. By this we find that 33 lbs. corn silage contain .363 lb. digestible protein and 5.841 lbs. total digestible nutrients.

In a similar manner we calculate the nutrients in 11 lbs. of red clover hay. Find red clover hay in the table. One hundred pounds contain 7.6 lbs. digestible protein and 50.9 lbs. total digestible nutrients: 7.6x11 equals 83.6, divided by 100 equals .836; 50.9x11 equals 559.9 divided by 100 equals 5.599. We find that 11 lbs. red clover hay contain .836 lb. digestible protein and 5.599 lbs. total digestible nutrients.

The calculations for 3 lbs. ground corn, 2 lbs. ground oats, and 1 lb. each bran, gluten feed, and linseed meal are made in similar manner by using the factors for each feed as shown in the table. Make these calculations and bring the results of all together in a table similar to the one at the right of the table giving the nutrients in feeds.

The ration contains 2.261 lbs. digestible protein and 17.614 lbs. total digestible nutrients. The 17.614 lbs. include the units of protein and carbohydrates, plus the fats converted to carbohydrate equivalent. To find the nutritive ratio, subtract 2.261 from 17.614 and divide the result by 2.261; the result is 6.7, meaning that the ration supplies protein and carbohydrates in the proportion of 1 unit of protein to 6.7 units of carbohydrates. This falls within the range of a good ration so far as proportion of nutrients is concerned.

One could take other combinations of concentrates, using the corn and oats as the base. The selection of high protein concentrates should be governed partly by price. To make a comparison of prices for different protein concentrates, one divides the price per ton by the number representing the pounds of digestible protein contained in a ton of feed; the result is the price in cents per pound of digestible protein. The selection of concentrates should not be based wholly on this factor because there are values in some feeds above the mere value of the nutrients contained. Take bran, for example, it is worth more than the mere protein it supplies because of its laxative effect and of its bulk. Linseed meal has a very desirable laxative effect. High grade mixed feeds contain a variety of protein sources and ar thoroughly mixed.

Will this ration meet the require ments of the average cow in thi farmer's herd? The ration supplie 2.261 lbs. digestible protein an 17.614 lbs. total digestible nutrient The Haecker standard requirement for a cow weighing 1,100 lbs., pr ducing 25 lbs. of 4 per cent milk, ar 2.12 lbs. digestible protein an 17.247 lbs. total digestible nutrient From this it is seen that the ratio supplies a slight margin of safet a thing to be desired.

From this information this farme would be assured that by feedin corn silage 3 lbs. and red clover ha 1 lb. for each 100 lbs. live weigh and by feeding this concentrates mi ture of 1 lb. for each 3½ lbs. milk produced, the requirements each cow are amply provided for.

In calculating rations one shou never lose sight of the fact that th chief concern of the cow is to g feeds she likes. A perfectly ba anced ration, if not palatable, wou not be consumed in sufficient quant ty to satisfy the needs of good cow A ration composed of 10 lbs. each corn fodder and timothy hay, and lbs. each of ground corn and cotto seed meal is very well balanced far as proportion of nutrients is co cerned but it would soon become u palatable. Furthermore, the feedin of 4 lbs. per head daily of cotto seed meal with these roughages dangerous and besides this the should be supplied a greater varie of high protein feeds, especially non-legume hay is fed.

In the northern states with wint setting in severely nearly a mon earlier than normal, many dairym are beginning to worry about the feed supply. Skimping the ration all the cows in the herd merely stretch the feed over a longer peri is poor business. The problem m be solved by selling two or three the poorer cows or, if all the co are good, by buying more feed. So will run short of silage, others sho of legume hay, while some will n have home grown grains enough hold out if the good cows are ad quately fed.

In any case where it is necessa to make any material change in t feeds used it is essential to check on the changes to make sure the go cows are getting all they need. The is no excuse for putting good fe into a poor cow any time, more esp cially when feed is scarce. One go way of getting more money out the feed one has is to take out t poor cows and feed the good or better. This and previous articles the series tell how to check up the ration.

Knowing how to calculate good tions does not constitute all the sk in getting the most milk from a he of cows at the least cost and w the least wear and tear on the co Knowing feeds and the calculation rations and not knowing cows is mu like the theoretical agricultural ec omist who knows the theories of operative marketing without knowi the American farmer and his agric ture. There are thousands of dai men who are doing a good job of g ting a lot of milk from a herd cows who do not know the arithme of calculating good rations, but th are men who know cows.

The next article will discuss so of the more important factors t have to do with getting the most m from a herd of cows with the le cost and with the least wear and t on the cows.

Kind of feed	In 100 pounds digestible protein	In 100 pounds digestible nutrients
Silage		
Corn stover silage	0.6	12.2
Corn and soy bean silage	1.6	17.4
Oat and pea silage	2.8	17.6
Pea cannery refuse silage	1.6	15.0
Sunflower silage	1.0	9.8
Corn silage	1.1	17.7
Dried Roughage		
Alfalfa hay	10.6	51.6
Clover hay, red	7.6	50.9
Clover hay, alsike	7.9	47.3
Clover and timothy	4.0	46.2
Corn fodder	3.0	53.7
Corn stover	2.1	46.1
Millet hay	5.0	55.0
Pea hay	12.2	56.6
Pea and oat hay	8.3	48.8
Soy bean hay	11.7	53.6
Sudan hay	3.7	51.4
Straw, oat	1.0	45.6
Timothy hay	3.0	48.5
Carbonaceous Concentrates	lbs.	lbs.
Barley	9.0	79.4
Beet pulp, dried	4.6	71.6
Corn	7.5	85.7
Corn and cob meal	6.1	78.1
Hominy feed	7.0	86.4
Kafir grain	9.0	80.0
Molasses, beet	2.9	58.7
Molasses, cane	1.0	59.5
Oats	9.7	70.4
Rye	9.9	81.0
Concentrates Medium Rich in Protein		
Bran	12.5	60.9
Germ oil meal	16.5	82.5
Middlings	13.4	69.3
Rye feed	12.2	74.5
Concentrates Rich in Protein		
Gluten feed	21.6	80.7
Brewers grains dried	21.5	65.7
Buckwheat middlings	24.6	76.6
Linseed meal	30.2	77.9
Cottonseed meal	37.0	78.2
Soy beans	33.2	94.1
Soy bean oil meal	39.7	84.5
Fresh Green Roughages		
Alfalfa, in bloom	3.3	14.8
Clover, red	2.7	17.1
Clover, alsike	2.7	15.4
Corn fodder dent in milk	1.0	14.2
Corn fodder, dent in dough	1.3	18.3
Corn fodder, dent, kernels ripe	1.5	24.4
Peas and oats	2.4	14.4
Soy beans	3.2	14.5
Roots and Tubers		
Beets, sugar	1.2	14.0
Carrots	1.0	10.6
Mangels	0.8	7.4
Potatoes	1.1	17.1
Rutabagas	1.0	9.4

ble from "Feeds and Feeding" by Henry on.

Kind and quantity of feed	Digestible protein	Total Digestible nutrients
	lbs.	lbs.
Silage, 33 lbs.	0.363	5.841
Red clover hay, 11 lbs.	0.836	5.599
Ground corn, 3 lbs.	0.225	2.571
Ground oats, 2 lbs.	0.194	1.408
Bran, 1 lb.	0.125	0.609
Gluten feed, 1 lb.	0.216	0.807
Linseed meal, 1 lb.	0.302	0.779
Total in ration	2.261	17.614

The table on the left shows where we get the factors for calculating the nutrients in the ration given above (or on the right.) With the help of this table one can compute the nutrients in any given combination of feeds. Read the article to find out how the calculations are made and how to determine when the ration is properly balanced.

when so combined will

rd ration one can individual cows

Trailing Holsteins to South America

JAMES G. BEATTIE, WISCONSIN



JOHN ZOBERLIN AND HIS THREE DAUGHTERS

THIS is the evening of November 25th, 1925, beneath the hospitable roof of John Zoberlin's ouse. The first shipment of a late urchase of Wisconsin Holsteins outound for Chile, S. A., is assembled ere and ready to commence a 55 ays' voyage via New York and Panma. All the tests and vaccinations re completed and satisfactory; only emains the replacement of a few ear ags; the alteration of the ration, hat is, the substitution of beet pulp or silage; the matter of halters, exra rope, blankets, the medicine chest, nd such other tools and equipment as re practical for a trip of this nature.

It is 8 p. m. and there is still one uestion of importance to decide beore the complement for the first hipment is agreed upon. And that uestion is in regard to the sale of ohn's "General Homestead Merceles," the All-American calf for the how season of '24 and '25. Chile is alling for General in terms of much noney, and John can hear their oices without anything in the ir, in the way of static, to obtruct his hearing. Yet he does ot hear. John can't make up his ind to let the calf go. The probem with him is, where can he relace him.

The supper and the chores are one, and the household is gathred around the stove, the air beng snappy and sharp outside. ohn is in the throes of indecision. The Chilean representative s calling him from Philadelphia t midnight for the final "yes" or no." His wife is setting bread, ather unusual nowadays in itchens, and John, big, rugged, nd every inch of him energy, valks across the floor and claps er gently on the shoulder.

"Mamma, what should I do? Should I sell General? What do ou say? You're my wife, my artner in the business, you know. Now, what do you say, anyway?"

But Mrs. Zoberlin was ponderously ilent. She acted as though the quesion was not hers to say, possibly just little removed from her end of the usiness. Anyhow, regardless of what he thought, she said nothing from hich inferences of an advisory naure might be drawn.

"Well, say something once, anyow," repeated John. "Say something. Half of General is yours, you got as uch to say about him as I."

But nothing of note came from this eggary, and so he turned his dark ery eyes my way. But I, like Mrs. oberlin, also replied evasively. For t really was none of my affair and, urthermore, how was I to advise a ersonage so notable as John Zoberlin.

Says he to me, sitting down at last nd knitting his heavy black eyerows, "It's just this way. When I was 15 years old, I came out to this country from Bavaria. I had nothing, no money, nothing. In fact, when I landed in Plymouth I did not have a whole dollar in my pockets. That was 29 years ago, only yesterday it seems like, and now, well here I am. You see what I got. It ain't much from the millionaire's standpoint, but at the same time it is quite a little, too. Two hundred acres of good land and a crackerjack herd is something.

"The first year in this country I worked for $120. Yes, $120." He repeated so as I would not confuse it with $120 per month. "But I saved it, and thank the stars there wasn't autos at that time to get my mind off my aims. The next year I got a little more, and the next year a little more, and so on and so on. From $1,000 I went to $2,000 in a hurry—interest and bigger wages. Then I bought a small farm, and sold it, making a profit; and bought another and sold it again. Then I bought this one and got started in cows. I have been in the pure-bred business and like it. Of course, I have been pretty successful and when a man has success with something, he generally likes that 'something.' He ain't human if he don't.

"I raised the wonderful cow, 'Tilly,' and from the wonderful 'Tilly' came the wonderful calf, General. He has been invincible in the show ring and an animal of such outstanding caliber is the top of every man's ambition who is engaged in the production of cattle with pedigrees. And now," said he, exhibiting two tanned hands, the living proofs of work and hard striving, "here I am at the crossroads, and don't know which way to turn.

"In General I've got something beautiful and a pleasure to look at, and I can keep him on indefinitely as a herd sire. He's the real thing; All-American, you know. It takes a good one to win those honors. But 7,500 one-dollar bills stacked up, one on top of the other, is something else to think about, also. A man has to think both ways, doesn't he?"

John talked along. He told about some notable instances in his herd, of the six 1,000-lb. cows, and the seven 30-lb. cows, of the two junior 3-year-olds that made world's records last year, all, in the final analysis, the product of genuine intelligence and toil.

The time wore on. Midnight in Philadelphia was 11:00 p. m. Plymouth time, and promptly on the hour a wire was cleared between the two places and a conversation begun that seemed to have no end. The after midnight rate was 40 cents a minute. The discourse lasted 72 minutes, and when John came out of the stuffy telephone booth, he said the sweat was running down his boots. And from the flush on his face one had no reason to contradict him. But he announced, with a smile, that General would go in the first shipment.

"I sure hated to let him go, but I believe I used the right judgment just the same."



UNLOADING THE WISCONSIN HOLSTEINS FROM THE SHIP AT VALPARAISO, CHILE

We went back to the farm then, for John had no telephone in his house at this writing, and went to bed as it was already late for farmers to be out.

Mr. Murphy, Murphy Farms, calls John "The Flying Dutchman," which, as far as I can see, is a good nickname for him. Seeing the big, good-natured man on the move, of mornings, between pigs and milk cans and cows, and trying at the same time to cater to the appetite and whims of 150 Leghorn pullets which he has geared up to around 75 eggs daily, one can understand how it was that Murphy thought of it.

This scene at John Zoberlin's was merely the prelude to the rather tempestuous journey on which I was to embark in taking Holsteins from Wisconsin to South America. We were to go by rail to New York, take ship there, pass through the Panama Canal, and thence down the west coast of South America to Santiago, Chile. There we were to leave our ship and by rail take the cattle to their new home, a large ranch at San Vincente.

This was not a new venture for these South Americans, for they had already built up a large Holstein herd, but they wanted this new blood from Wisconsin. It was, however, a new venture for me, a farm boy raised near Chillyville, Wis. I was to cross the equator and would be broiling in the hot sun of the tropics when the folks at home would be shoveling snow and eating sausage and pancakes. While I was to see new sights, yet to do so I was to be nurse maid and chore boy to twenty-five Holsteins of royal blood and royal price. But the work caused me no apprehension, for I had been raised with cattle and chores were an everyday thing, but little did I appreciate the difference between chores in the barn at home and on board ship in a stormy sea. Those who follow my "log" (I learned this word at sea; at home we would call it a "diary") as it appears in the next few issues of Hoard's Dairyman will learn, perhaps, some agricultural geography and something of the meaning of a ship voyage on a tramp steamer.

(EDITOR'S NOTE:—This is the first of a series of articles by Mr. Beattie on "Trailing Holsteins to South America." The next will appear in an early issue.)



OHN ZOBERLIN AND HIS GREAT COW, "TILLY," THE MOTHER OF "GENERAL" THAT WAS SOLD TO A SOUTH AMERICAN DAIRYMAN



THE NEW HOME OF THE WISC... AT SAN VINCENTE

Dry Skimmilk

In 100 pounds of dry skimmilk or skimmilk powder there are approximately 8 pounds of calcium and phoshates, 38 pounds of protein, 50 pounds of milk sugar, 1 pound of fat, and 3 pounds of moisture. In other words, 5.16 pounds of dry skimmilk will supply 5 pounds of food solids, which is equivalent to that found in 17.8 pounds of evaporated or condensed skimmilk, or in 55 pounds of liquid skimmilk.

Dry skimmilk is highly digestible and will supply on the average as many calories of energy as 2 pounds of beef, 1⅓ pounds of cheese, and as much protein as 1½ pounds of beans, 2 pounds of lean beef, or 3⅓ pounds of eggs.

These and many other interesting facts concerning the use of dry skimmilk are told in a very interesting and attractive bulletin by Professor H. E. Van Norman and published by the American Dry Milk Institute, 160 No. La Salle Street, Chicago, Illinois.



WHICH BREED IS THE BEST?

The Answer is Generally Unsatisfactory for There Is No One Best Breed. There Is Greater Difference in Profitable Production Between Cows Within a Given Breed Than Between the Average of the Cows of Each of the Several Breeds. Consideration of Markets and Individual Preferences Will Largely Govern the Choice

FORTY years ago this publication made the statement: "The most profitable dairy cow does not belong to any one breed. At least it has never been demonstrated that she does."

The substance of this has since been given many hundreds of times to beginners with pure-breds, and to old-timers who want to back up and start over. Usually the inquirer does not believe this. He cannot understand how one who is familiar with all breeds has failed to pick a "best one."

When Bill Smith and his boy have threshed out the question and young Bill has shamed and coaxed and finally threatened to leave home unless better cattle are kept, they want action. Having already waited twenty years or so to begin with pure-breds, they don't want to waste any time in choosing a breed. When Bill "takes his pen in hand" and writes his dairy paper the simple question, "Which is the best cow?" he is disappointed to receive the oft written reply, "There ain't no sech animal."

So, his editor having failed him, he chooses a breed. Maybe he likes the color of a certain "kind o' cow." Perhaps he chooses because of size or disposition or because some persuasive neighbor argues him into a decision. Sometimes he takes a certain breed because his neighbors have it, though nearly as frequently a breed finds favor with him because his neighbors do not have it.

Which One Do You Like?

There are a number of factors worth considering when a choice is necessary. Any one of them may be a sufficient reason for choosing a particular breed. If Bill Smith and his boy study them all intelligently, they have a good basis for deciding which is to be the breed of their choice. For, while it may not be said in general that any breed excels all others, it cannot be doubted that under the particular conditions of the Smith farm some cow has the qualities to meet the requirements so well that for the Smiths, at least, she is "the best cow."

If a man is prejudiced for a certain breed so he cannot give fair consideration to the virtues of others, his choice is made. Even though another were better suited to his use, it is time wasted to try to persuade him of its superior points. If he has "hankered" for a herd of certain colored cows for years, no other breed will suit him so well and it is doubtful if another would bring him equal profits.

Probably more men choose a breed for the rather indefinite reason that they "like it" than for any other. There is no argument which will shake a decision made on this basis—the opinions of others and all the arguments in the world are of no consequence. It may be said, however, that such men usually have sufficient enthusiasm for such a choice to be successful even under adverse conditions.

Geographic Adaptability

The claim used to be made that certain breeds were better adapted to some particular section than others. With that proved, the choice of a breed might be made by a man's post office address. If he lived in Maine or Georgia, for example, climatic conditions would automatically dictate his breed of cattle, or if he lived in rough country a different kind would suit his needs than would be wisely selected if his farm were in the plains district.

It was once held that the Jersey was "tender" and not hardy enough to withstand the cold winters of the northern states, but years ago the Roycroft herd earned its high rank among producing Jerseys in the Upper Peninsula of Michigan and Plain Mary, former Jersey champion, made her wonderful production in Maine. Attendants at the National Dairy Show at Syracuse saw a wonderful producing herd of Jerseys from North Dakota and close to the Canadian line.

The claim has been made that Holsteins are not adapted to southern conditions. Nevertheless, many black and whites are doing splendidly there. Where they have failed to make good, the factor limiting their production was in most cases underfeeding. Also, Ayrshire enthusiasts assert that their cow is best qualified for use in rough lands; that she is a hardy grazer. Yet it is well proved that any cow must be well fed before her milk flow commands much attention and that it is not profitable to force milking cows to gain their livelihood on indifferent grazing.

It appears, therefore, that a study of geography is not important in deciding upon a breed.

What is Your Market?

The market may determine the breed. Profitable sale of milk, either for city retail or to those cheese factories which do not buy according to test, may require quite a different animal than where the products of the dairy are manufactured into butter. If a basal price is set for 3.5 per cent milk and a premium of $.40 per pound is paid for butterfat in excess of this requirement, a Holstein breeder supplying a product averaging a content of 3.4 to 3.6 per cent has a marked advantage over a breeder of Jerseys whose milk tests 5.3 to 5.6 per cent fat. On the other hand, where the market prefers a high fat content the lower testing Holstein is less in favor.

The rich color of Guernsey milk gives it popularity with those who can build up a select trade which is often willing to pay a good premium over the usual market price of milk. Ayrshire milk testing 3.8 to 4 per cent finds special favor with many dietitians and makes strong claim to special advantages as certified milk.

When it comes to quantity production of butterfat, the equality of the capacities of the breeds is remarkable. There is some difference in the cost per pound, however. In public tests the high testing breeds have been somewhat more economical in making butterfat. In the Wisconsin cow competition where figures were taken under farm conditions, the advantage of the Jersey over the Guernsey was slight but over the Holstein it was of considerable importance. But in most public tests the advantage shown has not been sufficient to indicate a great difference in economy under every day farm conditions. And balanced against this is the greater quantity of milk credited to the lower testers. The fact that one breed or another holds certain records gives little indication of what may be expected in Bill Smith's barn.

Market Price of Breeds

The market value of the different breeds is a question to consider. During the boom period of 1918 to 192 when all prices were up, Holstein and Guernseys headed the list and i many sections it was hard to pur chase good producers at prices whic would make them profit making mem bers of a dairy farmer's herd. Toda the tops of those breeds and of th others still sell high, as they should but it is quite possible to buy eithe Holsteins or Guernseys at price which make them profitable dair cows. A few years ago Brown Swis were not popular but today $300 isn any special inducement to offer midwest breeder for just a fairl good Swiss cow.

Each breed has its ups and down of prices. If the sale of breedin stock is the ultimate goal, the begin ner must take his gamble with all th rest, that one profiting most who ca best anticipate a breed's boom perio If immediate yield at the pail is prime consideration, the lower price breeds unquestionably offer the bes opportunity to the beginner with limited amount of capital to invest.

Sometimes excellent opportunitie are offered to purchase an entire her or a smaller group of animals at lo prices. When such a chance present itself, a man does well to begin righ there, regardless of the particula herd book in which those animals ar registered.

What Do the Neighbors Own

Here is a real basis for a choic "What do the neighbors own?" If th predominant breed in the locality i registered with the American Jerse Cattle Club, there is likely a good rea son for its popularity in the com munity. Find out why this is so.

Innumerable instances illustrat the folly of simply choosing "some thing different." No one is more lone ly than a single black and whit breeder in a Guernsey neighborhoo and no one has more handicaps in hi struggle to success than a lone Jer sey owner in a section where th Brown Swiss cow is in predominat favor.

In a community where one bree is greatly in the majority, the begin ner who makes his start with it fall heir to advantages he cannot other wise have. Buyers are drawn ther by the numbers of the breed whic can be seen, so that surplus stoc brings good prices at private or pub lic sale. Better bulls are available fo use than the beginner can afford t

(Continued on page 50)



What I am Trying to Do on My Farm

The Problem of Soil Fertility

W. J. DOUGAN, WISCONSIN

IT is conceded everywhere and by all classes that agriculture is *the* basic industry. If agriculture is prosperous, all other industries will flourish. If agriculture languishes, it affects all activities of commerce and industry. Indeed, the very existence of the race depends upon a permanent agriculture.

In the field of agriculture itself, the maintenance of soil fertility is the basic factor. With a fertile soil we can build and equip houses and barns, schools and churches, roads and factories. A thriving, industrious, and cultured civilization will spring from a fertile soil. On the other hand, with an impoverished or barren soil all must languish and die. Therefore, soil fertility is the problem of first importance to the farmer and to society.

I am handling this important problem on my farm in this way. First, *I know my soil.* In Wisconsin, as is the case in many of the states, we have established, in connection with the soils department of our agricultural school, a State Soils Laboratory where the individual farmer may send samples of the soil of his farm and have it analyzed to determine the elements it needs for best plant growth. The laboratory returns to the farmer an analysis of the soil and recommendations for improving it.

It is out of reason for a busy farmer to conduct an experiment station in actual farming. This work requires time, trained workers, and expensive equipment; and for these farmers to try one fertilizer one year and another the next to find out what his soils need, is like the Irishman with his horse. Pat was teaching his horse to work without feed. Just as Pat got him trained well, the horse up and died. So with the farmer who tries one experiment after another, for by the time he finds what is best, the farmer up and dies.

Fortunate it is that the accumulation of knowledge, skilled observation, and expert judgment of science is at the farmer's command. I use the facilities of the experiment station to the limit. Every field on my farm is analyzed. I know what it needs. I am fortunate in not needing to apply expensive commercial fertilizers. Most of my fields need lime from two to four tons per acre, and they get it. The other element that must be supplied from without is phosphorus. I have bought some rock phosphate, but am finding that an abundance of manure from a herd fed on a ration containing purchased bran and oil meal is putting back into the soil the elements sold off in milk.

Every soil needs humus. I am supplying the soils with this in growing legumes, clover, and alfalfa. The latter is also a great nitrate factory. Therefore, my soils are cheaply and abundantly supplied with nitrogen.

To avoid impoverishing a field for a single crop or putting the soil elements out of balance, I rotate crops. I have a double system: the clover rotation and the alfalfa rotation. Clover rotation is four or five years; corn, one or two years; small grain seeded to clover one year; clover hay or pasture one or two years; then manured and back to corn. The alfalfa rotation is not so regular. I first get a field alfalfaized; i. e., fitted and accustomed to growing alfalfa. This takes about eight years. Then seed it to a variegated variety of alfalfa and hold it to alfalfa for five or more years, giving it a coat of manure and a thorough discing each spring, after the second year. When it is broken up, I keep it in corn two or three years and then back to alfalfa.

I practice thorough and careful tillage. The best man on the farm is put on the plow, and I follow his work carefully. When a poorly plowed field is disced and harrowed, the eye cannot detect the shallow plowed places and the balks; but the sensitive plant roots, in search for available food, know where these places are and tell in the plant structure they are able to raise.

We try to conserve the soil fertility by keeping down weed growth. It is a harder drain on a field to raise a crop of weeds than a crop of clean corn.

These methods are giving results on my farm. My fields are alfalfaized. I can raise alfalfa with certainty and in paying yields. When I began farming, I shipped in carloads of alfalfa hay. I came to the conclusion that if I put into my soil a fraction of what I was paying for freight, I would be able to raise my own alfalfa. For several years my herd has reveled in the best of hay, and I always have a little with which to help my neighbors in the spring.

Corn is a sure crop even though we are north of the corn belt. It is sure because I have a fertile soil that can force its growth and maturity under half favorable conditions such as we experienced in 1924. I filled two fifty-foot silos with clear well matured corn. I had one field of ripe corn to hog off and another field of ripe corn cut and shredded for grinding. I had a one hundred per cent corn crop garnered that year, largely attributable to a fertile soil.

Can a soil be maintained in its fertility year after year and century after century? The Chinese have been maintaining an immense popu'ation on sections of their soil for over forty centuries and many of their little farms are more productive today than centuries ago. The time has come when we American farmers must give close attention to this basic problem of agriculture.



This is a 10-acre field being put in prime shape for seeding alfalfa clean culture. The operation is going over it with a weeder to stir surface and kill weeds and conserve moisture.

I wish to place emphasis on one word in the title of this series of articles—the word TRYING. I am well aware of how far I fall short in actual accomplishment. However, I am sure that holding high ideals in farming, and a constant striving to attain those ideals, makes for better farming and better living. It is these principles and ideals I wish to hold up to you. I will use my own farm and my own experiences to illustrate these truths.



ALFALFA FIELD ON THE FARM OF W. J. DOUGAN

Milk While They Learn

CLYDE DUNCAN, ARKANSAS

WHEN school opened this fall at Magnolia Agricultural School, which is one of the four district agricultural schools in Arkansas, there were fourteen boys and girls on hand to start again to earn their way through school by milking cows furnished them by the school. The idea of permitting students to have the use of a cow or possibly two cows to help them defray expenses was first put into practice three years ago by H. B. Shiflett, head of the animal husbandry department. He got permission from the school authorities to let those students have a cow, to pay the students for the milk that their individual cows produced, and the students in turn pay the school for the amount of feed their cows consumed. This meant that the students were paid for their labor in a way that causes them to better understand dairying while it gives to them practical experience which is invaluable.



ONE OF THE BOYS MAKING BUTTER AT MAGNOLIA AGRICULTURAL SCHOOL

"When the plan was first started," said Mr. Shiflett, "we permitted the students to bring in their own cows. That first year there were twenty-eight cows brought to the school dairy barn from the nearby farms by students. Of these twenty-eight cows only three remained after three months, as we proved to those students that their cows were unprofitable and that they were not getting paid for their labor. We gave to them some of the school's pure-bred Jerseys and Holsteins and suggested that they keep in mind the things that they had learned about their unprofitable cows brought from home.

"You know," continued Mr. Shiflett, "I worked my way through Oklahoma Agricultural and Mechanical College and I have always felt that the plan we have here would work. We are following the merit plan of helping our students. A student that we feel is deserving is given a cow by the animal husbandry department. The student milks the cow, in most cases three times per day, and the milk is recorded on the daily milk sheet which we have here in the dairy barn. At the end of the month these figures are added up and the student is paid at the rate of 3c per pound for the whole milk. The net profit, which is what the student gets for his labor, will be the amount after the cost of the feed is taken out except that in the case of the girls the cost of cleaning the barn is deducted.

"You will see," Mr. Shiflett said,

Continued on page 42)



GIRLS WEIGHI

Live Rubber••

One reason why "U.S." Blue Ribbon Boots stand the hardest farm wear

HERE'S a real test. If you cut a strip of rubber from the upper of a "U.S." Blue Ribbon boot—it will stretch more than 5 times its own length without breaking! Under the roughest treatment on the farm this rubber stands up!

This "U.S." Blue Ribbon boot is right all through. The gray sole is as tough as the tread of a tire. And at every vital point from 4 to 11 separate layers of tough fabric and reinforcements are built in to give *extra* strength.

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"U.S." BLUE RIBBON
Boots Walrus
Arctics Rubbers

Trial of a 325-Pound C. T. A

JERRY N. SPENCER, IOWA

THE Linn County Number 1 Cow Testing Association of Iowa stepped from an average of 275 pounds fat per cow to 325.9 pounds fat per cow in two years. Located in the little Quaker settlement near Springville and Whittier, this association started operations June, 1923, with a group of co-operators who have ability to work together without strife or rivalry. This commendable spirit during three years has brought results.

The remarkable accomplishment from the standpoint of increased and more economical production, community pride in better live stock, and general community development is worthy of note. The dairymen are leading in a change from timothy hay to alfalfa hay; from ear corn to a well balanced home grown mixture. Other changes in dairying are commensurable.

Dairying in this locality was not a new thing as most of the members had dairy cattle of mixed breeding and were using pure-bred sires, which is rather unusual in a new association. They were on the right track and by the assistance of the cow tester were able to increase their stride in developing their herds.

At the close of the first year, there were 162 cows that milked nine months or longer and during that time produced an average of 275 pounds fat; this being 17 pounds more than the average cow testing association cow in Iowa. Of the 162 cows, 105 of them produced 300 or more pounds fat. This fact is rather significant when records show that only 15 cows produced over 300 lbs. fat in the first Linn County Association which operated eleven years ago.

Second Year Testing

The interest of the members was consistent and at the close of the second year 194 cows averaged 301 lbs. fat; 105 of the 194 cows finishing the year produced 300 or more pounds fat. It will be noticed that there were more cows milking nine months the second year than there were the first year. This is accounted for by better feeding and management which always tends to lengthen the milking period.

It was not difficult to reorganize the association for the second year as the members had told their neighbors of the results they had received the first year, and most of these first year members continued to test. As a result there were more prospective members than could be accommodated.

Third Year Testing

The third year started operation with more than half of the original members who of course took the lead. Thirteen of the pioneer members at the close of the third year had an average of 364.4 pounds fat per cow, which is 54 pounds higher than they had at the close of the first year. At the close of the third year, all the pioneer members had an average of 300 lbs. or more of fat, except one which fell below only a few pounds, most of his herd being first calf heifers.

The herd having the highest average production for any association year in Linn County is owned by L. F. Bedell. This herd of eight cows produced an average of 8,685 pounds milk and 468.3 pounds fat for the year ending July 1, which is the third year the herd has been in the association.

The first year Mr. Bedell was in the association his herd of six cows averaged 5,605 pounds milk and 260 pounds fat. This was 15 pounds of fat per cow below the association



LINN COUNTY NO. 1 ANNUAL PICNIC AT WHICH TIME AND PLACE THE ASSOCIATION REORGANIZED



THE BUSINESS END OF A 325-POUND C. T. A.
Left to right—C. R. Mills, director; B. W. Heald, vice-president; L. C. Adams, tester; E. W. Hoge, secretary-treasurer; John Miller, director; L. F. Bedell.

verage, but Mr. Bedell did not give p (as is sometimes the case), but nstead set in with the determination o improve. The first step was to sell ix tailenders for $338, putting anther $300 with it to buy five good rade cows for $125 a head. Two nore were purchased at public auction, one for $43 and the other for 45.

The cow purchased for $43 produced 500 pounds fat this year, making almost $200 above feed cost, while the $45 cow produced 425 pounds fat showing a profit above ost of feed of $155.

At the close of the second year he herd of 9 cows averaged 5,774 ounds milk and 295 pounds fat per ow. This was an increase of 35 ounds fat per cow. This was conderable encouragement to the young airyman and stimulated feeding and nanagement which brought about the emarkable results of the third year f an increase of 173 pounds fat per ow, leaving an increased profit per ow of $65 over the previous year.

When the association reorganized or the third year, the usual annual icnic was held at Whittier. The litle meeting house was filled to the rim. All enjoyed a good feed after vhich the business meeting was held.

In Iowa a cow producing 300 ounds fat under farm conditions is profitable cow, and it is every test- r's aim to develop a so-called 300- ound association. This has been exeeded in Linn Number 1 Association n three years' testing, as 326 cows veraged 325.9 pounds fat per ow; 131 of the 326 cows produced 00 or more pounds fat in the year nding July 1.

Fourth Year C. T. A. Spreads

It is apparent that the members of inn Number 1 Association are after he greatest profits at the lowest cost, s every member that was in the asociation the third year rejoined for he coming year. Since there were umerous other farmers that wished o become members, the association vas divided making two associations.

Not only has the association work rown but the number of fields of eguminous crops have kept pace with he rest of the program. During the ast year the number of members rowing soy beans increased 50%, he number growing alfalfa increased 00%.

Feeding practiced in the associaion is not guesswork. Mr. L. C. dams, the tester, makes a continual tudy of feed markets; meal and ther feeds are used when the price ill justify feeding them. All but aree of the third year members have silo and every member feeds a alanced ration.

It is the aim of the members and ester at all times to make the reatest use of home grown feeds. o do this they plan to grow the roper kinds of feeds and get the rgest yields possible. After growig this feed, they are striving to arket it in the most efficient way nd the cow testing association is lazing the trail by making it possible or these farmers to solve their own airy problems.

New Silo Bulletin

Wisconsin now has 110,000 silos, ccording to the bulletin, "Cost of illing Silos," by P. E. McNall and . A. Hartman issued recently by ie Wisconsin College of Agricul- ire, in which several interesting and aluable facts are brought out. The iore intensive dairy districts of the ate have from 60 to 92 silos for very 100 farms, while the whole ate averages 54 silos for every 100 arms.

Some 8,800,000 tons of dairy feed an be stored in Badger silos. Valued at $4.50 a ton, this silage represents a total of $39,600,000. The cost of filling silos is about 40 per cent of the total cost of silage. A reduction of one-eighth in the filling costs, or 25 cents a ton, would amount to an annual saving of more than $2,000,000 to Badger State farmers.

Investigations on 282 typical Wisconsin farms showed that the average cost of filling the silo was $2.06 a ton. The four items of machinery—engine, ensilage cutter, corn binder, and wagons—make up 46 cents or 22.4 per cent of the total costs. The cutter accounts for half the machinery costs. It was found that large silos use machinery more efficiently than do small silos.

Which is more economical, to own or to hire an engine and cutter? Farmers with silos of less than 100 tons capacity can hire them as cheaply as to own them. Farmers having large silos can fill them about 11 cents cheaper a ton by owning their engines and cutters provided they use this machinery as much as is ordinarily used in a silo filling ring.

How far can a man afford to haul silage? Should corn be grown in one or two fields nearest the silo at the expense of interfering with crop rotations, in order that the haul may be short? These investigations showed that the length of haul is of minor importance. An increase of a quarter mile in hauling adds less than 9 cents a ton to the total cost of filling.

A 150-ton silo is usually filled at a cost of 50 cents less a ton than a 60-ton silo. It costs less per ton to fill a large silo, not so much because of the direct effect of size upon costs, but because of its indirect effect upon machinery, silo, and labor.

Uncle Ab says the man who works the hardest may not get as much done as the fellow who seems to work less but has learned the best way to do the job.



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The Firestone Red Rancher is built by the manufacturer of Gum-Dipped Tires; maker of highest quality products for twenty-six years.

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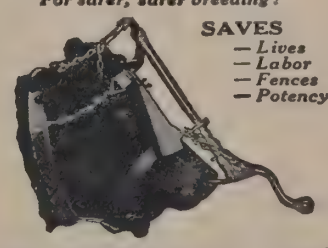
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A LIGHT, snappy racing car is all right on a smooth track but for rough work in the fields, only a tractor will stand the gaff.

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TOP NOTCH
GUARANTEE TOP NOTCH OF MILEAGE

Side Lights On Co-operation

A CORNELL, IDAHO

No. 3

SELF preservation is the first law of nature and selfishness is the practical embodiment of self preservation. Individualism is simply the long established institutionalized form of selfishness and it still has world wide recognition and application because of its primitive adaptability.

Now if it could be maintained that individualism is selfishness and that co-operation is the absolute opposite of selfishness, then it might be maintained that individualism, because it is rooted in human nature, must always prevail and that co-operation, because its success rests upon the necessity of an impractical transformation of human nature, must always fail. However, analysis will show that co-operation is no less selfish than individualism. The difference is that co-operation is broad and enlightened selfishness, while individualism is narrow and sordid selfishness. It must be admitted that, thus far, the practical application of the broad and enlightened selfishness that we call co-operation has been thwarted by the narrow and sordid selfishness that we call individualism.

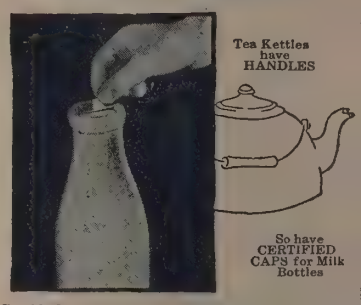
When we state that thus far enlightened selfishness has been thwarted by sordid selfishness, we imply that the contest is still on and that it will continue until supremacy rests with enlightenment. It is the age-old conflict between sordidness and enlightenment. We all contribute, one way or another, to this conflict and the degree of our personal enlightenment determines to which contestant we make our contribution.

It is quite the fashion to condemn co-operation as a workable procedure because of the repeated failures that have been made to embody it into the industrial and commercial experience of the community. In view of these many failures, we must pause long enough to philosophize a little on the question of human progress. Is progress in human affairs made by the process of making forward strides that are so well timed and calculated in advance that immediate and positive success is guaranteed, or is progress made through the monotonous and discouraging and blood-sweating process of trial, and stumble, and failure?

From our observation of infants learning to walk, would we not say that because a baby topples and falls many times in his attempts to walk, it would be absurd for us to say that trial and failure prove a thing impossible of attainment? Moreover, by having intimate knowledge of the life history of one generation and all the implications connected therewith, we assume that we have an understanding of the life history of the human race, which is to say, as the individuals of one generation learn to walk by many trials and failures, so the human race, in its infancy, became a true biped in the same way. As the infants of one generation learn to express themselves by means of oral and written symbols through the laborious and discouraging process of trial and failure, so the human race has attained its present masterful proficiency in communication through countless generations of perseverance in the face of trial and failure. As the primitive and untutored childish manifestations of one generation of infants is brought into domestication and civility by parental and social restraint which consists of line upon line of moralizing precept and example, so racial mestication is being accomplished a like and proportionately tedi manner.

Every trial in co-operation con tutes a mental contact that makes contribution to co-operative c sciousness. Since co-operative c sciousness is attained through p sonal association, every person wh interested in progress can afford associate himself with at least co-operative enterprise, a cheese f tory or creamery, or telephone co pany, or a poultry and egg associati

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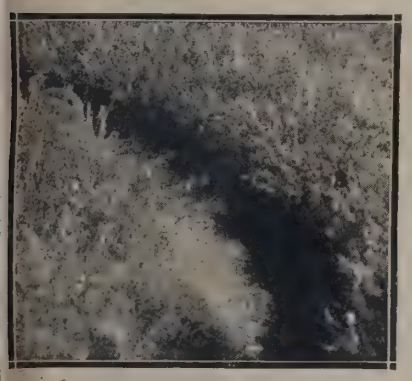


or a vegetable growers' union or an insurance company or a flour mill. To associate oneself with a co-operative organization means more than the mere buying of one or many shares of stock and the membership that goes therewith. It means an active interest in the problems of the organization's growth and service and in the character and ability and energy of those who keep its accounts and manage its affairs.

In our next installment we will point out some of the difficulties that confront all boards of directors of large organizations and offer some suggestions calculated to help clear up the confusion that so often spells disaster.

Lespedeza Keeps Soils From Washing

HOARD'S DAIRYMAN:—The one plant which, more than all other agencies combined, has kept southern soils from washing away is perhaps lespedeza, or as it is more frequently called in the northern portion of its territory, Japan clover. Kentucky farmers, in particular, owe a huge debt of gratitude to this plant which they have generally despised. In recent years it has spread naturally into southern Ohio, Indiana, Illinois, Missouri, and Kansas. Indications are that it will soon be an important forage plant even further north.



A volunteer stand of lespedeza in red top, holding the soil from washing.

In Kentucky for the past 40 years Jap clover has volunteered in fields laid out to rest. Generally such fields have been cultivated in corn or tobacco for several seasons and the volunteer stand of Jap the first year is thin. Every plant matures from five to a hundred seeds which grow the next year and a sod forms in three to four years. No matter how poor the soil, or how sour, or how unproductive for other reasons, if anything grows Jap will make a stand. This prevents erosion. Not even crab grass, broom sage, foxtail, or plantain, the universal flora of poor fields, will make a sod so quickly, so completely, or with so much benefit.

Lespedeza furnishes untold quantities of grazing under these most unfavorable conditions. The forage is equal to alfalfa or sweet clover in feed value and it will reseed under very close grazing. In fact, in addition to holding the soil from washing, it adds to the fertility. The largest yield of dark tobacco on the Mayfield experiment field has been secured from a plot following Jap clover.

A bushel of seed weighs 25 pounds. This quantity of seed scattered on an acre will make a perfect stand. The same rate is used for seeding gullies, steep slopes, banks, etc. where the wash seems beyond control. Even though a solid stand of Jap may be sowing on the level parts of a gullied field, the sides of the washes will not sow Jap unless the seed is actually sown there at the proper time in the spring. Seed produced in the field is sown so close to the ground that land has no chance to spread it. There is no other seed known capable of making good growth under such conditions.

When gullies form in lespedeza fields the first plants to grow on the little islands in the bottom are lespedeza. The trouble and expense of throwing a little seed on these washes is the least a man can do to the old or newly washed fields and nothing else that can be done will be as productive of good results. Excellent pastures can thus be made out of fields whose owners were ashamed of them. Pasture worth $10 to $15 per acre from June to November can usually be obtained, if not the first year, at least by the second. There is no further expense after the first sowing because it reseeds naturally. Just how far north this reseeding may be expected to be satisfactory is not yet known. It is very good in all parts of Kentucky in normal seasons.

RALPH KENNEY.
Kentucky College of Agriculture.

Rich Soil

Two farmers were arguing about the fertility of the soil of their respective states.

"Why, the soil is so rich in my state," said one, "that a man with a peg leg daren't stand still for five minutes. The wooden leg will grow roots."

"That's nothing," the other farmer responded. "Back where I came from the land is so rich that all the peglegged men carry hatchets so they can chop off the twigs that keep sprouting on account of all the nutritious dust in the air."—Farm Life.

A Good Cold Weather Starter

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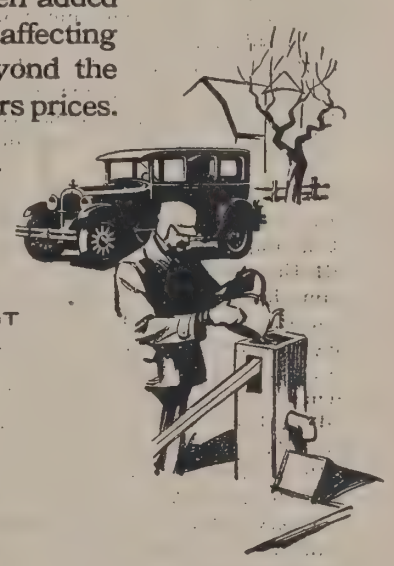
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There are now no moving starter parts when the car is in motion—no starter chain—no noise—no wear. The new starter is even more DEPENDABLE than the old, and far simpler and more compact in construction.

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EDITORIAL COMMENT



DAIRY farmers who deliver milk and cream to Harrisburg, Illinois, will organize a milk bargaining association for the purpose of securing a fair price for their products. For a long time milk prices have been unsatisfactory, due to factionalism existing between dealers and various groups of farmers. According to a report of the Illinois Agricultural Association, dairy farmers who supply Harrisburg with milk state that the dealers have been playing one community of dairymen against another community in the sale of milk. This is an old scheme and results in price slashing until the price of milk becomes so low that dairying is unprofitable. It is sensible and wise that farmers should organize for the purpose of securing full market price for their products. They not only benefit themselves, but also dealers and consumers, when they place themselves in position to do business on a proper basis. Milk is too important a food to have the supply jeopardized by an indifference in its production.

EVERY YEAR IT HAPPENS

A big factory in our town shut down its shops the other day to take inventory. The shops were closed for several days until every piece of machinery, every piece of stock, and every piece of equipment could be accounted for and valued.

Every year this factory goes through such a performance. And this is by no means the only place where this is done. Every business everywhere, that amounts to anything, takes an annual inventory.

The shops may lay off their men and get behind in their orders at the factory, but that makes no difference. It is imperative that they know how they stand with the world.

Inventory time has arrived for the factories. It has arrived for the farms. The best time to take farm inventory is generally between January first and when the spring work starts.

For the farm inventory make a complete list of the value of all that you own and all that you owe. The difference between these two figures represents net worth or true financial standing.

There are on the market several good farm account books. These cost little, are a great help in taking farm inventories, and should find a place on every farm. Farming is a business and it should be regarded as such.

A FARM AND A HOME

"What I am Trying to Do on My Farm," is the title of a series of articles which will appear in Hoard's Dairyman, the first article being published in this issue. These articles were prepared by Mr. W. J. Dougan, a successful dairy farmer in Southern Wisconsin, and they relate his farm practices and what he is striving to do to make an ideal farm home.

Before becoming a farmer, Mr. Dougan was a Methodist minister but was forced to give up this profession because of impaired hearing. He had experience in farming in his early youth and when he was forced to leave the ministry, it became his ambition to be a successful dairy farmer and to produce and distribute the best quality of milk, for he recognized then its importance as a food for human beings. The time Mr. Dougan spent in the ministry did not unfit him for hard work and he has made an unusual success. He has worked hard but, fortunately, has had the help of an unusually good wife. This, with good health and a determination to succeed, has given him the distinction of being one of the best dairy farmers in Southern Wisconsin.

I desire to commend these articles because [illegible]sent practical information on operating [illegible] dairy farm where the choicest food [illegible]. There is threaded through each [illegible]deals which are stimulative and [illegible]rm life. The person who is [illegible]v to operate a dairy farm [illegible]e an ideal farm home, and to participate intelligently in the activities of his community, should not neglect to read these articles written by Mr. Dougan.

SOILS LACK PHOSPHORUS

The one element of fertility which is likely to be lacking in the soil is phosphorus. This is especially true of upland soils that have been farmed for many years. Investigations conducted by various experiment stations in the use of phosphatic fertilizer indicate in no uncertain terms the value of applying phosphorus when the soil does not have an adequate supply of this element. Crop yields are limited and very often the process of ripening, especially of corn, is delayed.

When a farmer goes to the trouble of plowing a piece of land, preparing it for seed, planting it, and harvesting it, it is wise to have the land in a good state of fertility. It is better to farm five acres well than to farm ten acres poorly, as it is quite possible to make the five acres yield as much as the ten, and the work of operating five acres is much less.

The Wisconsin Experiment Station has found, in all its field tests in Racine County, that acid phosphate increased the yield of barley 14 bushels to the acre, and the yields of alfalfa for two years following barley more than paid for the cost of the phosphate used. It has been our observation that if the soil is properly fed for growing alfalfa, it is less likely to winterkill.

A good practice to determine whether the land needs phosphorus or not is to take an acre and apply 250 pounds of acid phosphate or some other kind of phosphatic fertilizer and then note the yields of this land as compared to that next to it. A test of this kind is simple and informs the farmer whether or not he will be justified in applying phosphatic fertilizers to his land.

DIVERSIFICATION

There seems to be a misunderstanding in the minds of some men as to what constitutes diversified farming. A speaker discussing farm relief legislation said: "Diversification will not improve agricultural conditions. For example, the cotton farmers of the South will not be benefited by growing more corn and less cotton. They turned to the growing of more cotton because beef was unprofitable and, as a result, there is an oversupply of cotton." He also stated, "Some wheat farmers grew corn when wheat was cheap and then there was an overproduction of corn in the fall of 1925 and the price became ridiculously low."

It is evident this man does not have a clear idea of what constitutes diversification in farming. Swinging from one crop to another does not constitute diversification. In every instance he cited, it was still a single crop system. Diversification in farming means the growing of several crops and, as a rule, the keeping of live stock.

We recently talked with a dairy farmer who raises beans, hay, and potatoes as cash crops. He said beans were a poor crop this year but the price of potatoes made up for what he lost on the beans. If he had been a single crop farmer growing nothing but beans, he would be in rather close circumstances, but with a herd of good dairy cows and growing potatoes as well as other crops, 1926 was one of his most profitable years. Surely this farmer was benefited by diversification. We believe that agricultural sections now devoted largely to one crop would be benefited if they grew more crops and adapted their production, in part at least, to what could be consumed in their own section.

The South buys much feed for its live stock and this year its farmers paid over thirty dollars a ton for alfalfa hay. There is a chance for such farmers to diversify and improve their incomes. Midwest farmers are buying alfalfa hay from the West at $25 to $30 a ton. These farmers would profit by growing less corn and more alfalfa. The farmer of the West who grows alfalfa hay receives a low price for it. The cost of marketing amounts to about $20 per ton. Very little of this $20 falls in the pockets of the farmers. Most of it would if they practiced diversification to a larger extent, and this would benefit agriculture.

WASTING FEED

Much feed is wasted by not supplying the dairy cow with the right kind of meal mixture to make a balanced ration with the roughage fed to her. Our attention was recently called to a cow producing daily 29 lbs. of 3% milk and receiving 14 lbs. of meal, a waste in this case of 6 to 8 lbs. of meal a day. This loss could be avoided and the cow fed better if her owner understood a few of the simple rules for making a suitable milk ration. The 14 lbs. of meal contain no more protein than the cow needs to supplement the roughage she is being fed. It contains a low percentage of protein and to provide all the protein requirements of this cow, 14 lbs. of it must be used.

This system of feeding is not only wasteful but it is very likely to injure the cow. Few cows can consume 14 lbs. of meal daily for any great length of time without showing effects of overfeeding. A cow that can eat this much meal and remain in good health is worthy of more intelligent feeding.

What this particular meal mixture requires is the addition of some feed or feeds rich in protein. If a richer meal mixture were fed to this cow enough protein would be supplied in 6 to 8 lbs. of it to produce 29 lbs. of 3% milk. Millions of dollars' worth of feed are wasted because the meal mixtures fed to dairy cows do not supplement properly the roughages fed to them.

In the articles we are publishing on feeding the dairy cow, we are trying to teach a few of the principles and practices to be followed in feeding her. They are not intended to be a complete treatise on the subject of feeds and feeding, but to relate only a few simple truths on feeding that must be known if dairy cows are to be fed properly and the wasting of feed eliminated.

DAIRYMEN AWAKEN

At the annual meeting of the American Dairy Federation, Dr. E. V. McCollum made some rather pointed statements concerning the lethargy of the dairy industry. The results of his investigations to determine the food value of milk and its products are worth millions to this great branch of agriculture every year. He sees opportunity for the dairy industry to profit still more if it fully grasps its opportunities.

One who reminds another of his shortcomings and especially in plain, direct language, is indeed a good friend. We grow and develop through sermons of this kind. What Doctor McCollum said should be a challenge to every branch of the dairy industry and lead to greater activity in its development. "The dairy industry," he said, "has prospered and grown because of the assets handed to it—not from the work of or by itself. The industry has done very little in an organized or effective way for itself." He cited the accomplishments of the National Dairy Council as an exception, but this splendid organization has only gone a little way in the direction that needs to be explored to the fullest extent. He characterizes the efforts of rival concerns to take away each other's customers as silly and wasteful. This same amount of money and effort expended to produce new business would be constructive and more productive.

The dairy industry has failed to take advantage of its opportunities, to promote its own interests. Competing industries have taken advantage of research and educational work to advance their own interests and they use shrewd, high-sounding but only partly true propaganda.

We need more Doctor McCollums everywhere to awaken this great slumbering industry to its possible opportunities. No industry in this broad land is so important to the welfare of the nation and no industry offers larger opportunities for extending and developing itself than dairying.

Sterilizing Dairy Utensils

In the November 10 issue, was an article on the use of sodium hypochlorite as a sterilizer. We would like to get information on this. How is this solution made? What amount would you use to a gallon of water?

Grundy Center, Iowa. E. A. H.

It is possible to secure good results in sterilizing dairy utensils by the use of various chemical compounds. Such compounds are on the market under various trade names and good success has been reported with them. These compounds are usually hypochlorite of either calcium or sodium, and their efficiency depends largely upon the presence of available chlorine.

A home-made solution can be prepared as follows: Dissolve the contents of a twelve-ounce can of chloride of lime in two gallons of water. After standing for a time, strain off into an earthen crock or glass jar, discarding the sediment. Cover and keep in a cool, dark place in order to preserve the solution in its original strength. This is known as the "stock solution" and it will keep a long time.

To make the chlorine solution in which the utensils are soaked, use one pint of the stock chlorine solution to every eight gallons of water. This is at the rate of about one ounce of solution to a gallon of water. Make up a new solution every day, and do not use the same solution for rinsing too many articles. The utensils should be thoroughly washed prior to rinsing in the chlorine solution, as the presence of slime or dirt in the utensils will destroy the usefulness of the solution as a sterilizing agent. After rinsing, either turn the utensils upside down to drain in a warm, dry place or, preferably, set them on the stove or heater so that they will dry out quickly.

To make assurance doubly sure, the utensils are sometimes rinsed out just prior to milking, but care should be exercised in this event to make sure that none of the solution is left in the utensils, as otherwise it may make the milk taste and, as indicated in the article referred to, may possibly bring the milk under suspicion by health authorities

Brown Alfalfa Hay

Does alfalfa which has gone through a sweat and heated and browned in car have the same feeding value as before? Please tell us of experiments along this line, so we can either recommend off color alfalfa to our farmers or tell them to buy it at a certain margin under good alfalfa.

Moline, Ill. A. A. T.

We have had growers in the alfalfa regions tell us that they liked to sell their "pea-green hay" and reserve for their own use the brown or so-called "tobacco-cured" hay. They tell us that if there is no external moisture on the hay, there is no danger of mold, provided the hay has been evenly and thoroughly distributed in the mow or stack. This brown hay is very appetizing and cows eat it eagerly.

Scientists tell us that the fermentation through which this hay has passed destroys a certain amount of its nutrients, but we are of the opinion that ton for ton, the brown hay will contain quite as many nutrients as will the "pea-green hay." In addition, the brown hay when properly made and when not moldy or dusty, will possibly be somewhat more digestible, and at least will be more palatable.

We have had but one report as to a scientific trial as to the relative feeding value of brown hay and the green hay. At the Kansas Agricultural Experiment Station it was found in feeding steers that brown hay was about equal to good green cured alfalfa hay, but that where the fermentation process had gone so far as to make the hay black, it was of little value.

Most of the farmers reporting on this, particularly dairy farmers, state that the only disadvantage with the brown hay is that cows like it so well they may be inclined to eat too much of it. They tell us that it is very efficient in the production of milk on their farms, and their own experience has been that cows eat this brown hay with more relish. It has an aromatic odor when taken from the mow and is well liked.

If the brown hay has a goodly percentage of leaves attached to it, we would be inclined to prefer it to the "pea-green hay," particularly if the usual concession in price can be obtained. Of course, if the hay is moldy or dusty or is lacking in leaves, then it would not be comparable in value to the other and leafier hay.

If the hay specifically referred to in this inquiry actually turned brown in the car, rather than in the stack, there is a possibility that it may be somewhat moldy. If this is not true and the hay is otherwise of good quality, the fact of its being brown or tobacco colored would rather add to than detract from its value in feeding dairy cows.

How Much Linseed Meal?

Is there any danger of overfeeding linseed meal? How many pounds can be fed to a cow giving 60 lbs. of milk daily without harming the cow in any way?

Ely, Iowa. G. B.

Feeding excessive quantities of linseed meal is not dangerous in the same sense that the term "danger" is ordinarily considered. For example, feeding excessive quantities of cottonseed meal over extended periods is dangerous to the extent of causing reproductive difficulties and even death. This is not so much so with linseed meal. There are, however, certain objections to feeding excessive quantities of this feed. For example, large quantities of silage or other succulent laxative feed with excessive quantities of linseed meal would cause a looseness of the bowels beyond a desirable condition and would prove somewhat detrimental because of this. Another objection to feeding excessive quantities of linseed meal is that of cost. When one can buy protein considerably cheaper in other feeds it is not good economy to supply so much of it in linseed meal. The feeding of excessive quantities of linseed meal would limit the variety in feeds, particularly protein feeds. Variety to a high producing cow is desirable from the standpoint of palatability and also as to supplying protein of more complete character.

For a large cow, 1200 lbs., producing 60 lbs. of 3.5% milk daily, a ration of 36 lbs. of silage, 12 lbs. of alfalfa hay, 5 lbs. of ground corn, 4 lbs. of ground oats, 3 lbs. of ground barley, 2 lbs. of bran, and 3 lbs. of linseed meal would meet the requirements. If more linseed meal is fed in this ration and less of corn, oats, or barley, there is more protein supplied than is needed. If a non-legume hay were used in place of alfalfa hay more protein would be required in the concentrates mixture. Instead of increasing the proportion of linseed meal it would be better to use some of gluten feed, cottonseed meal, or some of a high grade mixed feed containing not less than 30% of protein. The need for a greater variety of protein feeds is because of the character of timothy hay.

While one could use more than 3 lbs. per head daily of linseed meal it would be better, everything considered, to meet the nutrient needs of a cow from a greater variety of feeds, particularly when it comes to supplying protein.

Profit Sharing

I have recently started as foreman on a large dairy and my employer has suggested that we work out some plan so that I would get some percentage on milk produced. Can you give me an outline of some other farms working along this line?

Moline, Ill. H. M. R.

The arrangement for profit sharing upon the basis of milk produced is not wholly satisfactory because of the tendency for the foreman to feed for high production without regard to economy of production. We would be inclined to favor a profit sharing plan based upon the return above cost of feed. This would do away with the evil of basing the return upon the amount of milk and yet would work satisfactorily for both employer and employee. The employee would be compensated for his efficiency, and the employer would gain from this inducement to efficiency.

What proportion of the return should be paid is open to some question. We do not know of any place where this plan is in operation, although there are, doubtless, farms that have some such system of profit sharing. Most cost accounting studies indicate that the cost of feed will average nearly 60% of the total cost of producing milk. We are under the impression, however, that on most farms as they are conducted it is safe to estimate that feed accounts for 70% of the actual cost of producing milk. However, using 60%, and assuming that the value of the production from a fair to good average cow will be $180 a year and her cost of feed will be $70, it would mean that her total cost of producing milk would be $116 a year, leaving a profit for this good cow of $64. This would indicate that if the foreman were to receive 10% of the actual profit produced by a cow, he would receive in the neighborhood of $6 per cow per year.

Instead of using this form of computation, one might accept the figure of 5% of the value of the production over and above the cost of feed. It would seem that a percentage figured on some such basis as this would prove satisfactory and offer the foreman considerable interest for high and economical production of milk.

If any readers are operating on a profit sharing basis we would be pleased to pass on their method to others.

Cattle Depreciation

Kindly advise what would be a fair depreciation to allow? What would be the average length of life and the value for the different years of a cow's life? This is for a pure-bred Holstein herd, well taken care of but not forced, kept in well lighted and ventilated quarters, and free from tuberculosis, and assuming that it cost $150 to raise a heifer until she freshens at 24 to 30 months of age.

Hubbard, Ohio. L. W. S.

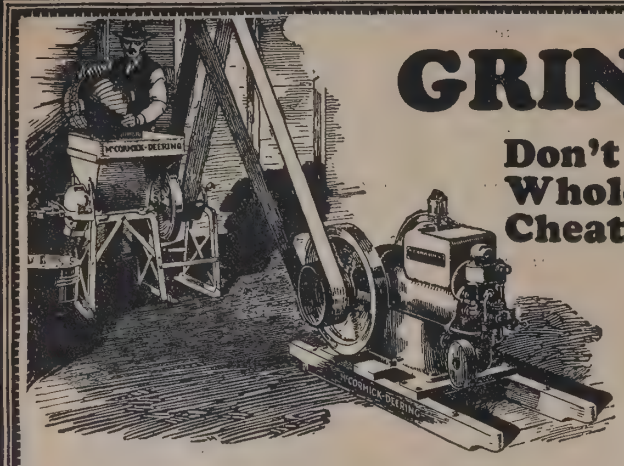
The method of estimating depreciation of cattle requested has been largely given up because it is rather difficult to establish depreciation in this manner and have it represent true conditions unless a herd is unusually large.

It is generally estimated that, taking all things into consideration, the usefulness of a cow in a herd will extend for an average of about five years. This takes into consideration those which are discarded because of poor production, accidents, or some other reason before they have reached maturity, as well as those mature cows that may stay in the herd for ten years or more. On this basis it has been suggested that yearly depreciation could be ascertained by dividing by five the difference between the original cost of the animal and her estimated beef value. Under conditions such as cited, it is possible that one would be justified in increasing the years of usefulness to six and possibly seven years.

A somewhat better method of arriving more accurately at the depreciation in a herd is to inventory the animals at the beginning and end of the year. It is suggested that each animal be listed at the beginning of the year with its age and value, and at the close of the year the estimate of the value again be made. The difference between the totals would represent the actual depreciation or appreciation of both the individuals in the herd and the total for the herd itself. In estimating values, the cows may be compared with other animals that have been sold in the same vicinity or one may be able to secure some well informed individual who will be able to value the animals with a reasonable degree of accuracy. It is rather necessary to register the age of animals, as cows and heifers normally increase in sales value for the first few years while the older cows decrease in value with age.

If the herd is a grade herd, or even if a pure-bred herd, it may answer every purpose of accounting to establish a standard value for each class of animals in the herd, For instance, we know of one dairyman who values his grade cows at $100 each, his grade heifers at $50 each, and his grade heifer calves at $25 each. He estimates that this is about 20% under their actual sale value, but by retaining this same method of valuation year after year he is able to make a reasonably fair comparison of his profits from year to year. His pure-breds he values at double these prices except for those purchased during peak prices and which he now carries at half their cost.

If these same values are maintained from year to year and a reasonable effort is made to maintain the herd in productive condition, the total values at the end of the year would represent fairly close the gains or losses that should be credited to each year. In order to not reflect the market valuations from year to year, which do not really enter into the farm profits and money available, it is quite wise to adopt reasonable valuations for the herd slightly lower than what would be considered a fair average of their sale price. If sales are made above or below this price, the gain or loss during the year would, of course, be properly credited in the cash income of the farm with a reduction in the number of animals that go into inventory. In establishing sales value, consideration should be given to the number sold for beef because of poor production, breeding, etc. Over a series of years this will amount to, perhaps, 5 to 10 per cent of the total cows in milk.



GRIND!

Don't Let Whole Grain Cheat You

WHOLE GRAIN is bulky and it fills the animal's stomach, but it cheats you by satisfying the hunger through this bulk rather than through complete nourishment.

Tests have been conducted by Government stations in past years, with healthy, full-toothed animals, to determine the seriousness of these feeding losses. The tests show an average loss of from 12 to 26 per cent. In other words, out of every 100 bushels of whole corn fed, 26 bushels yield practically no nourishment while passing through the digestive tract. The unground oat diet showed a similar loss of 12 bushels out of every 100.

Such feeding losses can easily spell the difference between possible loss and a handsome profit. Many farmers are putting various combinations of grains through the McCormick-Deering Feed Grinder, assuring their animals a nourishing ration that is quickly and completely assimilated. In the interests of greater stock-raising profits, investigate the McCormick-Deering at the local dealer's store.

McCormick-Deering Feed Grinders—built in three sizes from 6" to 10", requiring from 3 to 16 h. p. according to size and type. Designed to grind various combinations of grains and forage crops.

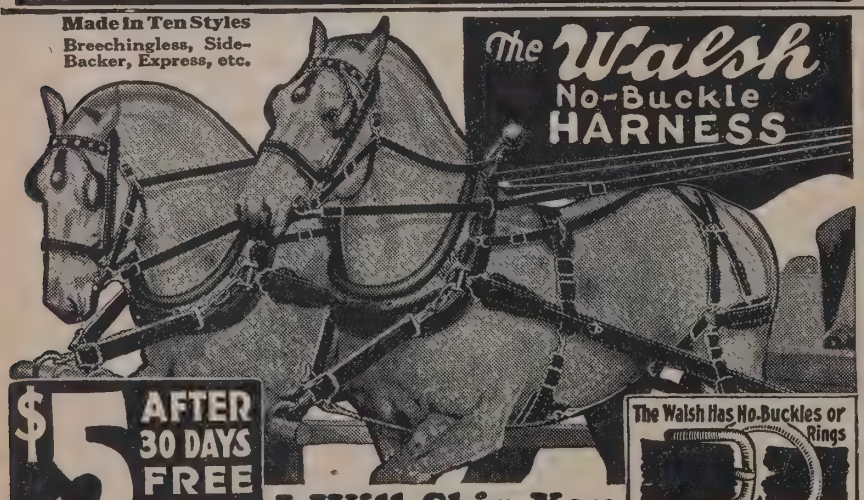
McCormick-Deering Corn Sheller—for every need; ranging from the 1-hole steel hand sheller to the power cylinder sheller of 350 to 400 bushels per hour capacity.

McCormick-Deering Engines—full-powered engines with removable cylinder, enclosed crankcase, magneto ignition, efficient fuel mixer, etc. Sizes: 1½, 3, 6, and 10 h. p.

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Buckles weaken and tear straps. Walsh 1⅛-inch breeching strap holds over 1100 lbs. The same strap with buckles will break at the buckle at about 350 lbs. pull. Ordinary harness has 68 buckles. Walsh Harness has no buckles. Easy to see why Walsh is three times stronger than ordinary harness. Packers' Northern Steer Hide leather—best that can be tanned.

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The Walsh Harness costs less because it saves many a dollar in repairs. Users show average repair cost of only 9 cents per year. No patching, no mending, because no rings to wear straps in two, no buckles to weaken tear straps. Greatest advance in harness making. Easily adjustable horse. Write today for new reduced prices.

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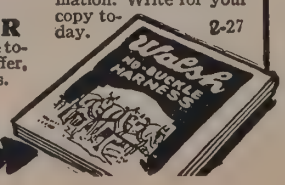
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OR MY FREE BOOK

A California Creamery Association

JAMES M. MURRAY, CALIFORNIA

STARTED in 1911, in Los Angeles, as a sales agency for a large California co-operative creamery, the Challenge Cream and Butter Association has grown from selling about a million and a quarter pounds of high grade butter, during their first year of operation, to the point where they are now marketing more than 25 million pounds yearly, dealing direct with hotels, restaurants, and retail stores.

Taking their butter to the consumer, rather than jobbing it out to speculators, has not only meant better business for the creameries on their butter, but also a better deal for the grocer as well as a better buy for the hotels and restaurants. By cutting out intermediate handling, the advantages of direct dealing are obtained with better satisfaction to the creameries, the grocers, and the consuming public.

After achieving a phenomenal success in the Southland of California, the company bored its way north until, in September, 1925, they broke into the great field of San Francisco, including the surrounding bay cities, by opening up a sales agency at 807 Montgomery Street, which operates under the direction of O. J. Kennedy. Mr. Kennedy has been prominent in the butter, cheese, and egg trade of the bay cities for more than 20 years, and he understands thoroughly the needs and problems of the retail grocer in this field. C. W. Hibbert is the general manager and head of the Challenge Association, and has been the prime mover in the expansion of the organization from the date of its first inauguration.

Coming into San Francisco, this cream and butter association found a relic of war days still in existence in the form of a fictitious daily paper quotation which would lead newspaper readers to believe that the grocer was paying approximately 3⅓ cents less for his butter to the jobbers than was actually the case. The jobbers and speculators were making about 8 cents a pound on their handling of butter, whereas the grocer was selling on a margin of about 5 cents per pound, with, of course, the high expense to face that is inevitably associated with retailing.

Within a month after arriving in San Francisco, the Challenge Cream and Butter Association announced the adoption of a new selling policy on butter. They began selling butter at the price actually quoted by the San Francisco Produce Exchange for extra grade butter, which meant a reduction in price to the grocer of 3½ cts. per lb., and removed from him the stigma of profiteering with which he had, in the past, been accused.

This feature of co-operation with grocers and the retail trade generally, added to the exceptional merit of the products of the company and the high quality of service rendered, gave the new butter competitors in this field an opportunity to make a hit with the trade. And this hit is a palpable one, as is proved by the fact that Challenge and Modesto butters, sold by this association, increased in turnover from 3,500 lbs. per day at the beginning of the San Francisco campaign, to approximately 25,000 lbs. per day, with prospects good for still further increases as time goes on.

The Milk Producers' Association of Modesto, the largest co-operative creamery plant in the world, is the main supplier of the butters handled by this association, with the Danish Co-operative Association of Fresno a close second. In addition, there not being sufficient butter produced by even these two great dairy concerns to supply the needs of the selling association, the butter of 15 other member creameries is also handled.

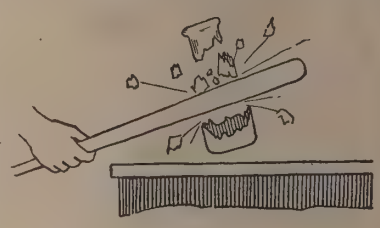
"We have emphasized quality in taking butter for sale from our creameries," said Mr. Kennedy. "Uniformity is assured for us because we personally supervise the dairy operations. We have field creamery operators, experts in the business, who go to each creamery and standardize their output.

"The quality of the cream and the salt and the color of the butter all are subject to our standardization methods, and we can say that all of our butter is manufactured from sweet cream, whereas most other butters are from centralized creamery plants not up to our standards.

"While this is an expensive inspection service in point of cost, in the end we are saved a great deal of trouble and expense on the selling because we know that our butter is absolutely up to specifications, is produced under favorable conditions of sanitation, and can be priced and handled as a single article.

"In addition to butter, we also handle for our dairy members eggs, cheese, and condensed milk, giving them opportunity to market all of their products through us, under the same advantageous conditions as is handled butter.

"Our direct service to retailers is the best that can be devised. We serv-



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"At the present time we are rep- esenting 17 co-operative creameries, 2 of which are located in California nd 5 in other states.

"Our operation has been a great uccess from the start, and we have ever failed in our efforts to get es- ablished in any new city we have ackled."

A Friendly Breeders' Club

HOARD'S DAIRYMAN:—In the spring f 1922 about half a dozen Guernsey eople met and organized the Pierce ounty, Washington, Guernsey Breed- rs' Club. From the beginning they ave held that the foremost object hould be good friendship toward all



Farmstead on Rainier View Guernsey Farm, Washington, where A. O. Johnson has developed a herd of 40 pure-bred Guernseys from two foundation cows purchased in 1913.

reeders. Whether they have accom- lished their aim or not is very well idicated by their recent summer eeting held at Rainier View Farm, uckley, Washington, at which time out 150 Guernsey breeders met in eir beautiful grove to do honor to eir Guernsey cow.

The breeders of this county have ac- mplished great things. This has en due very much to the fact that ey have always attempted to develop closer friendship amongst all mem- rs. They have promoted their breed making exhibits at the Western ashington Fair, by having all their rds in the cow testing association, d making improvements in the rds by the use of good bulls. Now ey are making great advancement producing a clean Golden Guernsey oduct and promoting the sale in the st markets.

The Rainier View Guernsey Farm, vned by Mr. and Mrs. A. O. Johnson, as been quite successful in develop- g a herd of 40 Guernseys from two imals purchased in 1913. Their rm of 110 acres is located in the ade of the beautiful Rainier Moun- in. In 1913 they purchased two re-bred Guernsey females and the ernsey bull, Governor of Fernwood, om this original foundation.

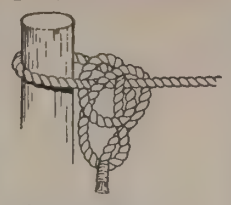
In addition to these 40 descendants om the original animals which they ve in their herd, they have sold females and 27 bulls. Their herd has ways been free from tuberculosis d at the present time is free from portion as shown by the blood test.

They have 65 acres under cultiva- n which produces sufficient hay and her roughage for the cattle and rses. The only thing purchased is ain. They are developing a special arket for whipping cream.

There is probably no better example the United States showing the lue of a county Guernsey club than demonstrated in this county. In eir cow testing association last year the average production of 350 cows was 9,536 pounds milk and 366.9 pounds fat. The records show that the average cost per pound of butter-fat, exclusive of labor, was 30 cents. As an indication of the efficiency developed in the Guernsey herds of the association, the records show that the average returns per cow of the Guernsey herds in the association, exclusive of labor, was $89.

Oregon. E. L. WESTOVER.





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excellent for tying a halter to a post—just one of the dozens of knots, hitches, and splices fully described in the new H. & A. Booklet, "More Jobs From the Same Rope." *(See coupon below)*

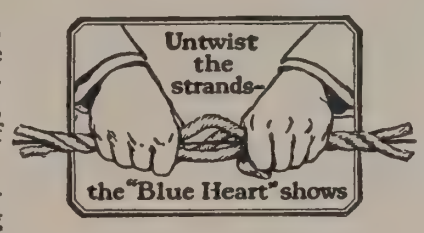
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Untwist the strands. If you see a thin blue thread marker, the "Blue Heart," running in the center between the strands, you may



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The "Blue Heart" marker means that the rope is genuine H. & A. "Blue Heart" Manila Rope, spun from high grade, pure, selected manila fibre by rope makers with over half a century's accumulated experience.

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Before you buy rope, untwist the strands and look for the "Blue Heart"—our registered trade mark. It assures you of dependable rope value not only on the first purchase, but whenever you need more of the same kind.

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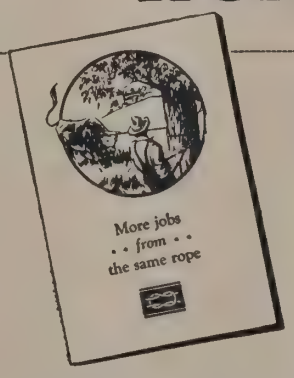
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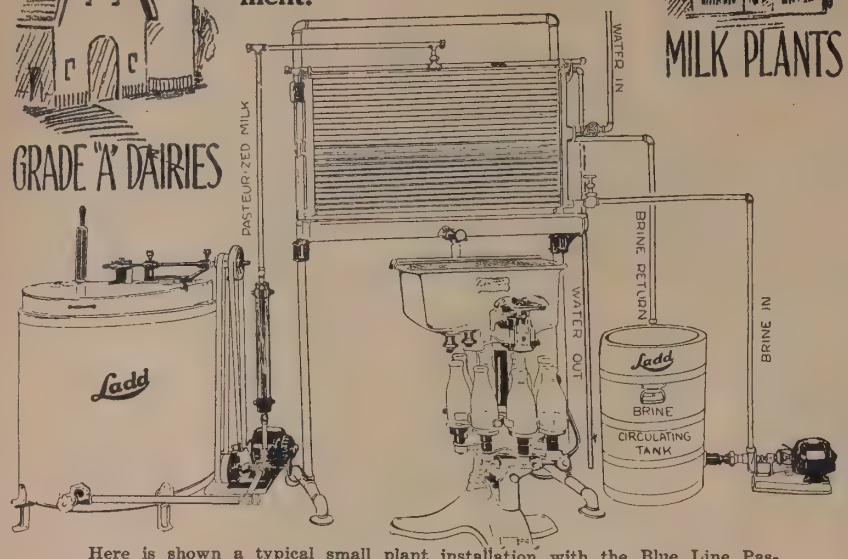


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LITERALLY taken right out of a working herd, without an hour's fitting, the best four cows out of an average carload of grade Holstein milkers costing $125 per head in New York State four years ago, won first, third, fifth, and sixth in the class for "cows with cow test association production records of 300 pounds butterfat or over" at the recent National Dairy Show. The winning cow was later made champion grade Holstein of the show.

Four years ago the winning cows were nameless, unknown, so-called ordinary milkers on a farm near Sherburne, New York. As part of a carload of grade milkers, they arrived at the Larro Research Farm, Michigan, in poor condition. Since 1922 these cows have been used in experimental work. A 20% protein grain ration, good hay and silage—good, safe, sane feeds almost any farmer can obtain—worked wonders with practically every individual.

Since reaching their present home, practically every pound of their grain ration has been weighed and fed according to the production of each individual cow. Numerous timing experiments, under practical conditions while the cows have been at their present home, showed it required only 11 seconds more per cow for each of the two feedings to weigh out the exact feed than it took where the feed was not weighed. To weigh and record the milk from each cow was found to take only 20 seconds more per milking than was required to merely dump the milk over the cooler, or 40 seconds for the two milkings. In all, no more than 62 seconds, or about a minute, were required to have a complete record of each cow's feed consumption and rather drives home facts that a dairymen have known for ages bu which need statistics and proof in th shape of actual performance to bac them up.

In commenting on the cows tha won four out of the first six place Prof. H. H. Kildee, Iowa State Co lege, who judged the grades said, i substance: "The Larro Researc Farm cows are good grade anima but they won on their condition rathe than on their conformation, and de feated cows equally as good, if no better in type, because of their mo yellow hides, pliable, silky udders an general all around prime milky cond tion."

milk production. And the minute day made the milking pay—for a cer tainty!

The development of the champio grade cow is particularly interestin because it shows what can be don with an average good grade, fed in telligently and managed according t the sound advice given in the column of the best farm papers and scores o books. When the cow, Larrobelle later to be made champion Holstei grade at the National, arrived at th farm, she was in poor condition an tipped the beam at 985 pounds. I four years she produced 47,572. pounds milk, an average of 11,893 lb per year. At the show she weighed few pounds less than 1,200 lbs. He best lactation period was 17,82 pounds in 360 days. Last year she pro duced 13,032 pounds milk, 481 pound butterfat in the Wayne Co. C. T. A The four winners averaged 11,18 pounds milk, 386 pounds fat in the C T. A. year recently ended. So muc for statistics—every National Dair Show teaches scores of lessons, o



Left to right: W. E. Skinner, manager, and Chas. Hill, secretary, National Dairy Exposition; Larrobelle, champion grade Holstein cow, with James E. Larrowe, her owner, and Professor H. H. Kildee, judge.

The Draft of Wagons

The agricultural engineering section of the Missouri Station conducted tests to determine the influence of various surfaces, including field and road, on the power required to pull wagons over these surfaces. Likewise the diameter of wheel and width of tire were checked up for their influence on power requirements.

Averaging all tests with various kinds of equipment, as to height of wheels and width of tires, the draft on the different roadways reckoned in pounds per ton load on level ground was found to be as follows:

Cornstalk field 445.5; bluegrass sod 185.5; clay road (muddy) 232.6; clay road (spongy) 199.4; clay road (dry and firm) 78.7; gravel road (dry, well packed) 62.1; cinder road (dry, well packed) 109.3; macadam (dry, packed) 64.3; burned clay ballast 113.1; concrete (good condition) 50.3; brick (new) 49; brick (worn) 57.8.

From the tests in cultivated lan it was found that a saving of 46½ lbs. in draft per ton load was accomplished by increasing the height of wheels from 38 inches to 42 inches while an average reduction of 118½ lbs. draft was obtained by using inch tires in place of 1½ inch tires.

On hard surface roads neither th height of wheel nor the width of tir had any marked effect on the draf showing 4½ lbs. advantage for 4 inch wheels and 7.8 lbs. advantag for 4 inch tires.

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A Loud Speaker

Customer: "What is that noise?"
: "It's the boss talking to
dn't talk as loudly as
's deaf."—Good

Farm Relief in Congress

THE following is a brief summary of the bill introduced by Senator McNary, a practically identical bill being introduced in the House by Mr. Haugen:

A—The Federal Farm Board shall consist of the Secretary of Agriculture and one member from each of the twelve Federal Land Bank districts. Appointed by the President (with the approval of the Senate) from lists of eligibles submitted by a nominating committee for each district.

B—The nominating committee is to consist of five members, one selected by the Secretary of Agriculture and four at a meeting of representatives of all farm organizations in the district. These members hold office for two years, receive $20 per diem, and their sole duty is to submit the names of three men from the district to the President from which he is to select one for the Board.

C—Members of the Board are to serve six years, will receive $10,000 a year, and are not to actively engage in any business. They are to have power to carry into effect the provisions of this bill, to engage necessary help, and to have general management of its affairs.

Basic Agricultural Commodities

A—These are defined to be wheat, corn, cotton, rice, and hogs; also food products of these, except cotton.

B—An advisory council of seven members for each basic commodity is to be selected by the Board, to be chosen from lists submitted by co-operative and farm organizations representative of the commodity. Members serve one year, to advise with the Board concerning marketing, and to receive $20 per diem and expenses.

Control of Surplus

A—When the Board finds a surplus of a basic commodity above domestic needs or above requirements for orderly marketing, subject to approval of the Advisory Council and a substantial number of co-operative associations, then it shall publish its findings and give date when it will commence to operate in this commodity.

B—Decision to commence or cease operation in a commodity to be decided by a majority vote of the Board, but it shall not do so unless all members of the Board representing the Federal Land Bank districts which produced 50 per cent of such commodity during the preceding year vote in favor thereof.

C—Board to buy and sell through co-operatives handling the commodity or through persons processing the commodity. Losses, costs, and charges arising from purchase, sale, or storage to be paid from the Stabilization Fund, and profits to be paid into this fund. Board may also advance money from this fund to co-operatives for financing purchases, sales, and storage.

Equalization Fee

A—Prior to starting operations in a basic commodity the Board is to estimate the probable advances, losses, etc., and to publish these on the basis of the amount for each unit of the commodity. This is to be known as the Equalization Fee. The Board is also to specify the period for which this fee shall remain in effect and how it is to be collected.

B—The Equalization Fee is to be paid on transporting, processing, or sale of the commodity, as the Board may determine. Any person engaged in transporting, processing, or sale may be required:

1. To file a return of all business done.
2. To collect the Equalization Fee.
3. In the case of cotton to issue a serial receipt to seller which shall be evidence of his right to participate in the surplus, if any, of the equalization fund for this commodity.
4. Failure to collect or account for Equalization Fee subjects the person to the amount due plus a penalty of one-half this amount.

Stabilization Fund

A—A Stabilization Fund shall be established for each basic commodity. This is to be composed of advances from the Revolving Fund supplied by the government, as also of the Equalization Fees collected and the profits, if any, on the commodity.

B—Disbursements from each stabilization fund shall be made for such charges for general operation costs of the entire system as the Board may determine, for all operations relating to such basic commodity, and for repayments to the Revolving Fund appropriated by Congress. When the receipts from equalization fees on cotton are in excess of the cost of operation, the Board may retire the serial receipts given sellers, such payments to be made in the same ratio as the profits are to the total crop handled.

Revolving Fund

Congress appropriates $250,000,000 as a Revolving Fund to be administered by the Board in establishing a Stabilization Fund for each commodity. For expenses of administration price to July 1, 1928, there is $500,000 appropriated directly for use of the Board.

The Board is authorized to make loans to co-operatives (whether handling basic commodities or not) to assist them in handling the surplus of any agricultural product, and to assist them in the purchase of storage or processing plants, such loans to bear 4 per cent interest and not to aggregate more than $25,000,000.

Senator McNary Discusses His Bill

In explaining his bill on farm relief, Senator McNary stated that it is a new bill but retains many of the essentials of the measure introduced at the last session of Congress. A separate stabilization fund is provided for each of the five basic commodities, cotton, wheat, corn, rice, and hogs. In the old bill the equalization fee was imposed on all products named in the bill and in the new draft the fee is imposed upon each marketable unit of such commodities. This carries out the idea that we are dealing with the commodity rather than individual farmers. The fee will be collected at the most convenient point along the route of the commodity to market. The Board is given authority to collect it on transportation, or upon the first sale, or at the processing or milling point.

The Federal Farm Board will not buy or sell anything on its own account. It merely has authority to use the appropriation in purchases in anticipation of the collection of equalization fees which will repay to the government all loans that it has made.

All reference to price levels and price standards are omitted from the present bill.

The Haugen Bill

A companion measure to the McNary Bill was later introduced in the House by Representative Haugen, Chairman of the Agricultural Committee in the House. On Decem-

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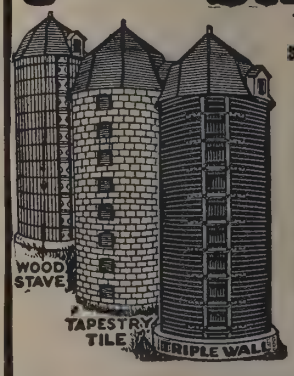
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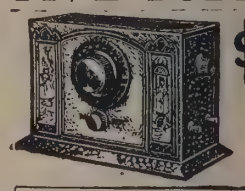
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ber 21 Mr. Haugen said his bill had the approval of the various farm groups and that it and various other farm relief measures will be considered by the House Committee on January 6. He expects only short hearings on his bill as the subject has been fully discussed at previous times.

The Haugen Bill is identical with the Senator McNary's Bill except in two particulars which are not important as applied to the general scope and operation of the plan for the control of surplus. In explanation of his bill, Mr. Haugen says, in part:

"This measure does not separate responsibility from control in disposing of surpluses and in developing cooperative marketing. * * * The Bill provides for 100 per cent farmer control. The Federal Farm Board will be truly reflective of the farmers' thought; not only in its first creation but throughout the years to come. * * * This bill boils down to the essence of the entire proposition and provides the necessary working machinery to enable the farmers themselves in their organization, without subsidy, to dispose of their own crops when produced in surplus amounts."

The Cotton Bill

A new farm relief measure along the lines of the McNary Bill in the Senate, has recently been introduced in the House by Representative Fulmer of South Carolina. It differs from the McNary Bill in the fact that $100,000,000 is appropriated to be held in reserve for advances in the stabilization of cotton. It provides for an equalization fee of not more than $2.00 a bale on cotton to be collected from all producers of cotton, but this equalization fee will not be collected until two years after the passage of the bill.

In introducing his bill which is known as the McNary—Purnell—Fulmer Bill, Mr. Fulmer states that he believes it will bring about a more orderly marketing of the major farm commodities and thereby a fair and stabilized price. He states that as a Democrat he believed in tariff revision, yet he felt that this could not be accomplished at this time and that his bill would give to farmers something of the same protection that industry now receives. He said: "The passage of this bill is the one way to force tariff reduction by having a farmer-minded board that will look into tariff and freight rates that will give to the people and to Congress the facts as they are toward agriculture."

In discussing the operation of his plan, Mr. Fulmer said, in part: "When we have a surplus like this year, we would buy, in competition to the trade, whatever number of bales that it would take to bring about a fair price, a healthy demand, and orderly marketing. Under this machinery we would or could cut out speculation by taking off or feeding into the market in such manner so as to maintain a fair and stabilized price, knowing that to allow the price to be bid too high would do as much damage in the way of increasing production and the retarding of consumption as it would to allow the surplus cotton to be forced on the market, as it is now, which causes the price to average below the cost of production.

"Our bill will permit co-operative associations or other agencies in contract with the Federal Farm Board to go on the open market and buy at full market price, giving the seller a receipt thereof so that he may participate in any profits made under the operation, and take any and all cotton off the market until a fair price and orderly marketing is established.

"The bill carries $250,000,000. Of this, $100,000,000 is for the handling of cotton and $150,000,000 for the other commodities."

Comments by Opponents

In discussing Mr. Fulmer's bill, Representative Haugen of Iowa asserted that it was his understanding that the cotton people were joining with the others in the demand for farm relief. The committee is against any single subsidy feature and proposed to treat all branches of agriculture alike.

Representative Aswell of Louisiana expressed himself as unalterably opposed to the bill. He said it would "enslave agriculture and reduce it to peasantry." He argues that the measure is unconstitutional and would destroy the cotton co-operatives, because the Federal Board would take over their functions and thus discourage membership. He further said, "If it should become operative, it would destroy any member of Congress who supported it, because of the feeling that would be aroused when the federal tax gatherer appeared in the cotton sections to demand his pound of flesh."



"All-through Dad-it only takes half the time and half the work now!"

Mail the Coupon below to us today! Let us show you how you too can reduce the drudgery of your barn work—take the burden and ache off your shoulders and arms—banish the backstrain—save hours of time every day in the year—*and make an increased cash profit in more milk from your cows.* Thousands of farmers are doing this—why not you?

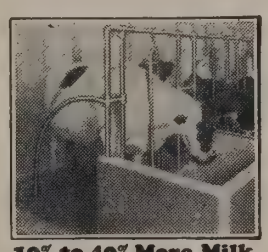
It costs you nothing to get the facts. Does not place you under any obligation whatever. Isn't it worth the minute it takes to fill out the coupon—to learn for yourself what Louden Barn Equipment is doing for other farmers? Just check the information you want. The coupon will bring it to you—conditions and results that will show you how easily and reasonably you can solve *your* problems—whatever the size of your herd, barn or farm.

We will send you the evidence. Louden up-to-the-minute improvements quickly pay for themselves in greater milk production from your herd, in protecting the health of your cows, in fewer veterinary bills. These improvements *keep on* adding a profit year after year for a lifetime. These facts are from the records of Louden Equipment owners—farmers like yourself. Read them over. Judge for yourself.



WM. LOUDEN

Pioneer inventor of labor-saving barn equipment. Invented first hay carrier in 1867. Holds first U.S. patent on Manure Carrier. Displayed first all-steel cow stall and stanchion. Over 200 other labor-saving patents. Still on the job daily.



10% to 40% More Milk

Louden Water Bowls pay for themselves and show a profit before the first winter is over. Lengthen lactation period. Save time and the falling off in production that results from turning cows out to water in zero weather. Prevent spread of disease from cow to cow through water. Send for booklet and prices.



One Trip—Five Wheelbarrow Loads

Louden Manure Carrier with easy hoist and big, heavily built tub takes drudgery out of barn cleaning. Takes five wheelbarrow loads in one trip—so easy a 12-year old boy can use it. Biggest time and labor saver you can put in your barn. Easily installed in old or new barns. Write for folder.

LOUDEN

LABOR-SAVING BARN EQUIPMENT

is admittedly one of the greatest factors in labor saving and dairy profits today. Your cows profit in health as you profit in money. Take the Louden Steel Stalls and Stanchions. Real pasture comfort in the barn. Cows quickly stanchioned and released. All the modern advantages over old, discouraging, unsanitary, wooden stalls. Louden Water Bowls bring up milk production right away. End the job of turning the cows out to water. Louden Manure Carrier with worm gear hoist, durable track, heavy spot-welded tub, takes out five wheelbarrow loads at a trip. An easy push.

Here's What Users Say:

"I have a boy 11 years old and he cleans the barn while I milk 12 cows."—John Rissler, Durand, Wis.

"I am using my litter carrier the fourth winter. A time saver. Labor cut three-fourths."—A. E. Dietzman, Rib Lake, Wis.

"The water bowls certainly beat driving cows out in cold, snowy weather. I wouldn't be without them for twice what they cost."—E. B. Irvin, White Hall, Md.

"We feel that our barn work has easily been cut in two by Louden equipment."—Fred Peterson, Irma, Wis.

"With Louden Equipment I know from personal experience the care of a herd is made profitable and a pleasure instead of drudgery."—P. Winkelman, Granville, N. D.

"Louden Stanchions are just right—simple, durable. We have two barns Louden equipped."—H. G. Willy, Holman, Wis.

Coupon Brings You Full Information Covering—

Steel Stalls and Stanchions, Manure Carriers, Feed Carriers and Trucks, Water Bowls, Steel Pens, Manger Divisions, Bull Staff, Cupolas, Ventilating Systems, Hog House Equipment, Hay Unloading Tools, Power Hoists, Barn and Garage Door Hangers—in fact "Everything for the Barn." Use the coupon.

We will gladly explain, if desired, how this better equipment can be paid for out of income instead of capital.



Get This Help in Barn Planning

Our Barn Plan Department will gladly help you plan in building or remodeling a barn. Help you get the best arranged, most convenient barn for the money you spend. A barn that will save thousands of needless steps every year; one that saves lumber waste, with the best type of roof for your needs and with large, roomy mow capacity.

Over 15,000 barns have been built from the plans freely given by Louden Barn Experts. Just tell us the number and kind of stock you have to house and when you intend to begin building. We will send free of obligation blue-print plan suggestions to fit your needs. Write today.

THE LOUDEN MACHINERY COMPANY

1210 Court Street *(Established 1867)* Fairfield, Iowa

Albany Boston New York Philadelphia Pittsburgh Toledo Chicago St. Paul Los Angeles

Canadian Factory: Guelph, Ontario, Canada

MAIL THIS COUPON TODAY!

LOUDEN, 1210 Court St., Fairfield, Ia.

Send me postpaid without obligation full information on:

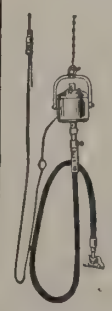
☐ Stalls and Stanchions ☐ Manure Carriers
☐ Ventilating System ☐ Water Bowls
☐ ..... (What other equipment?)

Name.....

Town.....

R.F.D...... *State*.....

I have.... *cows*..... *horses and expect to make barn improvements. When?*.....



CLIP YOUR COWS IT MEANS MORE--

Cleaner and Better Milk.

CLIPPED COWS during stable months will keep them clean and comfortable and keep dirt out of the milk pail.

CLIPPING improves the health of CATTLE, HORSES, MULES, etc. Use a GILLETTE PORTABLE ELECTRIC CLIPPING MACHINE. Also furnish GROOMING ATTACH cleaning. Operate circuit furnished Light & Pow make of E Price

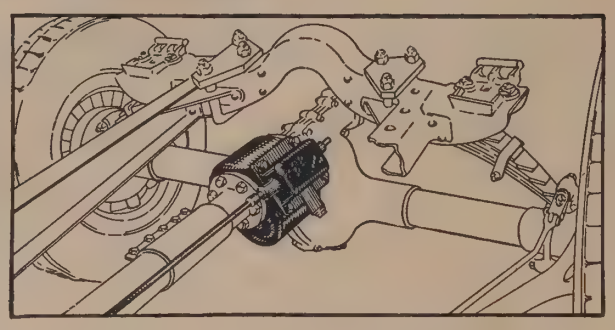
GILLETTE CL
129 West 31st St.



BOOSTS HIS EARNINGS $25 A WEEK WITH THE FULLER

AUXILIARY TRANSMISSION

FOR FORD TRUCKS



"I averaged $1.00 to $1.25 a load and with my FULLER Auxiliary Transmission I can haul at least four more loads of gravel a day than can drivers whose trucks are not equipped with FULLERS," says Steve Collins, 1632 Lincoln Avenue, Kalamazoo, Michigan.

"The FULLER helps me boost my earnings $20 to $25 a week. I can take bigger loads than any other Ford Truck in the pit, and outpull and outrun them all."

Mr. Collins' truck has a high speed worm gear, and he makes 25 to 30 miles an hour on the level loaded with two tons of sand. With the FULLER he breezes up ordinary hills in intermediate, while others labor along in low. His FULLER increases his truck's pulling ability 80%. In the gravel pit he pulls through sand hub-deep without stalling

The FULLER has just as much money-making value in farm work, as in the construction field. Its flexibility and increased pulling ability will help you carry more loads and do more work every day. Yet it is so simply made that it costs only $60.00, plus cost of installation.

Ask your Ford Dealer about the FULLER Auxiliary Transmission

PRICE $60.00 F. O. B. FACTORY

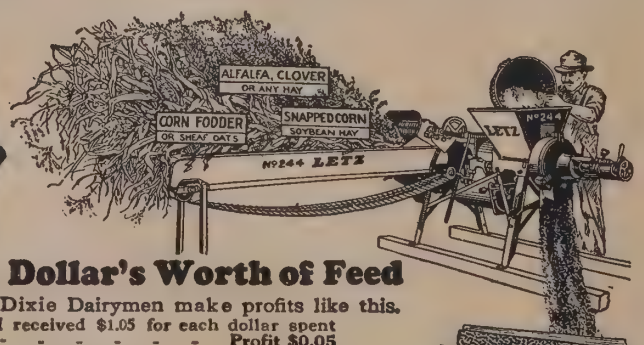
$5.00 Additional West of the Rockies

FULLER & SONS MFG., CO.

KALAMAZOO MICHIGAN

TRANSMISSION BUILDERS FOR 24 YEARS





From Every Dollar's Worth of Feed

Thousands of Letz-Dixie Dairymen make profits like this.

"In November I received $1.05 for each dollar spent for feed - - - - - - Profit $0.05
Then I bought my Letz-Dixie Mill.
In December I received $1.96 - - - Profit $0.96
In January I received $2.23 - - - Profit $1.23
In February I received $2.53 - - - Profit $1.53
H. Schwalbach, Eland, Wisconsin

Whether you feed cows or steers you too can multiply your profits. The Letz-Dixie Mixed Feed Maker turns home-grown crops into home-milled feeds. This increases milk and beef production, improves health and cuts feeding costs. Get your copy of "The Feeder's Own Book of Facts." Letz-Dixie dairymen and stockmen wrote it. Write today.

Letz Mfg. Company, 122 East Road, Crown Point, Ind.



LETZ-DIXIE MIXED FEED MAKER

1 Will increase animal production 15% to 30%.
2 Will require only 50% to 75% as much feed crops.
3 Will save 25% of your present labor cost
4 Will release 25% to 50% more acreage for cash crops.
5 Will greatly improve the health and prolong the productive life of every cow in your herd.





DAIRYMEN—BREEDERS

Pierce-Easy Bull Ring
A quality product for stockmen who want a "better than ordinary" ring. Standard sizes in copper, bronze and nickel silver.

Kant-Suk Calf Weaner
Made with hinge joint—swings out of way when calf eats or drinks. Calf size 45¢; Yearling 55¢; Cow 65¢, post paid.

Buy from your dealer. Write for leaflets.

Reg. U. S. Pat. Office



WAGNER SPECIALTY COMPANY — Burlington, Wis.

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative. destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Votes for the Jersey

HOARD'S DAIRYMAN:—In your last issue I noticed an article by A. G. Ingham in reply to "Butterfat" which certainly is a fine bit of sarcasm. The best way to settle such a question is by comparing records of different leaders of the two breeds. I am glad to offer a few official records of Jerseys and if he will supply the Guernsey records we will have a real ground for comparison.

Our first record is that of Sophie 19th of Hood Farm. At the age of nineteen years she has eleven records totaling 7,545 lbs. fat; highest year's record, 999.1 lbs. fat. Her son, Pogis 99th of Hood Farm, has sired 104 daughters who had official records up to November, 1925. These daughters at an average age of three years, eleven months produced an average of 580.46 lbs. fat. Fauvic's Prince had 33 daughters with official records. These daughters at an average age of two years, eleven months averaged 587.26 lbs. fat. We have included the record of every tested daughter of these two bulls, not the high ones only.

Vive La France in her six first lactations produced 5,332 lbs. fat and seven living calves. For two consecutive years her fat production exceeded her live weight. Her highest year's record is 1039.29 lbs. fat. The year before she produced 1031.64 lbs. fat.

Darling's Jolly Lassie, as a junior four-year-old, produced 1141.28 lbs. fat in one year.

Namrow, at sixteen years of age, started test and produced 16,008 lbs. milk, 774.9 lbs. fat.

Financial King's Interest at 24 years of age, had had 20 daughters and one son.

Of course, Guernseys have exceeded some of these records, but not all by any means; in fact, we believe only a small part of them.

The grand average of all Guernseys is good, but no better than that of Jerseys. This being true, and since Jerseys mature younger, produce and reproduce profitably just as long or longer, and since the original investment is less, we see no reason for doubting that Jerseys are more profitable.

So far as health is concerned I shall quote the U. S. Dept. of Agriculture on tuberculosis, one of the worst diseases: "Holsteins tested, 381,998; reactors, 29,971; per cent, 7.85. Ayrshires tested, 15,972; reactors, 663; per cent, 4.15. Guernseys tested, 82,824; reactors, 3,444; per cent, 4.16. Jerseys tested, 33,889; reactors, 7,438; per cent, 2.37. All other breeds tested, 407,774; reactors, 14,858; per cent, 3.64.—Report of 1922 or 1923, copied by "The Ohio Jersey," 1923.

The reason Jerseys sell more reasonable than Guernseys is because they are much more numerous and evenly distributed. The main reason for seeing few Jersey ads in the Dairyman is that every leading breeder and a very large part of all Jersey fans take the breed paper, "The Jersey Bulletin." I counted the ads in an old number (Nov. 11, 1925) and found 104 offering Jerseys for sale—not so bad.

This is getting too long to add a few records of comparison on profitable production so will refer you to "Types and Breeds" by Plumb. If we can get comparative tests by disinterested persons we shall go far toward solving this problem but until then the two breeds seem to be the leaders in net profit produced and we vote the Jersey first by a good margin.

Michigan. W. E. MAIN.

Favors Colorado

HOARD'S DAIRYMAN:—Would just like to say a few words in the way of friendly advice to the readers of the Dairyman who are thinking of moving, and especially those going to the extreme South.

There are many things to take into consideration when one from the North thinks of going South. I know from observation and personal experience. I was reared in the South Coast country and came to Moffat County, Colorado, in December, 1917, and lived here ever since except one winter when we went back for a visit and vacation. All went well till about the first of March when the sun began to get very warm and we were glad to head back to cool Colorado.

Now it seems that every one is trying to get everybody he can to come to his part. That's fine if they will stay, but I am afraid too many times people are not well enough acquainted with all conditions before moving to a new place, and especially when making long moves. I am sure Mr. Leach and Mr. Ramsden are both doing fine and, no doubt, the change in climate did not affect them for the worse; but, on the other hand, I could enumerate several cases where families have suffered the loss of some of their dear ones from making so great a change.

Now, good people, I am no real estate salesman—just simply a farmer and am not offering you anything for sale. But as some of the other writers have told you the good things about their counties (which I am sure are true) I just want to call your attention to Moffat County, Colorado, and all Northwestern Colorado. We have an empire of undeveloped and slightly developed land of the prairie, rolling and mountain lands, either irrigated or, what we call, dry farms, where you men from the northern and central states would think you had gone South when you compared this climate with that.

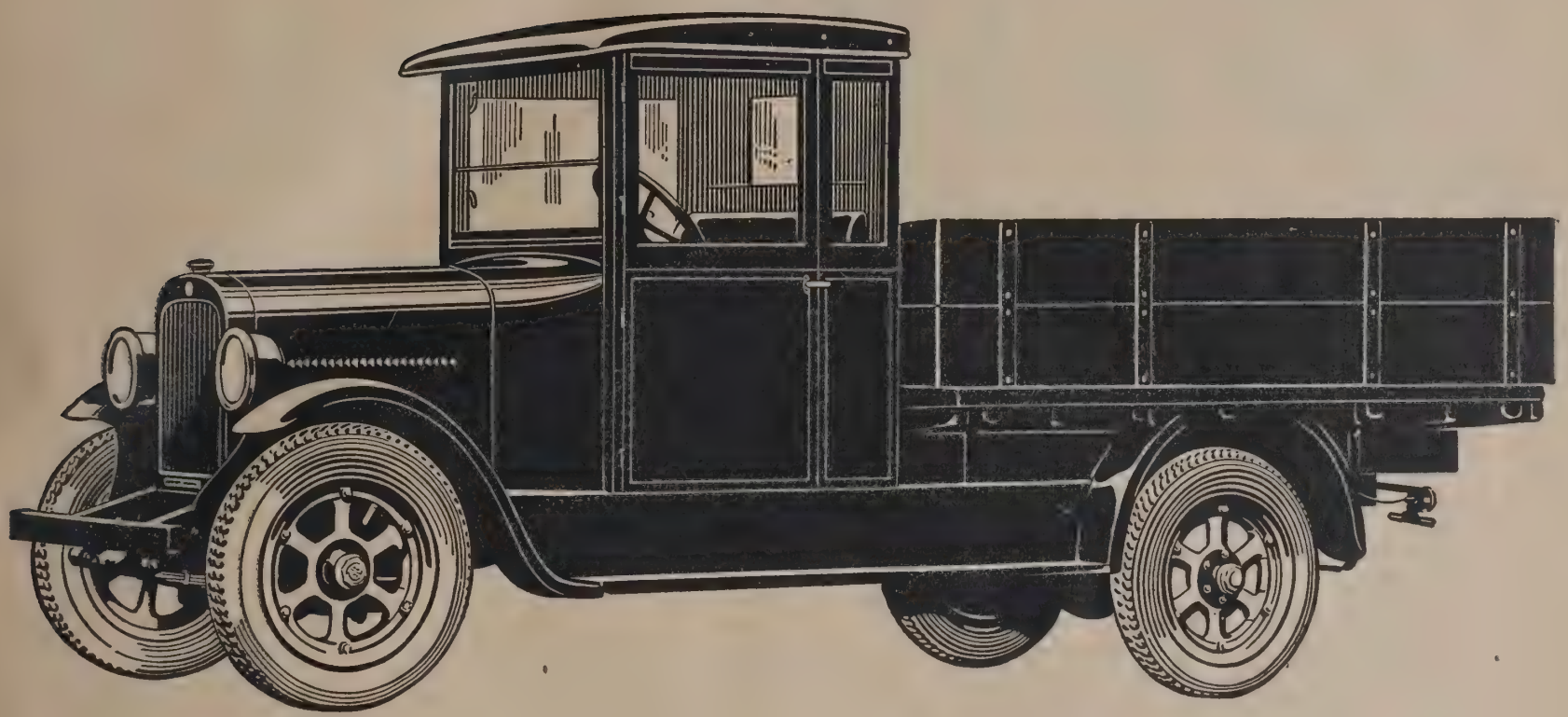
We don't grow grapefruits or bananas, but we can grow the finest of small grain, potatoes, head lettuce, cabbage, and almost all kinds of vegetables of finest quality. Corn has produced as much as 50 bushels per acre in the lower lands. My oats this year went 40 bushels and winter wheat 20 bushels per acre. I have grown as much as 10 tons of marketable potatoes per acre. This is a fine country to grow high class field seeds.

If any of you are interested in this section, I would be glad to assist you as much as I can, as we need more good farmers, more good cows, horses, and sheep; in short, everything to develop this big new country. I might say that good land can be bought for from $10 to $50 per acre according to improvements and distance from town.

Give us more good neighbors and farm papers like Hoard's Dairyman and we will show the world a thing or two. So here's three cheers for the Dairyman. Good luck and a Merry Christmas to it and all its many readers.

Colorado, WILL H. ROGERS.

GRAHAM BROTHERS TRUCKS



Complete—Ready to Work

When your work requires a truck—or additional trucks—the need is immediate.

You can get the Graham Brothers Truck you want—without long delay. They are built in the right sizes and with the correct body styles to fit your needs.

And your dealings throughout the long life of the truck are with one concern—the Dodge Brothers dealer. He will be right there year after year to sell and to serve.

Only great mass production enables Graham Brothers to build for you such sturdy, dependable trucks at such low prices.

GRAHAM BROTHERS
Evansville—DETROIT—Stockton
A DIVISION OF DODGE BROTHERS, INC
GRAHAM BROTHERS (CANADA) LIMITED—TORONTO, ONTARIO

Graham Brothers Trucks and Commercial Cars meet 91% of all hauling requirements.

¾-TON COMMERCIAL CHASSIS	$ 670
1-TON CHASSIS (G-BOY)	885
1½-TON CHASSIS	1245
2-TON CHASSIS	1445*

*Disc Wheels With Dual Rear, Optional.
Prices f. o. b. Detroit

SOLD BY
DODGE BROTHERS
DEALERS EVERYWHERE

What do *you* think of the farm future?



"Am familiar with other farming localities," writes Ed McDonnell, of Lewistown, Montana, "and know of no place where, with the same investment, you can get the returns you can here, if a practical farmer."

Mr. McDonnell came to Montana with only $200 in capital. Today he owns and operates a fine diversified farm in the heart of Judith Basin, near Lewistown, Montana. His average crop of wheat is 25 bushels to the acre; oats, 65 bushels; barley, 40 bushels; alfalfa hay, 3 tons; white potatoes, 150 bushels.

His stock and poultry production is equally successful. Hogs have never suffered from disease; his small flock of sheep increased 136% in 1925. He keeps an average of 200 head of cattle; raises chickens, turkeys; milks 7 cows.

"I consider Montana's climate better than that of Iowa, Wisconsin or Minnesota," says Mr. McDonnell. "The opportunities here are excellent for practical farmers and stockmen."

TO PUGET SOUND
THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY
ELECTRIFIED

Are your children satisfied to remain on the old farm when there are so many opportunities in a growing country with its development ahead of it?

Why don't you come to Montana or western North or South Dakota, a country that offers marvelous opportunities to the active farmer? The "land-boomers" have passed, but they left wonderful farmland behind them. In 1924 the farmers who held on harvested 50,000,000 bushels of wheat, liquidating the debts incurred during the depression. The 1925 crop netted even a greater return. Dairying, cattle and hog raising, all forms of diversified farming, are working miracles on the broad plains and green valleys of the Upper Missouri River basin.

You will be astonished at Montana and western North and South Dakota. The climate ...htful and healthful. Min... water-power have ...wealth to many ...untry. Young ...splendidly equipped with hospitals, schools, churches, stores and theatres, are centers for inspiring community activities. Neighbors are friendly. Great trunk railways keep you in close touch with markets. Roads are good. Fine land can now be purchased at reasonable prices on easy terms.

This is the land to grow in! A farm here means a free open life that your family will love on land that will show you a profit each year. Your children may add their farms to yours; and as the country grows the value of your fields will grow with it. *Those who buy and settle in this country today will be the well-to-do leaders of tomorrow!*

Harry F. Hunter, 24-B
Agricultural Agent, C. M. & St. Paul Ry.
Room 796, Union Station, Chicago

I am interested in your ad about Montana and the Dakotas. I would like information on the subjects checked below:

☐ Dairying ☐ Corn
☐ Cattle Raising ☐ Flax
☐ Sheep Raising ☐ Rye
☐ Hog Raising ☐ Barley
☐ Wheat ☐ Living and Climatic Conditions

Name_____
P. O. Address_____
County_____ State_____

News from Washington, D. C.

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, Dec. 27—The oleomargarine bill introduced in the House by Congressman Tincher of Kansas is regarded as a dangerous piece of legislation by all who have seen it except the advocates of more oleomargarine. There are no indications that it will receive any official consideration at this time, as before getting consideration it will be the subject of hearings before the House Agricultural Committee, and this committee will be very busy for some time after January 1st with hearings on the general agricultural bills. The bill is regarded generally as a clever effort of the oleomargarine interests to get more favorable legislation through an apparently harmless looking bill introduced by a congressman who has a good record as a friend of agricultural legislation. Congressman Tincher has represented a big wheat growing district in Kansas. He retires from Congress with this term.

The Agricultural Appropriation Bill passed the House of Representatives on Dec. 22, two days before the House recessed for the holidays. An analysis of the bill shows that the Bureau of Dairy Industry has not been treated very well, all of the increase for this work having been cut out by the House Committee.

A farm relief legislation is now in position to have early and a large amount of consideration the coming two months. Senator McNary has introduced the bill in the Senate which will have the most of the attention, with Congressman Gilbert N. Haugen introducing the same bill in the House. Each one is the chairman of the committee which will have the task of considering the bill and holding hearings, and this assures that this particular bill will have the right of way.

The bill is very similar to the one proposed last year. The equalization fee plan for providing the money required is the same as a year ago, except that it is especially provided that this fee is to be collected from a "marketed unit" of the commodity, so this will relieve all payments from farmer producers. As to wheat, for instance, the fee will be collected at the elevator or the mill.

The operation of the bill is limited to five commodities: cotton, corn, wheat, rice, and hogs.

The bill if enacted will provide for a board to be named by the President from names submitted by farmers' organizations, which board is to operate as needed to keep surplus crops from reaching the domestic markets to depress prices. This is the purpose of the bill and the money to do this is provided first as a loan fund of $250,000,000 from the treasury such as is used up to be repaid from the equalization fee as indicated.

There is more general agreement among the agricultural leaders than has been found in previous years. The only difference seems to be from a few representatives of cotton producing districts who assert that the cotton interests are in so serious a plight now that they can not pay the equalization fee, and hence they ask to have this fee as to cotton deferred for two years.

All mention of dairy products is omitted from the bill as it now stands.

The Lenroot—Taber bill, after a two-day hearing in the Senate Committee on Agriculture, reached a point where the opponents asked for an opportunity to submit amendments which, if accepted, would result in the withdrawal of their opposition. In a conference then held an amendment was decided on which in substance excepts a twenty-mile strip in Canada from the operation of the bill provided that the milk or cream produced in this twenty miles of the station where it is sent is sent to such station and there either pasteurized for sale as fluid milk or cream, or used in making condensed or evaporated milk or cream. Adopting this amendment leaves the full provisions as to barn score, bacteria count, cooling, and sanitary requirements effective as to any milk from outside this 20-mile zone which is to be shipped into this country. Senator Lenroot and Congressman Taber agreed to this change, and the Senate Committee promptly approved and reported the bill. It now goes to the Senate calendar and will be passed at an early date unless no unforseen further opposition arises. This change will make it necessary to send the bill to conference as the bill without this amendment passed the House.

Notices have been sent out of the American Dairy Federation office here this week stating that President Bailey has called a meeting of the Executive Committee and of the "Coordinating Committee" which he named at the annual meeting, the joint session to be held at the Sherman Hotel, Chicago, January 10th.

Breeding and Improvement of Farm Animals

Students of animal breeding, whether in the class room or on the farm, will find some interesting and helpful reading in a new book, "Breeding and Improvement of Farm Animals," by Victor A. Rice of the Massachusetts Agricultural College.

The real objective of the author is that of effecting a more intelligent use of the proven facts in this fascinating field of human endeavor.

The practice of animal breeding is many centuries old but a scientific understanding of the behavior of germ plasm through which an individual inherits the factors that control its form and function is comparatively young.

The author seeks to make plain the possibilities and limitations in animal breeding. To do this he has of necessity included a discussion of the more important findings of scientific investigation particularly as related to the "how" and "why" of inheritance. These chapters will not be easy reading for those who have not had preliminary training in cytology, embryology, and genetics.

The major portion of the book, however, is devoted to the practice of animal breeding. Subjects of particular interest to dairymen are: Grading and Crossing, Inbreeding, Selection, Breed Analysis, and Sterility. The chapter on Breed Analysis is especially good in that it is devoted almost entirely to data on the dairy breeds of cattle.

Copies of this book may be secured through Hoard's Dairyman Book Department on receipt of the regular price, $3.50.

Caring for Cream in Cold Weather

HOARD'S DAIRYMAN:—During the winter months it is no longer a problem to keep cream cool and sweet in order to obtain a better price. It is a problem, however, to keep the cream from freezing.

When cream freezes, the solidification starts from the outside and moves gradually inward. The water in the cream is the first to freeze and the solids are driven toward the center. When the creamery or cream station operator samples this cream, he doesn't have the time to melt it and bring the frozen material back into solution, but instead the cream is stirred and the frozen part is broken into small particles. The icy particles that go into the sample jar will nearly always result in a lower test.

In case the cream producers belong to a co-operative creamery, they owe it to themselves and to their organization to deliver cream that can be handled in the shortest time and can be made in a better finished product. This cannot be done by delivering frozen cream. It requires more time for the creamery operator to stir frozen cream and often cans have to be heated before they can be emptied. Freezing also affects the properties of the butterfat so that the body of the butter is mealy which lowers its market value.

The Dairy Department of Iowa State College recommends the use of a simple device which can be made at a fairly low cost and will not only serve as a means of keeping cream from freezing, but it can be used during the remainder of the year to keep cream sweet.

A good oak barrel is sawed off one-third of the way down. A large box is constructed to set the barrel into, allowing at least eight inches between any side of the barrel and the box. The box is filled with dry sawdust, which is to be kept dry at all times. If this device is not placed in a building, it must be covered to keep out the rain because if the sawdust gets wet it will not act as a good insulator.

This device is placed between the well and the stock tank and all the water going from the pump is piped to the top of the barrel and down to the bottom. The outlet is at the top so that the oldest water in the barrel will be carried off.

This barrel will hold two five-gallon shotgun cans. The cream is placed in the water immediately after separation. This should be done invariably the year around, because it will cool much faster in the water and souring will be delayed much longer. The sawdust acts as an insulator, and the water in the barrel will freeze only slightly on the surface, and the cream will be kept from freezing in the coldest of weather.

Iowa. EUGENE KELLEY.

Foreign Legume Seed to be Colored Red, Green, and Violet

According to recent federal seed regulations, foreign legume seeds will be dyed different colors so they can be readily recognized. The following includes the chief provisions of the act:

Alfalfa seed and red clover seed of known foreign origin other than Canada, and not formally determined by the Secretary of Agriculture to be unadapted for general use in the United States, will be colored approximately 1% green.

Imported alfalfa seed and imported red clover seed of unknown origin, or formally determined by the Secretary of Agriculture to be unadapted to general use in the United States, will be colored about 10% red.

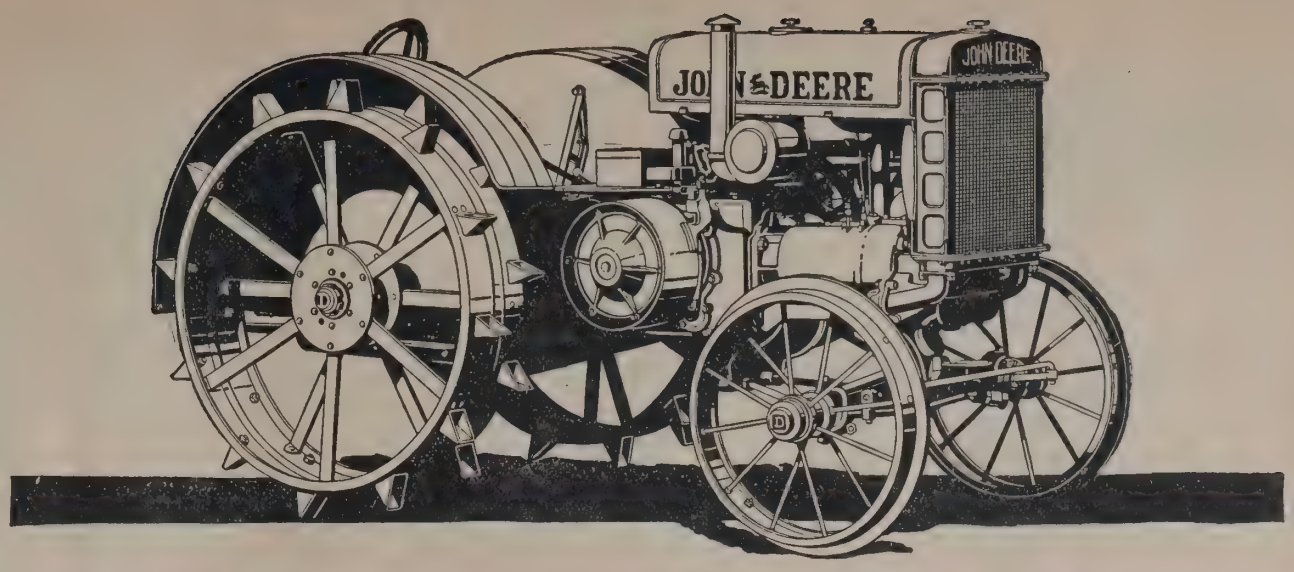
Alfalfa seed and red clover seed from Canada will be colored approximately 1% violet.

Carver County Holstein Breeders Meet

On December 10, the annual meeting of the newly organized Carver County Holstein Breeders' Association was held at Waconia and in spite of the big snow storm on the preceding day, thirty-five members were present.

The officers elected for the coming year are as follows: F. C. Oelfke, president; J. A. Anderson, vice-president; R. J. Kratzke, secretary and treasurer.

Many plans were made for a large number of projects for the coming year and a $25 silver loving cup was donated for the champion Holstein calf club calf to be shown at the county fair at Waconia.—Minnesota Holstein Breeders' Association.



Like the Horse that's an Easy Keeper

You know the horse that's referred to as an easy keeper—the one that keeps in better condition on less feed and does as much or more work than heavier horses—the horse you can always depend upon.

The John Deere 15-27 is the Easy Keeper in the Tractor Field

It produces more power with less weight.
It does more work with less fuel and oil.
It gives many more years of satisfactory service at much lower cost for upkeep.
It produces its great power to do your work as you want it done at costs unbelievably low.

Its great power, combined with light weight; its extreme simplicity; its complete enclosure of working parts; its automatic oiling system; its ease of operation, inspection and adjustments—these are but a few of its qualities that have made the John Deere a sensational success in the hands of its thousands of users.

The John Deere is making hundreds of new power farmers. It is replacing hundreds of outfits that are inefficient and costly to maintain. It is replacing hundreds of tractors that are lacking in power to meet present-day farm needs.

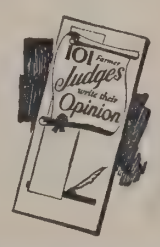
Know what the John Deere will do for you before you buy a tractor. See it at your John Deere dealer's. Ask him for a demonstration.

GET THIS FREE BOOKLET, WRITTEN BY JOHN DEERE TRACTOR OWNERS

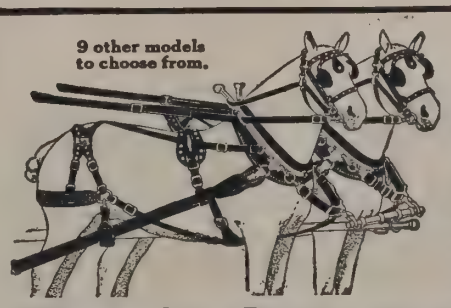
Reading this booklet is the next thing to actually talking to 101 users of the John Deere Tractor. It contains 101 letters of the many hundreds that have been received from its enthusiastic users. Many of these owners are farming under conditions similar to your own. Their experience is worth money to you.

You will also get a folder that illustrates the John Deere in its actual colors and that tells all about it.

Write to John Deere. Moline, Illinois, and ask for booklets SW-414.



·THE TRADE-MARK OF QUALITY JOHN DEERE MOLINE, ILL. MADE FAMOUS BY GOOD IMPLEMENTS·



NEW Old Tan Harness Models

New Low Prices!

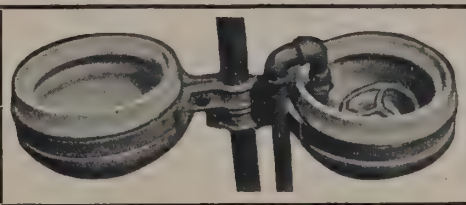
Write today for our catalog showing new models at new low prices. Olde Tan is the famous harness with the "Buckleless Buckle" and Metal-to-Metal wherever there is wear and strain—making it the strongest, longest-lived, most economical harness to be had!

Don't Pay for 4 Months

We will send you any model of Olde Tan Harness and you don't pay us one cent for four months! We also give 30 days' FREE TRIAL.

Write! Send for free book, together with our special "Don't Pay for 4 Months" offer. Don't wait until your old harness breaks down! Write.

BABSON BROS., 2843 West 19th Street, Dept. 28-51 CHICAGO



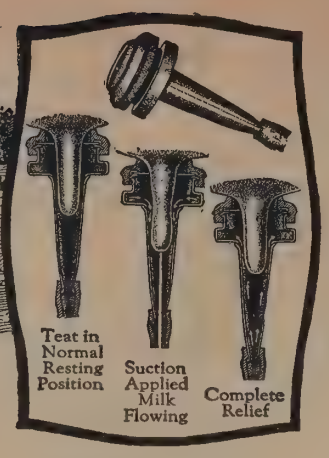
The Last Word in Modern Barn Equipment

Glazed Stoneware Salt and Mineral Feeders and Water Bowls. If you want healthy cows and high production then let the cows regulate salt and water themselves. We fit any make equipment. The large, heavy cups held by springy clamp have proven themselves unbreakable for livestock. Cheap and never wear out. Guaranteed. We sell direct. Sample feeder $2.00 prepaid, if steel post size. Literature free. Agents wanted.
IDEAL SALT FEEDER CO., Morr

Buy from Hoard's Dairyman advertisers. The



A scene sketched from a photograph taken on the farm of Jake Lahr, Eden Valley, Minn.

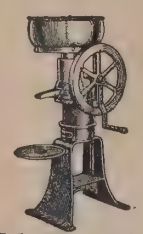


Dairymen Say It's the *Perfect* Teat Cup

It Milks the Cows Clean

"I have now used the Burrell Milker five years without missing a single milking. Under normal conditions, the Burrell leaves no hand stripping. And if there is a cow in the herd that has sore teats, she can be milked with the machine without trouble. It seems the Burrell Teat Cup is perfect."—*Jake Lahr, Eden Valley, Minn.*

THE strongest claims for the Burrell Milker are made by Burrell users. Thousands of them summarize their experience and express their praise of the Burrell Milker in the single sentence—"*It Milks the Cows Clean*". And one of the reasons why it milks the cows clean is the Burrell *Air-Cushion Teat Cup.*



It Skims the Milk Clean

For many years, the wonderful Link Blades of the Burrell-Simplex Cream Separator have made it famous as the *closest skimmer.* It has a greater capacity for the size of its bowl, for the speed at which it is operated, and for the power required to run it than any other separator. It is simple, light and easy-running. But, above all, *it skims the milk clean*—and that's what you want in a cream separator. Four sizes—350, 500, 750, 1000 lbs.—hand or power driven.

It Cushions Teats with Air



The vacuum suck pulls the air out of the air reservoir, at the top of the cup, over the square shoulder, creating an air cushion which supports the teat. Between sucks air returns to the air reservoir, thus giving complete relief. The Burrell Air-Cushion Teat Cup—made of pure nickel silver—has no dangerous rubber linings. It is simple, sanitary—and *comfortable.*

4 Exclusive Features

(1) The *Automatic Controller,* which regulates the suction to suit exactly each individual cow; (2) the *Air-Cushion Teat Cup,* which supports and compresses the teats by air alone; (3) the *Sanitary Moisture Trap,* which entirely prevents contamination of the milk from the pipe line; (4) the *Positive Relief Pulsator,* which gives complete rest between pulsations and assures natural circulation—these four exclusive features make the Burrell practically a *perfect* milking machine.



Send For Valuable Free Books



Here are two valuable, illustrated books that are free to dairymen. One pictures and describes the Burrell Milker and explains how "*It Milks the Cows Clean*". The other tells about the Burrell-Simplex Cream Separator—all about its simple, sanitary, rugged construction, and how "*It Skims the Milk Clean*". Every dairyman should have both of these interesting, practical, helpful books for handy reference.

(Fill out coupon below, clip here and mail today)

D. H. BURRELL & CO. INC., 10 Albany St., Little Falls, New York.
Without obligating me in any way, please send me the two *free* books described above.

My dealer's name is .....
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I milk ..... (number) cows. I do not use a milking machine. I sell cream whole milk
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MILKING MACHINES AND CREAM SEPARATORS



Save Money on Grinding

The lowest grinding cost per bushel is achieved by the greater capacity per horsepower of the

HOWELL *Roller Feed Mill*

Built like a flour mill. No buhrs, no stones to wear out. Trouble-proof—gives lifetime service. Grinds feed, graham or rye flour twice as fast as any other type of mill—at half the expense.

13 sizes—any capacity—a size for any engine. Write for catalog.

R. R. HOWELL & CO., 4 Malcolm St. N. E., Minneapolis, Minn.

ON YOUR COWS

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets.
Hoard's Dairyman, Fort Atkinson, Wisc.

Wayside Musings

The Old Passes, the New Appears

JOSEPH S. MORRIS, WISCONSIN

WE pay special attention to the passing of the old year and the appearance of the new year. It is necessary that we shall have some points in time at which we may take stock of our possessions, see wherein we have suffered loss, and wherein we have profited. In our checking up of material profits and losses it may be well to consider to just what degree we have, personally, entered into the matter.

Some people tell me that old year and new year mean nothing to them; that all life is merely a succession of days—some good, some bad, some just "so-so." Of course it is true that life is made neither better nor worse by a calendar unless the calendar happens to be one of those atrocities given away by merchants with no appreciation of the bad influence of the ugly upon the spirit of man.

There can be a very real value in viewing the passing year in reflective mood. If we must mark this year down as a year of reverses, of losses, of failures, then we shall have to be specially thoughtful. No man can enter upon a new period of time and hope to make the most of his opportunities if he enters that new period of time without hope and optimism.

Where are we at? What has life done to us? Has it killed our hope and sent us on our way mere plodders? Have we come to think that there isn't very much that we can do to make things better? Have we been disappointed so often that we are afraid to brighten up and take a new grip upon things for fear that we shall again be disappointed?

It is a difficult thing to ask people to "cheer up!" when they have been disillusioned and have small faith in anything. And yet, it is just that that we must ask them. When a man is disillusioned and hope is all gone, there is nothing that can save him except to reillusion him, to rekindle hope.

The life we must live is not a child's play. It is stern business. We are doomed to see hope shattered and our dream-castles wrecked. And yet the only antidote for the poison of hopelessness is new hope.

You must see the sort of being man is! God-like in his qualities; able to turn inward upon himself and weigh his mistakes and errors; able, after innumerable failures and mistakes, to make of his life a reasonable and worth-while expression.

The man who coddles us in our misery and agrees with us that life is a rotten failure is not our friend but rather our enemy. He is helping us to stay down and if we aren't careful he will put us out permanently.

But someone will say: "How many times shall a man get up and try again?" To that there can be but one answer: "As many times as it may be necessary." A man is never licked until he admits he is.

Hope is the element cast into human life to keep us out of the insane asylums. You can't live life in this world unless you can continue to hope even when hope is well-nigh gone.

There is a great story in the Old Testament in the Bible. Jacob wrestled all through the night with an angel, and as the day was breaking the heavenly messenger wanted to go away but Jacob wouldn't let go until he got the blessing he wanted. God must admire the man who is unconquerable provided, of course, the man has his stubbornness set in the right direction.

There isn't any tonic in the world that is quite so valuable as the tonic of a buoyant, hopeful, optimistic, forward-looking personality. Somehow, under the spell of such a personality, the clouds disappear, the sun comes out, you get your rake and rake up the refuse and wreckage of the past and begin to build again. We need men and women of that type and the more we have the better world we'll build.

I listened to a couple of speeches the other day that did me more good than all the learned discourses of the wise men. It was at a calf club banquet that I heard these speeches. The one was by a lad of sixteen or seventeen. He was businesslike; he knew where he had failed; he laughed off his failure; he was not carried away by his successes; his face was toward the future; he expected to do greater things. The other speech was by a girl member of about the same age. She had a sane, wholesome, healthful view of things. She, too, had been successful but took it all in sweet reasonableness and was looking forward to greater conquests. In the most matter-of-fact way she rejoiced over the boys and girls, together, going in for work that means finer and better dairy stock.

I could not help but conclude that the problems confronting agriculture and dairying in America are not insuperable while we have young people of that type.

The old is always passing and the new is always appearing. Let's take new courage and walk face forward into the future, confident that all will yet be well. There has been a good deal of kicking but perhaps the kicks haven't always been organized and aimed in the right direction.

The world will have as much confidence in you as you have in yourself.

Eulogy of the Horse

Dr. Henry Van Dyke, in his interesting book, "The Other Wiseman," gives this eloquent eulogy of the horse:

"How close, how intimate, is the comradeship between a man and his favorite horse on a long journey. It is a silent, comprehensive friendship, an intercourse beyond the need of words. They drink at the same wayside springs, and sleep under the same guardian stars. They are conscious together of the subduing spell of nightfall and the quickening joy of daybreak. The master shares his evening meal with his hungry companion, and feels the soft, moist lips caressing the palm of his hand as they close over the morsel of bread. In the gray dawn he is roused from his bivouac by the gentle stir of a warm, sweet breath over his sleeping face, and looks up into the eyes of his faithful fellow-traveler, ready and waiting for the toil of the day. Surely, unless he is a pagan and an unbeliever, by whatever name he calls upon his God, he will thank Him for this voiceless sympathy, this dumb affection, and his morning prayer will embrace a double blessing—God bless us both, and keep our feet from falling and our souls from death! And then, through the keen morning air, the swift hoofs beat their spirited music along the road, keeping time to the pulsing of two hearts that are moved with the same eager desire—to conquer space, to devour distance, to attain the goal of the journey."

ISO-VIS

A discovery that will help YOU!

Have you heard about the new motor oil, Iso-Vis? It's an important discovery that will save you money and worry and all kinds of trouble!

Iso-Vis is altogether different from other motor oils. It behaves differently. It gives *instant* and *complete* lubrication! It puts an end to dilution troubles! It cuts down repair bills!

"How can Iso-Vis do all this? How is it different?"—you ask! It's a story that will interest you—a story you ought to know.

While you are plowing corn or cutting hay, a group of men you have never seen are working for you every day in the research laboratories of the Standard Oil Company (Indiana). They are *practical* scientists of long experience and intensive training. Their work is carried on in the field as well as in the laboratory.

For many years these men have been working on the problem of dilution. It's *your* problem—but you have so many others you undoubtedly never have given it much thought.

The farmer, of necessity, usually keeps his car in an unheated garage. On a cold morning it is hard to start. Do you know the reason? Motor oils generally have been so thick in cold weather that the engine could not turn over readily—they would not flow onto the bearings and the engine was not lubricated until after about ten minutes of "warming up" or operating.

Oil of the past was too heavy to start easily. But it soon becomes thin. The fact was established that motor oils lost two-thirds of their viscosity (lubricating efficiency) before the car had gone 200 miles. That was your problem of dilution! You realized it in terms of trouble and repair bills!

Some people said that nothing could be done about it. But the scientists of the Standard Oil Company (Indiana) followed the farmer's method. They just kept on working. Working to improve the lubrication of your car and your tractor.

Two years ago these men succeeded in solving the problem of dilution. The Standard Oil Company (Indiana) recently announced Iso-Vis, the result of their work, after thoroughly demonstrating its efficiency in hundreds of Standard Oil Company (Indiana) cars and trucks. Iso-Vis is not an experiment. It is an established achievement. Enthusiasm is high. The world's leading automotive engineers say that Iso-Vis is the biggest forward step that has been made in the lubrication of the automotive engine.

Iso-Vis is different from all other motor oils. It is the *only* motor oil whose viscosity stays within the zone of correct lubrication. Iso-Vis has the right body to start with and *it maintains that body until it is drained off*.

No need to worry because the garage isn't heated. No longer is it necessary to keep the "choke" out for miles. Iso-Vis gives *instant* lubrication under extreme cold weather conditions. The oil circulates through the lubricating system immediately. The engine is quick and eager! After a thousand miles of motoring Iso-Vis has not thinned out. Dilution troubles are over when you use Iso-Vis! It costs more per quart, but less per mile!

There are grades of Iso-Vis made especially for trucks and tractors which will save your expensive machinery and reduce your worries and your repair bills.

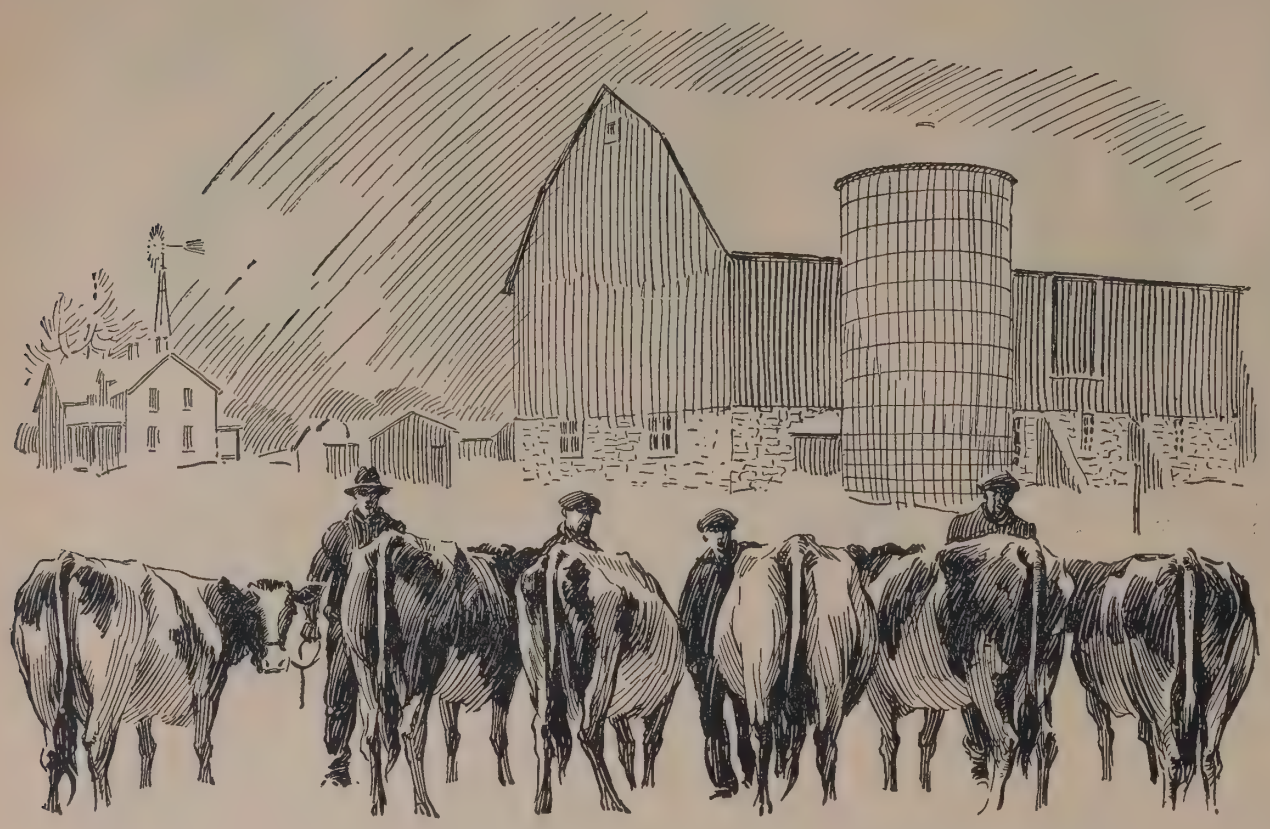
Iso-Vis is a discovery that will help *you*. The Standard Oil Company (Indiana) offers Iso-Vis as another proof of its friendship for and co-operation with the farmers of the Middle West.

ISO=VIS STANDARD OIL COMPANY (INDIANA) SERVICE MOTOR OIL

Standard Oil Company, 910 South Michigan Avenue, **Chicago**
(*Indiana*)

4520A

THIS HERD WON A $1,000 AWARD FOR GOOD FEEDING



Farm and winning herd of W. J. Schimmelpfenig, Marshfield, Wis.

"We fed the *right* feed *liberally*"

And Mr. Schimmelpfenig's profit went up 43%

WHEN W. J. Schimmelpfenig got a new manager for his dairy farm at Marshfield, Wis., last March, his herd of 19 Holsteins got a new ration.

Peter Bushman, the new manager, talked enthusiastically about Corn Gluten Feed. He had fed it for 16 years. So, the next day after he came, a load of it arrived at the Schimmelpfenig barn.

The records of the Marshfield Cow Testing Association take up the story here. From April 1 to October 1, 1926, six high cows produced 53,732 pounds of milk. They ate a grain ration of which 39% was Corn Gluten Feed (see ration).

Compare the two years

Now look at 1925. Five of the same cows were in the herd. A sixth, the high cow of that year, is added to make a fair comparison. These six cows produced 38,638 pounds of milk. They ate home grown grains largely, with small amounts of concentrates. "Stump" pasture both years.

Thirty-nine per cent more milk in 1926; 43% *more profit!* For this record, certified by the official tester of the association, Mr. Schimmelpfenig was awarded first prize of $1,000 in the contest conducted by the Associated Corn Products Manufacturers to encourage better feeding.

Good feed, good feeding

"We fed the right feed liberally," says Mr. Bushman.

There is much meaning in those words. This herd was not superior in productive capacity to thousands of others. It was fed Corn Gluten Feed *liberally* — before pasture came and *with* pasture.

In the great dairy sections of the United States *liberal* feeding of Corn Gluten Feed is paying high returns. Test Corn Gluten Feed, for *results*, in your herd. Your dealer can supply you.

THE RATION

Average ration for 6 months of 1926

Corn Gluten Feed (39%)	300 lbs.
Oats	170 lbs.
Oil meal	100 lbs.
Corn	100 lbs.
Barley and oats	100 lbs.

THE RESULT

(the six cows)

	1925 Apr.—Oct.	1926 Apr.—Oct.	Increase
Milk	38,638 lbs.	53,732 lbs.	15,094 lbs.
Profit over feed cost	$524.23	$751.36	43%

CORN GLUTEN FEED

CIATED CORN PRODUCTS MANUFACTURERS

208 So. LaSalle St., Chicago, Ill.

DAIRY MARKET NEWS

Twin City November Milk

The Twin City Milk Producers' Association paid $2.50 a hundred for 3.5% milk delivered in St. Paul during November. The association handled 19,413,633 lbs. milk, of which 26% was surplus. Distributors paid $2.60 a hundred for milk, surplus and expense reducing this to a 10-cent spread between prices received by producers and prices paid by distributors.

Cream patrons were paid 58 cents a pound for butterfat in first grade cream during November. This is 7.4 cents above the average price of 92-score butter on the New York market.

December Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 105 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributors' country plant:

Table I—December Producers' Prices by Geographic Sections

Sections	Range of prices per cwt.	Comparison of average prices 1926 Dec.	1926 Nov.	1925 Dec.
New England	$3.00—3.82	$3.48	$3.45	$3.47
Middle Atlantic	2.35—3.15	2.86	2.85	2.75
E. No. Central	2.05—3.23	2.61	2.57	2.59
W. No. Central	1.75—2.75	2.35	2.28	2.34
South Atlantic	2.80—5.90	3.85	3.82	3.97
E. So. Central	2.35—3.40	2.70	2.66	2.69
W. So. Central	1.90—3.04	2.68	2.78	2.68
Mountain	1.93—3.20	2.45	2.44	2.59
Pacific	1.95—3.03	2.66	2.67	2.91
United States	1.75—5.90	2.85	2.79	2.87

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers:

Table II—December Producers' Prices f. o. b. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.	$3.42—3.91	18
Phoenix, Ariz.		10—12.5
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	2.19—2.35	12
Hartford, Conn.	4.22*	16
Washington, D. C.	3.60	15
Jacksonville, Fla.	4.53	20—21
Chicago, Ill.		14
Indianapolis, Ind.	2.18	12
Des Moines, Ia.	2.65	12
Topeka, Kans.	2.10—2.25	10—12.5
Louisville, Ky.	2.54—2.59	13
New Orleans, La.	3.04	14
Baltimore, Md.	3.55*	14
Boston, Mass.	4.08*	15
Detroit, Mich.	3.00	14
St. Paul, Minn.	2.70*	11
St. Louis, Mo.	2.95	13
Butte, Mont.	2.60	13
Lincoln, Nebr.	2.10	10
Trenton, N. J.	3.41*	13
New York, N. Y.		15
Cleveland, Ohio	3.50*	14—15
Tulsa, Okla.	2.45—2.80	15—20
Portland, Ore.	2.25—2.35	12—13
Philadelphia, Pa.	3.49*—3.52*	13
Pittsburgh, Pa.	3.90*	15
Providence, R. I.	4.08*	15—15.5
Sioux Falls, So. Dak.	2.75*	12
Memphis, Tenn.	2.58—2.73	15
Dallas, Tex.	2.60	13
Salt Lake City, Utah	2.45	10—11
Richmond, Va.	3.93—4.05	14
Seattle, Wash.	2.60*	
Spokane, Wash.	2.35—2.50	12
Milwaukee, Wis.	2.90	11

*Basic prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at the producers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III—December Prices at Country Stations

	At country station	Freight zones to which prices apply
New Haven	$3.70*	28c rate
Washington	3.02*	35c 10 gal. can
Chicago	2.50	All
Baltimore	2.97*	35c rate
Boston	3.35*	181—200-mile zone
St. Louis	2.20—2.35	34c rate
Trenton	2.85*	41—50-mile zone
Buffalo	2.57*—2.62*	28c rate
New York	3.10*—3.15*	201—210 mile zone†
Cleveland	3.12*—3.19*	All
Philadelphia	2.91*—2.95*	51—60-mile zone
Pittsburgh	3.15*	All
Scranton	2.90	30c rate
Dallas	1.90—2.20	All

*Basic prices for fluid milk. †53c rate.

The following net prices were reported paid to members of producers' associations supply-

ing the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and "Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade, and the latter applying to that portion classed as "Surplus," which is used for manufacturing purposes:

Table IV—Net Prices Paid Members of Producers' Associations for 3.5% Milk

Cities	Paid*	Period	Previously announced prices for same period Basic	Surplus
Hartford	$3.83	Oct.	$4.22	Butter markets
Des Moines	2.29	Oct.	2.40	$2.00
Baltimore	3.46	Oct.	3.55	Butter markets
Boston	2.44†	Oct.	3.13	Butter markets
Detroit	2.82	Oct.	3.00	Butter markets
St. Paul	2.41	Oct.	2.60	All milk pooled
New York	2.58‡	Oct.	3.10	$2.15—2.46
Akron	3.02	Oct.	3.40	$2.10
Cleveland	3.01	Oct.	3.30	Butter markets
Philadelphia	3.475	Nov.	3.49	Butter markets
Pittsburgh	3.185	Oct.	3.50	Butter markets
Milwaukee	2.78	Nov.	2.90	Not announced
Duluth	2.48	Nov.	2.70	All milk pooled

*F. O. B. City unless otherwise indicated.
†181—200-mile zone
‡201—210-mile zone

Table V gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat:

Table V—December Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Akron	16—18	20	8	10	16
Asheville	19	25		15*	20
Baltimore		30	14	15*	16
Boston	18½	26	10		
Buffalo	14	26	10	12*	19—22
Chicago	17	25	10—20	15*	16
Cleveland	19—20	25	12—13	15	15—22
Dallas	24		8—9		11—14
Denver	14		7—8	20*	14
Des Moines	14—25		9—11	14	13—14
Detroit		25	35		16
Duluth	14	25	8	15*	17
El Paso	17		10	20*	15—16
Hartford	18—25	25—35			18
Indianapolis	16		10—12	20	12—13
Jacksonville	25		12	30	15—30
Lincoln	14	20	10	15	10
Los Angeles		28—30	10		17
Louisville	17	24	13		16
Memphis		30	6—7	20	15
Miami	30—35	35	20		25—30
Milwaukee	14—18	25	6	10	14
Minneapolis		22	7—13	12*	15
Nashville	18		10	20	16
New Orleans	18	31	14		17
New York	30	28	11		
Omaha	15	20	10		11
Philadelphia	16	30	13		17
Pittsburgh		25	10		16
Richmond	18		8	15*	14
Salt Lake City	15		7	12½	15
San Francisco		25	14	20	20
Spokane	15—18½	18½	10	20	15
St. Louis	18	25	10—18	15	17
Trenton	17	30	13	25	13—14
Washington	18—20	30	15	15—20	20

*12 oz. package. †18—25% fat.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on December 1, figures being given in thousands of pounds (000 omitted):

	Dec. 5-yr. ave.	Dec. 1 1925	Dec. 1 1926
	Lbs.	Lbs.	Lbs.
Butter, creamery	67,999	74,754	64,377
Cheese, American	50,333	66,495	63,895
Cheese, Swiss	7,301	9,041	8,227
Cheese, Brick	1,741	2,110	1,535
Cheese, Limburger	1,025	1,292	1,584
Cheese, all other	6,082	5,623	5,766

These holdings include stocks in both cold storage warehouses and packing house plants.

The decrease of butter in storage in November was 36 million pounds as against 20 million pounds in November, 1925, and 33 million pounds average for the same month's average for the past five years. With a continuance of lower production of a year ago, this indicates a strong market condition providing general business conditions maintain their present levels.

Butter and Cheese in December

During the first week in December butter steadily advanced to 56 cents in New York and then maintained this price until the 21st, when a sharp decline of 4 cents took place in less than three days. Similar conditions took place at the other markets, due it is said to apprehension on the part of buyers that the market could not be maintained at prevailing prices. A relatively small import of 16,872 boxes of New Zealand butter at New York and temporary release of butter that had been held up in lake transport, was sufficient to bear the market. Also, more liberal arrivals of fresh butter and a slowing up of demand at Chicago caused that market to register a decline.

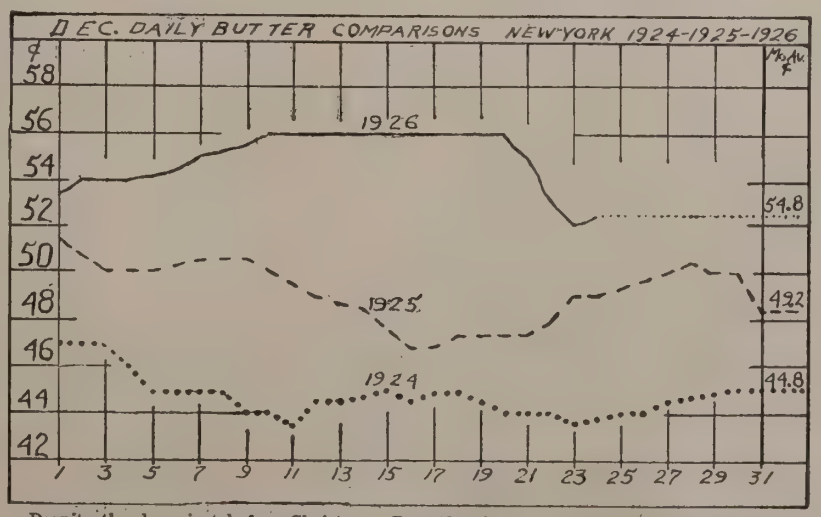
Following these declines a more firm tone developed and price advances on all markets were again apparent. On December 27 the New York market ruled firm at 53 cents despite the arrival of 3,538 boxes of New Zealand butter, this imported butter selling for 51 to 52 cents. Withdrawals from storage have continued at a satisfactory rate and in excess of the withdrawals a year ago. Reports on production are conflicting, but the market opinion continues to hold that it is on the increase. This is partly substantiated by the volume of fresh butter arriving in the market, but the onlooker away from the market recalls that this same bearish opinion has been expressed for the past several months and it has not come to pass.

As will be noted in the chart, the average price of butter for the first 24 days in December is five cents above last year and ten cents above 1924, despite a decline in the last four days of four cents. This decline was stopped on the 24th and the advance to 53 cents on Monday is likely to be well maintained for the balance of the month and into January. At least from a pure statistical standpoint, we can see no reason for any further decline.

The cheese market continues firm, with slight advances in price. The average thus far for December is 24.7 cents on the Wisconsin Board, prices advancing from 24.25 cents on the first to 25.25 cents on the 27th. This is a half cent above December of last year and four cents above December, 1924.

November League Price

The New York Dairymen's League announces that the basic net pool price for November is $2.72. This is for 100 lbs. of 3.5 per cent milk in the 200—210 mile zone. It is 14 cents over the October pool price, and 11 cents over that of November, 1925.



Despite the drop just before Christmas, December butter will average five cents above a year ago and ten cents above 1924.

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"As the Twig is Bent"

Johnny comes home from school, gives his books and hat a toss; they land, perhaps, on the table or a chair but more probably on the floor and there they stay until mother picks them up. Jimmy is told to feed the chickens right away. He forgets and mother does it. Mary is told to put her room in order, make her bed, hang up her clothes, etc. She does it in a haphazard way or not at all if she is in a hurry to get away. Mother does it, saying as she picks up after them, "Oh, they are just children, they will change when they get older." She is deceiving herself and wronging her children by taking that attitude. It is easier to do the things ourselves than to see that the children do them correctly but we cannot defy or ignore the laws of Nature and get away with it. "As the twig is bent so will the tree incline," is as inevitable as night and day.

We live by habit all the time but they are habits we acquire. We have not one habit at birth; we acquire them each and every one. The first habits are formed in the first few weeks of our lives,—habits of waking at regular hours for food, habits of going quietly to sleep in our cribs at regular hours, or habits of crossness, fretfulness, of crying to be rocked and petted.,

Our system, mind, nerves, and muscles are so constructed by Nature that we learn to do things more easily and quickly by practice, and there lies one of the secrets of habit formation. When we first try to learn something new, playing the piano for instance, we are slow, inaccurate, and have to devote every ounce of our power of concentration to the task but after a while we play more easily and surely, finally we become so accomplished that we can play without conscious effort. The task that was once so arduous and difficult is now a pleasure and an almost unconscious act in so far as the muscular effort is concerned. We have formed a habit; trained our mind, nerves, and muscles to co-ordinate. And so it is with all other habits.

The babe has no habits, but he soon acquires habits of some sort. We can train him to have some certain ones and not to have others. He is like plastic clay in our hands to mold as we desire and like clay he will harden and "set" and the mold into which he "sets" will be, nine times out of ten, the mold into which he will remain throughout life. I made the exception of one in ten for it is not absolutely impossible to break a habit if the desire to do so and the will power is strong enough. The "ifs" are so powerful, however, that it rests on us, the parents, as a grave responsibility to train our children in right habits.

What are right habits? First of all, I would put down absolute and implicit obedience. It should begin [illegible]th. The idea that a baby is too [illegible]ind is erroneous. I do not [illegible]pping or cruelly treat- [illegible]neglecting it, but it [illegible] the mother and [illegible]ild to "spoil" it.

If a child has been taught to be obedient, then training in other desirable habits and avoiding undesirable ones will not be difficult if we, the teachers and trainers, are earnest enough in our desires to put ourselves earnestly and sincerely to the task. Next to obedience and almost on a par with it I would place "health habits," the habits of personal cleanliness, neatness, eating proper foods in the correct manner, deep breathing, correct posture, regular sleeping habits, etc. In building a house the builder is very particular that his foundation is sturdy and true. Good health is the foundation of a good and useful life and into our hands the building of that foundation has been entrusted. Let us be as particular as the builder. Cheerfulness, orderliness, good manners, courtesy, truthfulness, honesty, thriftiness, in fact all the attributes of a desirable citizen can become habits for our children. When habits "set," character is formed. If we could only get that thought burned into our souls, "Habit is the basis of character," how much more watchful we would be of the precious plastic years of childhood.

How can we train our children in right habit formation? James, the great psychologist, gives these three rules: 1. Get initiative. 2. Get practice. 3. Allow no exceptions. By initiative is meant motive or desire. We must have a purpose in view; for the first few years it is the parents who must have the desire. As soon as the children are old enough to realize we can tell them why they should do so and so and inspire them with the longing, perhaps at first with the desire to dress themselves to receive the praise of daddy when he tells them how big they are getting, or to eat the right foods so that they may be strong like daddy or Uncle Dick.

We know it is the novice, the unskilled that is slow and inaccurate in any line of endeavor. To make habits a part of our nature we must keep going over and over the act we wish to fix and we must make the doing of the act pleasurable as possible. In teaching a child to put away its toys or to hang up its clothes we must be persistent. We must have a definite place for each article. To say, "Jessie, put up your clothes" is not enough. We must assign a certain place and say, "Jessie, put your clothes on this hook" and then see to it every day until it comes just as natural for him to put them there as it is for him to come in the house. We must insist on the doing kindly and quietly instead of saying as we often do, "Oh, for goodness sake, Jessie, when will you ever learn to put anything in its place, I just get tired to death telling you not to throw things down." It will take lots of patience and rigorous self control to hold ourselves in hand but if we can't, then it won't be much use to try to train our children for they learn as much by example as by precept.

The third rule, allow no exceptions, is not as easy as it sounds. Perhaps Johnny begs to be excused "just this once," or he forgets and we could far more easily do the task ourselves than call him back and so we let him go that once and then it is so hard to get back into routine again; so much is lost for which we have labored. Until the habit we are endeavoring to establish becomes fixed as an unconscious act, we must be on guard all the time.

If we wish to break an undesirable habit, let us not just forbid the doing of it and then inflict punishment if it is done. A habit once formed becomes a part of our very being and it is very hard to break. We must substitute some other habit, watch for the old habit patiently and kindly and with sympathy, and we must not forget that the blame for that habit is ours. Before you attempt to break a habit in your child, try it on yourself. You will then have the understanding that you should have. It is far easier and more kind to start children right at birth. There are so many influences affecting children today that parents do not have as long a time to train their children as they used to and it behooves us to make the most of the early years of childhood. It all depends on us and we need not expect the discovery of some new moral antiseptic, some new pink pill that can be administered three times a day before meals that will transform children into angels of conduct, thereby giving us relief from care and anxiety. Nothing will ever take the place of constant care and watchfulness and desire on our parts for "as the twig is bent the tree will incline."—GRACE GORDON.

Manners or No Manners

Should parents teach good manners to their children? Some seem to think they might just as well wait until they are old enough to learn what they want to. Others keep nagging the little folks for every error they happen to make and say the children never remember anything they tell them to. Some refuse to take their children away from home

(Continued on next page)



Looking Slim

It is the thought that one gives to clothes that counts for smartness, and a charming style especially adapted for stout figures is found in pattern No. 2461. It is cleverly designed to enhance its slenderness by gathers over the bust and tiny tucks at waist which distribute the fullness properly. See diagram! Step No. 1—just as your material appears after it has been cut out. Step No. 2—the centre-front slashed, which forms the rever, and collar attached; the tucks at waistline inserted and sleeves set into armholes. Step No. 3—the dress practically completed, showing the inverted plaits ready to be made. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size takes 4 yards of 36-inch material with ¼ yard of 27-inch contrasting.

Pattern of above style guaranteed to fit perfectly. Price 10 cents in stamps or coin (coin preferred). Address Pattern Department, Hoard's Dairyman, Fort Atkinson, Wis.

while they are small and others take them everywhere regardless of the outcome. How may we reach a happy medium?

Mrs. B., a young mother who had not forgotten her own childhood, decided to try playing manners instead of plain teaching them. Her daughter, Martha, was a typical little homemaker who loved to play house with her dollies. She was having a merry teaparty one day when this new idea popped into her mother's head. So as soon as Mrs. B. could finish her necessary work she stepped into the next room where Martha was playing and asked if she might play too. Of course little daughter was delighted and she listened intently while her mother explained that she was Mrs. Riggs of the Doll's Home Bureau and if Martha wished she would teach her dolls how to act at home and when they were entertained as guests.

Soon big and little mother were very busy placing the tiny dishes and all tableware in the correct places while the dolls, sitting in a row, appeared to be watching intently.

"There, now," exclaimed Mrs. Riggs, "everything is ready. Seat your children and we will begin their good manners teaparty." Mrs. Riggs carefully explained to each doll just how to eat the different foods and to say "please" and "thank you," not one word or act escaping the attention of little Martha.

Many more tea parties were held and some days the dolls were divided between mother and daughter so that Mrs. Riggs and Martha, who became Mrs. Martin, might exchange calls and there was a sharp rivalry to see whose children would behave the better and not only at the table but all through the social call from the "how do you do" to the "good-bye."

As years went on, the play part ceased but mother and daughter still continued to be etiquette partners not only in outside life but in everyday home life. Martha, now grown to a charming young lady, says she will never forget the courtesies she learned in childhood play and she honors her mother who took time to lay one foundation for her daughter's happiness and that of those around her.—LULA A. CAMP.

Don't Drown Your Ferns

With winter here once more, we must begin to think of ways to keep as much as possible of summer in the house. Nothing—that is, nothing but a good supply of heat—helps to keep summer with us as much as house plants that are really flourishing and not the sickly kind that we are most familiar with.

Of all the winter plants, I believe that ferns are the most satisfactory in the long run and here is the advice that I recently got from a gardener who knows ferns just as you do your family:

"Most people," he said, "make the mistake of fairly drowning their ferns. They should always be watered sparingly—just enough to keep the soil moist—and especial care should be taken not to overwater if they are in a jardiniere; never let them stand with their feet in water.

"It helps them, too, if you will occasionally set them in a tub of water and wash thoroughly with mild soap suds, rinsing them well afterward. Mealy bug, a white wooly insect that works close to the bottom of the fronds, is one of the worst enemies of house ferns. If the plant is badly affected, cut off the whole top to within an inch of the ground and let it start again; otherwise make a daily examination and destroy with a toothpick all of the insects. Red spider is another insect that thrives in a dry climate; it is a sucking pest and can be eradicated, as can also the aphis or green fly, by washing or spraying the top with clear water.

"To promote fern growth, apply once in two to four weeks a dilute solution of nitrate of soda—one teaspoonful to a quart of water—or else two teaspoons of household ammonia to a quart of water or manure leachings."—LUCY THOMPSON.

Furnace Cookery

In the present days when the farmer's wife is still valiantly trying to cut down the high cost of living so that it will keep within the bounds of their low income, she has to figure where she can save even a few cents. Few people know that they can use the same fire that heats their homes to cook their meals if it is properly managed. A furnace can be used very nicely for this purpose if you know how to go about it. On the broad ledge inside of the furnace door many things can be cooked and baked.

You might begin by baking potatoes here. It will take from one hour to an hour and a half, depending upon how great a fire you have. After you have baked potatoes successfully, you can try scalloping them, but be sure to cover your pan with a tight lid.

One of the greatest treats offered us is real Boston baked beans. Prepare your beans in the usual way and place them in an earthen jar and cover over. Bake them a long time and occasionally turn the jar around.

In order to roast meat I purchased a small tin roaster for a quarter. It probably measured 8x12 inches. Then placing my meat in and adding a little water, I put it upon the ledge. I found that I had to keep one eye on it and turn it if the fire was very hot. But it surely roasted the meat deliciously. Chicken can be stuffed and roasted here. I place a small square of white cloth over my chicken to keep it from burning and pour my water over that.

Apples may be baked, meat loaf made, soup is delicious when cooked here, and many pop corn in their furnaces.

Many kinds of pudding can be baked by placing the pudding pan in a second somewhat larger pan containing water. I always make my rice and bread puddings this way.

Many scalloped dishes may be prepared, among them scalloped corn, macaroni, oysters, and a dish of scalloped potatoes and ham is a great favorite.

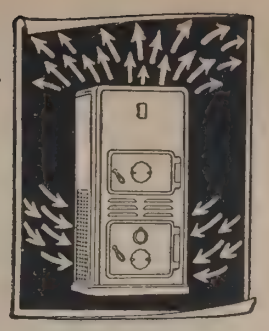
Try cooking in your furnace some day when the fire is low. Watch carefully whatever you are trying to bake and you will have to be governed by what amount of fire and heat you have. If you have an old stove lid you may use this as an extra grate and by laying it upon your ledge it will widen your space for cooking.

This way of cooking proves very handy when you wish to leave a meal cooking for several hours while you are at church or away. When you return your meal will be ready and hot. How much it means to come home from church and have a hot meal that can be set upon the table immediately! Many farmers' wives seldom go to church for this very reason. The family is hungry upon their return and do not care to wait an hour or so for the dinner to cook, and it is dangerous to leave a stove running for so long with no one to watch it. And, oh, how the folks do hate a cold dinner after a long, cold drive.

A whole meal can be left cooking in this way while you are gone. You

(Continued on next page)

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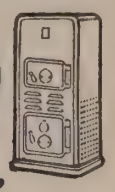
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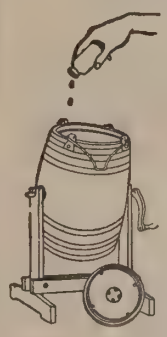
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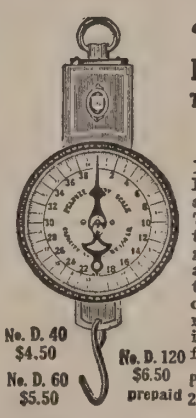
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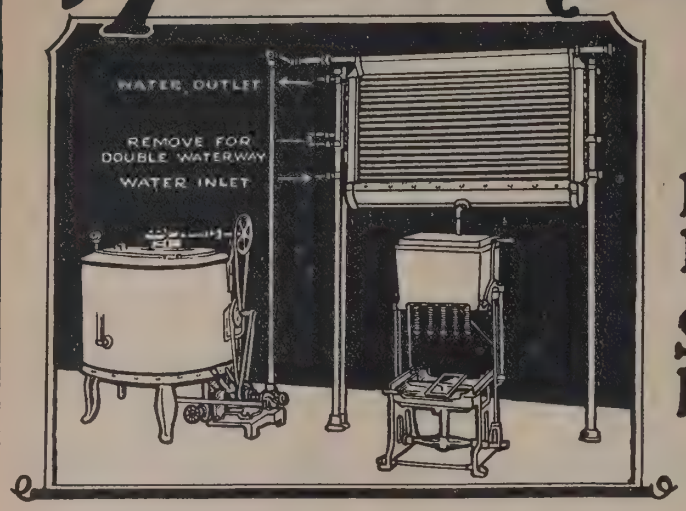
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The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

With a Victor Outfit the small dairyman can produce good, wholesome pasteurized milk just as cheaply and efficiently as the big city dealer. Pasteurization provides safe milk and will increase your business. The Victor is a business builder. Write for full information and prices.

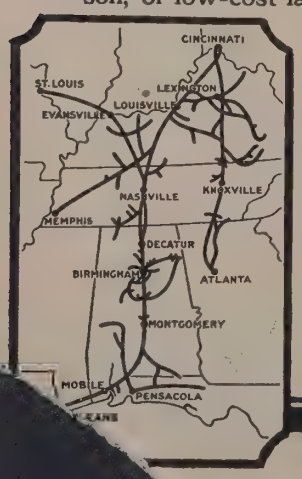
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"The Lord helps him who helps himself." And farmers *can* help themselves in the South—many of them *are doing it*—farmers who have moved from "the Frozen North" to "the Sunny South".

All kinds of farming can be made pleasant and profitable in this Southland—a land of all-year growing season; of low-cost labor and living conditions; of ample home markets; of schools, churches and good neighbors. And fine farm lands in the South can be *bought at moderate prices.*



Full information will be sent free on request; but this Railroad cannot undertake to find employment for anybody. Write G. A. Park, General Immigration & Industrial Agt., L. & N. Railroad, Dept. H.D.-4, Louisville, Ky.

L&N

may leave soup, roast chicken, scalloped or baked potatoes, Boston baked beans, scalloped corn, and rice pudding all taking care of themselves while you slip away for the little change and rest that means so much to a tired farmer's wife. And by using your brains together with your furnace you can save yourself work, worry, and money and be delighted with the results.—ETHEL MORRISON-MARSDEN.

Embroidery Articles

Stamped embroidery articles as appeared on the color page insert in our December 10 issue are still available and may be had by those who desire them. If you want to refresh your memory as to what the articles were or their prices, we will be glad to send you a list. Address Pattern Department, Hoard's Dairyman, Fort Atkinson, Wis.

How You Get Your Tea

Last winter I was visiting in a big city. Shopping took me one day into a little store where up in front I saw a sign over a small box that read, "The most expensive tea in the world." I was curious and found that it was put up in tiny bags, enough for one cup of tea, for fifteen cents, so I bought one.

I felt sure before and now I am more than ever convinced that the most expensive things are not necessarily the best, for that tea didn't taste one whit better to me than my old reliable grocery store brand.

It is interesting to know how teas are selected for general marketing. It is said that up until the early eighties the United States was merely a dumping ground for tea that other countries would not take. Then a tea inspection law was passed and we now have very strict regulations so that every consignment of tea that is received in this country is opened at the port and a sample taken out. This sample is brewed and tasted by an expert who compares it with a standard tea and passes or rejects it.

The fixing of the standard is an interesting thing. Every year seven men selected from various parts of this country meet in New York and for a couple of days do practically nothing but drink tea, sipping it this way and that from handleless cups as the Orientals do, getting as far as possible the full effect of the flavor.

Of course, this "cup test" is only one of many other kinds by which the standard is fixed and the seven men finish their work by making up packages of the standard they have decided upon and sending them out to all the exporting companies in the foreign countries and also to all the ports in this country where tea is received. By comparing his tea with this standard no tea merchant need experience any loss due to sending to the United States any product that he knows will not meet our tests.

Since tea tasting is such an important thing to the seven standard fixers, it is, of course, important that they know how to brew it in the most perfect fashion. Here is their method:

Take two earthenware pots and fill them with boiling water in order to heat the pots. Pour out the water from one pot and into it put one level teaspoon of tea for every cup that is to be brewed. Add boiling water and allow it to steep for three minutes. Then empty the hot water from the other pot and pour in the tea infusion. The water should be *freshly* boiling. Some people think that any boiling water is all right but water that has boiled too long has had the air driven from it and the taste changed. If you do not believe that, just try drinking some boiled cooled water—LUCY THOMPSON.

Miscellaneous Fashions



2858—Afternoon Frock. Cuts in sizes 16 18, 36, 38, 40, 42, and 44 inches bust measure Size 36 requires 2⅞ yards of 40-inch materia with ¼ yard of 27-inch contrasting.

2845—Crepe Roma and metal embroidery Cuts in sizes 18, 36, 38, 40, 42, 44, and 4 Size 36 requires 3¼ yards of 40-inch materia with ½ yard of 36-inch contrasting materia

2682—Princess Frock. Cuts in sizes 36, 3 40, 42, 44, and 46 inches bust measure. Siz 36 requires 3⅝ yards of 40-inch materia with 1 yard of 27-inch material contrasting

How to Order Patterns

Enclose 10c in stamps or coins (wrap coi carefully) for each pattern ordered. Sen your order to Fashion Department, Hoard' Dairyman, Fort Atkinson, Wis. Every pat tern is seam-allowing and guaranteed to fi perfectly. Do not fail to state size.

Our patterns are made especially for us b the leading fashion designers of New Yor City. No stock of patterns is carried in ou office and, since all orders are forwarded t the factory, kindly allow a reasonable tim for delivery of any pattern you order.

Try Our Fashion Magazin

You'll be delighted with a copy of our ne Fall and Winter Fashion and Dressmakin Magazine. It contains all the attractive ne models for afternoon and evening wear. Als house dresses, aprons, lingerie, children' clothes, Xmas gifts that can be made at hom etc. The price of the book will be save many times over by the saving on pattern and in the making of garments. You reall can't afford to be without a copy and, sinc the supply is limited, we suggest that yo send 10 cents for your copy now. Addres Pattern Department, Hoard's Dairyman, Fo Atkinson, Wis.

Hoard's Dairyman patterns cos only 10 cents each. If you are buyin any patterns it will save you mone to buy from us. Fashion Magazin also only 10 cents.

Correspondence Course in Dairying

Last year over one hundred farmers from different parts of the United States and even the Hawaiian Islands took advantage of the practical farm dairy course offered by the North Dakota Agricultural College. Many of these progressive farmers have now completed the course and every one of them have requested another subject in dairying for this winter's study.

One student writes: "I am in the dairy business and I believe that every farmer can well afford the time and effort to take this correspondence course and learn more about his own business. I have enjoyed the course and have learned more than I can express of the subject covered. I have the lessons and my corrected answers filed away in a loose leaf note book as well as clippings from papers and all the Experiment Station and U. S. D. A. bulletins connected with the course, for future reference. I am hoping that your department will offer the second course in dairying this winter as I am very anxious to turn my spare winter moments into scientific study of my occupation."

After receiving many similar letters, the College has decided to offer two dairy courses this winter along the following lines:

Course No. 1 aims to give to anyone interested in dairy production the information needed for the founding of a dairy herd and for the feeding and management of the herd. The best methods used for keeping records on cows and for breeding and raising the future herd are given the consideration they deserve. This will emphasize: the selection of dairy cattle, feed of dairy cattle, the dairy calf, dairy heifers, the feeding and care of milk cows, the herd bull, production records, factors which influence the profitableness of the dairy herd, common ailments of dairy cattle, and the production of high grade milk and cream.

Course No. 2 is given to help the farmers and the cream buyer, the retailer, and the consumer learn about milk and milk products, so that each may know better how to do his part and understand the problems of the industry as a whole. It is given under the following topics: the dairy industry in North Dakota and in the United States; the secretion of milk; the composition and properties of milk; factors affecting the composition of milk, cream, and milk products; the food value of dairy products; bacteria and milk fermentations; the production and handling of high grade milk and cream; the separation of milk; buttermaking; cheesemaking and ice cream making.

Further details and information may be secured by writing the North Dakota College of Agriculture, Agricultural College, North Dakota.

Timothy Hay, Oats, and Corn

I am trying to get my tenant interested in dairying. He has a few cows already but I am not satisfied that he is getting as much production as the cows are capable of giving were they fed a balanced ration. He has timothy hay, corn, and oats available at the farm. Will you advise me as to what would constitute a balanced ration using the above feeds and others that you may suggest?

Davenport, Iowa. W. T. W.

A ration in which timothy hay is used as the only roughage will need a concentrates mixture containing 19 to 20% of digestible protein such as would be had in a high grade mixed feed containing about 24 per cent of total protein. Such a mixture could be made of the oats and corn plus supplementary feeds high in protein. The following mixture is suggested: 300 lbs. of ground corn, 400 lbs. of ground oats, 400 lbs. of bran, 200 lbs. of gluten feed, 400 lbs. of linseed meal, and 300 lbs. of cottonseed meal. These feeds should be thoroughly mixed. The mixture contains 19.3 per cent of digestible protein. We suggest the mixture be fed at a beginning rate of 1 lb. for each 4 lbs. of milk produced daily and the rate be gradually increased to where the cows are getting 1 lb. for each 3 lbs. of milk produced daily. By weighing the milk daily one will find out if the increased allowance of grain is resulting in sufficient increased production to justify the heavier feeding. The timothy hay should be fed to the limit of appetite.

Cow Lacks Persistency

I have a Jersey cow that gives 24 quarts of milk daily for the first 6 weeks after she freshens. She then drops to around 16 quarts and about 2 months after breeding she slumps badly to a gallon or less and thereafter insists on about 3 months' rest. She holds flesh well—is a good keeper—and is 7 years old. I have fed her alfalfa hay, mangels, ground corn, a 16 per cent protein mixed feed, middlings, in addition to which she has had the run of a clover and bluegrass pasture. She has had salt and water at all times. Can you suggest a ration that will cause her to be more persistent in milk?

Ursa, Ill. G. S. R.

Assuming that this cow has had a sufficient quantity of the feeds named, we see no reason why the ration should be changed. Alfalfa hay is the best legume hay to be had; mangels supply as high a quality of succulence as one could obtain; there is sufficient variety in the concentrates fed and the protein allowance is more than would actually be required. We are inclined to the opinion that this cow is already doing about all that she is capable of and that she is following the dictates of her inheritance. The fact that she is in good condition—an easy keeper—indicates that she is getting plenty of feed. It also indicates that she does not have as great power to put feed nutrients into the milk pail as she should have. While persistency in milk flow is somewhat tied up with feeding and management it is also tied up with inheritance, a thing that cannot be changed or influenced. It is unfortunate that a cow so good for a short period did not inherit the character of persistency. There are thousands of cows like this. The unfortunate thing is that too many owners value them according to what they do a few weeks after they freshen and forget what they do not do at the end of 9 months.

Dairymen at Ames

HOARD'S DAIRYMAN:—Farm and Home Week at Iowa State College, Ames, is scheduled for January 31 to February 4, 1927. As in previous years the dairymen have a program for each day of the week. A part of the program will be devoted to judging, a part to feeding and breeding, while other features are to receive attention also. An effort has been made to provide some information on nearly all the dairyman's problems.

Thursday, February 3, has been given over to the meetings of the Iowa State Dairy Association and of the various state dairy breed associations. The special features are talks by C. L. Burlingham, Dr. C. H. Covault, and Dean C. F. Curtiss. Also as a part of the program the Dairy Husbandry Staff will present the results of their two years of experimental work with mineral supplements for dairy cattle. EARL WEAVER.

Iowa State College.

Lloyd S. Tenney Appointed

Lloyd S. Tenny has been appointed Chief of the Bureau of Agricultural Economics, Secretary Jardine of the Department of Agriculture announced today. Mr. Tenny has been acting chief of the Bureau for the last six months.

Mr. Tenny has been with the Department of Agriculture since 1902 except for the period 1910-1921 when he was engaged in fruit marketing work in Florida and New York. He became assistant chief of the Bureau in 1921 and has been acting chief since last June.

Mr. Tenny's former work with the Department had to do with marketing problems and as assistant chief he has been in charge of service and regulatory work on marketing. He is a native of New York State, having been born on a farm near Rochester.

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At last something really new in machine milking history! The wonderful new SURGE Milker!

A machine that is making records for Breeders who never dared use a machine before. A machine that produces low count, premium priced milk—and does it with no more work than you now give to washing milk pails. The Surge is sweeping everything before it!

Only These 4 Rubbers To Wash

Think of that! You men who have *tried* to keep old fashioned milkers clean—*mark this!* Only 4 simple pieces of rubber to wash. No long tubes. No claws. No places for the milk to lodge and breed bacteria. Easy to produce Grade "A" milk and get premium prices.

Which is easier to keep clean?

With The Surge Milker the milk travels ONLY 4 inches from Teat to Pail. With other milkers it travels through 4 feet of curling rubber tubes and twisted claws—where bacteria breeds and contaminate the milk. To produce CLEAN milk any milker must be thoroughly washed EVERY DAY. The Surge is so easy to clean that there is no temptation to slight the job.

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Please send me without cost or obligation, Free Surge Catalog and tell me all about your special Free Demonstration Offer on the SURGE Milker. (Please give this information)
Number of cows milked.....Do you have Electricity?.....
Name.....
Address.....*R. F. D.*.....



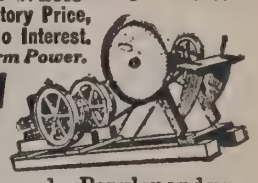
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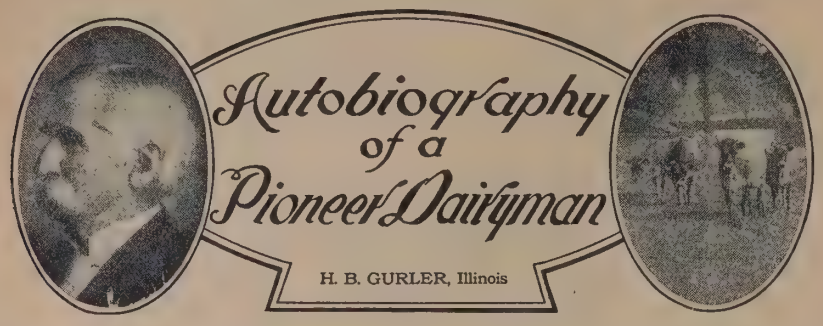


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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS



[EDITOR'S NOTE:—You will remember in the last installment of Mr. Gurler's autobiography, published last summer in the August 25th issue, he was discussing the writing of his book. The story is now continued from that point.]

"American Dairying"

Hoard's Dairyman said of my book: "American Dairying," in their issue of November 30, 1894:

"One of the most notable things in connection with practical dairying during the current year is the publication of a practical treatise on that subject, written by a man of wide experience, trained judgment, and skilled common sense. It treats every phase of the question, from the breeding and selection of the cow to the final marketing of the finished product—and this from the standpoint of the year 1894.

"We have read the book with great care—much of it more than once—and the more we read it the better we like it.....He writes of what he knows, of what he has seen and tried, and, unlike too many writers of books, he has the rare gift of omitting the superfluous and the uncertain. ....The result is that he has given us the best book on dairying that was ever written, not too learned or technical for the beginner, nor too verbose or commonplace for the scientist, the expert, or the editor."

The Columbian Exposition

At the formation of rules governing the dairy breeds contest at the Columbian Exposition, Mr. J. N. Pickerell, Secretary of the Shorthorn Breeders' Association, asked me to act for their breed. I replied that I did not own any registered Shorthorns but would act for their breed if he wished me to do so. Mr. Pickerell replied that this was his wish. At this meeting I suggested, argued, and won on the point of the cows being weighed into and out of the contest. Some breeders objected on the grounds that it was not a beef contest. In the contest on cheese produced, one Shorthorn cow produced about the same number of pounds of cheese that she added weight to her body.

I was one of the judges of the butter made in this contest. The other judges were A. N. Barber and Mr. Eldridge on South Water Street, Chicago, both of whom were butter dealers of long experience. We met once a week to judge the butter. I soon decided that I knew each breed's butter. On one judging day I ught the man bringing out the had made a mistake. I went ork again while the other and then told the man mistake bringing us ne breed's butter He looked at the numbers on the packages and referred to his book, and replied that I was correct and that he had made a mistake.

Certified Milk

About 1893 I was approached by a representative of the Chicago baby doctors, requesting me to engage in the business of producing a pure milk for infant feeding. I learned that the doctors' plans were for me to produce and deliver the milk where they ordered it. I gave this matter long thought and reached the conclusion that there was too much risk about the cost of delivery to warrant my embarking in the business on their plan.



This is the gold medal won by H. B. Gurler at the Paris Exposition in 1900 for his highest quality raw milk which kept sweet without preservatives for 21 days. Illustrations show both sides of medal.

I conceived the idea that the economical way to reach customers was through the regular milk dealers who could put the baby milk on a wagon that was going to the locality where it was ordered. I told the doctors I would undertake the work on that plan, and they accepted my suggestion.

The next point was to secure milk dealers who would take the agency for my milk. I soon learned that there was a combined determination not to have one in the field. Dr. Peck, of the Bowman Dairy Company, told my brother when I was ready to start the work, that they would give me just thirty days to operate. The large dealers refusing to take the agency, I was compelled to take such dealers as I could secure with the aid of the doctors.

At that time I was selling to Sidney Wanzer and Sons all the sweet cream from one of my creameries, but they would not handle my certified milk. My customers were secured through the doctors who prescribed the milk and told where to secure it. They did as ordered, just as they would take a prescription to a drug store, and in many cases the family would take their plain milk also from my agents.

This soon proved a boomerang to the men who were going to put me out of business, and they commenced coming to me to secure the agency. One firm that turned me down at first wished the agency for the whole city. This would have pleased me very much at the start, but I would not go back on the men who took what they thought was a risk. In this work I found it necessary to make a draft on nearly everything I had learned in twenty-one years' work digging into the dairy business.

The production of certified milk was soon taken up by several society people who wished to have something to play with, thinking that their money would secure men who were competent to give experience that they lacked, not realizing the enormous amount of detail to be mastered. This business grew until I was keeping 360 cows at my farm.

In 1900, Major Alvord, Chief of the Dairy Division of the U. S. Dept. of Agriculture, wrote me they were to make a display of dairy products at the Paris Exposition. He requested me to ship some milk for the government exhibit. This request staggered me. The idea of shipping raw milk 4,000 miles in the month of August seemed impossible to me. I had sent milk for babies to the Atlantic coast, also to the Pacific coast.

It took me some days to work up nerve enough to undertake this job, but I did finally reach the conclusion that I should have as much faith in my work as my friends had. In my thinking I hatched an idea and went to the farm to put the idea into effect. I took the milk from the bottling table, after it had been put through the separator to standardize and clarify it, and was bottled ready to ship.

There was no special preparation nor selection as we took the first bottles we came to. We put these bottles into a combination of chipped ice and salt and cooled them down near the freezing point as soon as possible. Then we packed them in ice and started them by express to New York. This milk was seventeen days in transit and kept sweet until it was 21 days old. It kept sweet a day longer, after reaching Paris, than did the milk produced in the vicinity.

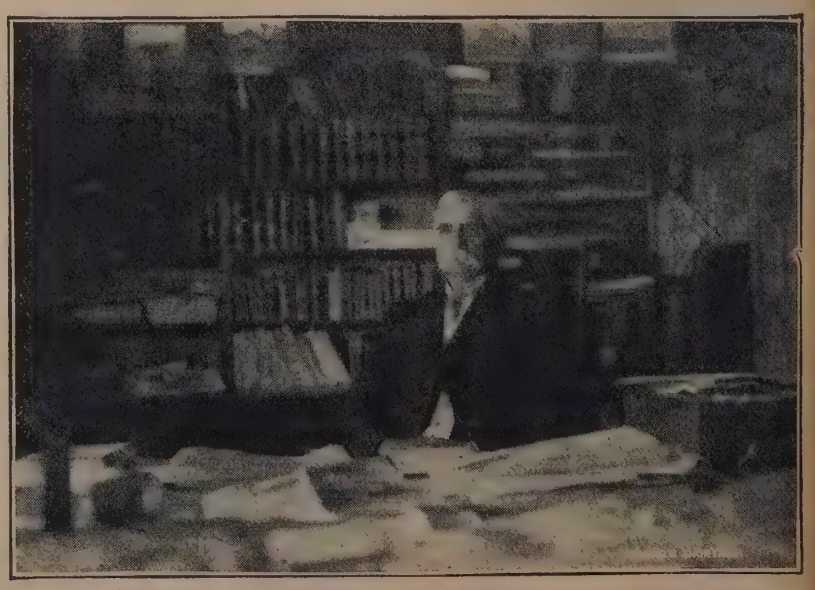
The judges believed my milk had been doctored, and had it analyzed before being convinced. They called it a Yankee trick. My reasoning proved correct, i. e., freeze it as soon as possible after milking, pack it in ice to New York, where it went into a refrigerator on board the vessel.

I had visitors at my farm from several foreign countries. The German professor in charge of the Experiment Station at Kiel was one of my visitors, also Dr. Hopkins Heath officer of the city of London, who said as he left my farm that there was nothing in England anywhere near up to my standard.

I finally sold this business to a competitor who had invested $250,000 in a plant with the view of outdistancing everybody, but found he could not hire a man who was able to get there, and he was losing $5,000 per month. After selling this milk business, I was offered $5,000 per year salary to take charge of a milk plant on the Atlantic coast, but had become tired of being nerved up to the point of commanding everything I ever knew about cows and milk.

The Babcock Test

As soon as Dr. Babcock had a machine for operating his test, Professor Henry wrote asking me to come up and see it in operation. I went to Madison and saw the doctor work a test and then worked one myself. I was so thoroughly pleased with the machine that I outfitted myself with a machine and set it up at our De



H. B. GURLER IN HIS STUDY AT WORK ON ONE OF HIS BOOKS

Kalb creamery and we commenced to familiarize ourselves with it.

We selected our Malta creamery as the place where we would commence paying for milk by this test, and commenced to talk to the patrons about it. We went carefully as it was such a revolution in the creamery work that it was not safe to crowd it. So we took considerable time educating the patrons along that line. We were very anxious not to make any mistake, as this was the first creamery that had ever paid by this test, and we had several other creameries and wished to put it in use in all of them.

A favorable sentiment developed gradually, and when the time was ripe, as we thought, we commenced to pay by it. Some of the low testing dairies received less than they had been receiving by the old pooling method, but they had become convinced of the accuracy of the test and made no objections.

I worked with the test all of the first year with this creamery, as I was determined there should be no mistakes made for us to stumble over in the future. After a year's work at this first creamery, we gradually introduced it in all our creameries. Comments about the Babcock test are uncalled for now as every person in the dairy or creamery work knows of it.

(To be continued)

Western Clubsters Compete

HOARD'S DAIRYMAN JUNIORS:—The Pacific International is the big event of the year in club work in the western states. Oregon, Nevada, Utah, Washington, and Idaho were represented this year.

One of the club show features was the colt club from Adams County, Washington, coached by N. C. Donaldson, county agent. The swine classes in the club work were strong as usual. The first live stock clubs started in the Northwest were pig clubs.

Cleo Ott won sweepstakes on the champion pen which was purchased for seventeen cents a pound. There were 27 exhibitors of sheep and goats. Norman Reid, Oregon, exhibited the champion fat lamb which sold for fifty cents a pound.

In poultry judging, a team from Multnomah County, Oregon, composed of Alvin Sheller, Chas. Edwards, and Rolland Sheller, took first place. The highest scoring individual in the contest was Howard Smith from the club representing the city of Portland.

The dairy calf classes were larger than heretofore. There were 70 exhibitors, of which thirty showed Jerseys, twenty Holsteins, while Brown Swiss and Guernseys were exhibited by ten boys and girls each.

Union County had the best record in club work. They were coached by H. G. Avery, county agent. The Union County delegation included Carmen Daniel, winner of the Hollywood Special, who was also third in the showmanship contest, and winner of first place on junior calf and second place on yearling heifer. Jane Daniel took fourth on senior calf and Troy Becker, fifth.

All of the prize winners named below were from Oregon:

Holsteins

Female 2 years old or over won by Walter Andregg; 2, Lloyd Grimes; 3, Lawrence Aylsworth. Yearling heifer won by John Fleming; 2, Carmen Daniel; 3, John K. Grimes. Senior calf won by Orville Blair; 2, Zena Grimes; 3, Jan Burns. Junior calf won by Carmen Daniel; 2, Edgar B. Grimes; 3, Raymond Ulrich.

Jerseys

Female 2 years old or over won by Sven Nelson. Yearling heifer won by Howard S. Loe; 2, Sven Nelson; 3, John Hult. Senior calf won by Helen Schweikl; 2, Howard Loe; 3, Clifford Ekstrom. Junior calf won by Earl Taw; 2, Herbert Kanne; 3, Alvin Tillman.

Guernseys

Yearling heifer won by Floyd Stafford; 2, Elm Petterson; 3, Ragnar Anderson. Senior calf won by Richard Stangel; 2, Melvin Stangel.

Brown Swiss

Female 2 years or over won by Anna Boeckli; 2, Magdelina Boeckli. Yearling heifer won by Sylvia Moser; 2 and 3, Minnie Grossen; 4, Howard Grossen. Senior calf won by Alice Moser; 2, Paul Boeckli; 3 Magdelina Boeckli.

Oregon. F. L. BALLARD.

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the button showing the head of your favorite breed of dairy cattle, and a handsome Dairy Farm Boy's creed. Mail your membership application *at once* to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now!

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue Let's talk it over.]

The Christmas issue contains many interesting articles. We are going to confine the review this time to three of them and this order—"Blood Will Tell Even in Worms," "Where Men Have Visions and Dreams Come True," and "The Feeding of Dairy Cows."

How important is the silkworm to Japan? It is even more important than the dairy cow is to Wisconsin. Three hundred million dollars a year is what this tiny worm brings to the Sunrise Kingdom, while Wisconsin's dairy output is about $250,000,000 annually.

How much "silage" do silkworms eat? The eggs are laid by the moth on cards of rice paper about 18x24 inches in size and each card contains about 225,000 eggs. To bring a card of eggs to maturity requires about a ton and a half of mulberry leaves, the silkworm's "silage."

Is the silkworm more efficient than the cow? Yes. A good mature cow producing about 5,000 lbs. of milk a year eats about four times as much protein as is found in her milk. The silkworm secretes 65 per cent of the protein it eats in the silk it makes.

How long is the thread in a cocoon? Almost four-fifths of a mile. Silk strands have a tensile strength a third as strong as a filament of steel of equal diameter.

To what is Mr. Hadley's success due? To his vision of what a profitable herd must be like and might produce, and then following the well-known laws of proper breeding and proper feeding. His 12 grade Holsteins on a rough, stony, New Hampshire farm averaged 13,966 lbs. of milk containing 607 lbs. of fat last year.

What is a ration? A ration is the total amount of feed given an animal in 24 hours.

What constitutes a good ration? A good ration is palatable, has bulk, has succulent feeds in it, and is well balanced, meaning that it has the right proportion of the nutrients, protein, carbohydrates, and fats for maintaining the cow and producing milk.

Teacher: Why should corn be cultivated?

B. B. (Bright Boy): So the birds can find the worms easier.

Opportunity is the only "knocker" that ever finds a welcome.

more distance on your old set



If you have a 201-A in the detector socket, just change that one tube to an RCA super-detector, Radiotron UX-200-A. Instantly—you have bigger distance reach. And if you are sure to get a genuine RCA Radiotron, that special detector will have a good long life.

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Message to Hoard's Dairyman Juniors



ON the emblem of our club which every Hoard's Dairyman Junior wears is the relief likeness of ex-Governor W. D. Hoard, pioneer dairy leader and founder of Hoard's Dairyman. Wouldn't you like to know more about "the man on the watch fob?"

Romance, adventure, struggle, tears and laughter are all found in "The Life of William Dempster Hoard," a fascinating new book written by George W. Rankin. It's a story dedicated to young folks and is full of interesting anecdotes. For example:

One day the boy Hoard was watching his grandfather feed the stock out in the yard. Suddenly a ferocious bull attacked the old gentleman. Without a chance to escape he stood his ground. As the bull lunged toward him, he side-stepped deftly, and as the angry beast rushed by, thrust the pitchfork into his side. This operation was repeated several times, until the bull, exhausted, fled out the gate and down the lane where it dropped dead.

The boy Hoard was so impressed that he exclaimed enthusiastically, "Grandpa! You're the bravest man in the world." Flushed with pride the old gentleman uttered this sage advice, "My son, remember this all through your life—in time of danger, take counsel of your courage, never of your fear." And Hoard never forgot!

In order that Hoard's Dairyman Juniors, and others interested, may obtain a copy of this book for "their very own" we are making a special offer. Send in three subscriptions (each three years for $1.00) to Hoard's Dairyman and we will mail you at once "The Life of William Dempster Hoard." A little hustling and you will have those three subscriptions in no time. Who will be the first to earn one of these fine books?

GET BUSY, AND USE THE COUPON!

Hoard's Dairyman Juniors, Fort Atkinson, Wisconsin:
Here are the three subscriptions. Please send me "The Life of William Dempster Hoard."

Name .....
Address .....
Name .....
Address .....
Name .....
Address .....

My name is ..... My address



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Grade Holsteins—Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years' experience. Can also furnish grade or registered Guernseys. JOHN ERICKSON, Waupaca, Wis. 18-Spl

My Entire Herd high grade Holstein cows mostly springers or just fresh, will sell any number. FRANK FISHER, Janesville, Wis. 27-3

For Sale—Pure bred Holstein heifer calves, $35.00. Bull calves, $25.00. GOHLKE BROS., North St. Paul, Minnesota. 27-2

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

For Sale—197 head of Holstein cows and heifers. ORVILLE CRAVEN, Excelsior Springs, Mo. 25-4

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 25-4

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Ten Registered Females of milking age, all safely in calf to a son of Langwater Warrior, whose first daughter to go on test sold at public auction for $11,000. Also several young bulls by this good sire. Priced for quick sale. Federal Accredited herd. LA BELLE KNOLL FARM, Oconomowoc, Wis. 27-2

For Sale—20 head high grade young Guernsey cows, a very few fresh, balance springing. These cows are well marked, splendid udders, and show high production. T. B. tested. Will put a dairyman in position to make money at once. Cheap at $2750.00 F. O. B. here. BOX 22, Smithville, Ohio.

Guernseys—12 fancy high grade heifers, 8 weeks old; the heavy milking kind, $20.00 each, shipped C. O. D. WILDWOOD FARMS, 1092 James, St. Paul, Minnesota. 27-2

Registered Guernsey Bull and heifer calves and yearling heifers. ALBERT B. HANSEN, Luck, Wisconsin. 1-3

Must Sell 15 high grade Guernsey cows, $1,850 if taken at once. NAGOW WUDJOO FARM, Waukesha, Wisconsin. 27-2

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

High Grade Guernseys. Justemere Guernsey Farm is offering your choice of herd, no reactors, 60 day retest guaranteed if they go into clean place. Fresh, springing and fall cows. Prices very reasonable. CHAS. W. BLOTT, Mukwonago, Wis. 17-*

Guernsey Bulls of serviceable age from A. R. dams; also grade Guernsey springers. FRUIT BROS., Waukesha, Wisconsin. 1-3

For Sale—Special offering 2 registered Guernsey heifer calves and 1 bull not related. See display ad page 49. LINWOOD GUERNSEY FARM, Homer Rundell, Livingston, Wisconsin. 1-*

Eight Grade Guernsey Heifer Calves from tested dams. Priced low. GRANT VOLLAND, Brookfield, Wisconsin.

Young Guernsey Bull—Seven nearest tested dams average 768 fat. FRANK KLEMM, Baraboo, Wisconsin. 1-2

For Sale—Yearling Guernsey bulls from tested dams; also registered females. Federal accredited herd. ROY BURTON, Eagle, Wis. 26-*

Guernsey Herd for Sale—20 heavy producing, young, high grade cows, T. B. tested, free from disease. Priced reasonable. WALTER KEMP, Ogdensburg, Wisconsin. 26-6

For Sale—Four pure bred Jersey heifers coming 2 years old. Brown Bessie—Majesty breeding, bred to Bosnia's Noble King No. 228476. LAW BROS., Magnolia, Ill.

Registered Jerseys. L. & C. MASON, Armington, Illinois. 27-4

LIVE STOCK WANTED

Will Buy Dozen Good Producing Registered Jersey or Guernsey cows, three to five years old. Must freshen in three months. F. P. EARLE, Fayetteville, Arkansas. 27-2

Holstein Bull—Will buy old one if good. J. J. FERNHOLZ, Alma Center, Wisconsin.

Wanted—Car of springers. FRANK McCARTER, Bayard, Nebraska.

EXCHANGE

Will Sacrifice My Equity in improved dairy farm for grade or pure bred Holstein cattle. Write A. BERG, Cook, Minnesota.

SWINE

Wanted—One serviceable boar of bacon type, at once. BROWN BROS. LBR. CO., Rhinelander, Wis.

Thoroughbred Yorkshire boars for sale. E. C. RANSOM & SONS, Avalon, Wisconsin. 1-2

DOGS

German Shepherd (Police) Puppies. Pedigree contains four International Grand Champions, one Reserve Grand Champion, and six Champions. Males $25, females $15. ROBERT JAMISON, Appleton, Wis.

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Hundred Fox and Wolf Hounds—Cheap. Catalog. KASKASKENNELS, Herrick, Illinois. 1-2

POULTRY

Bronze Turkeys, Toulouse Geese, McCRADIE, Hendrum, Minnesota. 1-4

BABY CHICKS

Liberal Discount on Broiler Chicks—Get chicks for broilers that you can raise. We can supply left-overs of heavy, or light breeds from Peters' Certified ... These are positively not culls, but big, ... eyed chicks that grow rapidly. Order ... nt on orders booked early. These are ... 100% live delivery guaranteed. ... price list. PETERS POULTRY ... on, Iowa. 26-*

...ES

... Black Foxes—Breeder... with our foxes, in... Booklet free. Twenty ... CARY BROS. FOX 20-12

MACHINERY

For Sale—Empire Milker, pump, tank, control, three units, extra pail, cocks, hangers, pipe, and fittings for forty cows. New style pulsators, good rubber. Bargain. Address BOX 241, care Hoard's Dairyman.

New Perfection Two Double Unit milking machine used only sixty days. Will sell at big discount for want of use. OSCAR D. GRUVER, Abbottstown, Pennsylvania. 1-3

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—No. 18 Smalley Force Feed ensilage and fodder cutter. Has been used very little. G. E. EMSTROM, Blue Hen Farms, Newark, Dela. 27-*

For Sale—Bottle filler and De Laval No. 17 cream separator, like new. F. H. BOYLE, Peebles, Wisconsin. 1-2

Ten Box Stalls, Milk bottle filler and roller feed mill grinder. E. A. JEPSON, Woodend Farm, Mound, Minnesota.

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

MILK BOTTLE CAPS

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

FARMS FOR SALE

In the San Joaquin Valley of California farming is now a paying business, feeding millions of people in towns. Dairying, hogs, poultry and fruit should yield a good income. A small one-family farm, with little hired labor, insures success. You can work outdoors all the year. Best crops to plant are well proved. Selling is done co-operatively in established markets. Newcomers welcome. The Santa Fe Railway has no land to sell, but offers a free service in helping you get right location. Write for illustrated San Joaquin folder and get The Earth free for six months. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Railway, 951 Railway Exchange, Chicago. 26-6

Dairy farmers are needed in the South to supply growing demand for dairy products. Locate in Black Soil section of Alabama where you are assured of making a success. Large creamery at Selma. Plantation has been divided up into suitable acreage. Lime lands can be bought at low prices. No need to have your cattle housed up all winter. Why try to fight the uphill game of farming in a cold country when you can make money and enjoy pleasant living in the balmy South? Write to me for your free copy of Southern Field and reliable information about this country. W. E. PRICE, General Immigration Agent, Room 604, Southern Railway System, Washington, D. C. 24-*

North Florida Dairy Farms. No tuberculosis. Lowest summer price for milk $5.80 per hundred. Beautiful, high, rolling country. Permanent all year around legume and grass pastures. No feed to buy. No blizzards or hurricans. Cooler in summer, warmer in winter than your country. Improved farms ready for plow $25 to $50 per acre. Easiest terms. Splendid water, good roads, schools and churches. Many Northern farmers with pure bred herds now here. Land values rising. For details write CHAMBER OF COMMERCE, Monticello, Florida. 27-4

Dairy Farm in South Florida For Sale—Finest herd of Guernsey cows in state, many purebloods, some imported. In sight of depot and express office, in easy reach of Palm Beach, Miami and Tampa. Close to two growing cities. Price from merchants and stands eighty cents, retail customers, one dollar and winter customers one dollar and a quarter per gallon. Fine barns, milk house, silo and York ice machine. Fine muck land, well drained. Feed in abundance can be raised. Good reason for selling. Write C. H. F., BOX 3390, Tampa, Florida. 27-2

2000 Middle West farmers moved to Oregon in last two years, after thorough investigation. They like our mild winters, cool summers, with no severe storms to ruin a season's work and destroy property. Fine roads and schools, productive soil, good markets for your products. Write for official bulletins and illustrated booklet of facts, Free. LAND SETTLEMENT DEPARTMENT, PORTLAND CHAMBER OF COMMERCE, 233 Oregon Building, Portland, Ore. 25-4

Attractive farm property for sale—500 acres in heart of rich and beautiful farm area, near Hartford, Wisconsin, Washington County. Thirteen substantial buildings in excellent condition, including grain elevator, cow barns equipped with eighty James stanchions, calf and bull pens, large hay barn, ice house, sheep and hog barns. Four concrete silos. Buildings wired for electric lights. Complete water system. For particulars and price, address E. L. PHILIPP ESTATE, Station "C," Milwaukee, Wisconsin. 25-4

Wonderful Opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Georgia.

READ THIS TESTIMONIAL—

"Just a little 4-line ad costing $4.80 rented my 208 acre farm. Received 67 answers. The farm was rented 10 days after the ad came out".

A. F. H. [Name on request]

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for free samples. MADISON CORPORATION, 564 Broadway, New York. 13-19

Agents—Our new household cleaning device washes and dries windows, sweeps, cleans walls, scrubs, mops, Costs less than brooms. Over half profit. Write HARPER BRUSH WORKS, 295 3rd Street, Fairfield, Iowa. 1-2

CREAMERIES

For Sale—Creamery in large California city. Manufacturing 1000 to 1500 pounds of butter daily. Butter sold to local stores. Address BOX 991, Oakland, California. 1-4

For Sale or Rent—Long established creamery, center thriving town. Also ideal location for ice cream stand. Must act quickly. C. F. WALL, Charles Town, W. Va. In the Shenandoah Valley.

KODAK FINISHING

Amazing Trial Offer! One Kodak roll film developed; 6 fine glossy prints; only 15c. ASSOCIATED PHOTO, Box 1463-L, Cincinnati, O. 24-6

GOOD THINGS TO EAT

Florida Oranges—Assorted box containing 24 juicy oranges, 4 grapefruit, 20 tangerines, 24 kumquats, glass jelly, $3.50. Express prepaid. TAYLOR'S PACKING COMPANY, Tampa, Florida.

FEED BAGS

We are now paying higher prices for empty feed bags. Write for quotations. THE DAYTON BAG & BURLAP CO. Dayton, Ohio. 23-*

RAW FURS WANTED

Wanted—Ginseng, Skunks, Raccoons, Minks, Muskrats, $1.75, Weasels, $1.50. Postage refunded. Flat price list free. STERNS', FURS, New Brunswick, New Jersey. 1-2

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

TOBACCO

Homespun Tobacco. Chewing 5 pounds $1.50; ten $2.50. Smoking 5 pounds $1.25; ten $2.00. Pay when received, pipe and recipe free, satisfaction guaranteed. FARMERS' UNION, Paducah, Kentucky. 25-4

Homespun Tobacco—Smoking or chewing. 4 lbs. $1.00; 12, $2.25. Send no money. Pay postmaster on arrival. Pipe free. UNITED FARMERS' OF KENTUCKY, Paducah, Ky. 25-4

Homespun Tobacco. Chewing or smoking 5 lbs. $1.25, ten $2.00; cigars, $1.80 for fifty, $3.25 for 100. Guaranteed. Pipe free. Pay when received. FARMERS' UNION, Paducah, Ky. 27-4

Guaranteed Homespun Tobacco—Chewing or smoking, 5 lbs. $1.25; ten $2.00. Cigars $2.00 for 50. Pipe free. Pay when received. FARMERS' ASSOCIATION, Maxon Mills, Kentucky. 1-2

Homespun Tobacco. Guaranteed. Chewing, five pounds $1.50; 10, $2.50; Smoking, 10 $1.50. Pipe free. Pay when received. UNITED FARMERS, Bardwell, Kentucky. 1-2

FARMS FOR SALE

Equipped Orchard and General Farm—72 fertile acres near city. Excellent markets and advantages, 40 acres tillage, stream watered pasture, valuable 10 acre woodlot; family orchard, grapes and berries; buildings valued $4300, 8 room Colonial home, fireplace, spring water, maple and elm shade, good barns, other buildings. To close quickly, only $3300 with 3 cows, horse, hens, implements, tools, crops included; part cash takes it. Details new Illustrated Catalog Supplement. Copy free. STROUT FARM AGENCY, 225-DL, 4th Ave., New York City.

Bargain Sale—Best stock and general purpose farm, unequipped, in alfalfa belt, only 5 miles to city of Syracuse, New York, population about 200,000. New cement road all the way. Very fertile land, almost level, 100 acres in alfalfa and plow land, 35 acres pasture, 40 acres fine timber, lots of fruit and shade, wonderful view. Eleven room house, furnace heated, acetylene light, electricity only few steps away. Three extra good barns and other out buildings. Unable to manage such large farm. Will sell for value of buildings. $3500.00 down, balance on long easy terms. Possession April 1, 1927. Address BOX 232, care Hoard's Dairyman. 27-2

208 Acres Fully Equipped—Near Saratoga Springs To settle an estate, price is $12,000 with 40 head cattle, all crops, feed, etc. and a marvelous list of modern tools and machinery; mile to village, electrics to the famous spring resort; modern 2 story 12 room house, bath, hot and cold running water, gas, 4 Italian marble fireplaces, main barn 80 ft., cow barn 70 ft., garage, ice and poultry houses. One of the best farms in N. Y. Everything in best of condition. Offered at half its real value. Only $5000 cash required. V. J. HADIN, Strout Agency, 1466 State St., Schenectady, N. Y.

Nearly $1000 per month milk income, 30 high producing cows. 300 quart milk route and modern dairy room. Ten minutes from one of the best known colleges in state, railroad and enterprising town, numerous college clubs give unusual markets. Level productive alfalfa farm, modern home, every convenience. Cement floor stable, drinking buckets, silo. Crops and tools. Price $14,000—$5,000 cash. W. H. MAYNARD, Canastota, N. Y. 1-2

On Account of Young Folks Drawn to City by high wages, there are opportunities for dairy farmers in Fulton County, twenty miles west of Toledo, Ohio. Fully equipped dairy farms can be bought at low figures. For full descriptions of farms, write WEBER AND ROBINSON, Wauseon, Ohio.

320 Acre Farm in Clark County, South Dakota, and 320 acres in Richland County, North Dakota, for sale; or will exchange for Yakima Valley land. Also have dairy ranch in the Yakima Valley for sale to close estate. TRUST OFFICER, Yakima Valley Bank, Yakima, Washington. 1-2

Farms for Sale—New pamphlet just printed describes Wisconsin Dairy Farms. Available now. Prices and convenient methods of financing. Write today. WISCONSIN DAIRY FARMS COMPANY, 105 Wells St., Milwaukee, Wisconsin. 25-4

160 Acres 6 miles southeast St. Joseph, Mo., on pavement. Dairy barn, silo, electric current, water system, modern house. Investigation invited. Sale desired to settle father's estate. CLARENCE SPEER, 107 South 7, St. Joseph, Mo.

Splendid Irrigated Farms in the dairy, corn and alfalfa district of eastern Montana. Low Prices. Easy purchase plan. Good markets. H. W. BYERLY, 117 Northern Pacific Ry., St. Paul, Minn. 1-2

Dairy Barn, Silo, electric current, water system, modern house. Investigation invited. Sale desired to settle father's estate. CLARENCE SPEER, 107 South 7, St. Joseph, Mo.

For Sale By Owner—Modern 160 acre dairy farm on paved highway. Electric lights, running water, one mile to town of 1,500; 20 miles to South St. Paul. H. C. DENZER, Farmington, Minn.

FARMS FOR SALE

For Sale—260 acres, modern dairy farm; near town, on concrete highway, southeast Wisconsin, excellent buildings. Full equipment including livestock, machinery and crop. Compelled to sacrifice. WISCONSIN MORTGAGE & SECURITIES COMPANY, 312 Brumder Bldg., Milwaukee, Wis. 26-4

Farm For Sale—Forest County, Wisconsin. 200 acres with 125 acres under cultivation. Modern buildings. On trunk line, four miles from station. Good schools and churches. Inducement for immediate sale. D. J. RAYMOND, Wrightstown, Wisconsin. 27-*

For Sale or Trade for Cattle—80 acres farm land, ½ mile from creamery. Pope County, Minnesota. Address BOX 244, care Hoard's Dairyman.

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

PARTNER WANTED

Wanted—A high class, proven successful dairyman of the north-west who has stock or capital sufficient and would be interested in a fifty-fifty proposition where a fertile two hundred acre alfalfa ranch, located in southern California ideal dairy country, near modern creamery, would be furnished. H. G. THOMAS, D. D. S., Blythe, Calif.

Wanted Partner interested in farming 240, and with capital to buy team or Fordson tractor. CHAS. F. DEWITZ, Middle River, Minn.

FARMS WANTED

Want Two 120 Acre Farms fully equipped. WALT MILLER, Carpenter Bldg., Milwaukee.

FOR RENT

Rare Opportunity—Give five year lease and interest in 15 cent quart milk business furnished in thriving city from exceptional improved northern Illinois farm to the purchaser of lessee's half interest in equipment and personal. Immediate possession. Address BOX 247, care Hoard's Dairyman.

To Rent—250 acre modern dairy farm with herd of 25 pure bred Holsteins, for term of years. References required. GEORGE L. WYMAN, Nunica, Michigan.

Farms to let on shares or cash rent. Must have some capital. Write full particulars, what help and reference. BOX 611, Delavan, Wisconsin.

WANTED TO RENT

Wanted—Fully stocked practical dairy farm to work on shares by experienced dairy family. Good feeder and caretaker. Address BOX 252, care Hoard's Dairyman.

Wanted to Rent—Modernly equipped dairy farm in southern Wisconsin by March 1. References. Address BOX 250, care Hoard's Dairyman.

DAIRIES

Dairy for Sale—70 head of milch cows. Selling milk wholesale at 65 cents a gallon. Birmingham, Alabama. Address BOX 211, care Hoard's Dairyman. 26-3

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Hay—Alfalfa and other kinds. Get our delivered prices We serve you best. W. A. FERSON HAY & GRAIN COMPANY, Kansas City, Mo. 17-*

Alfalfa Hay for Sale. Write for delivered prices. ALBERT MILLER & CO., 192 No. Clark St., Chicago, Ill. 18-*

Alfalfa and all kinds hay. Ask for delivered prices. HARRY D. GATES COMPANY, Jackson, Michigan. 22-*

Alfalfa hay for sale. Write us before placing your orders. J. D. REID & CO., 79 Board of Trade, Chicago, Ill. 24-6

For Sale—Alfalfa and other hay, car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 27-*

Alfalfa and Prairie Hay. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 1-3

MINERAL FEEDS

Mineral Feed as used by Waukesha County Dairymen—Licensed by Wisconsin Department of Agriculture. Send $2.50 for 100 lb. trial bag. WAUKESHA MINERAL PRODUCTS CO., Waukesha, Wis. 21-12

SEEDS

Alfalfa Seed—Do you know why your alfalfa winter killed? You no doubt did not use hardy grown WESODAK alfalfa seed. The seed we market is grown by our members who live in Western South Dakota. We market from producer to consumer. We grow S. D. No. 12, Registered Grimm and Cossack, and absolutely guarantee genuineness of variety. Write for price and samples to THE WESTERN SOUTH DAKOTA ALFALFA SEED GROWERS EXCHANGE, Nick Caspers, President, Mgr., Rapid City, S. D. 1-*

Buy Your Grimm Alfalfa Seed direct from the Introducer, and know that your foundation stock is pure, pedigreed seed, bred from the original Grimm strain. Acclimated to severe northwest temperatures since 1857. A. B. LYMAN, Introducer, Excelsior, Minnesota. The Home of Grimm Alfalfa.

Plant Kudzu for Hay and Pasture—More nutritious than alfalfa and yields more. Grows on well drained soil without lime or fertilizer. Never has to be replanted and never a pest. Write for information. CHEROKEE FARMS, Monticello, Florida. 1-4

Pure Certified Grimm's Alfalfa Seed direct from the man that grows it. Hardiest and best. Send postal for samples and folder for full information. TRIANGLE RANCH, Cottonwood, S. D. 27-*

Clover, Alsike and Timothy Seed mixed, $4.75 per bushel. Alsike and Timothy mixed, $4.50 per bushel. Clover and timothy mixed, $4.65 per bushel. Bags free. J. W. RICHARDS, Ferris, Ill. 1-3

Alfalfa Seed—92% pure, $6.80 per bushel; Scarified sweet clover, 92% pure, $5.00; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

Genuine Grimm Alfalfa Seed. White and yellow sweet clover. Reasonable prices. SAM BOBER, Newell, South Dakota. 27-4

Alfalfa Seed For Sale—600 bushels grown on our farm at Trenton, North Dakota. We handle only our own grown seed. A. R. VEITCH, Williston, N. Dak.

For Sale—Seed Corn: Silver King, Golden Glow, Northwest Yellow Dent. CHESTER KEISTER, Orangeville, Illinois. 1-2

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have you supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

MISCELLANEOUS

Investigate before buying harness. Send for "Wear-More" catalog. Pay $5.00 after thirty days free trial. Easy monthly payments. JOHN C. NICHOLS CO., 1867 Erie Avenue, Sheboygan, Wisconsin. 1-*

For Sale—Carload of dry hardwood, sixteen inch firewood. BEN RIEHLE, Athens, Wisconsin.

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*



Advertising in this department is 8c per word. Remit in advance.

POSITIONS WANTED

Wanted—Position as farm manager, by American, married, no children. Thirty-five years old. Experienced in the breeding and showing of pure bred dairy cattle and the production of high class market and certified milk. I can put your place on a paying basis. Holsteins or Guernseys preferred. Best of references. State salary. Address BOX 233, care Hoard's Dairyman. 27-2

Wanted—Position as manager or herdsman. Experienced in production and reproduction of cows and crops, raising calves. Am a good mechanic. Can furnish A-1 references and A. R. records. Prefer position with room for advancement. HAROLD LIVINGSTON, Geona City, Wisconsin.

Position Wanted—In creamery by young reliable man. Capable of handling all lines of creamery work. Preferably butter making. State wages and particulars in first reply. HERVEY S. BRAGDON, 443 Christie St., Ottawa, Ill.

Married Man, two small children, wants position on specialized dairy farm where could gain experience in proper care and feeding for milk production. Life time grain and dairy farmer. Address BOX 246, care Hoard's Dairyman.

Married man desires at once, position as herdsman or barnman on live dairy. Experienced in feeding and general dairy management. Can produce results. Wife board help. References given. Address BOX 248, care Hoard's Dairyman.

Wanted — Work on up-to-date dairy or poultry farm. Wisconsin Short Course graduate. Can bring results or no pay. HARRY G. McNALLY, Route 5, Joliet, Illinois.

The Institute of Agriculture, Springfield, Massachusetts, has a few first class men available for positions as farm managers, farm foremen, herdsmen, orchardmen, poultrymen, and gardeners. 26-Spl

Position Wanted—Herdsman or assistant, 31, single, reliable, clean habits, educated and experienced breeder, calf raiser, tester, milker. Address BOX 253, care Hoard's Dairyman.

Single Man—Life experience with all farm machinery and tractors wishes position as working foreman on large farm. Six years at present place. References furnished. Address BOX 249, care Hoard's Dairyman.

Wanted Position as Manager of large dairy farm by March 1. Broad experience. Married. References. Address BOX 251, care Hoard's Dairyman.

Position Wanted—By experienced herdsman. Have family, plenty of help. C. C. LAMB, General Delivery, South Jacksonville, Florida.

Position Wanted—Working foreman, farm or dairy. Middle aged, married, lifetime of practical experience. Address BOX 254, care Hoard's Dairyman.

HELP WANTED

Wanted—For February or March, experienced and practical working herdsman for a Guernsey breeding establishment in Western Pennsylvania. Must be sober, clean, industrious and capable of handling cattle for continual high production and A. R. work. Modern barns and pleasant surroundings. Single or married man. Give full particulars, references, wages expected, etc. in first letter. Address BOX 228, care Hoard's Dairyman. 27-2

Wanted—March 1. A working farm foreman and wife, without children. Must be thorough farmer and hustler between 35 and 45 years. Must be able to run tractor and take care of all farm machinery. Wages, $75 per month and accessories. Permanent position. Must be able to stand thorough investigation and furnish good references. Address R. SHETTLEMORE, 3456 Adams St., Chicago, Ill.

Wanted—Experienced men for farm work on a modern Michigan farm, to start work March 15th or April 1st. Must understand good farming methods and machinery, be good with horses and willing to do good work. Give experience and qualifications in first letter. Wages $60.00 per month with room, and board. Address BOX 242, care Hoard's Dairyman. 1-2

Wanted—Middle aged married man as working superintendent of my farms. This is a good steady position for the right man. Must have good references and would prefer a man who has graduated from an Agricultural College and had practical experience. Address your application BOX 243, care Hoard's Dairyman.

Wanted—By March 1, on large dairy farm, man with tractor and farm machinery experience. One able and willing to take the lead as working foreman. Steady work and good home. In writing give age, experience and possible wages expected. References required. Address BOX 245, care Hoard's Dairyman. 1-2

Wanted—Married man and son to operate new modern test barn, capacity eighteen cows. Must understand and like the work. Opportunity open Feb. 1st. Give experience, references and salary expected first letter. PAUL & MERRIAM, Cambridge City, Indiana.

Wanted—A1 experienced single Holstein herdsman. Must be good cattle man, have good A. R. O. records behind him, be reliable, with good references, $75 per month, room and board to start with. Might consider good married man without children. Address R. SHETTLEMORE, 3456 Adams St., Chicago, Ill.

Wanted—First class dairyman to operate modern dairy, with son to run milk route. On hard road, half mile from town. Buildings fully equipped with milking machine, etc. Pure bred Jersey cows. Address CHESTER JOHNSON, Chenoa, Illinois. 27-2

Firemen, Brakemen, beginners $150-$250 monthly; also clerks, railroads every where (which position?). RAILWAY ASSOCIATION, Desk M-10, Brooklyn, New York. 1-2

Wanted—Experienced single man for dairy barn on general farm in Southern Wisconsin. Reliable and good milker. State wages and full particulars first letter. No cigarettes. Address BOX 240, care Hoard's Dairyman.

Experienced Test Cow Feeder, either married or single wanted. An excellent opportunity with one of Wisconsin's best Guernsey herds. The right man will be advanced as he demonstrates his worth. LARSENS STERN-DELL FARMS, Green Bay, Wis. 1-*

Wanted—Married man March 1 experienced in general farm work on 120 acre dairy farm. Wages $80 month, house, garden, milk. Give age, nationality, size of family, experience, references. C. H. NICHOLS, Hebron, Illinois.

Railway Positions—Men, 17-40, wanting positions office or on trains, $125-$400 monthly, free passes, experience unnecessary. Write BAKER, Supt., 124, St. Louis, Mo. 1-24

Wanted—Steady man or boy for general farm work and help milk. $40.00 per month, board and washing. Hollander preferred. BERNARD MARLEY, Nokomis, Illinois.

Wanted—Single man for farm work. Must be experienced and reliable. State age and wages. Year round job. HERMANN KELCH, Whitewater, Wisconsin. 1-2

Farm Help Wanted—Working manager and single man. State wages and experience, HERMAN KNOLL, Ottawa, Illinois.

Brown Swiss Shipped to Peru

One of the first sales of Brown Swiss from this country to South America was recently made by W. O. Bohart, who sold 65 head from his Montana farm to the Cerro de Pasco Copper Co. of Peru. It is the company's intention to cross Brown Swiss bulls on the native cattle.

A co-operative creamery should not be started until farmers owning 800 cows or producing 150,000 pounds of good quality butterfat a year have signed an agreement to deliver their cream to the creamery for from three to five years. A local creamery that will accept poor quality cream is doomed to failure.

Sale Announcements

Jan. 18, 1927—High grade Guernsey cows. McKerrow Farms and Aplin & Benjamin, Waukesha, Wis.

Jan. 26—Andrew Dixon & Son, Holsteins. Rockford, Minn.

Feb. 10—Holsteins. Ninth Annual Red River Valley Holstein Sale, Crookston, Minnesota. Melin—Petersen Co., Mgrs.

March 23, 1927—25th and semi-annual sale of Registered Guernseys. Waukesha County Guernsey Breeders' Ass'n., Waukesha, Wis., F. E. Fox, Sec'y.

Mar. 24—La Crosse County Guernsey Breeders. Registered and high grade Guernseys, West Salem, Wis. H. W. Griswold, Sale Mgr.

May 3, 4, 5, 6, 1927—Fond du Lac, Wis. 400 head registered Guernseys. O. G. Clark, West Salem, Wis., Sale Mgr.

May 7, 1927—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.

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90 acres cleared land — 75 acres woodsland and pasture. Five room residence, also barn and stables. One additional tenant house, climate mild. Grazing 10 months of the year. Located in community of fine people, near excellent school and church.

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115 miles from Wilmington, population 40,000.
85 miles from Columbia, population 40,000.

Creamery plants located in each of the above cities.

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Farm Department

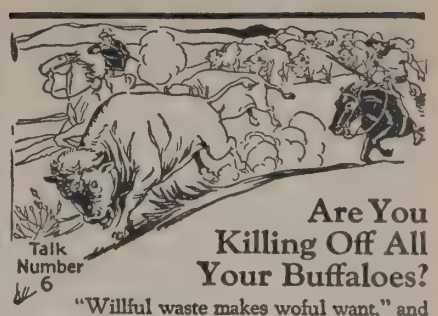
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But the farmers of the East were buying buffalo robes to keep themselves warm when they drove to town on winter mornings. Robe dealers were paying a pittance for the hides and the plainsmen were short-sighted. Day after day they stalked the magnificent herds. Thousands and tens of thousands of carcasses were left to decay on the ground every year. No more willful waste is recorded in history, and the plainsman lived to see the result of his folly. He awoke one morning to the realization that the buffalo was gone. His kind was all but extinct and the plainsman had profited practically nothing from his wholesale slaughter.

The buffalo was the victim of thoughtlessness and mismanagement in the time of plenty. He was like your rent dollar. One by one your rent dollars drop into your landlord's pocket, and you get in return even less than the plainsman realized on his hides.

Have you ever counted the rent dollars that have gone that way? Figure it up—then think where you might be today if you had applied them to a good piece of dairy farm land in Wisconsin. It isn't too late. Write now and let us explain how you may store your rent capital and become an owner of a fine dairy farm in the greatest dairying State in the Union.

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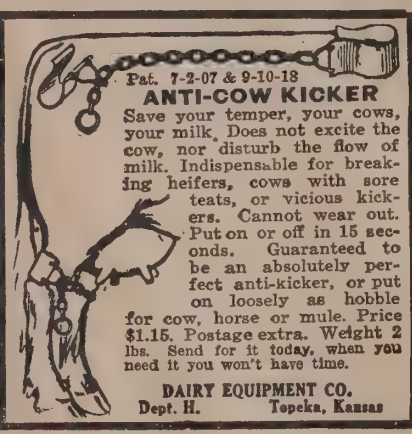
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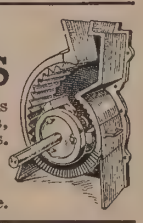
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Feeding is one thing in swine husbandry but saving large numbers of pigs per sow bred is quite as essential. To do this one must know the causes of pig losses and their relative importance before he can do the right thing at the right time. The article below discusses the causes of pig losses.

Causes of Pig Losses

In some swine cost of production studies made by the U. S. Department of Agriculture in Iowa and Indiana in 1922, 1923, and 1924, we find some interesting data relative to the causes of pig losses from farrowing time to weaning time and their relative importance.

Averaging the figures for the two states for the three years we find that for every 1,000 pigs farrowed 331 were lost from various causes by the time the surviving pigs were weaned. Large litters of pigs weaned per sow bred is a very important item in production costs. Knowledge of the causes of loss and the relative importance of these is valuable in so far as it enables one to place the prevention emphasis at the right place.

Forty-seven per cent of the pigs lost met their death by being laid on by the sows. Next in importance are dead and weak pigs when farrowed. These two causes account for 22.8 per cent of the losses. The next important cause is from pigs being chilled or unduly exposed. The other causes given in order of number of pigs lost by them are: Pigs starved, pigs eaten by sows, pigs injured, scours, sore mouths, smothered, thumps, cholera, milk fever, and overheating. Miscellaneous causes account for 11.7 per cent of the total losses.

Arranging these causes by groups we find that pigs overlaid, chilled, injured, eaten by sow, overheated, and smothered account for 58.6 per cent of the total losses. Pigs born dead and those too weak to survive account for 22.8 per cent of the losses. Malnutrition and diseases account for 6.9 per cent of the total losses and of these, pigs starved and pigs lost from scours are the most important.

The first group of causes would require more constant and careful attention at farrowing time and for two weeks thereafter to reduce the losses. The second combined causes resulting in dead and weak pigs would call for better feeding and management of the pregnant sows to reduce the losses. The third group of factors causing loss would require better sanitation and a little closer attention to the pigs after they have escaped the farrowing hazards. The miscellaneous causes would require, naturally, attention of a miscellaneous character and these losses would be reduced by a closer attention to preventing losses from the other causes given.

Protein Supplements Compared

The Minnesota College of Agriculture exhibited 5 lots of pigs at the Minnesota State Fair last fall which demonstrated the efficiency of buttermilk as a protein supplement when compared with tankage, rape pasture, middlings, and no supplement. The pigs were started at an average weight of 47 lbs., and fed for 80 days.

The rations fed each lot were about the same except in the character of the protein supplement. Shelled corn, ground oats, and mineral formed the basis of the ration and was fed as an entire ration to one lot of pigs. This lot did the poorest of any, weighing on an average of 87 lbs. at the conclusion of the experiment and the cost per pound gain was 9.1 cents.

The first lot was fed shelled corn, ground oats, buttermilk, and a mineral mixture. They weighed at the conclusion of the experiment an average of 162.6 lbs.; their cost of gain was 5.4 cents per pound. This was the heaviest lot and made its gains the cheapest.

The second lot received tankage instead of buttermilk. They finished at 127 lbs. weight and 6.7 cents cost per pound of gain. The third lot received rape pasture in place of the buttermilk. They finished at 124 lbs. weight and a cost per pound gain of 7.1 cents.

The fourth lot got a ration of shelled corn, middlings, and mineral mixture. They finished at 111 lbs. weight at a cost per pound gain of 5.5 cents. All the pigs in the five lots were fed 80 days. The high value of buttermilk as a protein supplement for feeding pigs was conclusively demonstrated.

The necessity for feeding a protein supplement is brought out forcibly by the results of another Minnesota experiment in which the feeding was carried on for 125 days.

Pigs denied such feeds weighed but 114.8 pounds each at the end of the feeding period, while those in a lot given buttermilk weighed 236.13 pounds each. Another lot which received tankage instead of buttermilk weighed 180.53 pounds each. The feed cost of 100 pounds gain was for the first lot $8.23. for the second $5.84, and for the third $5.98. The pigs were of uniform weights at the start.

Helping the Fall Pig

A ration composed of corn, tankage, chopped alfalfa hay, and linseed meal makes fall pigs grow approximately as well as spring pigs, according to F. B. Morrison of the Wisconsin Experiment Station.

The corn should be fed in a self-feeder. A mixture of 50 pounds of tankage, 25 pounds of linseed meal, and 25 pounds of chopped alfalfa hay should likewise be fed in a self-feeder but separately from the corn. If one attempts to feed the four feeds separately the pigs will not eat enough of the linseed meal and chopped alfalfa. The alfalfa hay supplies a good quality of protein; it supplies essential vitamins for normal growth and it supplies bone building substance—lime and phosphorus.

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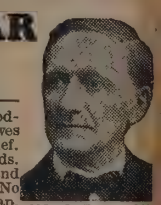
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The Milwaukee Electric Railway & Light Co., with the State's approval, authorizes Securities Department to offer direct to home investors a $2,000,000 issue of its 6% cumulative preferred shares. Money got for the shares will pay for income-producing additions to the Company's public service property.

The shares sell at $100 each, payable all cash or $10 down and $10 per share monthly for nine months. Dividends on paid-up shares start the day you buy them. Interest at 6% is allowed on monthly payments, credited on the last payment. If you do not finish your payments, you get back all you have paid in, but without interest. Buying either way, you get 6% annual income on every dollar invested from the day you buy these shares. Equally with all earlier preferred shares, these shares have a first claim on the Company's dividend earnings, and on its assets to full face value, in case the business is ever sold or dissolved, ahead of the $19,000,000 of outstanding common stock. The dividend priority of these shares is CUMULATIVE—that is, dividends of 6% must be paid on these shares every year before the holders of the common shares can get any dividend on their shares. The safety of these shares is indicated by these facts: the Company, now thirty-one years old, has paid every obligation on the due date, in cash and in full, since it began business. It has paid cash dividends in full on its preferred shares every three months for the past twenty-seven years. It has paid cash dividends on its common stock, averaging 8% annually, every year for the past twenty-four years. It is today one of the strongest, best built and best managed public utility properties in the United States. It serves one of the richest, solidest industrial districts in the United States. It is a permanent, necessary industry. Its business grows larger every year. Most of its growth is still ahead of it.

The 6% dividend rate is dictated by the present and probable future cost of capital for first class preferred shares in this part of the country. Back in 1921 Milwaukee Electric sold an issue of 8% shares—forced to it by then current high capital costs. Since then that issue has been called in and paid off at $103 a share. Later, with capital costs lower but still above normal, the Company sold issues of 7% shares. Those shares, still outstanding, cost their buyers $100 each and are worth today, on a 7% income basis, at least $110 a share. The 6% shares now offered at par $100 are worth par, measured by the rate and safety of their income. Capital costs have fallen this far since the World War, and may fall still lower in the years to come. These 6% shares are callable at $110 each, plus accrued dividends to date of call.

Big investors are not barred, and it is likely some good-sized blocks of these shares will be bought by rich men and women who realize that dependable, permanent, 6% income investments are hard to find, and bid fair to become even scarcer hereafter. We wish, however, to sell the shares, so far as possible, to our customers and other friends here at home who want a business rate of income from their savings. Milwaukee Electric and its associated utilities in Wisconsin and Upper Michigan have close to 25,000 satisfied home shareholders, all naturally interested in helping increase the business. The sale of this issue is expected to add 2,000 to that number and at least 1,000 of our present shareholders will enlarge their interest in the business by purchasing shares of this issue.

These shares are on sale at Securities Department, Public Service Bldg., Milwaukee, at the offices of Wisconsin Gas & Electric Co. in Racine, Kenosha, Waukesha, Watertown, Burlington, Whitewater, South Milwaukee and Cudahy; at the offices of Wisconsin Traction, Light, Heat & Power Co. in Appleton and Neenah-Menasha; at the office of Badger Public Service Co. in Plymouth and at the offices of Peninsular Power Co. in Iron Mountain, Michigan. Mail orders will be filled promptly by registered letter. Address

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Choice Heavy Chicks for Broilers 100, $14; 300, $40.50 500, $65. Assorted Chicks, 100, $12; 300, $34.50; 500, $55

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From America's most famous Heavy Laying Strains, Tancred, Martin, Sheppard, Holterman, Queen Bess, etc, CONTEST WINNERS. The Cream of the World's best Bred-To-Lay flocks. Our Wonderful FREE POULTRY BOOK with many COLOR PLATES showing our CHAMPION FOWLS in their natural colors, tells all about them and prices. Get it NOW. 10 PERCENT DISCOUNT on orders placed this month. Member I. B. C. A. and A. B. C. P. Ass'ns. Ref.—Burnetts Bank. Chicks POSTPAID. Live Delivery Guar.

CARTER'S CHICKERY, Box 29, ELDORADO, ILLINOIS

320 EGGS!

That's what one pullet owned by Mrs. A.C. Miles did and her **flock average** was **250.** Our accredited chicks grow into record layers. We hatch all leading kinds. Our **free** copyrighted chick book tells why we can hatch the BEST at prices that are causing people to wonder how it's done. Get our 2 color illustrated chick book **now.** It's Free. FREE!

COLONIAL POULTRY FARMS, Box 614, Pleasant Hill, Mo.

Wickless! the New 1927 SOL-HOT CHICK BROODER

The New 1927 Sol-Hot is the most wonderful brooder we have ever built — it's the crowning achievement in Sol-Hot's many years of undisputed leadership. It's WICKLESS — has no wicks to trim; no carbon; no smoke; no smothered chicks. Equipped with New Twin-Float Automatic Oil Level.

NEW TWIN FLOAT OIL CONTROL Requires No Adjustment

Wonderful New Patented Invention

Our New Patented Twin-Float Oil Level is the greatest invention ever made for chick brooders. Write today for free catalog telling all about the wonderful new Sol-Hot—the brooder that is creating such a sensation throughout the poultry world.

H. M. SHEER COMPANY Dept. 75 Quincy, Ill.

(8)

COCKEREL SALE

3 to 4 months old S. C. W. Leghorns FROM TRAPNESTED STOCK of 240 to 290 egg records at $2 each while they last. Write

WISCONSIN HATCHERY, Inc., 1318 Williamson St., Madison, Wis.

WHITE LEGHORN CHICKS

sired by pedigreed males, records 200 to 293 eggs. Low prepaid prices. Shipped anywhere C. O. D. and guaranteed. Hatching eggs, cockerels, pullets, hens, egg bred 27 years. Winners at 17 egg contests. Write for free catalog and special price bulletin.

GEORGE B. FERRIS, 965 Union, Grand Rapids, Mich.

64 BREEDS Most Profitable pure bred Northern raised chickens, ducks, geese, turkeys. Fowls, eggs, incubators at reduced prices. 34th year. Largest plant. Fine valuable 100-page book and catalog free.

R. F. Neubert Co. Box 811, Mankato, Minn.

HEN PROFITS

Millions of hens are giving handsome profits because

PILOT BRAND OYSTER SHELL FLAKE

is kept before them all the time.

Its cost is very little.

Sold everywhere.

PILOT BRAND OYSTER SHELL FLAKE

FOR POULTRY

OYSTER SHELL PRODUCTS CORP.

Shell Building St. Louis, Mo.

UBIKO

BUTTERMILK Egg Mash

PRODUCES EGGS AT 11c to 17c PER DOZ.

Ubiko Buttermilk Egg Mash, which holds the world's best flock record, will contribute wonderfully toward the health and vigor of your hens and produce eggs at a surprisingly low cost—make sure your hens are fed Ubiko Buttermilk Egg Mash.

UBIKO MILLING CO. 5224 Carthage Ave., Cincinnati, Ohio

POULTRY SERVICE a valuable bi-monthly bulletin mailed Free to poultry owners—send us your name and address.

...AKERS OF ...ON GRAINS ...ST DAIRY FEED MADE

...l help to you? Why not ...e good things we share ...most enjoy. Get up a ...and send them in.

Poultry on the Dairy Farm



A Poor Way to Start

I would like to get some information in starting in a small way to raise chickens. I am not intending to do much in egg production but chickens for market. I want to find out something in the way of what buildings I need to get started, say, about 500 to 800 the first year. I have a farm of 200 acres, all in fine shape, fine buildings, and want to make a little extra money in chickens.

Oshkosh, Wis. F. H. H.

I very much believe that the method which you contemplate is doomed to failure in the very beginning if you start with the expectation of carrying from 500 to 800 chickens the first year without any previous experience and expect only to cater to the market poultry end of the business without an attempt to get egg production.

We look upon egg production as the principal source of income from poultry and the meat side of it is rather a side product which we market to our best advantage.

It is possible to produce quality eggs and place those on a market which will pay a premium for them. Such is not the case with poultry. Anyone of the marketing establishments, either private or co-operative, can take the average run of poultry as it is received from farms and can sort these birds out into their respective classes and by putting them through a proper finishing and feeding period and dressing them out they are able to make from this sort of a mixed and motley collection a choice article which will obtain a premium when marketed. This entirely prohibits one from catering to any special market which will pay the premium, since it is easier and more feasible to take the average run of stuff and sort out of that the quality with a low overhead than one would encounter in a private enterprise of this sort.

If you wish to take one of the medium weight breeds, or one of the so-called "dual-purpose breeds," such as the Barred Rocks or Rhode Island Reds, which are cited as an example, and breed these for egg production or keep them for egg production, that is an entirely different story. It is possible to breed up any one of these or to obtain high production strains of any of these varieties. In this case, however, a person is keeping them for the egg production, and then disposing of the surplus fowls to the best advantage that the market offers.

There has been some attempt made to revive the winter broiler industry during the past year, when enough has been known about poultry nutrition to compile a ration that will prohibit the development of leg weakness in the chicks. This has resulted in a few instances in a considerable number of winter broilers being placed on the market.

One even then is competing with the lower price product since the demand for quality broilers is undoubtedly rather limited and it is possible for the average person to obtain cold storage broilers. These are usually birds that have been hatched late in the year, come on the market in the fall while still small, and in classifying these they are graded out as broilers and go into storage under that grading.

If the start is to be made in some one of the counties that has a county agent, I should advise you to get in touch with him, since he is the logical clearing house for you to consider and will be able to put you in touch with some poultry minded person in the county that has good equipment, is practicing good methods, and is making a success of his poultry work. Usually the closer to home that we can get these instances, the more successful we are going to be.

It will be rather a hopeless job to attempt to outline or to list the successful parties that might be required in order to have them within access of your present location.—J. B. HAYES.

The Champion Hen

HOARD'S DAIRYMAN:—What is declared to have been the greatest egg laying contest ever staged has just been concluded at the Dominion Experimental Farm, Agassiz, and as a result British Columbia is now very much in the limelight as a poultry breeding center.

Hen No. 6, in the White Leghorn pen entered by the University of British Columbia, with a total production of 351 eggs in the period of a calendar year, has beaten all previous records. The previous record for this continent was 335 eggs laid at Puyallup, Washington, but New Zealand claimed a record of 342 made by a hen owned by Mr. Drewitt of Christchurch, in 1923, while Australia had a record of 347, made at Gatton, Queensland, in 1924. All these records were easily beaten. The hen laid 200 eggs without a break and during the year had only 14 rest days! Yet after the contest she was in splendid shape and weighed 4.4 lbs. compared with 3.5 lbs. when she entered.

But equally wonderful was the performance by a Barred Rock in the pen entered by the Experimental Farm which laid 326 eggs. This also beats the world's record for the breed which, it is claimed, was held by a Barred Rock entered in last year's contest and also owned by the Experimental Farm which laid 321 eggs.

An Ancona hen with a production



Professor Lloyd and the champion hen with a record of 351 eggs in a year. The hen is owned by the University of British Columbia, Canada.

of 257 eggs also beat the Canadian record for that breed.

Forty-six pens, each containing ten birds, were entered in the contest, the breeds represented being as follows: White Leghorns, 36 pens; Anconas, 2: Barred Rocks, 3; Rhode Island Red, 2; White Wyandottes, 3.

In the contest, points were given according to the weight of the eggs. Eggs weighing 24 ounces to the dozen were taken at par; those scaling an ounce less were docked a point and those averaging heavier were given a higher score.

The University pen laid the greatest number of eggs—2,946—but they only scored 2,829.6 points and the pen, on points, was seventh in the contest. The winning pen—White Leghorns—was owned by F. W. Appleby, of Mission, with 2,556 eggs which scored 3,057.5 points. J. H. Mufford & Sons, the owners of last year's winning pen, were second with 2,457 eggs scoring 3,048.3 points.

The average for the 460 birds in the contest was 231 eggs.

British Columbia. A. H. COTTON.

Soft Shelled Eggs

I have a flock of White Minorca hens which started laying about three weeks ago, but now start laying soft shelled eggs. I feed them oats, wheat corn, cod liver oil, egg mash, oyster shells, and charcoal. What can be the trouble and what can I do for this?

New Germany, Minn. (MRS.) F. O.

The cause for the soft shelled eggs produced by this flock may be due to any one of several different things. It has been found that soft shelled eggs are produced by hens that have been injured, such as that occasioned by a fall, and it may also be caused by the birds being frightened. In this case the eggs slip by the section in which the shell is formed without deposit being completed.

One way in which this injury can be eliminated is by placing the roosts on a level rather than putting them at a slant such as one so often finds, particularly in older types of poultry houses. The flock in endeavoring to roost at the highest point, which means the top roost, causes a certain number of them to fall off with the result that injury often results. It may not be indicated in any way other than in soft shelled eggs.

A second cause comes from frightening them. A person should always be careful in approaching a house that has a good bunch of producing pullets, to let them know you are coming before you rush in on them.

The third should be taken care of in the fact that you are using cod liver oil as a part of your feeding ration. I presume that this is used at the rate of 2% to the mash, or that about one quart is added to about 100 pounds of the dry mash mixture and that your mash consumption is held up to the proper level by the control which you exercise in the amount of grain offered to them.

The cod liver oil should not be taken as a sole cure for this trouble, since one should also take advantage of whatever direct sunshine may be obtained by opening the windows whenever the sun is shining, allowing the sun to shine directly on the birds. The combination of the two is preferable to the use of the oil alone.

Any one of these three may be the cause of it and a person should decide to check up on it in order to eliminate it.—J. B. HAYES.

Pacific Butter and Poultry Meeting

The fourth annual convention of the Pacific States Butter, Egg, Cheese, and Poultry Association will be held at Salt Lake City January 31, February 1 and 2, 1927. It is doubtful if the association has ever had so many important events lined up for a convention. Special features include, besides the business meetings and luncheons, scenic trips in and about Salt Lake City, visits to the state capitol, the famed "Mormon" Temple and Tabernacle, a "bob" sleigh ride—weather permitting, or a cabaret dinner dance, and a visit to the world's largest open-cut copper mine.

Program and other details may be secured by writing J. A. Nelson, Newhouse Hotel, Salt Lake City, Utah.

Wisconsin Poultry School

The Fifth Annual Poultry School during Wisconsin Farmers' Week will be held January 31—February 4 at the Poultry Building, Madison, Wis. Sessions will be held daily from 8—11 a. m. and 2:30—5 p. m.

As an accommodation to parties interested only in a certain phase of poultry keeping, the program has been arranged for that purpose. Monday, Poultry Diseases and Sanitation; Tuesday, Marketing; Wednesday, Breeding and Incubation; Thursday, Feeding and Nutrition; Friday, Turkeys, Capons, and Dressing Demonstrations.

An excellent staff of speakers has been obtained to assist along particular lines.

There is no charge or tuition during this school, and an invitation is extended to attend all or any of the days.

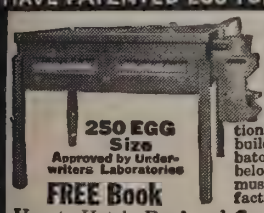
POULTRYMEN REPORT 80% to 94% HATCHES

One Pull Turns Every Egg

Miller's Patented Trays are the greatest forward step in incubator construction. All eggs turned in one minute. Save time, insure bigger hatches and stronger chicks. Users report 80% to 94% hatches.

"IDEAL" Incubators have many exclusive features, tested and proven successful. Our 38 years' experience enables us to offer the best incubator in construction and performance. They give universal satisfaction, produce bigger hatches and require little attention.

MILLER'S "IDEAL" INCUBATORS HAVE PATENTED EGG TURNING TRAYS



250 EGG Size
Approved by Underwriters Laboratories

In Miller's "IDEAL" Incubators you get all of these time and money saving features at no extra cost. Volume production enables us to build superior incubators at prices well below what others must charge. Satisfaction Guaranteed.

FREE Book

How to Hatch, Feed and Care for Chicks. Describes Miller's "IDEAL" Incubators, Brooders, Eggs for Hatching and Baby Chicks. WRITE TODAY! Bargain Prices.



J. W. MILLER CO.
Box 64, Rockford, Ill.

NOW FREE SHOEMAKER'S POULTRY BOOK



Shows and describes $3 varieties of Old Reliable Strains of SHOEMAKER Blood Tested Flocks of PURE BRED POULTRY Backed by 38 years of breeding prize winners. Gives many useful facts about handling, feeding, diseases and remedies. Quotes LOW PRICES on fowls, eggs, CHICKS, Brooder Stoves and supplies. Write for this valuable BOOK — it's FREE.

C. C. SHOEMAKER, Box 103, Freeport, Ill.

LOWELL'S



COW CLEANING PRESCRIPTION

Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It relieves GARGET and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1 a pkg 6 for $5

Mfg. by Lowell Blaisdell & Co.
5804 N. Harlem Ave. CHICAGO, ILL.



Horns Can't Grow!

After using TOMELLEM PASTE on calves up to 2 months old. An easy and safe way to do away with dangerous horns. One application enough. No bleeding, soreness or scars. Endorsed by county agents. Keeps indefinitely. Bottle sufficient for 50 calves. $1.00 Postpaid. At dealers or direct by mail from

TOMELLEM CO., Dept. B, CALICO ROCK, ARKANSAS

Have a Better Farm



Good fences will enable you to have a better, more profitable farm. They permit modern, diversified farming, more live stock and poultry, easier marketing and more fertile soil. They distribute the work, save hired labor and make each field yield more profit.

SuperZinc-ed REG. TRADE MARK

Pittsburgh Perfect and Columbia Fences

are designed to give the greatest possible service per dollar invested. They are made from our own formula of steel which has unusual strength and an affinity for the heavy zinc coating which insures great durability. Both the Columbia and Pittsburgh Perfect brands have proven their merit under the tests of severe service. Buy the dependable Super-Zinced Fences for your spring fence improvements.

Guaranteed

All of our fences are Super-Zinced, that is, armored against rust by the heaviest coating of zinc that can be successfully applied to wire, and are guaranteed unexcelled in quality and durability. Look for our brands when buying fence, barbed wire, gates, steel posts and wire nails. Write for catalogue and our excellent new booklet, "Farm Records", mailed free upon request.

FREE



Pittsburgh Steel Co.
701 Union Trust Building
Pittsburgh, Pa.

Gentlemen: Please send me FREE, your new booklet "Farm Records", also Super-Zinced Fence Catalogue.

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Address _____

KITSELMAN FENCE

NEW LOW PRICES on Farm, Poultry and Lawn Fence, Steel Posts, Gates, Barbed Wire, Paints and Roofing. Factory to You. We Pay the Freight. 'I saved $22.40' says Geo. E. Walrod, Huron County, Mich. Don't delay, write today for FREE Catalog.

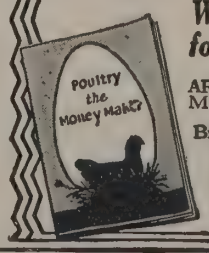
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KITSELMAN BROS., Box 256 Muncie, Ind.



Wonder
REG. U.S. PAT. OFF.
LAYING MASH

MAKES your hens lay more eggs—you make more money—it's a wonder.



Write Today for free book

ARCADY FARMS MILLING CO.
Dept 11
Brooks Building
Chicago, Ill.

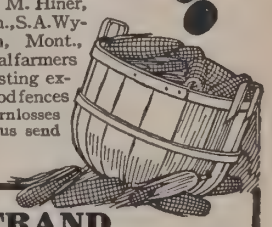
CALIFORNIA PRUNES

New crop best quality sugary French prunes. Ripe fruit, not sulphured, clean, keeps well. Send $3.00 for 25 lbs. in Sugar Pine chest, or $1.50 for 10-lb. canvas bag. Small express charge.

OAK FLAT RANCH
Route A, Box 188A, Paso Robles, Calif.

I want More Money from your farm

W. O. Morgan, Richland, Ia., Wm. Luscombe, Fairmont, Minn., A. C. Hanson, Inwood, Ia., Carl Schultz, Russell, N. D., J. M. Hiner, Reed Point, Mich., S. A. Wyrock, Lewistown, Mont., and other practical farmers give some interesting experiences with good fences and show how to turn losses into profits. Let us send you their stories.



RED STRAND "Galvannealed" FENCE

Know why we use more copper in our steel and cover the wire with a heavier zinc coating to make Red Strand "Galvannealed" last many years longer.

Thousands of farmers have used Square Deal fence for many years. Now, with more copper and a heavier zinc coating, they like the new Red Strand "Galvannealed" better than ever, especially when they know that this longer lasting, finer fence costs no more per rod than any other standard make and that it costs less per year because it lasts so much longer.



Hundreds of careful buyers are writing us daily to find out about Red Strand "Galvannealed" before they invest in any more fence. It will pay you, too, to get all the facts. Ask your Red Strand fence dealer or write us.

Key Ste...

80

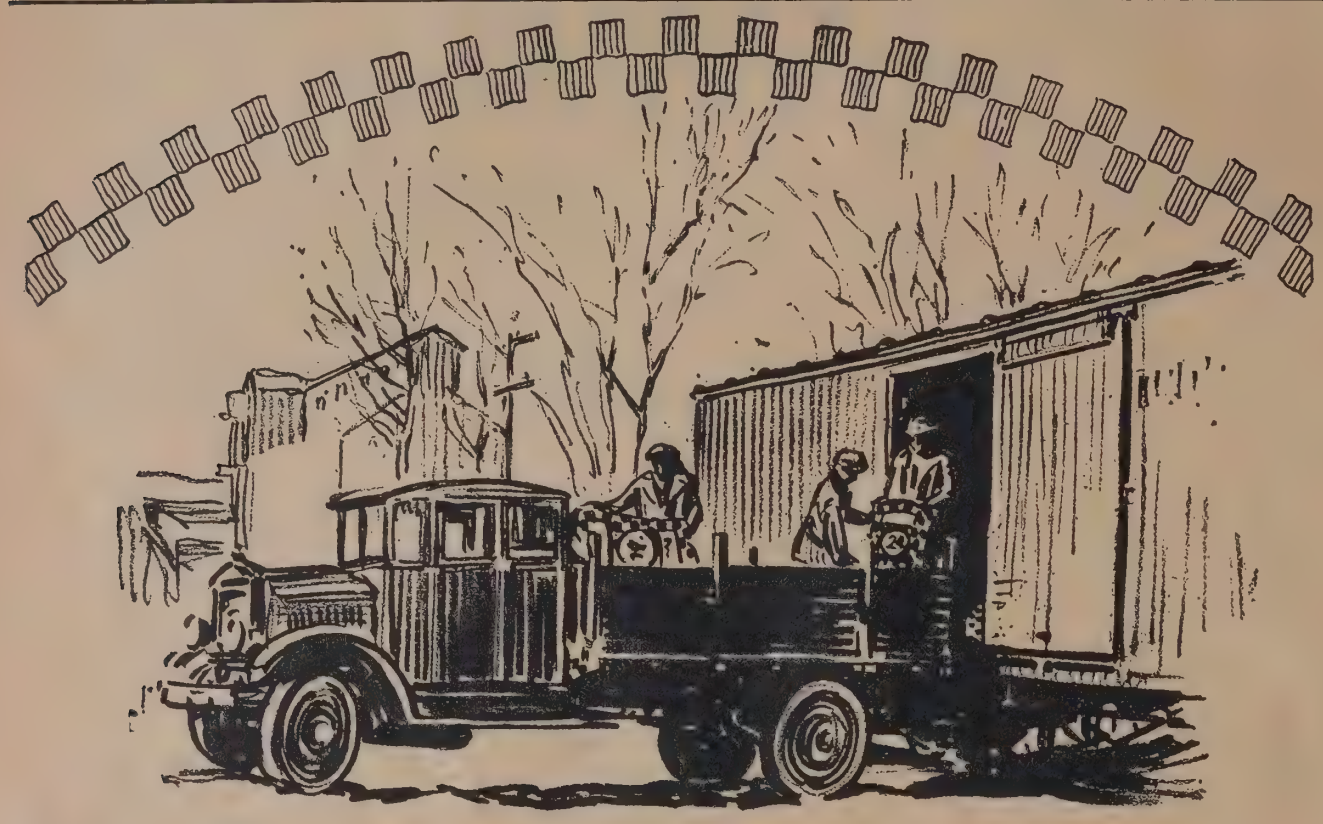
Milk While They Learn

(Continued from page 9)

pointing to the record of a previous month, "that some students make a mighty high net profit. Here is the column of one girl who made a net profit one month of $25.49. another of $24.34, and here is one that made $16.19. The average net profit for the entire fourteen students is about $15.00 per month. The room and board at the school is only $12.50 per month, so you can readily see that all of the students who are milking cows earn their room and board and some of them double it. In order to take care of the students who happen to get a low producing cow, we make a change every month so that the student who happens to have a low producer one month will get a high producer the next month and in that way we even up the amount that each student earns over the entire school year.

"Let me say just a word about the type of students that we have working here in the dairy. They are student leaders and most of them engaged in all kinds of student activities. In some schools the tendency is to shun the student who has to work to defray expenses. To get around that kind of snobbery, I made an attempt to get some of the most popular students to take a cow and care for her. Now our best students are the ones that are wanting to earn their way in this way. These students, and most of them are girls, get up at 5:30 in the morning to milk, and they milk again at 12:30 and at 8:30 in the evening.

We have a fine spirit here among the boys and girls. They are all rivals and what they are learning in actual experience is taken up in lecture work and the information emphasized. "We have worked the plan for over three years now and find that it is a success. We have found that a cow must make at least three gallons of milk per day to pay a student to milk her. I believe that when these students go back to their homes on these Arkansas farms they will not keep a cow that produces less than three gallons of milk per day and some will not be content with that. Their lessons in feed and care will remain for a long time.



Buying Cow Chow Cheaper

THE PRICE you pay for Purina Cow Chow doesn't depend entirely on the Mills or the dealer. You, yourself can reduce the price of it.

1—You know just about how much you will need. Talk this over with your feed dealer. Find out when he expects to have cars coming in.

2—Arrange to take your Cow Chow off the car.

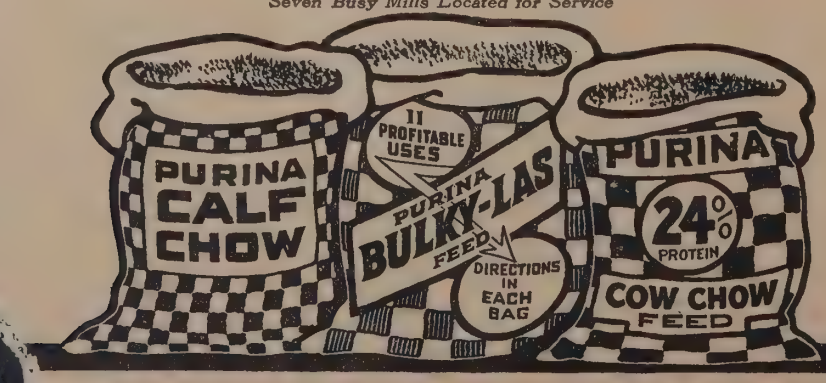
3—Buy Cow Chow in large quantities and pay cash for it. Credit for each ton can be bought at the bank for about 35 cents a month.

4—Get your neighbors to use Cow Chow. Your dealer is able to supply several large users in one neighborhood cheaper than just one user.

For three straight years the price of Purina Chows has been reduced through additional volume. See the feed dealer with the checkerboard sign.

PURINA MILLS, 900 Gratiot St., St. Louis, Mo.

Seven Busy Mills Located for Service



Write us for a 1927 Cow Booklet free.

"Use Phosphate—It Pays"

It shows good business judgment to buy phosphate and apply it to grain fields, state A. R. Whitson and Griffith Richards of the Soils Department at the Wisconsin College of Agriculture in a recently issued special circular entitled "Use Phosphate—It Will Pay."

They point out that—

Legume crops will produce heavier yields if supplied with plenty of phosphate.

Phosphate will hasten the maturity of small grains and corn from one to two weeks.

Phosphate is constantly leaving the farm in crops, bones of animals, and milk sold.

Phosphate will be lost no matter how carefully the manure is handled.

On the average Wisconsin farm for every dollar spent for phosphate a return of from $2 to $4 may reasonably be expected.

How may phosphate best be applied and in what amounts?

The greatest money return will be obtained by broadcasting for the small grain crop with which alfalfa and clover are sown. As to the amounts per acre:

45% phosphate—100 to 125 lbs.
20% phosphate—200 to 250 lbs.
16% phosphate—300 to 375 lbs.

Phosphate may be sown with a grain drill equipped with a fertilizer attachment at the same time the grain is seeded; it may be applied with a two-wheeled, hopper type, lime and fertilizer sower before the seed bed is prepared; it may be applied with an end-gate lime and fertilizer sower; it may be spread evenly over the manure on the manure spreader; or it may be spread by hand.

A soil improvement program for the farm suggested by Whitson and Richards includes:

1. The use of lime when needed.
2. Look upon the money spent for phosphate as a yearly repair charge for your soil.
3. One-third of the tillable area of the farm should be growing successful legume crops each year.
4. All manure should be carefully handled to save plant food.
5. Plow down green crop materia frequently.

The German Dairy Exposition

In connection with the 36th annua meeting of the Association of Ger man Dairy Experts, an Internationa Exhibition of packages and contain ers for milk and dairy products wil be held in Berlin from August 16 t 20, 1927. The association is offerin prizes for the best type of milk ca and milk bottle, butter tubs, butte packages, and packages for cheese

Manufacturers interested in en tering an exhibit at this show ma secure more complete information b writing the Verbandstag, Des Ver bandes Deutscher Molkereifachleute Berlin, N. 4, Chausseestrasse 8, Ger many.

"I am a friend to a man when can think aloud in his presence."—EMERSON.



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Minn.	Morrison Co.*	Nov.	350	476	19.3	G. G.	19	684	29.5	B. B. Bates
"	Shell Prairie	"	336	355	19.0	G. J.	15	658	36.2	W. J. Norman
"	Nelson*	"	375	527	21.6	G. H.	9	1072	39.5	P. Streed
"	Watonwan*	"	388	423	20.0	H.	13	1030	32.9	S. C. Sorensen
"	Kandiyohi*	"	334	569	20.6	H.	12	990	33.2	J. Larson
"	Moose Lake*	"	360	435	19.4	G. H.	7	876	37.4	A. Johnson
Wash.	Lewis County*	"	995	774	32.2	R. H.	12	1092	40.9	H. Bouchard
"	Cowlitz County	"	555	598	25.4	G. H.	22	839	31.5	Schulz & Triller
"	King County	"	748	803	31.2	H.	33	1276	40.0	Pleasant Hill Farm
Ind.	Spencer & Perry Co.*	"	300	657	24.1	R. H.	5	1178	38.8	G. Hofele
"	Wayne*	"	403	473	22.5	J.	19	593	31.7	C. Harper
"	Elkhart Co.	"	302	416	19.5	G.	10	722	33.6	S. W. Mace
W. Va.	Pan-Handle*	"	267	559	22.2	G.	6	765	35.3	Waddington F'm.
Mont.	Lake County*	"	400	470	19.6	G. H.	8	875	37.0	O. B. Selfors
Ore.	Coquille Valley	"	620	432	22.8	J.	26	638	31.9	Kay & Smith
Colo.	Mesa Co.	"	313	551	22.2	R. J.	19	768	37.3	G. V. Gimple
Utah	Rich.-Lewiston*	"	493	689	24.4	G. H.	6	1246	42.9	M. Johnson
"	Cen. Cache Co.	"	622	611	22.7	G. H.	6	1425	44.8	V. Perkes
"	Wells.-College Ward	"	588	553	21.5	R. H.	7	1204	38.8	A. Nelson
Iowa	Sac Co.	"	370	519	21.4	H.	7	874	38.8	H. L. Offerle
N. D.	Burleigh Co.*	"	383	286		H.	45	731	25.9	State Training School
Ida.	Weis.-Pay.-Gem Co.*	"	1145	517	23.4	M.	8	768	41.8	O. Wilhelm
Colo.	Johnstown	"	340	646	25.7	G. G.	7	861	42.0	C. Yockey
Md.	Baltimore Co.	"	584	507	21.6	R. A.	9	618	28.2	Dr. Gorsuch
Ido.	Lawrence Co. 1	"	196	413	17.2	H.-G.	12	540	29.3	H. Moore
Va.	Loudoun 2	"	642	484	22.3	H.-G.	18	773	34.1	H. L. Welsh
Ohio	Canfield	"	224	449	24.6	J.		829	37.1	Bonnie Burn Farm
"	Columbiana	"	420	465	18.8	H.	11	1000	30.0	C. Israel
"	Licking Co.	"	308	567	26.1	G. J.	12	784	42.4	H. Clark
"	Wayne Co.*	"	294	714	30.9	R. J.	12	803	43.0	J. Smith
"	N. E. Ohio	"	333	764	28.6	R. H.	7	1234	47.7	J. A. Paden
Kans.	Reno	"	346	492	15.2	G. H.	10	718	28.1	C. R. Brown
Wis.	Sparta*	"	440	445	18.5	J.	16	620	30.6	Howard & Steahl
"	Poyette*	"	300	572	21.3	G. H.	10	974	38.2	W. M. Schloesser
"	Arkdale-Necedah*	"	305	351	15.0	G.	15	658	32.1	H. Jensen
"	Ham.-Baldwin*	"	390	488	20.5	R. H.	13	1127	39.3	N. C. Lorentsen
"	Endeavor	"	410	458	17.1	G. H.	9	1175	43.2	A. Parrott
"	West Bend	"	379	530	21.1	H.	15	826	29.3	J. Coleman
"	Glenwood	"				H.	6	852	33.5	W. J. Dougherty
"	Westby*	"	414	420	21.3	H.	9	733	29.9	E. G. Appleman
Mich.	Lenawee 2*	"	285	526	17.9	H.	4	972	31.3	W. Kindschy
"	Reed City*	"	231	409	26.4	M.	8	673	29.5	F. G. Lendell
"	Ionia-Belding*	"	402	642	24.9	H.	54	1196	38.9	Michigan Reformatory
"	Kalamazoo 3	"	225	562	22.5	H.-J.	8	762	31.0	F. Jager
"	So. Newaygo*	"	255	380	16.2	G.	9	728	30.3	H. Frey
"	E. Oceana*	"	255	396	19.3	J.	2	585	34.4	H. K. Bush
"	Alpena-Leer*	"	268	325	15.3	G. A.	4	422	22.7	A. Schnell
"	Alto-Kent	"	188	497	23.6	J.	8	877	48.9	R. D. Bancroft
"	Miss.-Falmouth*	"	207	356	14.2	G. G.	9	739	28.4	J. Jager
"	West Kent	"				S.	9	715	33.1	C. Bradford
"	Macomb 2*	"	273	506	19.5	H.-G.	12	837	33.7	J. Gamm & Sons
"	Kalamazoo 2*	"	324	469	22.1	J.	6	615	34.2	R. W. Weinberg
"	Lansing-Ing. Co.*	"	254	605	25.6	H.-G.	7	1354	55.7	O. J. Becker
"	Freeport-Berry Co. 2*	"	240	518	21.6	H.	8	1518	49.1	A. D. Miller
"	Ott.-Allendale*	"		550	21.1	R. H.		1835	79.3	R. B. Knooihuizer
"	Kent-Gr. Rapids	"	337	665	24.9		16	1327	41.2	J. Buth

*Retest rules followed.

Effect of Poor Roughage

HOARD'S DAIRYMAN:—With equally s good herds in the beginning of the ew association year as last year, ows in the Glenwood Association of Wisconsin are not producing as well r herds averaging as well as in No- ember last year. The forty-pound st has fallen off 50 per cent.

Most of this is due to the bad fall eather and poor quality roughage. lso cows are not freshening as early the fall as usual. No reason has een found for cows freshening later the fall, but it seems to be preva- nt throughout the entire associa- on and vicinity. The poor quality f the roughage and home grown ains necessitate buying high pro- in concentrates. Other years when e could safely estimate hay at 10 12 lbs., this year weights are be- ween 15 and 20 lbs. This goes to ow that cows are consuming a eat deal more roughage, even when eding a well balanced ration. Some rmers report a poor quality of oats en going as far as selling oats and bstituting bran and changing other eds in the ration somewhat.

Some dairymen predict a run-down ndition of their herds because of or quality roughage. They know at a little extra concentrates will supply the right amount of protein, carbohydrates, and fat, but it will not take the place of good quality roughage or keep down the cost of production.

GORDON SCHROEDER, Tester.

Protein Supplements

HOARD'S DAIRYMAN:—In place of oil meal as a supplementary protein feed alone, most members of the Hammond—Baldwin Association of Wisconsin are this year feeding a mixture of gluten feed or meal, cottonseed meal, and oil meal. The difference in price per pound of protein in the different feeds led to this change. By retaining one-third to one-half the amount of oil meal we still have the desirable laxative and tonic effects of oil meal at considerable saving in feed cost. In addition, the variety of proteins in the mixture more nearly supplies the need of high producing cows.

The members of the association have co-operated and made it possible to order a carload of cottonseed meal which will result in an appreciable saving over small lot purchases at local dealers.

The gluten feed contest of last summer served to acquaint many

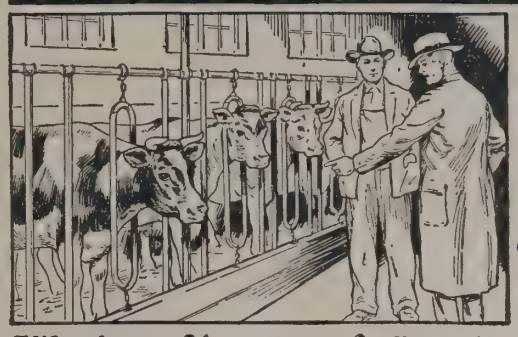
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Monthly State Summary Table

State	Month	No. of ass'ns. Operating	Reporting	No. of cows*	Ave. fat per cow* All cows	High ass'n.	High herd	High cow fat	No. of separators Tested	Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
Iowa	Nov.	75	69	24,394		23.9	52.8				416
Wisconsin	"	162	135	51,394	17.8	†28.4	†44.6	†91.4	1146	143	969
Utah	"	5	5	2,616	23.3	24.8	44.8	88.1			13
N. Dakota	"	10	10	3,128	15.6	18.9	41.7	85.9			33
Indiana	Oct.	28	25	8,107	19.5	24.5	44.9	72.5			65
Vermont	"	16	13	6,296	19.3	24.6	46.2	85.3	13	2	38
Michigan	"	110	67	17,278	20.0	32.5	†48.1	†90.5			163
Idaho	"	7	7	3,680	23.5	26.2	47.4		182	20	12

*Includes dry cows. †Records made under retest rules.

Why We Know B-K controls live stock disease





What we discovered in our laboratories -thousands of farmers have proved

Here are Typical Experiences

ABORTION

"I am ready to stand back of B-K to the finish. Last year we had about 40 per cent of our cows abort, but we have not had one since we began using B-K."
(Name on request), Lenox, Mass.

CALF SCOURS

"I had a number of cases of calf scours this summer and in desperation tried B-K. To my surprise in a few days every calf was back to normal."
H. W. Swafford,—, Oregon

RETAINED AFTERBIRTH

"We have got better results from B-K than anything we have ever used for retained afterbirth and calf scours."
J. N. Standfield,—, Ill.

B-K

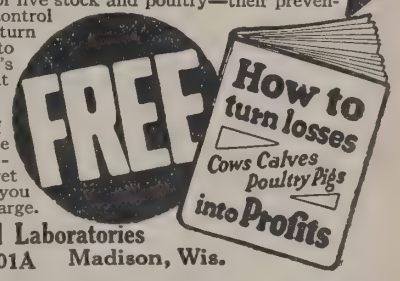
Everything we say in our farm paper advertising and our bulletins concerning the value of B-K for the prevention and control of disease, is based on facts. We know them to be facts from 15 years of tireless effort, during which we have tested B-K under practical conditions on farms, and in our laboratories.

Our chemists and bacteriologists keep in touch with the leading thought concerning prevention and treatment of live stock and poultry disease.

The word "laboratories" in our corporate name means not only dependable laboratory products made on honor, but services in the form of data, information as to practical, helpful things to improve your conditions. If you will write us what lines of live stock and poultry and how many animals of each kind you are keeping, also your specific troubles, will gladly give you personal attention.

Every Live Stock Owner Should Have This Book

It discusses thoroughly and authoritatively the diseases of live stock and poultry—their prevention and control—how to turn losses into profits. It's a book that embodies our 15 years of experience and research, yet is offered you free of charge.



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Prof. Evvard's Inspiring New Book

Prof. Evvard's new book, "Minerals and Feeding," has my unqualified endorsement, and I want to place a copy in the hands of every feeder in America. This book announces new and astonishing advancements in the feeding of livestock. It contains page after page of intensely interesting questions and answers on the vital problem, *how to feed to increase production and to insure greater livestock profits with actually less feed and delay*. It gives a wealth of feeding information and is the most complete book on Mineral nutrition ever published.

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Told in simple words. Easy to read. Easy to understand. A book written by Prof. John M. Evvard of Iowa Agricultural Experiment Station, an authority of the highest standing. This book is an exclusive reproduction of a series of remarkable, up-to-the-minute articles recently prepared for the farm press. I want every livestock and poultryman to fill in and mail the following coupon. I will gladly mail this $1.00 book to you absolutely free. Read it carefully. If after reading it you agree with me that it is one of the most timely and valuable books on feeding that you have ever read and you wish to keep the book as a permanent reference, merely send me 25c to help defray the postage and publishing expense. If you do not feel that this valuable book is worth many times the small sum of 25c you may keep it absolutely free with my compliments, for I want every stock feeder to use this book.

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Save many times their cost in other feeds. Endorsed by veterinarians and stockmen everywhere. The only mineral feed sold under a positive written guarantee of satisfaction or money back.



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Please send me without charge Prof. Evvard's book, "Minerals and Feeding." I feed.....head of cows.....head of hogs

Name .....
City .....
State ..... R. F. .....

Guaranteed way
to make dairying pay

YOU give your cows good feed, good care and good quarters. You invest considerable money which you expect to return you a profit in milk and cream.

Are you getting all the milk your feed and care justify? Are your cows giving good returns on your investment?

What makes a good milker?

No cow can do her dead-level best unless her health, appetite, digestion and elimination are right. These four things are important above all others. That is why simply feeding a cow and taking good care of her are not enough to insure heavy milk production.

Dr. Hess Improved Stock Tonic keeps cows at the peak of their production

Dr. Hess Improved Stock Tonic is exactly what a cow needs to enable her to get the most good from her feed—to produce the most milk.

It contains laxatives for the bowels and diuretics for the kidneys—because proper elimination is essential to heavy milk production. It contains tonics that increase appetite and correctives to promote digestion. For the more a cow eats the more raw material she has to convert into milk—provided her digestion functions thoroughly.

Dr. Hess Improved Stock Tonic is especially rich in minerals, valuable essentials in the diet of milk-producing animals. It embodies calcium carbonate, itself an important constituent of milk. Calcium phosphate, a bone and tissue builder. Potassium iodide, which is essential to the proper functioning of the glands. It prevents calves being born with goiter and contributes materially to stronger, healthier offspring.

Dr. Hess Improved Stock Tonic is real health insurance for the dairy herd. It materially reduces the losses resulting from garget, retained afterbirth, metritis and in getting the cow again in calf.

We guarantee that Dr. Hess Improved Stock Tonic will pay you a real cash profit

This is our unqualified offer: Get a supply of Dr. Hess Improved Stock Tonic from your dealer—25 pounds for every 5 cows. Feed it to your cows for thirty days to prove its worth.

Notice how it whets the appetite! See them consume their ration with a relish. No going off feed—that means you will get a greater and a more even production of milk.

If Dr. Hess Improved Stock Tonic does not pay you, and pay you well, return the empty container to the dealer and get your money back. He will gladly refund it for he knows that we will reimburse him without question.

This is the strongest, fairest guarantee ever made on any product. You can be sure that we could never afford to give it if Dr. Hess Stock Tonic did not produce real cash-money results that you, yourself, can see.

Dr. Hess & Clark, Inc., Ashland, Ohio

Dr. Hess Stock Tonic
Improved!

members with this feed and now it is quite commonly used where formerly it was practically unheard of. We find it especially useful for cows that are not fond of oil meal and in herds where we have had trouble with cows going off feed. Most of these cows take to gluten meal readily and seem to stand it better, due, I think, to the lower fat content of the gluten meal. OSCAR BERKSETH, Tester.

Too Much Emphasis on Records

HOARD'S DAIRYMAN:—With the experience I've had in testing and what I've seen of other associations, more emphasis has been put on reporting high production cows and herds than reports of improvement. I am led to believe that more than 75 per cent of the high production records were being made by these dairymen before they joined the cow testing association.

Cow testing associations are for the purpose of helping the dairyman to make a greater net profit. This must come through more intelligent breeding and feeding. I feel that reports should contain such material as:

1. Number of members changed from a poor ration to a practical, balanced ration.
2. Number showing any improvement in feeding.
3. Number feeding individually and according to production.
4. Lowest cost per 100 lbs. of milk.
5. Lowest cost per 1 lb. of butterfat.
6. Lowest average feed cost per cow in association.

These might be arranged on the basis of a scoring system and submitted to testers. I believe this system would help bring about better results.

Indiana. M. C. SNEDEKER, Tester.

One of the primary reasons for changing the type of reporting cow testing association news in Hoard's Dairyman was the very reason that is brought out in this letter. We feel that altogether too much emphasis is being placed on high records in cow testing association work rather than the real and fundamental purpose of this work. However, there are always two things to be considered in publicity, one of which is to engage the interest of people and the other to teach a lesson. High records seem to be of interest to many, and for this reason it seemed wise to maintain the tabular statement as to records. We hope that the narrative reports will bring out the specific lessons and other interesting items that will really make the cow testing page of larger value and interest to our readers.

It has been something of a regret to us that testers, generally, have not understood the purpose of the narrative report in supplying us with this type of material. A cow tester on his daily rounds runs into many things that would be of interest if he would only jot them down and carry them forward to us.

It may be that some member has developed a unique system of feeding or handling his cows that has worked satisfactorily. Possibly he ensiled his corn without tramping, with the result of either good or poor silage. Maybe he has ensiled mangels with his corn, or in an emergency has substituted one feeding crop for another. Calves, horses, crops, equipment, and other developments may tell a story of success or failure that is worth more and is of greater interest to others than the fact that John Smith had a cow that produced 76.48 pounds fat last month, interesting as this accomplishment may be to Mr. Smith and one in which he takes well deserved pride. Then, too, do not neglect report of improvements and conveniences in testing that would be of value and interest to the hundreds of other testers throughout the United States.

The report on the costs of production, as suggested by Mr. Snedeker must be used with discretion. Prices of feed vary widely, as will be noted by reference to our market page. Comparison between associations and between cows on this basis are not valuable unless the same basic prices are used and the comparison is logical. In the West cows will be properly charged with alfalfa hay at six to eight dollars a ton, while in the East the proper charge may be three or four times this. Low production costs are what all of us are seeking, but how they are secured is what we want and need to learn. Then, too, as in feeding cows, palatability as well as quality is essential. The story must be told so the other man will want to read it.

Appreciation of Tester

HOARD'S DAIRYMAN:—The country of Denmark is noted for its dairying and its co-operation. The sons and daughters of Denmark, who have come to Brown County, Wisconsin and settled around the village of Denmark, this county, are imbued with the same spirit of co-operation and the same efficient dairy requisites as their forefathers. Five years ago a cow testing association was organized in that vicinity. The association was reorganized for its sixth year. Five of the original members have signed up for the sixth time. All but two of the members in this association live in the township of New Denmark. This year's average for the association is 325 pounds of butterfat per cow. Mr. Peter Erickson who owns a herd of 20 grade Holsteins and who has been in the association since its organization increased his butterfat 98 pounds per cow during the five years. This increased production means practically $1000 more which he is receiving from his herd than he was receiving five years ago.

The success of this association is due largely to the efficient tester who has worked in this association since its organization. This man, Mannin Nelson, one of the best testers in Wisconsin, eats, drinks, and sleeps with the thought in mind of improving the herds in his association. In appreciation of his faithful service the Denmark Cow Testing Association held a surprise party in his honor. About 150 men, women, and children were present at this meeting.

J. N. KAVANAUGH, County Agent.

Silage From Frozen Corn

HOARD'S DAIRYMAN:—In the territory covered by the Endeavor Association of Wisconsin, silage from silos filled before the first frost shows a vast superiority over that from those filled later. Next in quality silage came silos filled with frosted corn that was moistened and well packed. Both had the typical silage smell and sufficient moisture. The typical silage odor indicates the right kind of fermentation has taken place and the right amount of moisture kept out the air and created the necessary condition for favorable bacteria. In the silos filled with dry, frosted corn, the silage spoiled to great depths at the top and around the wall, and there were moldy spots even in the center of the silo. The silage was light in weight and in many cases had a burned smell.

This teaches the lesson that a farmer should not wait to fill at the latest date. W. BODEKER, Tester.

The person who never makes a mistake never makes anything.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Superficial Wounds

A wound may look superficial yet be serious. One time we were asked to examine a sheep that was mysteriously stiff, lame, and sick. It had left the flock, stopped grazing, and lay down most of the time. An internal disease was suspected by the owner, but careful examination disclosed that there was a small punctured wound in the hip and on opening it up a seething mass of maggots was found present. Such conditions are also met with in cattle and may have a most serious effect. The superficial wound attracts flies and they lay their eggs in the exuded blood, serum, or pus; then maggots or screw worms (larvae) develop and at once burrow and live on the inflammatory lymph and even destroy the tissues which then become putrid. The system of the animal may be poisoned by absorption of poisonous or toxic matters generated in such putrid wounds and fatalities occur, unless prompt treatment is given.

The superficial wound commonly is deemed so slight and unimportant or nondangerous that it is given no attention or is merely given a "lick" of pine tar or axle grease. Pine tar is a favorite "smear" with sheepmen and may prove fairly effective, but to help keep flies away it is best to mix with it some crude carbolic acid, oil of tar, or commercial coal-tar dip or disinfectant. It is not suitable for application to ordinary cuts on a cow's teats or udder. Those should at once be washed clean, dried, and well swabbed with a 2 per cent solution of mercurochrome or with tincture of iodine. Then, a salve composed of 1 part of tincture of iodine and 2 parts of vaseline should be applied. If flies annoy, a small quantity of iodoform may be mixed with the ointment, or oil of pennyroyal, oil of citronella, or oil of tar, or a little of a mixture of the three drugs, will serve the purpose. One part of each of them mixed with three parts of oil also makes a good preparation for repelling mosquitoes.

The swabbing may be repeated daily until healthy conditions are established and healing is progressing, but in the superficial cases mentioned one or two applications usually suffice. In districts where tetanus (lockjaw) is prevalent it is best not to apply an ointment or salve, as they exclude air and so favor proliferation of the germs and formation of their toxic elements which cause the disease. In case of a punctured wound of the hoof of a horse which also is sometimes considered superficial or trivial, it is advisable to have the veterinarian give the animal a protective hypodermic injection of tetanus antitoxin. Cattle are much less susceptible to the disease.

Superficial wounds on the body soon heal when wetted several times daily with a lotion composed of 1 ounce each of acetate of lead and powdered alum, 6 drams of sulphate of zinc, and 1 pint of soft water. Label the bottle "poison" and shake it well before use. It must not be applied, however, where the animal can lick it off, or when it may be licked by other cattle, for it is quite poisonous. Do not remove the scab formed by use of the lotion. The lotion is also excellent for barbwire wounds of the skin or harness sores of horses.

The Secretion of Milk

We wonder if it is going to be necessary to revamp the prevailing beliefs as to the method of milk secretion in the cow's udder. It is the common impression, among experts, that most of the milk is elaborated at the time of milking, it being an emulsion of butterfat, casein, sugar, and mineral matter in "water" derived from the blood. Now comes the U. S. Department of Agriculture, with astonishing results of experiments conducted by W. W. Swett, of the Bureau of Dairy Industry, which seem to upset the old ideas relative to milk secretion.

Whereas it has been held that the internal capacity of the cow's udder for the storing of milk is not more than half a pint to each quarter, the report referred to asserts that tests disclose that the udder is capable of holding from 11 to 20 quarts of milk, instead of but 1 quart. This was determined by immediately removing the udders of 2 cows, killed for the purpose, mounting the udders on a suitable framework and milking them clean.

One of the cows had normally been giving 12 pounds at a milking. A total of 10.27 pounds of milk was drawn from her udder after all body connections had been severed, "showing that more than 85 per cent of her production was stored in her udder at the time she was slaughtered." The postmortem milking of the second cow yielded practically 50 per cent of her normal production. "In her case milking was more difficult and all the milk was not drawn, as was shown by the considerable quantity which gushed forth when the udder was later cut open." Mr. Swett further states that it is not uncommon to be able to inject the equivalent of 3 to 5 gallons of milk into the detached udder, the amount depending upon the different characteristics of various udders. The experimenter does not consider his few tests conclusive, but thinks that they indicate that milk secretion is, to a considerable extent, a continuous process, and that a large proportion of the milk secured at any milking is collected and stored within the mammary gland before milking is commenced; also that "the liberation of the milk from the gland is not dependent either upon a nervous or mechanical stimulation or upon internal muscular contraction, since all body connections had been severed before the post-mortem milking was performed."

The writer has often instantly removed the udder after a cow's death and cut into it to determine the amount of milk it contained, but has never tried the post-mortem milking process here mentioned. On the basis of what we have determined by the cutting process we have, for years, stated in lectures and writing that the udder, before milking, is capable of containing several quarts of milk, but we have likewise held that most of the secretion occurred during the act of milking. We have also believed, and yet contend, that milk secretion is controlled by the sympathetic nerve system, in close association with the cerebro-spinal nerve system, and is not under control of the will of the cow; hence that a cow cannot wilfully "hold up" her milk.

Definite proof and conclusions on the subject will be awaited with interest.

Drying Up Cows

HOARD'S DAIRYMAN:—Regarding "Drying Up Cow" on page 527 of the May 10, 1926, issue, I feel as though it would be a crime to be silent on this matter, knowing, as I do, that

(Continued on next page)



Healthy Teats and Udder

The easy milker is usually the profitable milker. Much of the holding back of milk is due to lack of care of the udder and teats. It pays to go after the extra quarts by giving constant care to even the "little" hurts that make the cow nervous and restless.

Bag Balm has a permanent place in thousands of cow barns, because it keeps the delicate udder and teat tissues free from Caked Bag, Bunches, Inflammation, cuts, bruises, chaps, cracked teats, etc. All sores or congestion are quickly eliminated by this great penetrating, healing ointment. Most troubles are healed by Bag Balm between milkings—it acts like magic.

Bag Balm is clean and pleasant to use. Nothing in it to taint the milk; it penetrates at once to the injured part and restores the tissues to normal. A wonderful healer for any sort of skin trouble or animal sore—hundreds of uses on the farm.

Big 10-ounce can, only 60c at feed dealers, general stores and druggists. If your dealer is not supplied, order from us. Ask for free booklet, "Dairy Wrinkles."



Make a note now to put Bag Balm on the job of keeping your cows milking easily and liberally. It pays its cost every day in the average dairy.

DAIRY ASSOCIATION CO., Inc., Lyndonville, Vt.

Wonder Healing Compound FOR MAN or BEAST

—It's CORONA WOOL FAT

Soothing Healing Ointment That Works Like Magic



Corona Wool Fat is made from the oil extracted from sheep's wool. It's different from any salve or ointment you ever tried. It heals and soothes, but will not smart or blister the most sensitive wound. It has healed thousands of stubborn wounds where other lotions have failed.

Hardly a day passes but what you'll find some use for Corona. For sore shoulders, sore necks, collar boils, split hoofs, scratches, sore teats on cows, caked udders, cuts, wounds, burns of any kind on man or beast it is unequalled.

LIBERAL SAMPLE FREE Corona is sold by nearly all druggists or direct from us on receipt of price—8 oz. tins 65c, 20 oz. tins $1.25, postpaid. If you will send your name and address, we'll mail you a liberal sample and book of uses Free. We want you to see for yourself the wonderful healing properties of Corona.

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Dr. Naylor's
MEDICATED TEAT DILATORS

For the treatment of Spider, Obstructions, Hard Milkers, Cut and Brused Teats, etc.

Made of an absorbent texture capable of carrying Medicated Ointment into the teat canal to the trouble. They heal the teat and keep it

Three doz. Dilators, sterilized and p Medicated Ointment, $1.00. Sold by post paid. Manufactured by

DR. H. W. NAYLOR, VETERINA

EXTRA MILK
—try this simple plan!



IT is a fact! Seven cows in ten are capable of giving far more milk than they do—in the winter months. Malnutrition—the bane of human health and well-being—is far more common in cows than in people. It is the biggest leak in winter dairy profits. Under the urgent strain of consuming and converting quantities of dry, coarse feeds into milk, the digestion and assimilation break down. The cow may *appear* healthy, but the milk fails to come in paying volume. Quantities of high-priced feed go to waste.

The remedy is simple—and amazingly inexpensive. Help the milk-making organs meet the added burdens thrust upon them. Build new vigor into the digestion and assimilation—milk profits simply MUST result.

Kow-Kare is doing just this job for added thousands of cow owners every year. Instead of just cramming feed into their cows these dairymen are helping their cows keep the milk-making process going full-speed. Kow-Kare has a marvelous tonic, strengthening effect on the productive organs — makes them function actively, produce maximum milk flow and resist disease. Kow-Kare, fed sparingly, but regularly with the feed will put your "poor milkers" back in the profit column. Try it; a single can of Kow-Kare will ration one cow from one to two months, the treatment being regulated by the cow's general condition. It's a little investment, with big—and certain—results.

For Cow Diseases

In treating Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Lost Appetite, etc., Kow-Kare has a well-earned 30-year reputation of bringing cows back to health and production. It goes to the source of the trouble—makes the affected organs regain vigorous health—resist disease.

For cows at calving Kow-Kare, fed before and after, prevents expensive troubles, makes cow and calf healthy and vigorous.

Feed dealers, general stores, druggists have Kow-Kare—$1.25 and 65c sizes. (Six large cans, $6.25.) Full directions on can. Mail orders sent postpaid if your dealer is not supplied. Our valuable free book on cow diseases sent free, on request.

DAIRY ASSOCIATION CO., INC., LYNDONVILLE, VT.

KOW-KARE
Famous Conditioner of Milch Cows



FOR INFLAMED JOINTS

Absorbine will reduce inflamed, swollen joints, sprains, bruises, soft bunches. Quickly heals boils, poll evil, quittor, fistula and infected sores. Will not blister or remove hair. You can work horse while using. $2.50 at druggists, or postpaid. Send for book 7-S free.



From our files: "Fistula ready to ...rst. Never saw anything yield ...tment so quickly. Will not ...t Absorbine."

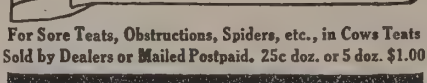
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For Sore Teats, Obstructions, Spiders, etc., in Cows Teats
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TESTIMONIALS

The greatest thing ever invented for cows teats.
E. Stafford, R5, Little Falls, N. Y.

Did not have much faith at first. Thoroughly convinced they are the remedy.
J. C. Noble, Enosburg Falls, Vt.

FREE Let us prove the merits of Dilators by sending you a package by mail, Free.

MOORE BROS., Dept. H, ALBANY, N. Y.

your paper goes into every civilized country on the globe. I do not know who is responsible for the article but certainly no qualified veterinarian.

The article mentions leaving a little milk in the udder. This has not the least tendency to diminish secretion but is the best means of producing mammitis or garget. My advice is to milk the cow dry; then there will not be any thick milk even if she goes two days. It is always best to commence by missing one milking, then two milkings, then three, and so on; but in all cases milk her good and dry. If thick milk accumulates once, the udder is hot and feverish and it will take several regular milkings to get it right.

Please pardon me for calling you down on this matter, but it was simply unavoidable on my part as I feel it is my whole duty to do so and I am certain any qualified veterinarian will bear me out.

My best wishes to you and your most worthy paper.

Australia. J. R. C. JONES.

[EDITOR'S NOTE:—There are, evidently, different opinions concerning the proper way of drying up a cow. We would be pleased to have contributions from our readers describing their methods of handling a cow when it is time for her to go dry. We may not be able to publish all that we receive, but we will use enough to give a complete list of the several practices followed.]

Determining Pregnancy

Is it possible for a farmer to be able to determine if a cow is with calf two months after service? The veterinarian I employ can do that, but his charge is so high, it is a luxury to have him. I wondered if I could learn the art myself. Are there reliable books to be had on the subject?

Western Springs, Ill. S. G. M.

The cow's fetus when two months old is only two or three inches long. At that stage of pregnancy it is practically impossible to determine presence of the fetus by feeling through the wall of the rectum or vagina. An experienced veterinarian can make the determination later, in that way, but that would not be possible for the layman. When a cow or heifer that has been coming in heat at regular intervals of 21 days fails to do so after being bred it may, as a rule, safely be concluded that she has conceived. In the heifer the udder then gradually increases in size. The pregnant animal also becomes more quiet and after five months it is possible to feel the fetus through the rectal wall, or abdominal wall, and the abdomen also noticeably enlarges. Veterinary Obstetrics by Flemming, published by William R. Jenkins, New York, gives full information on such subjects.

Cowpox

Please give me a remedy for cowpox. I have quite a bit of trouble with cowpox in my herd. I have one cow that has been infected with this disease for 6 months and seems I can't get any remedy that will cure it.

Fredonia, Ky. J. B. R.

True cowpox should run its course in about 20 days. The papules of cowpox, on the teats, are oval in shape, have concave or dented tops with the lymph contained in several compartments, and are surrounded by a purplish ring or zone. When the crusts fall off, a pock-mark remains for some time. Successive crops of papules tend to form on different parts of the teats. In false cowpox, due to infection of abrasions or lacerations of the skin of the teats, by filth from the stable floor, yard, or milker's hands, sores form, discharge pus, and often turn into ulcers containing dead (necrotic) tissue. The characteristic symptoms of cowpox are absent. Isolate the cow. Cleanse the sores and scrape away necrotic tissue; then swab them with a 2 per cent solution of mercurochrome. Afterward apply a mixture of 1 part of tincture of iodine and 2 parts of vaseline. Repeat the treatment daily as long as necessary.

Mammary Tumor

I am writing you to know what to do for a seven-year-old Holstein cow we have. We use a milker and a couple months ago a lump about the size of a hen's egg formed down in one quarter of this cow's udder. This is not hard yet. It don't go down any or get any larger. This begins on the back side of the quarter and feels like another teat started but did not develop and comes where the teat cup of the milker rubs it when milking her. This is one of our good cows and what should I do to overcome this trouble. She is not giving near the milk out of this quarter she should. We have been milking her by hand the last six weeks.

Saxton, Mo. J. S.

As tuberculosis is a possible cause of such a tumor you should have the cow tested with tuberculin, if that has not recently been done. Tuberculosis is incurable and contagious so that an affected cow has to be disposed of in the manner prescribed by state law. It is even more probable that mastitis (garget) has caused formation of the tumor or mass of scar tissue. That is also incurable when established. Isolate the cow and rub some iodine ointment into the affected part 2 or 3 times a week. We think it likely, however, that the cow will have to be fitted for the butcher.

Abortion Infection

I have been having lots of trouble with contagious abortion in my cattle for the last two years. Now I have sold them all off. How soon can I safely restock and how shall I disinfect my barns? Would there be any danger in using a wood pasture after laying idle all winter?

Switz City, Ind. E. G.

Perfectly cleanse the stables after removing loose trash. Then saturate every part of the stable with a mixture of 1 part of compound creosote solution and 30 parts of water. Afterward apply freshly made limewash, including the floors and gutters. New cattle may then be introduced. The wood pasture should be safe after a winter's exposure to frost and snow.

Caked Udder

Would you recommend the use of camphorated oil on udders caked or slightly caked at freshening time?

Cape Girardeau, Mo. A. H. M.

As camphor tends to lessen milk secretion it is better to rub in a mixture of 1 part each of turpentine and fluid extract of poke root and 8 parts of lanolin (sheep's wool fat) or lard in cases such as you mention. Do that night and morning and also massage the udder at noon without applying the ointment at that time.

if your horse

has a cough or cold or has been exposed to disease give it Spohn's. Use Spohn's to keep your horses working full time. For distemper, influenza, colds, coughs, pink eye, catarrhal fever and all diseases affecting the nose, throat and lungs.

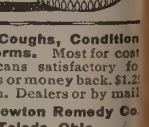


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END CAKED BAG!

Caked bag and sore teats yield readily to treatment with Aborno Non-Cake Salve. Relieves congestion, stops soreness, softens tissues. Every dairy farmer should keep it on hand for time of need. Send 75c for 9 oz. box, prepaid—money back if not satisfied.
Write for valuable FREE Veterinary Booklet
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Heaves, Coughs, Condition er, Worms. Most for cost Two cans satisfactory fo Heaves or money back. $1.2 per can. Dealers or by mail
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Doctor Recommends This Tobacco to Pipe-Smoking Patients

His own happy experience with this particular tobacco led him to recommend it to others

There seems to be an unwritten law among pipe-smokers. When one man discovers a way to get more enjoyment out of his pipe, he feels obligated to tell the "pipe-smoking fraternity" about it.

So it is not surprising that when Doctor Gardiner of Florida found a tobacco that really enabled him to enjoy a pipe for the first time, he made a point of recommending it to all his pipe-smoking patients.

You'll find his letter interesting.

Larus & Bro. Co.,
Richmond, Va.

Dear Sirs:

No harm done, I hope, if I feel like I want to say a word of praise for Edgeworth Ready-Rubbed.

I have tried many kinds of tobacco in a pipe, but until I got to smoking Edgeworth I never really enjoyed a pipe.

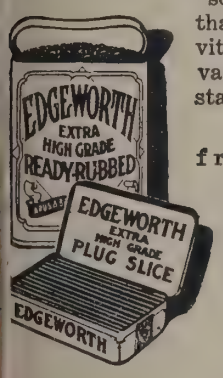
Frequently I say to patients who must smoke: "If you're going to smoke your pipe, use Edgeworth."

I like it and recommend it wholeheartedly to anyone who enjoys smoking.

Yours truly,
W. D. Gardiner, D. O.

There seems to be something about Edgeworth that gives a degree of smoking satisfaction that a man simply can't keep secret. He wants to "tell the world" about it—once he has discovered it for himself.

Of course, until you try Edgeworth, you won't know what this "something" is. For that reason we invite you to take advantage of our standing offer.



Let us send you free samples of Edgeworth so that you may put it to the pipe test. If you like the samples, you'll like Edgeworth wherever and whenever you buy it, for it never changes in quality.

Write your name and address to Larus & Brother Company, 15-M S. 21st Street, Richmond, Va.

We'll be grateful for the name and address of your tobacco dealer too, if you care to add them.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Edgeworth Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound, and also in several handy in-between sizes.

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On your radio—tune in on WRVA, Richmond, Va. —the Edgeworth Station. Wave length 256 meters.

Minerals, Molasses, Kafir Fodder

What per cent of steamed bone meal do you recommend in a ration for dairy cows? What per cent of limestone, if any, and in what form? How much cane molasses should I add to each 100 lbs. of cut kafir fodder? I have kafir fodder in bundles and want to run this through a cutter adding the molasses so cows will relish it better than if fed dry.

Kerrville, Texas. B. L. W.

Not enough is known about the lime or other mineral requirements of cows to permit one to prescribe a definite per cent in the ration. Rations may be supplemented with minerals in three ways. Some manufacturers of mixed feeds are now offering feeds in which certain mineral substances have been incorporated. These substances are usually bone meal, finely ground limestone or other form of calcium carbonate, and salt. These substances are usually added in the proportion of 20 lbs. of each to 1,940 lbs. of mixed feed. Another way to supply these is to mix them in equal parts by weight and allow the cows free access to the mixture or, if the cows are stanchioned continuously, 3 to 4 ounces of the mixture are fed daily with the concentrates to each cow. A third way to supplement the ration is with a mineral mixture compounded by a reliable manufacturer and fed according to directions.

The need for supplying minerals to cows depends very much on the character of the roughage fed and on whether cows are low, medium, or high producers. For example, a low producing cow fed a ration that includes all the legume hay she cares to eat is not so likely to need additional minerals to supply her requirements. On the other hand, a high producing cow fed a ration including silage and corn stover would need additional minerals, particularly calcium or lime, in addition to which she would need a rest period of 6 to 8 weeks during which time she must be liberally fed in order that she may recover any depletion in minerals that may have been used during the peak of her lactation period. Medium producing cows, those producing up to 300 lbs. of fat a year, will, if fed liberally of legume hay and given 6 to 8 weeks rest plus liberal feeding during this time, likely not need much additional mineral substance. As a matter of safety, however, it is considered good practice to give cows of this kind some additional mineral.

The amount of cane molasses to add to 100 lbs. of cut kafir fodder will be determined partly by the way in which the dry fodder takes up the molasses. One would not want to make the mixture too sticky because of difficulty in handling it. Again one would not want to add so much molasses as to make it difficult to balance the ration. Both feeds, molasses and kafir fodder, are low in protein and require considerable of protein to balance the ration. If a legume hay were fed with the molasses—kafir mixture, less of high protein concentrates need be fed. The price of the molasses in relation to prices of other carbonaceous concentrates like corn, hominy feed, kafir grain, and such like should be considered. If one should add 15 lbs. of molasses to 100 lbs. of the dry cut fodder, the feeding of 20 lbs. of this mixture would include 2.6 lbs. of molasses; 25 lbs. of molasses to 100 lbs. of fodder would give 4 lbs. in a feed of 20 lbs. daily. Four pounds of cane molasses per head daily is not considered too heavy feeding of this feed, but it might be more than is profitable to use.

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Dec. 28, Reg. Hampshires, Ed Behrends, Monticello.
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Write For
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of bred daughters of Xenia's Sultan and You'll Do's Volunteer. Breed up QUALITY TYPE AND PRODUCTION in your Jerseys with an ELM HILL BULL.
ELM HILL JERSEYS,
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FOUNDATION JERSEYS FOR SALE
Ten Registered Heifers from cows that have Register of Merit or cow testing association records. Six of them are bred. One heifer sired by Blonde's Xenia Sultan and two Raleigh bred heifers, other Owl Interest breeding. One heifer's dam made a Gold Medal record, several good cows and young heifers included in the offering. One bull calf and one three year old bull. Herd Federal Accredited. Write
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Easton Farm
-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
H. W. DAY, Mgr. LA CROSSE, WIS.

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FOR SALE—Bull calves sired by THE CID'S FONTAINE, from dams with good Register of Merit records. Good type. Priced right.
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I AM OFFERING MY HERD SIRE, IMAGES OWL, grandson of Vive La France, No. 198697, also a few cows and heifers and calves of either sex. Herd Federal Accredited.
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For Sale
REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.
My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.
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YOUNG BULLS from two months to 1½ years. From dams producing up to 500 lbs. fat with ordinary farm care. PRICES range from $25 to $100.
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FINANCIAL KING JERSEYS
We have for sale two young bulls of serviceable age, also a few calves of excellent type from R. of M. cows. Prices reasonable.
COLDWATER JERSEY FARM, Coldwater, Mich.

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Ibsen's Chief—herd sire. Serviceable bulls and younger from high producing dams including the state champion in the 305-day division. We now have 16 cows on R. of M. test, and a choice lot of young stuff, both sexes for sale.
Federal Accredited herd and no abortion.
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MAJESTY'S and SYBIL'S — of Quality
Offering 6 well grown heifers of excellent type and quality—ready to breed.
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University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.
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12 cows, heifers and heifer calves, 1 bull. Write for full description. Priced to sell.
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Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
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OVER 7 MILES OF MILK
If the milk produced by this pure-bred Jersey was put in quart bottles set end on end these bottles would reach a height of over 7 miles. In 7 consecutive tests she yielded 110,193 lbs. of milk, 5,424 lbs. of butterfat, which gives her a splendid average of 775 lbs. of fat and 15,742 lbs. of milk.
Jerseys lead in persistency!
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We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
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Shavings make the best bedding for cattle and horses. Sanitary and easy to handle. Absorb moisture. Best and cheapest kind of bedding. Prompt Shipment. OUR PRICES ON BALED SHAVINGS WILL INTEREST YOU.
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They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

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REGISTERED BROWN SWISS
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BULL
From 813-Lb. Fat Dam

This bull was dropped September 12, 1926. His dam is Millicent of Walhalla whose five-year-old record is 19,673 lbs. milk and 813 lbs. fat. His sire is Endeavor of Walhalla 8864 whose dam is former World's record 4-year-old with 669 lbs. fat. Write to

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Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

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from ten to fourteen months old. Good breeding. From accredited herd. Write for information.

H. W. AYERS, Honey Creek, Wis.

4-times-a-day
Milk Record Sheets
10 cows for 31 days
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20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 8 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.

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Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

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Spring Valley AYRSHIRES
Accredited Herd
Foundation FEMALES - BULLS
For Sale At All Times!

Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

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PROFITABLE — PRACTICAL
AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us.

Federal Accredited Herd.
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Penshurst Ayrshires
HEALTH—PRODUCTION—QUALITY

Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.

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Grandson of the World's Champion Mistress Thistle of South Farm.

Sire—McAllister Betty's Son.

Dam—Barclay's Thistle. R. of H. record, 9159 milk, 4.02% fat, Class EE.

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Ayrshire Bull

BORN: MAY 16, 1926. Sired by Penshurst Rising Star, 20922, A. R. 260, with 30 daughters having records averaging 10,688 lbs. milk, 436 lbs. fat, 4.07%. Dam, Auchinbay Elia, 70176, has the following records: Sr. 2-year-old, 14,153 lbs. milk, 547 lbs. fat and Jr. 4-year-old, 15,665 lbs. milk, 618 lbs. fat. 100 official yearly records average 12,236 lbs. milk, 492 lbs. fat, 4.02%. 6 World's Champions in 6 years. This offering is white with red cheeks and very typy.

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Will sell a limited number of
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COWS, HEIFERS and HEIFER CALVES.
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is offering some good bargains in Ayrshires. Write for what you want. Herd Federal Accredited.

B. B. SIMMONS & SONS, PEWAUKEE, WIS.

Are You Buying Hay?

(Continued from page 5)

cago, and at other important hay markets. The federal grades are definite and are interpreted in the same way at all markets by men who have been carefully trained for the work and who are continually under supervision to see that the grading is carefully, impartially, and correctly done.

As soon as hay producers and consumers become familiar with the federal grades and make use of the local inspection system, haymarketing should become less expensive and more satisfactory. Local inspection by qualified inspectors should help to develop direct shipments from producing centers to consumers. Local inspection should help to avoid disputes between both shippers and buyers. If a shipper gets an order for an inspected carload of "U. S. No. 1 alfalfa" and fills a car with hay which the local inspector grades as "No. 1 alfalfa," he is protected to the extent that the man who gets the hay cannot refuse the hay on the claim that it is not up to grade. On the other hand, when a buyer some distance away orders a car of "U. S. No. 1 alfalfa," he can be quite sure that the car will be of that grade and not filled with less desirable hay. Hay growers, dealers, and consumers should find when the federal grades are generally known and adopted that hay marketing will be better standardized and more satisfactory.

Fortunes made in no time are like shirts made in no time; it's ten to one if they hang long together.—Douglas Jerrold.

GUERNSEYS

Bargains in Bull Calves
A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD

Lines—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

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ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pronounced by authorities as the best son, individually, of Ne Plus Ultra, whose offspring, for a number of years past, have invariably topped the sales of major importance. Near descendants of this great sire are becoming harder to secure, and in the near future will be valuable acquisitions. Breeders desiring the best there is in this blood will do well to investigate, as we are offering stock at the right price. Address inquiries to

WM. P. SMEDLEY, MGR., MEDIA, PA.

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When they sire daughters which produce
A TON OF MILK A MONTH

Brookmead's Banner, sold as a youngster (Sight Unseen) for a reasonable price, is the sire of Silverwood's Diana:

December, 1925—2,158 lbs. Milk—ONE TON
January, 1926—2,187 lbs. Milk—ONE TON

Our present sales list carries equally good ones.

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READING - PENNSYLVANIA
Accredited Herd No. 10218

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We have a few sons and daughters of Hillbrook Valentine No. 100597. Sire, Langwater Horatius No. 63071. Dam, Langwater Valentine of Carteret No. 126414. Bull calf of Steinhurst Belle No. 64779. Record 16,306.7 milk, 839.76 butterfat in Class A.

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
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We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Heifers
FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

FOUNDATION GUERNSEYS
FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

We Have Two Heifers and Two Young Bulls

sired by Ultra Itchen, whose seven nearest tested dams on his sire's side averaged 722 lbs. B. F. and the seven nearest tested dams on his dam's side averaged 687 lbs. B. F. Send for sale list. Priced to sell quickly.

WM. NELSON PELOUZE,
232 E. Ohio St., CHICAGO, ILLINOIS

Springers and Fresh Cows
HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

GUERNSEYS! GUERNSEYS!

Carloads of pure-breds or grades. Prices are right. Come or write.

LACROSSE COUNTY ASSOCIATION,
VILAS YOUNG, Sec., West Salem, Wis.

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

"A Thing of Beauty is a Joy Forever"



This typical Ayrshire cow picture, 11"x14", in colors, suitable for framing mailed free.

It doesn't matter whether it is a favorite old tree on the farm, a sparkling jewel, or a herd of cows in the barn yard; there is everlasting joy in things of beauty.

Since before the poet wrote the above line more than a century ago, Ayrshire breeders have recognized the "joy forever" in producing cattle of unrivalled beauty. Style, straight backs, good bodies, level udders, and ideal proportions have been bred into these hardy creatures for generation after generation. No wonder the Ayrshire is recognized as the dairy cow of perfect type!

But the real reason why Ayrshire beauty is a joy forever is because it is associated with the most liberal and economic milk production.

Booklets describing the breed gladly Mailed Free. Write

AYRSHIRE BREEDERS' ASSOCIATION
10 Center Street BRANDON, VERMONT

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

"Eleven Iron Men"—

was the name given by sport writers to the football team from Brown University. You know the record they made,—we know that they drank a bottle of Golden Guernsey milk after each practice.

NOW—Guernsey milk is being advertised nationally. It makes the Guernsey a more profitable cow for the producer. Be the first in your community to *Ask for*

"The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
8 Grove St., - PETERBORO, N. H.

BUY HOLLISTON BLOOD!

We have sons and grandsons of Langwater Holliston that will develop into real breeding bulls. They have real individuality and persistent production back of them. We can sell you a good bull calf from either A. R. or untested dams. Our prices will interest you.

D. G. TENNEY, 15 West Fourth St., NEW YORK CITY

MARSH FARM GUERNSEYS

Founded upon **CHERUB** blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G, to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. We will be pleased to advise you about your next sire.

MARSH FARM - - - Waterloo, Iowa

TAMANNSIT FARMS QUALITY GUERNSEYS

35 A. R. cows on Atamannsit that have calved within the past 12 months have an average butterfat production record of 688 lbs.
During the next six months 15 A. R. cows are due to calve. Their average butterfat producton record is 728 lbs.
We will have young bulls from these cows for sale during coming season. Also a few males out of young females of similar breeding.

rite: GEO. ST. AMANT - - 141 Milk St., BOSTON, MASS.

Oaks Farm Guernseys

herd of 175 head is absolutely free of CONTAGIOUS ABORTION. The four herd sires are of Y ROSE, CHERUB, SEQUEL, and VALENTINE breeding. We always have young bulls of breeding on hand to offer at a price which will interest you. (No bulls raised except from ed dams.) If you are looking for registered fema'es we can offer you something which will ise you and which we will guarantee to be as represented. All inquiries cheerfully answered.

ALTER S. KERR, Manager COHASSET, MASSACHUSETTS

uttergold Guernseys

LL CALVES out of Advanced Registry ns or cows now on test, sired by National nd Champion bull or sons of his.
RR BROS., NEW AUBURN, WISCONSIN

iernsey Cows and Heifers

re for sale a few good young registered cows heifers from A. R. dams. The price is right. herd is clean. Write or come to the farm.
I. HARVEY, R. 2, Waukesha, Wis.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

GUERNSEYS! GUERNSEYS!!

GRADE and PURE-BRED, compare our price, type and quality before buying. Now is the time to buy fresh and springing cows.
FOND DU LAC GUERNSEY BREEDERS' ASS'N.,
Geo. M. Newlin, Sec., FOND DU LAC, WIS.

Do These HEIFER CALVES Appeal to You?



They are daughters of Anton's King Confidence, our senior herd sire. He has many more like them. Our younger sires, King Harvester of Prospect and Mixter Claimant, are also getting very desirable individuals. Write us for pedigrees of our sires then you will know what it means to have a bull at the head of your herd from our farm.

Square Udders—Deep Bodies—Dairy Temperament Combined with Persistent Production for Generations

Our bull calves sell fast, consequently we have none of serviceable age to offer. Write us for our reasonable prices on bull calves up to six months of age.

HOARD'S DAIRYMAN FARM Fort Atkinson, Wis.

100 GUERNSEY COWS

High grades, fresh and close springers

Auction Sale, Tues., Jan. 18

Heavy milking cows, of good Guernsey type, with cow testing records up to 600 lbs. butterfat. All tuberculin tested. Here is an example of the great cows being sold:

"NEW HOPE'S HANNIBAL LILY"
Official record—18,012.5 lbs. milk, 807.3 lbs. fat. Fresh about sale date. Her dam has an official record of 899 lbs. fat.

These outstanding cows are offered with the hope that a reputation for unusual quality may be established. Three of them were winners at the 1925 National Dairy Show.

Sale at Waukesha, in heated sales pavilion

For catalog address the owners.

APLIN & BENJAMIN WAUKESHA, WIS.
McKERROW FARMS PEWAUKEE, WIS.

GRADE GUERNSEYS

We offer all of our Grades: 40 high-class cows in commercial production, to make room for Pure Breds. 20 to freshen soon, balance milking. Especially large, uniform in type and color, and we believe they are unexcelled in production. They are priced right.

FERN-DELL GUERNSEY FARMS, A. W. FOX, Mgr., Station A, **Green Bay, Wis.**

SHOW BULL--State Record Dam

READY FOR SERVICE — CHERUB BREEDING

Begonia's Cherub of Chippewa is one of the best bulls we have for sale. He is a showy fellow, ready for heavy service. His sire, Proud Prince of the Prairie, is a prize winning son of Cherub's Prince. His dam, Queen Begonia of Chippewa, produced 630.07 lbs. fat in GG (state record). I also have a few cows and heifers for sale from my herd of over 100 head. Write or come to the farm.

L. P. MARTINY -:- CHIPPEWA FALLS, WIS.

LINWOOD GUERNSEY SIRES

COMBINE TYPE AND PRODUCTION

PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. **CINDERELLA'S FAME OF MOUND CITY 78385.** Dam: Cinderella's Josephine 909 lbs. fat.

2 REGISTERED BRED HEIFERS also **4 FINE BULLS** with A. R. dams, records 740—669—634 and 624 pounds fat. Write for prices and pedigrees.

LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.
Homer Rundell Federal Accredited Herd



SOLD FOR $22,000.00

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS *(In Waukesha Co. on Highway 61)* **MUKWONAGO, WIS.**

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS *(In Waukesha Co. on Highway 61)* **Lloyd L. Dewey, MUKWONAGO, WIS.**

LUXERIN GUERNSEYS

(SHERIDAN'S)

Fond du Lac - Wisconsin

TWO VERY HIGH CLASS YOUNG BULLS, born Feb. 9th and Feb. 10th, well-grown, good color, very good type (show kind) sired by Saugerties May Rose King 50343 A. R., one of Wisconsin's best sires. Dam's records 677.13 fat A. A. and 652.8 A. respectively. Accredited herd. Blood tested.

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

Helendale Guernseys

One serviceable bull and one bull calf nine months of age. Prices on application. Herd free of abortion and Federal Accredited.

HELENDALE FARM, Athens, Wis.

BULLS

A son and grandson o... Queen 41970, her re... 186.70 lbs. milk, ... butterfat. Also ...

GEO. E. ...
Amherst Jct., ...

Which Breed is the Best?

(Continued from page 8)

own; a bull association can be organized. A local breeders' association brings benefits; benefits which must be measured in more than direct returns. There is encouragement and stimulation in joining together in the promotion of a single breed which the man with "something different" fails to receive. A beginner may wisely be guided in his selection by the results of a "cow census" in his neighborhood.

These several considerations are important to the man who would discover which is the "best cow" for his farm: "which one do you like," "what is your market," "market price of the breeds," and "what do the neighbors own." And of these, the last is by far the most important.

[EDITOR'S NOTE:—This discussion is to be supplemented in succeeding issues of this publication with a series of five articles describing in greater detail the characteristics and history of each of the five major dairy breeds. They will be of interest to the man who is about to make a choice, as also to men who have already made their decision.]

La Crosse County Guernsey Sale

The recent La Crosse County, Wis., Guernsey Breeders' Sale was a record breaker in number of cattle sold and in number of distant buyers. Two hundred eighty-nine head of cattle sold from one o'clock in the afternoon to eleven o'clock in the evening. Buyers were present from nine states, many of the cattle going to California, Pennsylvania, New York, Utah, and New Jersey. It was one of the outstanding sales of the fourteen fall sales held by the Association. One hundred six registered cows, heifers, and bulls were sold in the afternoon.

Forty-five bulls and bull calves sold for an average of $98.

Twenty-three heifers and heifer calves sold for an average of $101.70.

Thirty-eight cows sold for an average of $167.65.

The top bull, a very nice yearling consigned by Richard F. Klemm, sold for $280 to P. A. Larson of Wisconsin. Mr. Klemm also consigned the two top cows, one selling for $360 to Jas. H. Allen of New York and the other for $350 going to Ed. Williams of Utah.

The grade sale started at 7 o'clock in the evening and 183 head sold in four hours. Forty-six heifers and heifer calves averaged $50.20 and 137 cows averaged $118.24.

The top cow, consigned by Herbert Hochmuth, sold for $255 to F. M. Byers of Illinois.

Grahamholm—Mayowood Sale Has $600 Top

The annual Grahamholm—Mayowood sale, held at Rochester, Minn., November 15, afforded an excellent opportunity to Middle West breeders for the purchase at moderate prices of a splendid offering from these well known herds.

The top price of $600 was paid for the yearling, Grahamholm Ceasar Colantha, a very promising son of "Dutch." He went to the bid of The New Mellary Abbey of Iowa. The proved sire, Grahamholm Colantha Johanna Lad, went at the bargain price of $375 to the bid of F. D. Scholljegerdes of Minnesota. He is a bull of splendid type, seven years old and has tested daughters up to 30 lbs. in junior 2-year-old form. The offering averaged well over $200. The top of the females was reached when Ormsby King of Minnesota paid $350 for one of the best young daughters of "Duke." Mr. King took a number of the top females.

The Grahamholm consignment was made up largely of heifers from twelve to twenty months of age. They were daughters of the Grahamholm herd bulls, of good type, and found great favor with the bidders. Several of these went up over $200 with a $250 top.

In spite of wretched weather conditions throughout Southern Minnesota and Northern Iowa for several days before and on the day of sale, the attendance was good and the bidding spirited at all times.

The sale was managed by Melin—Peterson Company, and J. E. Mack and E. J. Hanson did the selling.

As True Today

"Two great obstacles," said W. D. Hoard in an address delivered in 1881, "for a long time stood determinedly in the way of successful dairying in the Northwest. The first was the indifference of the farmers, and the loose, careless habits which a quarter century or more of wheat farming had bred. That obstacle still remains to a certain extent. Dairy farming calls for the best exercise of the intellect. Just in proportion to the enlargement of the judgment and the adoption of thorough methods of business conduct among the farmers in any community, can be marked the growth of dairying. Old methods and old notions yielded stubbornly. But the verdict of outraged nature has been against them. The mute reproach of impoverished fields and lean pocketbooks has been more than human nature could long endure."

An acre of corn put into the silo and then put through cows will produce as much milk as an acre and a quarter of corn fed as dry stover and corn grain. The silo route is the cheaper, too.

HOLSTEINS

K. P. O. P. Bulls
If you will need a new sire during the next year get in touch with us. We can offer you just what you want.
HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write
L. E. FERGUSON, LAURENS, IOWA.

HOLSTEINS (Homesteads)
MILWAUKEE COUNTY INSTITUTIONS FARM will sell ten Homestead bred yearling heifers (open) from high producing dams; sires, King Canary Homestead Segis, a 31-lb. sire and Milcoaggie Oak Homestead, another 31.69-lb. bull. Not show individuals but fine foundation stock, if you are looking for production. Also selected bull calves from good blood lines.
HERD T. B. TESTED EVERY SIX MONTHS.
Inquire of:
MILWAUKEE COUNTY INST. FARM
WAUWATOSA, WISCONSIN
E. C. THOMPSON, FARM MANAGER

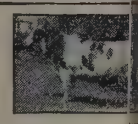
2 FIRST CLASS BULLS
SHOW TYPE — YEAR RECORDS
HIGHLAND FARM, LAKE GENEVA, WIS., offers for sale 2 very toppy young bulls, 9 and 10 months old, sired by a good grandson of Iowana Sir Ollie. One is from a daughter of Count Walker Homestead Segis that produced 11,855 lbs. milk, 459 lbs. butter in 305 days at 24 months. The dam of the other produced 25.8 lbs. butter in 7 days. 967.95 lbs. in a year as a 4-year-old. If you want a bull with type and breeding, backed by best of production, write
JOHN H. ALCOCK, 3460 W. Adams St., Chicago, Ill.

Quality Holsteins
Jefferson County Holstein-Friesian Breeders Association has them. Over 1000 herds to select from. Write your wants to our field man.
BERT ANTHES, Fort Atkinson, Wisconsin

We Are Proud to Offer You This Splendid Herd Sire

EAR TAG A-1118 — Born May 18, 1926
WE know of no bull who transmits straight toplines and square rumps with greater certainty than North Star Joe Homestead, our All-American Show Sire.
This week we offer you his son, out of our grand old foundation cow, Courtland Korndyke Fobes, whose record of 1083 pounds of butter from 22,555 punds of milk (average test for the year 3.8%) gives you an idea of her ability.
Buy this Bull for Show Type, High Test, Persistent Production and a Most Popular Line of Breeding
Address all correspondence to
111A CARNATION BUILDING
OCONOMOWOC, WISCONSIN
HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR
Carnation Milk Farms

Come to Hollyhock Farms For Your Herd Sire!
Although we seldom have a bull of serviceable age, we always have some very good younger ones sired by Sir Bess Ormsby Fobes or by Creator out of Sir Bess' daughters. We have a few good ones right now with the right type and from good record dams. Write us or come to the farm.
HOLLYHOCK FARMS (Waukesha County) P.O. DOUSMAN, WISCONSIN
GUSTAVE PABST, OWNER F. J. SOUTHCOTT, MGR.
A Clean Herd Under State Supervision

Clover Lawn Ormsby Fobes

Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
JOHN H. PULS ALLENTON, WISCONSIN

THE NORRIS FARM—Home of King Homestead Veeman Pontiac, 1[illegible] lb. son of Piebe Laura Ollie Homestead King and Molly Veeman Segis P[illegible] tiac—daughter of King Segis Pontiac Count.
MUKWONAGO *Federally Accredited* WISCONS[illegible]

STATE and FEDERAL TESTED HOLSTEINS
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.
Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Our Surplus Purebred And Grade Holsteins
have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.
DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

SERVICEABLE HOMESTEAD BULL
¾ white and good type. Two nearest dams of his sire average 1,153 lbs. in a year. Dam is a show cow with a 21.62-lb. record. $150.00 delivered in Wisconsin. Accredited herd.
CHAS. HUGHES & SON NEENAH, WIS.

$350 Buys a Serviceable Son
of a 952-lb. four-year-old. Sire a 1,000-lb. brother of Madam Artis Wayne Denver. Send for photo and pedigree. Accredited.
S. B. SIMONS, Sullivan, Jefferson County, Wisconsin.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

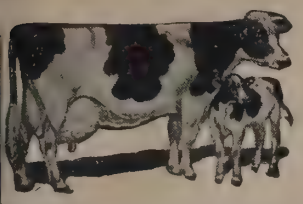
MILFORD MEADOWS
Where long-distance records and high test counts
Our daughters of King Bess Burke Ormsby (1164 butter) and Marathon Aaggie (butter) are most all bred to
SIR TRIUNE PANSY (1,317 lbs.)
First to freshen in January. You will be pleased with this combination of type and production.
W. W. KINYON, Mgr., LAKE MILLS,

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-[illegible] and grades of all breeds. One or a ca[illegible] Area tested.
ST. CROIX INTERCOUNTY DAIR[illegible] EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis

HOLSTEIN Bulls - Females
YOUR PICK OF 150 HEAD. Abortion [illegible] and T. B. free. First prize National [illegible] Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.
F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

Jefferson County Holstein Sales Association
can assist you in purchasing good, clean dairy [illegible] Grade or pure-bred in any number you wish. [illegible] all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

When buying mention Hoard's Dairyman to your merchant or dealer—it helps us!



If all the Dairy Cows In Iowa Were HOLSTEINS—

On January 1, 1926, there were 1,369,000 dairy cows in Iowa which produced approximately 6,200,000,000 pounds of milk last year at a feed cost of approximately $95,000,000. If all farmers were milking cows that were as productive on the average as the 811 cows (Holsteins) on Iowa state farms operated by the Iowa Board of Control, it would have only taken 617,600 cows to produce this 6,200,000,000 pounds of milk and if they had been as economically fed as the state cows, there would have been a saving of approximately $35,800,000 last year alone.

This statement was made by the Iowa State Secretary of Agriculture, Mr. Mark Thornburg, before the recent joint convention of the Iowa Creamery Buttermakers and the Creamery Managers and Secretaries Associations.

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN *Association of America*

230 E. Ohio St. Room 601 CHICAGO

'INTERTHUR FARMS HOLSTEINS

HOME OF THE
RING BROOK BESS BURKE 2d FAMILY

BULL CALVES FOR SALE

1 since March. Write for price list. Herd
er Federal Supervision for Tuberculosis;
itive to Blood Test for Abortion.
'INTERTHUR FARMS, Winterthur, Del.

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

AYOWOOD FARMS

26 — HOLSTEIN BULLS — 26

new Sales List offers you a variety of serviceable younger bulls from dams with splendid A. R. is, and from well-bred heifers now on test. We meet your requirements for

QUALITY—TYPE—PRODUCTION

Prices to meet your needs. Write us.
. JENSEN, Supt. ROCHESTER, MINN.

---

orthfield Holsteins

duction and type—Prices right. Regis- cows, heifers and bulls, calf club calves, of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
THFIELD, MINNESOTA

OME VISIT OUR HERD

see the great daughters of Dean he Ormsbys, and St. Olaf Orms- Sensation, our two herd sires. We now sold out of bulls and will have any to offer for some time.

ST. OLAF COLLEGE FARMS,
thfield, Minnesota

---

we can er in .. BULLS

tag 575. Born December 1, 1926, evenly ed. Dam, a show cow, daughter of 1,227- ull. Sire proven son of "Piebe." Get calf for next year. Price $75.00.

Federal Accredited.

CARLETON COLLEGE FARM,
hfield, Minnesota

R GOOD HOLSTEINS

Come to Steele County!

e the big black and whites grow. Good icers with both size and type. Pure- or grades—one or a carload.

LE CO. HOLSTEIN BREEDERS' ASS'N.
B. Christgau, Pres. Geo. S. Kaufman, Sec.
TONNA, MINNESOTA.
"The Dairy Center of the World"

Frost Spaulding Farm Co.

choice Bred Bulls from good record dams and by KING PEITERTJE MERCEDES ORMSBY, whose daughters has just broken the World's in the senior two-year-old class with 1,119 lbs. in a year. This sire is a son of Sir Pietertje Mercedes from an 1,100 lb. daughter of a lb. cow and is one of the few sons of Sir M. backed by two generations of 1,000 lb. dams. r prices.

SPAULDING, MGR., Warren, Minn.

Healthy Holsteins

If you are in the market for grade or registered Holsteins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.
E. M. Clark, 608 So. Dearborn St., Chicago, Ill.

Rock River Aaltje Jess



Born July 14, 1926. Sire, Aaltje De Colantha Homestead, he by M. M. Fayne Bessie Homestead from a 788-lb. De Colantha dam. Dam, a 26-lb. 3-year-old daughter of King Segis Pontiac. Five years in Ogle Co. Cow Test Association. Write today for price, pedigree, etc.

Rock River Farms, Byron, Ill.

Buffalo Creek Farm Holsteins

ORMSBY BRED BULL CALVES FOR SALE out of tested dams. Oldest calf born last February out of 20-lb. two-year-old, mostly white, price $100. Younger calves out of year record dams with year records up to 970 lbs. butter. Write for pedigree and prices. Federal supervision.

BINGHAM BROS., Arlington Heights, Illinois

---

2 GOOD YOUNG BULLS

FROM A. R. DAMS

I have for sale 2 very good young bulls born last November. One is out of a splendid type Colantha dam with a 22.53-lb. junior 3-year-old record. The other out of a 21-lb. junior 3-year-old Judge Lyons dam. Both are by Superior Pontiac and are very promising youngsters. Write today for further information.

HARRY M. WOOD, Delavan, Ill.

WARWOOD FARM HOLSTEINS

YOUNG BULLS FOR SALE

These youngsters are sired by a 1000 lb. grandson of Sir Pietertje Ormsby Mercedes 37th and are from our best producing cows. Write today if you want a bull with type and backed by productive breeding.

FRED LANDORF, GLEN ELLYN, ILL.

YOUNG BULLS FOR SALE

We have some real good bull calves from one to three months old. They are real straight calves and from our highest record cows. They are priced reasonably, quality considered. Our herd is under federal supervision.

ELLWOOD & NELSON, DE KALB, ILL.

Hyde Park Farm

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where our fully accredited herd of high-producing registered Holsteins is headed by a splendid son of Matador from a 35 lb. dam. We sell our Bull Calves at reasonable prices to local dairymen.

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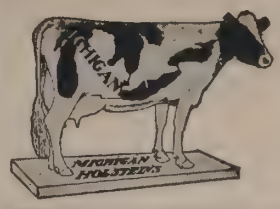
h sons of SIR WALKER SEGIS HOMESTEAD, (40 A. R. O. ters), who is a "PIEBE" son from a former world's rec- aughter of "COUNT."

ns have good 7-day and 305-day heifer records. Both calves marked, the October calf ⅔ black, the December calf ⅔ Both fine, straight individuals.

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KENT COUNTY A Modified Accredited Area. Six Cow Testing Associations proving about 800 Holsteins. Inquiries for Purebred stuff solicited.
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A son of Eco Sylv King Walker; the sire of the 30-day state butter record 2-year-old. His dam is a 22-lb. Jr. 2-year-old and a maternal sister to a 25-lb. junior 2-year-old state butter record for 30 days. The only son of serviceable age left of Eco Sylv King Walker. If you want a herd sire of producing ancestry plus type, write today for pedigree of bull No. 188.

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A SON OF "FOBES 6th"

is senior sire in the heavy producing Traverse City State Hospital herd where 98 cows and heifers averaged over 13,000 lbs. of milk during the past year.

HIS SIRE, Marathon Bess Burke, has two daughters with 30 and 37.8 lbs. and two above 1,000 lbs.

HIS DAM, "Fobes 6th," is a 38.5-lb. 1,105-lb. cow of wonderful type and quality.

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BUREAU OF ANIMAL INDUSTRY, Department B, Lansing, Mich.

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Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



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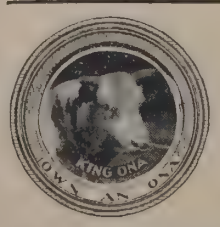
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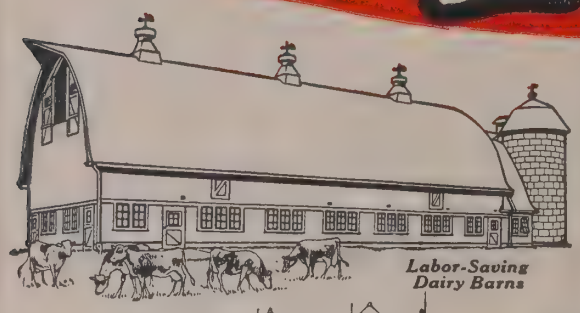
Barn Equipment Book

Poultry Equipment Book

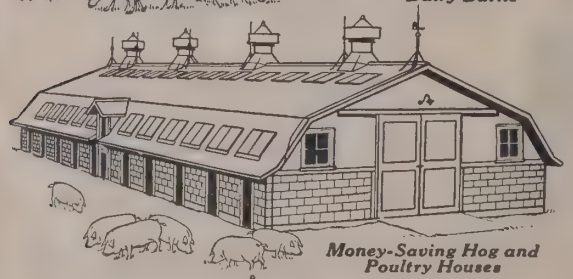
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W. D. JAMES, Pres.

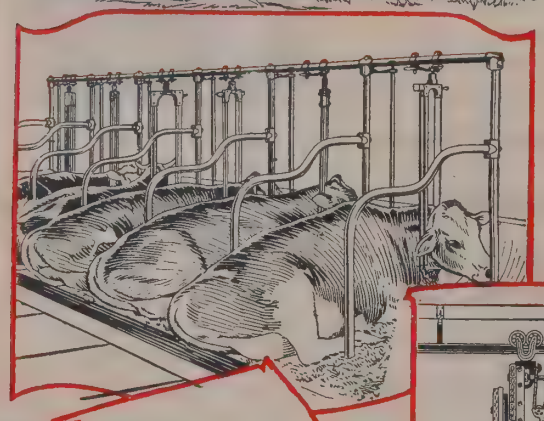


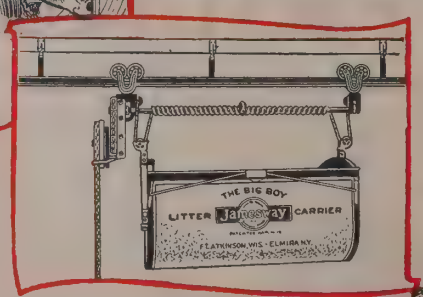
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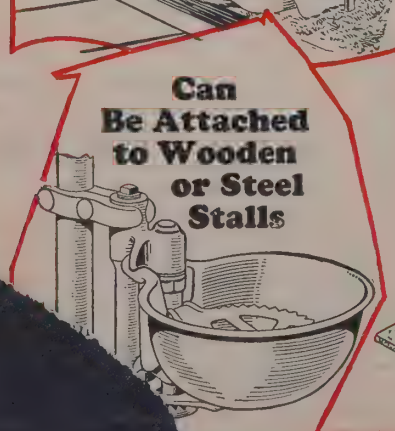
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Here are only a few of the many helpful aids found in these books for those who expect to build or remodel:

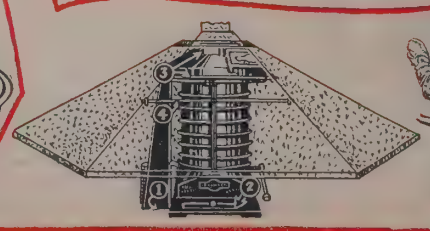
- —How to save on materials and labor
- —Why specifications get lowest bid
- —Why planning on paper saves money
- —7 essentials of farm buildings
- —How to arrange equipment
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(3)

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"I have been looking in the dictionary for a word that will express what I think of Jamesway, 'perfect' approaches it. This little paper is not large enough to tell you how pleased I am with my outfit." John B. Scott, Pittsford, Michigan.

"Not only did your cups pay for the equipment but they put a few dollars away every week in the increase in milk checks. I can't say enough for the Jamesway." John Signer, Monroe, Wisconsin

"I have used the Jamesway for nine years. After nine years of service they have done what I expected and I know they will be here for nine years more." Fred Warnberg, Rush City, Minn.

"I ordered Jamesway in 1915—lost everything by fire in 1918 and have Jamesway again and like them best of all." Paul Lytinen, Cloquet, Minn.

"Jamesway is the most dependable labor saving device I have on the farm so far." Alex Turick, Anamoose, N. Dak.

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING





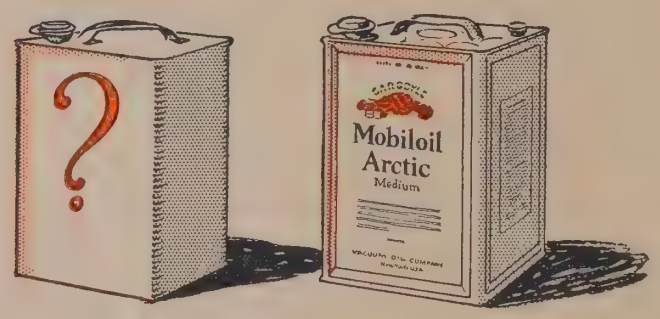
Volume 72, No. 2 Fort Atkinson, Wisconsin

Rye may look like wheat–*but*–



"Rye is the poorest grain you can try to feed a hen," says a prominent farm paper discussing the substitution of rye for wheat as an ingredient in mixed poultry feed. "It looks so much like wheat that it is often a temptation to try it on poultry. Hens do not like rye until starved into eating it, and as plenty of feed is required by hens that lay many eggs *there is no economy in forcing them to eat a grain they dislike.*"

Many oils may look like Mobiloil–*but*–



Appearance is no guide to low-cost running. Many farmers are tempted to use a cheap oil because it *looks* like Mobiloil. They accept "just oil" and forget that Mobiloil is a *specialized* lubricating oil. And with less than Mobiloil lubrication they get less than Mobiloil protection against wear, repairs, over-heating, and carbon troubles. The correct grade of Mobiloil often cuts oil consumption from 10% to 50%—proving the cheapest oil to use on cost alone.

An unmatched cold-weather record

Make this CHART *your guide*

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars are specified below.

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc"), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

Follow winter recommendations when temperatures from 32° F (freezing) to 0° F (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford Cars, use Gargoyle Mobiloil "E").

If your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors.

NAMES OF PASSENGER CARS	1926		1925		1924		1923	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cadillac	A	Arc	A	Arc.	A	Arc.	A	A
Chandler	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chevrolet	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler 4	A	Arc	A	Arc	....	....	....	....
Chrysler 6	A	A	A	A	A	A	....	....
Dodge Brothers	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Essex	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hudson	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hupmobile	A	Arc.	A	Arc.	A	Arc	A	Arc.
Jewett	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Maxwell	....	....	A	Arc.	A	Arc	A	Arc.
Nash	A	Arc.	A	Arc.	Arc.	Arc	Arc.	Arc.
Oakland	A	Arc	A	Arc.	A	Arc.	A	A
Oldsmobile (4 & 6)	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Overland	A	Arc.	A	Arc	A	Arc.	A	Arc.
Packard 6	A	Arc	A	Arc	A	A	A	A
Packard 8	A	Arc	A	Arc.	A	Arc.	A	Arc.
Paige	A	Arc	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Reo	A	Arc.	A	Arc	A	Arc.	A	Arc.
Star	A	Arc	A	Arc	Arc.	Arc.	Arc.	Arc.
Studebaker	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Velie	A	Arc	A	Arc.	A	Arc.	A	Arc.
Willys-Knight 4	B	Arc.	B	Arc.	B	Arc.	B	Arc.
Willys-Knight 6	A	Arc.	A	Arc.	....	....	....	....

GARGOYLE
Mobiloil
Make the chart your guide

Mobiloil is the favorite oil in Canada, Norway, and Sweden, as well as in the United States. And Mobiloil successfully lubricated Commander Byrd's plane on his historic dash to the North Pole—the outstanding cold-weather lubricating job of all time.

The 42 Mobiloil Engineers have studied the cold-weather operating problems of your car, truck, tractor and other farm engines. Their winter recommendations in the Mobiloil Chart are your scientific guide to low-cost winter operation. 609 makers of automobiles and other automotive equipment approve these recommendations.

If your car is not included in the brief Chart at the left, see the complete Chart at any Mobiloil dealer's. It shows the correct grades for automobiles, tractors, trucks, farm lighting and stationary engines.

Now is a good time to talk to the Mobiloil dealer about your season's requirements of Mobiloil. You make a substantial saving by buying Mobiloil in barrel and half-barrel lots.

...UM OIL COMPANY

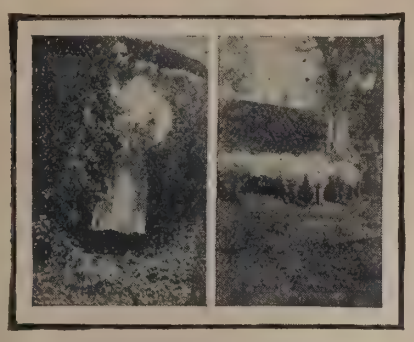
MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas.*

Other branches and distributing warehouses throughout the country

Success With Sweet Clover

HOARD'S DAIRYMAN:—We have a five-acre field of sweet clover that has brought wonderful results, and we are well pleased with it as a hay and pasture crop. A year ago we plowed this field and made a good seed bed. Then we spread about four tons of limestone, after which we sowed it to oats and sweet clover.

When we cut the sweet clover it was as high as the oats and it was so heavy it was hard to cure. We got about sixteen loads of hay. The cows



ON THE JUDSON FARM

At the left, Mrs. Judson standing in sweet clover five feet high; on the right are pigs that at five months old weighed 185 pounds.

liked it fine and the young calves would eat it too, but we came to the conclusion that it was not best for young calves as it was too much of a laxative to feed. After cutting the hay we pastured it the rest of the season and this year we got another good crop of hay, and pastured it the rest of the time. We expect to plow this field in the spring and sow to alfalfa which I have heard does well after sweet clover.

We sowed another piece of sweet clover and oats this spring. We did not lime it and it has not done nearly as well, none of it growing over six inches tall all summer. We fertilized some of the soil and we could see that this made a big difference in the growth, so I think a good many soils need both fertilizer and lime. We never had any trouble with bloating from the sweet clover or poisoning from the hay.

Wisconsin. (MRS.) H. L. JUDSON.

A Story of Fads

HOARD'S DAIRYMAN:—The fur farming fad that is going over the country reminds me of other fads that have come and gone during my life. Some of them are still here on a solid foundation while others have been largely abandoned.

I remember when I was a boy a man came to my father and wanted to buy a piece of the farm to establish a bee ranch. After that every one seemingly was talking bees, but the business waned and now only a few have bees. The ones that stuck to it, studied the business, and applied themselves to it, are still in the game and have made good.

Next came Jerseys. I remember the first Jerseys that were shown at our county fair and the remarks made about them: cat-hammed, runts, deer, and baby cows. But it was not long until these same men were paying a hundred dollars or more for these little heifers, and Jerseys were seen everywhere. They produced butter that brought the unheard of price of 25 cents a pound. The short road to wealth was in the milk pail. Creameries were built with the farmers' money, many being promoted by sharpers and their history is well known. Now there are few Jerseys to be seen. Those that stuck studied the business, and their sons are with us still and are wearing good clothes and riding in big cars.

Then came chickens. Every one was talking chickens. Expensive houses sprung up everywhere. The poultry exhibits at our fairs were the largest of all the exhibits, but soon there were wrecks of poultry plants to be seen everywhere. This fad springs up about every so often, but I know men who started in at the beginning that are with it yet and they, too, have paid for their farms and have nice homes and automobiles.

Next came ginseng. These little plantations were seen everywhere and resulted more disastrously than any of the other fads. Now there are none to be seen in my county. The most stable fad with us today is the making of market milk. Herds of Holsteins have taken the Jersey's place and silos are seen on every hand. Will it last? The answer is the same. Those that follow it through thick and thin are the ones that come out on top.

Now there are fur farms springing up around us. Fox and skunk are principal kinds grown. Fifteen hundred dollars is the average price of a silver female. From what I've seen of this industry there are more things to combat than with the other ventures I have enumerated. The fox is a very peculiar animal. They require constant attention and the beginners can soon wreck a fortune with them. Nevertheless, the one that devotes his time to them as the winners in these other fads may come through all right.

My observation has been that, when anything has been hailed as a quick and short road to fortune, it has left many a wreck by the wayside. The trouble has been that a market must be established and the business must be studied. I remember how the eggs were advertised as a cheap and pure food, and the market showed the result. Now milk and butter are the center of the stage and the American people have just awakened to their good qualities. Will every one want a silver fox coat in the future?

Ohio. A. UNDERHILL.

Estafette of Abbeyleix has taken fifth place in class AA by producing 15,127.6 pounds milk and 838.7 pounds fat, testing 5.54 per cent. She also is the new state champion Guernsey in Pennsylvania for that class. She has a former record in class F of 10,466 pounds milk and 610.7 [illegible] fat. Estafette was bred [illegible] Fitzpatrick and made [illegible] der the ownership [illegible] both of Pennsyl[illegible] can Guernsey [illegible]



The McCormick-Deering P & O Little Genius 3-furrow plow is shown here pulled by the sturdy 4-cylinder McCormick-Deering 15-30 Tractor. The little Genius is built in 2, 3, and 4-furrow sizes for tractors of various power ratings.

McCormick-Deering—*the mark of quality manufacture*

THE McCormick-Deering dealer in your community offers you tractors and tractor plows developed by one builder for your satisfaction. The dealer, who is expert in gauging the machine needs of his community, has chosen his stocks from the McCormick-Deering line with your soil, crop, and climatic conditions closely in mind. If you are interested in turning your soil in the shortest possible time and with the smallest expenditure of man labor, we urge you to study the McCormick-Deering combination of power and plows.

McCormick-Deering Tractors are sturdy, modern, 4-cylinder units, built in three types,—10-20 h. p. and 15-30 h. p. regular tractors, and the two-plow Farmall designed for planting and cultivating row crops in addition to doing all regular tractor work. All three embody the same basic 4-cylinder engine design and are built according to Harvester quality standards for long years of economical, labor-saving operation.

McCormick-Deering P & O Tractor Plows—moldboard and disk types—are up-to-the-minute in every detail. Designed to plow with minimum power and to operate with minimum human effort. Power lifts, accessible levers, quick adjustments, easily removable shares, etc., are features.

Ask the local dealer for specific information on tractors and plows for your requirements.

INTERNATIONAL HARVESTER COMPANY
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606 So. Michigan Ave. Chicago, Ill.

P & O

For more years than most of us can remember, the name P & O has meant absolute plowing satisfaction. Today, the McCormick-Deering line of tractor plows bearing this name upholds the P & O tradition with incomparable tractor moldboard and disk plows for open field, orchard and vineyard use. Built by the makers of the famous 4-cylinder McCormick Deering Tractors for every kind of soil and power. Also, a complete line of horse-drawn gangs, sulkies, and walking plows.



McCormick-Deering
4-cylinder FARMALL

The new all-purpose tractor for planting and cultivating corn, cotton, and other row crops. Leads the way to real horseless farming.

McCORMICK-DEERING TRACTORS *and* P & O PLOWS



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BUICK MOTOR COMPANY, FLINT, MICHIGAN
Division of General Motors Corporation

THE GREATEST BUICK EVER BUILT

WHEN BETTER AUTOMOBILES ARE BUILT . . . BUICK WILL BUILD THEM

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ntered at Fort Atkinson, is., as second class matter.

Semi-monthly

Three Years $1.00

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W. D. Hoard & Sons Co.

Volume 72 FORT ATKINSON, WIS., JANUARY 25, 1927 Number 2

A FAD THAT BECAME A LEADING CROP

'N 1920, 162,820 green on a brown . background; in 1925, 550,645 green on a brown background— ›t green figures on a brown license ate, as you might suspect, but ·een acres of alfalfa on the brown ils of Ontario. This 340 per cent crease in Ontario's alfalfa acreage without doubt the most important ange in the cropping methods that ve been under way on the farms this province during the past five ars.

Ontario eclipses the four northern ates—Michigan, Ohio, Pennsylva-a, and New York, which border it the south, in total acreage devoted alfalfa and in the percentage of nd under alfalfa as compared with e total acreage under tame hay ops. In Pennsylvania but 2.4 per nt of the total acreage under tame ıy in 1925 grew alfalfa; in New ork this percentage was 4.3, in hio it was 5.37, in Michigan it was .1, while in Ontario 15.5% of the tal hay acreage of the province oduced alfalfa. When we consider at only a decade ago the acreage ıder alfalfa in Ontario constituted arcely 2 per cent of the total area ıder hay, the figure for 1925 is sig-ficant of the great awakening inter-t which farmers of this province e showing in this crop.

Many and varied have been the perlatives bestowed upon alfalfa its many admirers. "The wonder ant," "the queen of forage crops," he feed crop supreme," and "the st mortgage lifter" are typical ex-nples of the titles which have been ed by ardent writers encouraging falfa culture, while enthusiastic ag-cultural orators have heaped their aises of its matchless qualities up-farmers' audiences large and

W. C. HOPPER, CANADA

small. The very name alfalfa is Arabic "for the best fodder."

Origin of Alfalfa

Although still new to Ontario and still more or less unknown to many farmers in North America, alfalfa is nevertheless of very ancient origin. Its gradual spread from the country now known as Persia to other parts of Asia, to Europe, and to North America would make a romantic story. It was upon it, doubtless, that the flocks of Abraham fed and when David in his pastoral psalm referred to the "green pastures" in which his flocks were made to lie down, in all probability he referred to the rich alfalfa so common to that eastern land. From its original Asiatic home it spread north and northeast through Siberia. It crossed the Arctic Circle and pushed its way eastward into Thibet, Mongolia, and China. It came west into Greece and reached Italy from Greece in the first century B. C. From Italy it came westward into Spain and then north into France where it was given the name "lucerne." The Spaniards brought it to Central and South America in the sixteenth century and to California about 1854 and left in it one of the most valuable of all contributions to the wealth of this western hemisphere.

Excellent Qualities of the Plant

Alfalfa's superiority as a hay crop is conceded by all. In yield per acre, in palatability, and in feeding value it is unsurpassed by any other crop grown for hay in Ontario. The average yield of other hay on Ontario farms is but 1.5 tons per acre, while alfalfa averages 2.75 tons and yields of 4 and 5 tons per acre are quite usual. Alfalfa's deep root system which imparts to the plant the ability to withstand drought, the winter hardiness of the variegated varieties which even surpass in this respect the long established legume red clover, the perennial habit of the plant which permits continuous cutting for many years, and the adaptability of alfalfa to such a great variety of soils are further arguments in favor of the growing of this pre-eminent legume crop for the temperate zone. This is the legume which the farmers of Ontario not so long ago smiled at as a fad but which now bids fair to become the leading hay crop of the province.

Under the heading, "Alfalfa the Conquest of the Air," one Ontario writer has rather strikingly observed another cardinal quality of alfalfa. He has disclosed the fact that the conquest of the air as applied to such aeronautic flights as across the Atlantic, around the world, and over the top of the earth, the accounts of which the world has stopped to read, mean less to us than that other conquest of the air of which there are no animated press reports and no current comments but which is nevertheless being silently and mysteriously pursued day by day by such legumes as alfalfa. Our interest in this latter conquest, he believes, should be quickened because it is intimately connected with the food that we eat and the clothing that we wear. Our food is ultimately derived from plants and the most important problem in agriculture today is that of putting nitrogen into growing plants. Nitrogen, that essential plant food found in such a limitless quantity in the atmosphere, which by bacteria associated with alfalfa, in common with other legumes, is brought into a form suitable for plant utilization. The plants, then, in their turn may be converted into substances for the feeding of humanity.

Pioneer Work of Dr. Zavitz

As a student at the Ontario Agricultural College ten years ago, I first became acquainted with the man who has probably done more than any other to encourage the growing of alfalfa in Ontario. The farmers of this province owe a great debt of gratitude to Dr. C. A. Zavitz, professor of field husbandry at the above mentioned institution.

His faith and untiring efforts to introduce this crop on the farms of Ontario have given to him the initial "A" alfalfa, for his second name. His work in the testing of varieties for winter hardiness and yield and the comparisons of rates and dates of seeding which he instituted are now of long standing and the results most valuable. The pioneer work of Dr. Zavitz has gradually expanded until at present time the experimental and extension work with alfalfa now under way by federal and provincial agencies in Ontario is far-reaching and comprehensive.

Ontario Suited to Alfalfa Production

The fertile undulating land of Ontario with natural drainage and so largely well supplied with lime in surface soil or subsoil, the facilities for the making of nitro-culture for seed inoculation, and the suitability of the climate and soil for hardy seed production are features which have

(Continued on page 98)



Hardy home-grown seed has made possible in Ontario abundant alfalfa crops similar to the one pictured above. Windrow and cock curing are both practiced by

THE FEEDING OF DAIRY COWS

No. 7—Herd Management



THUS far our attention has been given to the good ration as a factor in making money from cows. There are other factors that must be considered along with this if a good ration is to serve its best usefulness. Let us call these the factors of management.

What Does It Profit to Put a Good Ration into a Scrub Cow, or Grow Timothy when Alfalfa Could Be Grown, or Allow Cows to Freshen in Poor Condition?

Scrub Cows

Good feeding comes first in cow management. It is unfair to call any cow a scrub because of her low production if she has not been adequately fed. Having given every cow in the herd a fair chance it is then best to cull some cows if any are found that do not make a satisfactory return. This enables the dairyman to send his feed to market through more profitable cows.

The best way to find the poor cows is to be a member of a cow testing association. If one is located so that it is not possible to operate an association, the next best way is to use a milk scale and a record sheet. With these conveniently located in the barn the time for using them is of small concern when compared with the benefits derived.

Most Milk Per Acre

No sooner does a dairyman learn to feed his cows well than he realizes the relation between crop production, good rations, and profit. In other words, he begins to measure milk production in terms of what it brings per acre of crops grown for feeding. When all dairymen do this it will revolutionize the production of milk from the standpoint of economy of production.

Earlier in the series we stated that the basis of a good ration for cows is a succulent feed and a legume hay. We have repeatedly advised dairymen to find out what succulent feed and legume hay they can grow best and then to reorganize their crop rotation sufficiently to produce these feeds in abundance.

A dairyman from Indiana recently wrote in to say that he was paying $32 a ton for alfalfa hay. When one pays this much for roughage he is likely to skimp on the daily allowance. Skimping on roughage and making the deficiency up with higher priced concentrates is not the right way to feed cows.

One of the leading dairy husbandmen in this country has said, "It is doubtful if dairying should be undertaken on a commercial scale where succulent feed of some kind is not available." This means that if one cannot have some kind of silage, roots, soiling crops, or pasture, his cows cannot be made to approach closely their inherited productive capacities.

The same might well be said about the growing of legumes though not, perhaps, to the same degree. Where no legume hay is available the feed cost per 100 lbs. milk is invariably higher.

We repeat that every dairyman should find out what succulent feed and legume hay he can grow best and then set about growing these in quantity sufficient to meet the needs of his

dition at Calving Time

sked a good many suc- what they consid- portant single fac- d rations and in- ences the yearly production of cows. The answer has invariably been to have cows in good condition when they freshen. To go a little farther we do not know a single successful dairyman who does not practice this factor of good management.

This "good condition" does not mean that cows must be fat as for the butcher but it does mean that they be given opportunity to regain at least all that may have been depleted from their bodies during their previous lactation and preferably they should be made to store a reasonable reserve.

There was a time when this practice was somewhat discouraged on the basis of danger from milk fever but the discovery of the air treatment and its intelligent use now make almost a perfect defense against the disease.

If good cows are not in good condition when they freshen they must be excessively fed during the first half of their lactation if their inheritance for producing milk is satisfied and even then it is doubtful if they are made to reach their maximum. Excessive feeding has its danger and many a good cow has been injured because her owner tried to hold her up in flesh or build her up after she calved in poor condition. It is easier, safer, and much more satisfactory to build a cow up when she is dry than to try to do so after she calves.

The important factors in building cows up are the dry or rest period and adequate feeding. Some dairymen excuse a cow's condition on the basis of not being able to dry her up. Other dairymen seem to think that as soon as a cow ceases to give milk her feed should be cut down to mere body maintenance. There are few cows on average practical dairy farms that cannot be dried up 6 to 8 weeks before they are due to calve. Every effort should be made to dry them up and thereafter they should be liberally fed to within a week before they are due to calve.

The feed used to bring cows up to good condition at calving time is a necessary overhead expense in the management of good cows. It is not enough to know how to feed cows when they are in milk; one must also know how to feed them when dry.

Regularity

In visiting many good dairymen we frequently are reminded that regularity in feeding and milking is a part of getting the most milk from cows fed good rations. Putting this in a different way it takes a mighty good salesman to attract the attention of a good dairyman when it's time to feed and milk. With some dairymen it can't be done.

Experimental evidence indicates that regularity of feeding is more important than manner of feeding or regularity of milking though feeding and milking usually are done about the same time.

The question of manner of feeding roughage and grain comes up frequently. There is no definite answer. Most dairymen feed grain before milking and roughage after milking, though it is not likely that any more milk is produced than if the method were reversed. The reason for feeding hay after milking is to avoid creating a dusty atmosphere at the time of milking; the reason for feeding silage or roots afterwards is to make sure no undesirable flavor will be imparted to the milk as is sometimes the case when such feeds are given before milking.

Cow Comfort

A very successful dairyman in Minnesota said to us last summer, "I soon found out a cow could not make milk on cold northwest wind and ice water." A cow's chief function is to convert nutrients of feed into milk but she will divert what nutrients she needs to keep her body before any are used to make milk. There is no satisfactory substitute for comfortable housing. Any neglect in this respect is sure to show up in the nature of increased feed requirement and usually decreased milk.

Convenience

Next to feed, labor is the next cost factor in producing milk. In fact the feed itself represents the labor of crop production and it is principally for this reason we included a discussion of most milk per acre in this article as having a bearing on good rations and profit. But the labor factor does not end with the production of crops for feeding.

If it is important to remove scrub cows from the herd it is also important to improve scrub laborers who care for the herd. If it is important to figure milk production in terms of milk per acre of crops used for feeding it is also important to figure it in terms of milk per unit of man labor used in caring for the herd.

We know a dairyman in Wisconsin who does practically all the work on an 80-acre farm including the feeding, milking, and care of his herd. The total yearly production of the herd is 200,000 lbs. of 3.5 per cent milk. May we suggest right here that each dairyman who reads this figures out how much milk he is getting for a year's labor.

This Wisconsin dairyman makes his head save his heels. There is nothing fancy about the arrangement of his barn but everything there is there for a purpose—in the proper place at the right time. The result is that when this man enters his barn in the morning, at noon, or evening to do the work necessary to caring for the live stock, he makes every lick count, with the result that he does about twice as much work as the average man and does it better and easier.

Disease Control

As a factor of management in getting the fullest use of good rations we cannot emphasize too much that of disease control. In some respects this is the hardest problem to solve because not all diseases can be effectively controlled. This is no reason, however, why every dairyman should not acquaint himself with all the proven methods of disease prevention and practice these continually that his herd might be protected. The two most prevalent diseases are tuberculosis and contagious abortion. They are the most important in an economic sense. Tuberculosis is being rapidly conquered. There is no question but that it can be effectively controlled. Today there is no excuse for feeding good rations to tubercular cows. It would be great good fortune if as much could be said about the control of contagious abortion. The losses from this disease are enormous. The demand for helpful knowledge is far beyond the supply. Progress is being made in understanding the disease and we have every reason to believe it will ultimately be conquered.

The next article will discuss air, water, minerals, and vitamins in their relation to getting the most out of the feeds used.

Helping cows make the best use of good rations is an essential part of good feeding. Following are some of the more important factors that help cows to return greater values for feeds eaten, and help dairymen to get greater returns for their labor:

1. **The elimination of scrub cows.**
2. **Growing a succulent feed and a legume hay.**
3. **Having cows in good condition when they freshen.**
4. **Regularity in feeding and milking.**
5. **Making cows comfortable.**
6. **Having barn and feeds conveniently arranged so that labor may be used efficiently.**
7. **Controlling disease.**

The Rural Mail-man

The man deservin' highest praise
Is not the latest movie craze;
The wrestler who downs them all,
Or man that shines in playin' ball.

The man my songs would celebrate
And glorify in any state
Is he who fills the day with charm
By bringing mail out to the farm.

The rural mail-man tends to biz
No matter what the weather is;
We get our papers just the same
Despite the fickle weather vane.

When old King Borias gets bold
And sends a blast of bitter cold,
The mail-man takes his daily ride
And leaves folks better satisfied.

In drivin' rain, in stingin' sleet,
Through heavy roads or summer's heat,
He braves 'em all; and each day brings
Its special share of ads and things.

Of course, he gets his wage or jack
For thus distributin' his pack,
But things like that, it seems to me,
Ain't reckoned just that way, by gee!

I feel the mail-man represents
A portion of the tax I spent
That crops right out in service now
The same as though I'd bought a cow.

The mail-man is the one who links
The farmer up with other ginks
Through dailies served hot from the pr
Chuck full o' current newsiness.

The farm improved by quite a lot
When someone had a happy thought,
And instituted R. F. D.'s
That never fail to serve and please.

And let us bless the humble man
Who represents his Uncle Sam;
Who takes the same old trip each day
And makes the farmer's life more gay
(Copyrighted 1925). —I. A. Kimbl

Rerodding a B. Franklin Jo

New lighting rods are being installed on St. Paul's cathedral, London, which Benjamin Franklin originally equipped when he was in England. He helped to install the conductors. The original rods of the famous cathedral were iron, and the engineers who are now adjusting copper rods have a fragment of the original iron conductor which Franklin devised.—The Inland Printer.

AYRSHIRE CATTLE IN THE UNITED STATES

TWO hundred years ago in the County of Ayr in Southeastern Scotland, a group of thrifty farmers pursued the breeding of a beautiful and very useful breed of cattle which took their name, Ayrshire, from their place of origin. The excessive moisture, the bitterness of long winters, the rough highland pastures, and the scarcity of grain necessitated that these be rugged, hardy cows that had ability to produce milk profitably under difficult conditions. Doubtless cattle from neighboring countries were used in the formation of the breed, but there is no record of direct foreign importations into Ayr at that time.



BEUCHAN PETER PAN, LEADING ADVANCED REGISTRY AYRSHIRE BULL WITH 54 A. R. DAUGHTERS

Importation and Distribution

Early in the last century Scottish settlers enroute to Canada brought the first Ayrshires to American shores. The first importation to the United States is thought to have been made in 1822 by H. W. Hills of Connecticut. In 1837 it was reported that John P. Cushing of Boston made an important importation and since then importations have been quite regular. There are at present about 30,000 registered Ayrshires and 400,000 grades in the United States. Some herds are to be found in every state, but New York, New England, and Pennsylvania are the strongholds of the breed.

General Characteristics

The Ayrshire has a well built, stocky body, not heavily covered with flesh but giving the appearance of great vigor and vitality. Calves weigh from 60 to 80 pounds at birth. The weight of mature bulls varies from 1,600 to 2,200 pounds while mature cows weigh from 1,000 to 1,600 pounds. The color varies from almost pure white to nearly all cherry red or brown with any combination of these colors. Usually the switch is white. The horns are large and turn gracefully outward, then forward and back, giving a very distinctive appearance to the head.

Ayrshires are noted for their uniform type. Straight tops and well shaped bodies are the rule, and generally the cows carry the most symmetrical udders of any of the breeds.

Below is given the score card for Ayrshire cows, a card which will doubtless be changed by a type committee appointed by the Ayrshire Breeders' Association and now working on that very thing.

The Best Ayrshire Producers for 1925

Name of cow	Owner	Class	Milk	Fat	Points
Roll of Honor Association Cup Winners			Lbs.	Lbs.	
Aldermoor's Traveller Sarcy 2d	Harmony Dairy, California	AA	17,149	698.5	1,384
Pinehurst Flossie Mitchel	Pinehurst Farm, North Carolina	BB	12,362	524.4	1,019
Peter Pan's Snowdrop	Spinney Run Farm, Illinois	CC	13,290	521.9	1,053
Oregon Panetta Q	Oregon Agricultural College	DD	14,370	584.7	1,160
Wenatchee Bloom	Wenatchee Ayrshire Farm, Washington	EE	10,928	529.0	966
Penshurst Crafty Kate	Penshurst Farm, Pennsylvania	FF	12,264	494.3	985
Bell of Bargenoch 4th	Pennsylvania State College	GG	11,356	467.2	921
A. R. French Prize Cup Winners					
Mistress Thistle of South Farm	Barclay Farms	A	23,029	798.6	1,720
B. M.'s Bangora Melrose	Kansas Agricultural College	B	16,887	703.8	1,379
Jane Douglas of South Farm	John Sherwin, Ohio	C	18,989	711.0	1,471
Glen Foerd Marion Star	Glen Foerd Farms, Pennsylvania	D	18,783	736.2	1,488
Brownie Robin of Wenatchee	Wenatchee Ayrshire Farm, Washington	E	13,647	573.3	1,119
Audacious Pansy	Middlesex Meadows Farm, Massachusetts	F	18,320	698.8	1,432
Vidda of Clover Brook	Clover Brook Farms, Pennsylvania	G	12,522	509.0	1,010

A Typical Ayrshire

The Ayrshire Association has done something unique in securing a reproduction of what kind of an Ayrshire cow breeders like. Hundreds of photographs were examined and two were finally selected as being nearest to perfection in production and conformation. Copies of this typical Ayrshire may be secured from the association, as also other literature on the breed.

Production

Ayrshire milk contains a percentage of butterfat that is about the average of all the dairy breeds. The 6,709 cows and heifers that completed official records up to January 1, 1926, produced an average of 10,316 lbs. milk containing 409.99 lbs. butterfat or 3.974% butterfat.

The Ayrshire Breeders' Association is the first breed association in this country to adopt a "herd test" plan for making official records and it is expected that this plan will result in a larger percentage of the cows of the breed being tested than would otherwise be the case. On July 1, 1926, 60 herds with 1,800 cows were on test, with every probability that this number would be doubled within six months.

The two highest butterfat records for the breed are both held by Canadian cows. Briery Lass, owned by the Canadian government, last spring completed a record of 22,035 lbs. milk, 979 lbs. butterfat and in the early summer Nellie Osborne of Elm Shade, owned by W. C. Wylie of Quebec, finished a year's production of 23,223 lbs. milk, 1,003 lbs. fat, the first cow of the breed to cross the 1000-lb. mark.

The ten highest butterfat producers and milk producers among Ayrshires in the United States are listed below:

Ten Highest Butterfat Producers

Cow	Milk	Fat
	Lbs.	Lbs.
Lily of Willowmoor	22,596	955.56
Auchenbrain Brown Kate 4th	23,022	917.60
Garclaugh May Mischief	25,329	894.91
Auchenbrain Yellow Kate 3d	21,123	888.33
Agawam Bess Howie	19,026	876.13
Harperland Spicy Lass	20,592	866.21
Jean Armour 3d	21,938	959.65
Nancy Whitehall	22,075	858.77
Bloomer's Queen	21,820	856.41
Victor's Beauty Rose	20,667	840.65

Ten Highest Milk Producers

Cow	Milk	Fat
	Lbs.	Lbs.
Garclaugh May Mischief	25,329	894.91
Mistress Thistle of South Farm	23,029	798.63
Auchenbrain Brown Kate 4th	23,022	917.60
Lily of Willowmoor	22,596	955.56
Garclaugh Spottie	22,589	816.25
Nancy Whitehall	22,075	858.77
Jean Armour 3d	21,938	859.65
Bloomer's Queen	21,820	956.41
Auchenbrain Yellow Kate 3d	21,123	888.33
Voca 5th of Avon	21,123	741.91

Bulls

The ten Ayrshire sires having the largest number of daughters with of-

(Continued on page 99)



LILY OF WILLOWMOOR, WORLD'S RECORD AYRSHIRE COW WITH 22,596 LBS. MILK, 955.56 LBS. FAT



STRATHGLASS ROAMER, GRAND CHAMPION AYRSHIRE BULL AT THE 1926 NATIONAL DAIRY SHOW



PENSHURST JESABELL, GRAND CHAMPION AYRSHIRE COW AT THE 19[illegible]6 NATIONAL DAIRY SH[illegible]W

What I Am Trying To Do On My Farm

In Building a Profitable Dairy Herd

W. J. DOUGAN, WISCONSIN

THERE are three outstanding essential factors in building a profitable dairy herd. The first essential is cows capable of producing. This is so self evident that it seems almost unnecessary to state, yet any number of farmers are trying to se-



MR. DOUGAN WITH MARIE OF SARNIA

cure profits from cows that cannot turn feed into milk. There is a wide difference in cows in this respect, even in cows that are well bred to type and appearance. The average Wisconsin cow gives only 190 lbs. butterfat. The average of the 49,000 cow testing association cows in Wisconsin in 1923 was 273 lbs. Eighteen per cent of the herds average over 300 lbs. butterfat. The highest producing cow gave 839 lbs. fat. Therefore the selection of producing cows is of prime importance.

The second necessity in building a profitable dairy herd is economical feeding. Not always the lowest priced feed is the cheapest. The feed that produces milk at the lowest cost is the economical feed to use.

The third necessity is proper management. Here is a good rule for housing and handling of cows: Keep the cows happy. The late Hon. W. D. Hoard expressed a fine sentiment and gave a good rule in this: "The cow is a mother. Treat her as such."

These three factors in building a profitable dairy herd, viz., good cows, good feed, and good management, are easily stated, but, oh, how difficult to work out in actual practice.

Knowledge is essential and to control these factors we must have complete and continuous records of production. These are absolutely required. What the cow does at the pail is the final criterion of the cow, her feed, and her manager.

There has grown up in the dairy world during the past decade, an institution of marvelous influence and almost unlimited possibilities. It is the foundation of intelligent and progressive dairying—the cow testing association. This is simply a co-operative movement. A group of farmers combine and hire a competent man to come to each of their farms once a month. He weighs and tests the milk from each cow, weighs the feed, and figures out for each cow just what she is doing and what profits she is making over cost of feed. There are over 170 of these associations in Wisconsin with over 78,000 cows under test. The continuous records gained in this way are determining to the dairyman his profitable cows and the unprofitable ones, the economical feed, and the right management.

I will give some facts from my own experience to illustrate these points. I had two cows of my own raising from the same dam but different sires. We will designate these cows by their stable names, F4 and G5. F4, with her first calf in 1920, gave over 7,000 lbs. milk, then increased to over 9,000 lbs. and is still a good producer in the herd. G5 gave only 5,000 lbs. with her first calf, and never got up to 7,000 lbs. She was an unprofitable producer and finally was sent to the block.

D5, a four-year-old cow purchased in 1918, started out as a fair producer, giving around 7,500 lbs. milk. By improving her feed, we found she had splendid capabilities. We brought her up to 9,000, 10,000, and 12,500, lbs. with 591 lbs. fat. F9 is another cow that could tell a similar story. A20, a fine looking grade cow bought in 1914, started in with only 4,000 lbs. milk per year. With the best of feed and care during several years, she never gave over 5,600 lbs. milk per year. The daughters of D5, the good cow, are proving good; the daughters of A20, the poor cow, were poor and there is none of her blood left in the herd.

The records of the C. T. A. help me to select sires for building up my herd. The sire is half the herd. The criterion of a valuable sire is whether or not his daughters are as good or better than their dams. With continuous and complete records of production of every cow that comes into my herd, I am able to select prepotent sires to continue in the breeding.

With complete records before me, I can judge the profitable feeds. At one time I was trying to make my cows produce on home-grown mixed clover and timothy hay—mostly timothy. I bought a carload of alfalfa. The increase in milk from feeding alfalfa more than paid the entire cost of the hay. Therefore I could afford to give away my timothy and buy alfalfa at $35.00 per ton and still be ahead.

For some time I thought I could not afford to put in drinking cups in the barn. I had a large tank of good water in the yard. I finally put in the cups. The records showed that this improvement in management paid for the cups in less than sixty days because of the increase in milk.

By keeping careful records and being guided by them in selecting cows, selecting feed, and directing management, I have built up a profitable herd. In 1922 the herd averaged 8,000 lbs. milk, 364 lbs. fat. For several years my herd of over 30 cows has averaged over 300 lbs. fat.

In conclusion, let me emphasize the importance of patience and perseverance. Don't be in too big a hurry to see results. Fix right principles and patiently wait and watch. Don't get discouraged with a few failures. To reach your goal, stick to your breed and your line of dairying. Eternal perseverance along intelligent, sane lines will surely bring results.

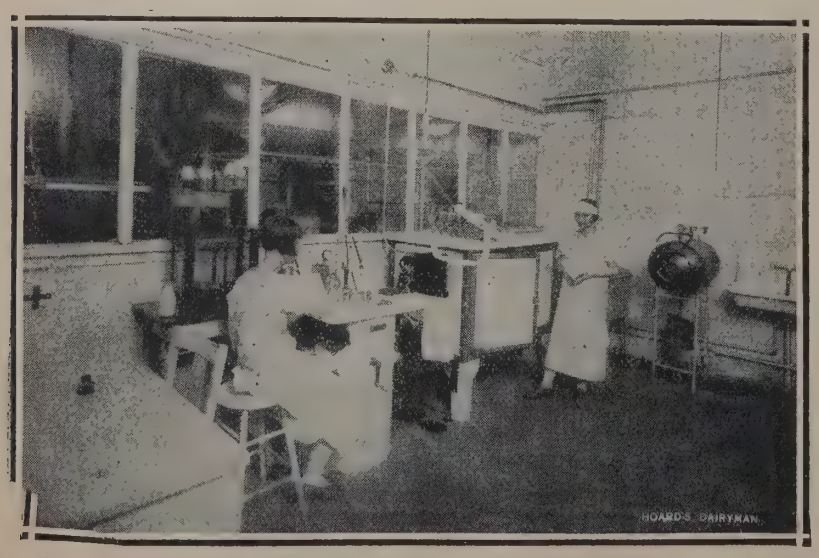


A BUNCH OF HEIFERS TO WHOM MR. DOUGAN IS INTRODUCING A BABE

A Texas Co-operative

N. S. IVES, OKLAHOMA

THE Rio Grande Valley is very fertile where it is irrigated, but the irrigated strip is narrow and the population sticks to that strip. The desert on each side is practically uninhabited by humans and totally uninhabited by dairy cattle. It is up to the cows of the irrigated farms along the river to furnish El Paso with milk and butter.



LABORATORY OF THE RIO GRANDE VALLEY DAIRY ASSOCIATION OF EL PASO, TEX., THE LARGEST CO-OPERATIVE DAIRY IN THE SOUTHWEST

There are a number of privately owned dairies in El Paso, and some of them buy milk from the farmers, but back in 1916 a number of the farmers near the city decided to get together in the dairy business and do the milk selling themselves. They formed the Rio Grande Valley Dairy Association, with a capitalization of $2,500. Statistics of the United States Department of Agriculture say the average length of life of co-operative dairies in this country is from seven to ten years. Obviously, 1921 was about the logical time for the Rio Grande Valley Dairy Association to begin to die, but the habit of co-operation, like any other habit, is strong, and there was plenty of room in El Paso for more and better milk. Therefore, the association reorganized in 1921, with a larger capitalization, and added new equipment which would handle the milk more easily and raise the quality of the dairy's products. A new manager was secured in the person of Mr. H. F. Deitrich, a young man with a wide experience in dairying and dairy product marketing.

The association's news sheet says: "A few years ago El Paso was at the bottom of the list of cities of its size as regards quality and handling milk. Today it stands well to the front for cities of its size. The United States has the most carefully guarded milk supply of any country in the world, but this association goes even farther than the law requires. It has installed a laboratory to test all incoming and outgoing products. This laboratory is the first of its kind in Texas, and is devoted exclusively to safeguarding the interests of the consumer."

There is not a year during the past five that major additions and improvements have not been made in plant and equipment. Additional cooling equipment and butter and egg handling machinery have been added which, with other plant improvement, cost close to $10,000 during the first six months of 1926.

Eggs and butter were placed on the market in April, 1926, and with these added to the list the association now offers a complete dairy products service. Graded milk, both pasteurized and raw; whipping cream; condensed milk; table cream; cottage cheese; buttermilk; creamery butter; sweet cream butter; ice cream; and fresh valley eggs now comprise the list of products handled. No other dairy in El Paso,

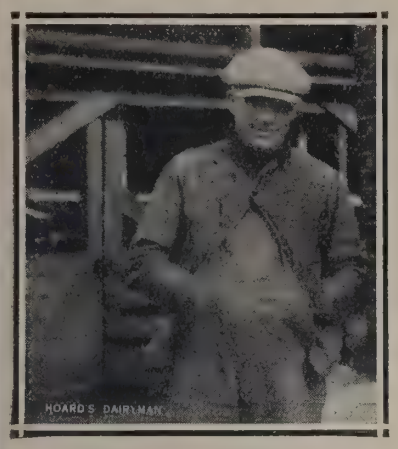
(Continued on page 77)

TRAILING HOLSTEINS TO SOUTH AMERICA

The Daily Log of Their Keeper

JAMES G. BEATTIE, WISCONSIN

DECEMBER 5. Left Wisconsin today with 25 registered Holstein cattle. Destination, Chile. For such an occasion the day was miserable; snow, rain, and sleet falling in turns and continually. The



HIMSELF AT JERSEY CITY

The author in working clothes and risking a smile at the story that the Humming Bird will up anchor at 9 o'clcok "tomorrow."

local freight arrived at 3 p. m. and introduced the flying switch, a timesaver in present day switching operations that at times caused considerable commotion in 665433. At 7 p. m. we are in Sheboygan, waiting to be made up with a stock train for Chicago.

December 6. Daylight broke in Northern Illinois. There was a raw west wind blowing so the doors had to be kept closed to keep it out. Near Chicago a wreck occurred which held us up 6 hours. On the northwest side we were hurriedly delivered to the Indiana Belt to be taken to Blue Island and turned over to the Pennsylvania. And with all sincerity I believe this last ride to be one of the roughest ever to be recorded of land voyage, barring only legitimate wrecks and of known instances where trains have broken through bridges or plunged headlong down precipices.

It was a boxcar temptest attended by plenty of thrills—plenty. Then, at Blue Island, many switch engines took turns showing us around the yards there. When we moved, we collided with boxcars—bigger than ours—and when we stood still others collided with us. The business of hunting a place to put us went on until at last, at 10 p. m., a berth was found in the beef train outbound for New York. Thereafter and until midnight we were let alone, although it was hard to believe. My ears, like the cattle's, grew seismographic straining to detect switch engines, bells, anything that would warn. And when one was heard, it was really amusing to see how everyone got set for a bang.

December 7. Early morning, dark, and in Fort Wayne. I was trying to push back one of these contrary boxcar doors when someone on the opposite side of the train spoke with authority: "Hello, what's going on over there? Eh?" The words were no sooner spoken than the inquisitive had hopped the nearest coupling to find out. Personally, I think this trainman was disappointed not to find burglars.

We have rolled along most of the day over a wondrous stretch of track on the Pennsylvania, reaching to Sandusky, Crestline, and on. Straight as a line, level, and expanses of undulating prairie extending afar on either side. Before arriving at Crestline the train begins to wind with the ruggedness of the country, trailing ancient river beds and circling wooded hills, leaving in its wake a caterpillar of black smoke to mar the serenity of the beautiful day.

In Canton the train was iced and the cattle watered, and a couple of "Roi-Tans" left behind. Quite a sideline this tipping, this appetite for a little extra service, you know. Night begins to fall in Eastern Ohio. The train at 6 p. m. is hurrying through hills and towns, ever voracious for more speed. The doors, old and dilapidated that they are, flop wearily with the motion of the car, the coupling rumble, brakeshoes plead for the oil can, the framework of the car creaks and moans, and one cannot help but wonder what would happen in case a wheel came off. There are four cows to milk, cows that would willingly stand for the operation were it not for the dizzy list of underfoot. The placing of one's feet in jeopardous positions is perhaps the most embarrassing with milking on a train; that, and being taken for a davenport occasionally.

December 8. In the night we went through Pittsburg. This morning we ascended the Appalachian Divide and descended the other side with generous speed, circling the picturesque Horseshoe Bend as we went. In Altoona we stopped and later on in Huntington, where water supplies were replenished and more Roi-Tans disposed of. During the day we followed a river, or rather the river followed us. There was a time in the geography class when I would have known the name of it. But intervening years have been many, years and names of more importance. A random guess suggests the Susquehanna.

December 9. The boss of the chute gang in the Jersey City Stock Yards arrived shortly after we did to say that there were pens, clean and disinfected, waiting for us in the sheephouse. I thanked him and said I was ready to begin unloading immediately; so in a few minutes he returned with his gang and the cattle were soon out of their prisons. They frolicked about like school-kids at recess, delighted with the feel of their feet on terra firma. Many sly eyes have been examining the trunks and equipment in the alley.

"It might not be a bad idea," said the boss, likewise looking at them, "to get that stuff behind a padlock."

He was a little man with black eyes, a big walking stick, an Irish brogue, and experienced apparently with that particular weakness of mankind. So temporarily the rear of a private garage is my boudoir. Word has come that we will move to the ship tomorrow and sail at sundown.

December 10. Word came at 9 a. m. that there would be no moving today. I am told that this is an old tramp freighter we are going on, called the Humming Bird, and that she has internal disorders which hold us up. Went over to New York this afternoon and walked indefinitely, it seemed, on Broadway, West Broadway, toward Bowling Green and around. Window shopping I started in with and window shopping I finished up with. Saw many nice things, which included a gentleman making some rather flirtatious looking waffles. I patronized him and departed with the impression that there is a fellow in Oshkosh who excels.

December 11. My departure is postponed another day. The Humming Bird must be receiving a general renovating, as I now hear that the boilers are leaking. A leaky boiler is bad. Firemen as a rule have enough to contend with without them. I went to New York again this afternoon and rubbernecked in with thousands more, gaping and staring in forty different directions. New York is a great place, and one can see plain, as the Frenchman says, how it is that people with portly purses go there.

December 12. Again the instruction that we were to move turned out to be nothing more than a rumor, having no foundation. But I was requested to go to the Customs Office to sign the ship's articles, after which the shipper and I went to Brooklyn to see what was the matter with the Humming Bird. We found her at dock, basking tranquilly under December skies, and hobnobbing with many more of her species. We learned unofficially that she would be ready to sail tomorrow.

December 13. This date could be conveniently left out of anyone's log and the cavity stuffed with sawdust and no one would be the wiser. We were supposed to have moved, but the usual word came about 9 a. m., saying that we would be delayed until tomorrow,—9 a. m. seems to be the time when things go wrong with the Humming Bird.

December 14. It is cold and raw this day, and the wind is moaning round the sashes—signs of a storm. Someone milked the cows during the night. It was convenient for me, but if you could hear the wails of four calves, you would feel like sitting up tonight with a shotgun.

December 15. At noon we loaded on a lighter, said goodbye to Jersey City, and departed for Brooklyn. The pilot did not know where Pier 29 was, so while he was finding out by shouting to various tugs, barges, and other small craft for information, we continued steaming up and down the waterfront. It was a nice ride, but the pleasure of it was impaired considerably by a gale that was desperate to get to its destination.

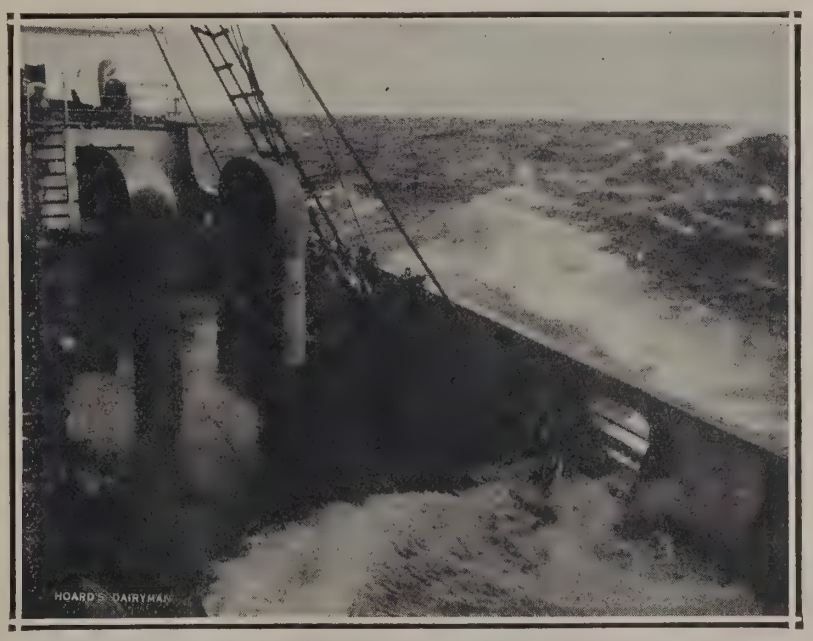
But in the end we found the Humming Bird still at anchor, feathers unruffled, and serene as you please. And tonight General and his tribe are aboard their new home. Everything is strange, which is a situation not new to them. I was shown to my cabin after supper. It is 6'x9', has a built-in settee, bunk, and table with drawers beneath it. Cockroaches, friendly.

December 16. Very little sleep last night as loading crews worked close beside the portholes. It snowed and a fresh wind makes things chilly and disagreeable on deck. The latest is that we will not leave for another day, another leak in the boiler. The cattle have warm blankets around them, but as it is cold and they are on deck and exposed to the weather, they need them. Bade farewell to my shore friends yesterday and the day before that. But some day we will fool them.

December 17. We were pulled away from Pier 29, Brooklyn, at 8 a. m. by a little midget of a tug that looked no bigger than a minute. That tug certainly was plucky, for it clung to the big Humming Bird even though she refused to budge from her mooring. Its persistent effort was an inspiration to gaze on, because it was an excellent example of a little man tackling a mountainous task and finally succeeding. Once clear of the dock and our bow pointed oceanward, the valiant little craft let go its hold, ran away from us as if suddenly released by a spring, saying as it went: "There, helpless creature, shift for yourself."

Under our own power now, the ship began to throb with the labor of its own engine, the water churned about the stern, Old Glory caught a stir in the air and started livening up, and

(Continued on page 104)

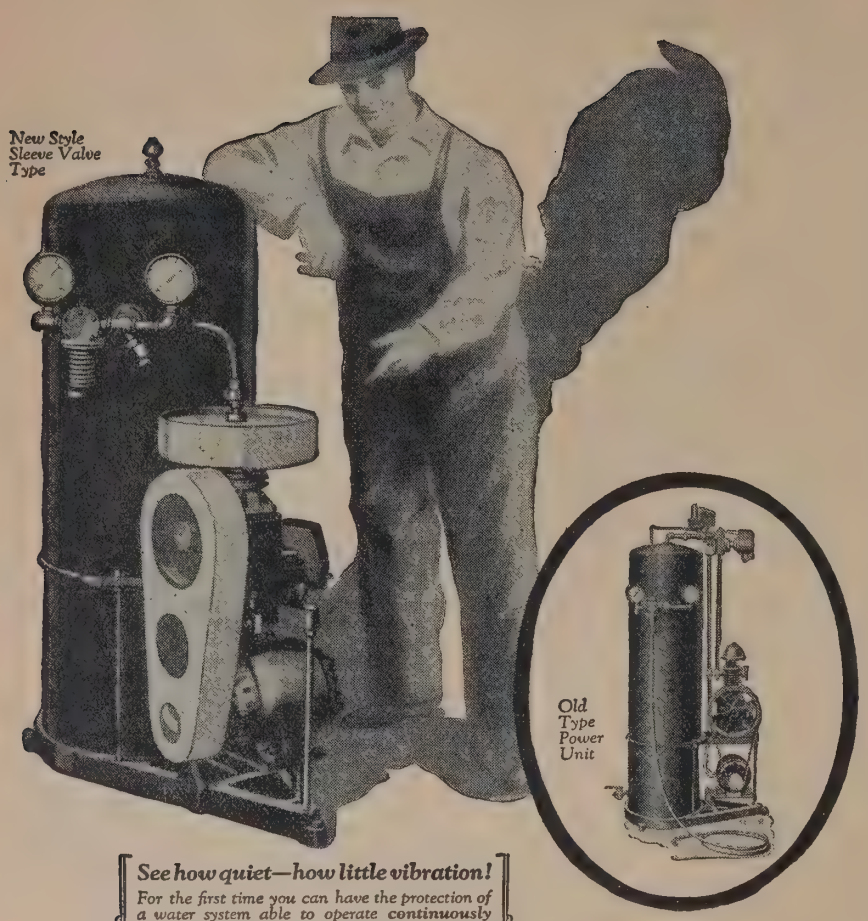


A ROUGH SEA BREAKING OVER DECKS OF THE HUMMING BIRD OFF CAPE HATTERAS, VIRGINIA

"The cattle were wet and disconsolate and I was flung into the scuppers as I maneuvered to cross the deck with two pails of water."



Our lighter that on December 15 took the Holsteins from Jersey City to Pier 29 in Brooklyn where the Humming Bird lay at anchor with "cockroaches friendly."



See how quiet—how little vibration!
For the first time you can have the protection of a water system able to operate **continuously** *when necessary, hour after hour. At top speed the water in the freeze-proof cooling pan (necessary only for long runs) scarcely shows a ripple!*

Now—a Better Power Unit as Perfect as Our "O.K." Pump

ALMOST everyone knows about the famous "O.K." National Pump — now 400,000,000 gallons beyond experiment—the pump that has made the National Fresh Water System as dependable as any equipment on the farm. Compressed air, supplied by the power unit, operates it.

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3. Also *soft water* from cistern, lake or stream, pumped by the *one* power unit.
4. *Protection against freezing.* No water storage tank or exposed pipes to freeze; no fouling of water in Summer.
5. *Installation convenience.* Put power unit in unheated garage, shed, basement or barn—anywhere within ten feet or ten miles from water supply.
6. *Any lift up to 150 feet.*
7. *Choice of motor-driven or engine-driven power unit.* Capacities, 200 to 2,000 gallons per hour.

These are a few of the reasons why a National Fresh Water System is a good investment on any *farm* or suburban home. Write for free copy of 32-page book, "Fresh Water," which tells the story.

"OK" National Single Cylinder deep well pump. Submerged in water inside of well casing (fits 4, 5 and 6-inch casings). Uses compressed air for power; lifts water 150 feet with strong faucet pressure. No clanking pump rods. Also supplied for shallow submergence in open water.



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KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

Necessity for Farm Relief

HON. L. J. DICKINSON, IOWA

IT is encouraging to note that the movement for legislative farm relief has increased in momentum each year and that with the production and marketing of each crop the necessity therefore becomes more apparent. We have admissions from those who contended that there was nothing wrong with agriculture that such is the case. We have admissions from those who contended that the farmer could remedy his own difficulties that such is not possible.

Self-Cure. It is now being admitted by those opposed to legislation to help the farmer that there are too many elements on the outside of the farmers' front gate over which he and his family have no control that absolutely fix the amount of return for each acre of land and that for this reason it is beyond the reach of the individual farmer himself to perfect his own cure. The farmer can practice the greatest efficiency possible without reaching the remedy for his relief.

Co-operative Effort. It is also now admitted that sufficient progress is not being made in co-operative marketing by producers themselves to warrant anyone in concluding that co-operative marketing is a cure for the farmers' economic handicap under existing conditions. The elements that determine his return are beyond the scope and control of such an organization. This principle will work in a minor commodity produced in a limited area, but is not effective in a major commodity produced in an extended area and sold in a world market.

Extent of Farm Depression. The farm depression is not confined to a limited number of states in the Middle West. It is permeating the farm population in every section of the country. Massachusetts is losing its farm population at the rate of 1½% each year and losses in farm mortgages by per cent are found in every section of the country. For this reason the person who attempts an explanation for farm deflation by assuming that it is entirely due to speculation, etc., is entirely wrong.

Business Cycles. In the business world a great deal of discussion is now going on concerning the elimination of the "ups and downs" in business. Leading magazines are discussing the subject. The most dependable business is the one that carries along year after year with a dependable margin of profit, but with no material fluctuations up or down. This is controlled largely by what is known as the modern method of centralization. By this I mean that the business is gradually controlled by a limited number of men in a limited number of organizations. Our legislation has been conducive to such organizations. Most men are today asking the food producer as an individualist to compete with a minutely organized business world. Everyone knows that it is impossible for the farmer so to do.

Bargaining Power. Under present organized business methods the producer of a farm commodity has completely lost his bargaining power. He no longer meets the miller that grinds his flour; he no longer meets the butcher that dresses his meats. He produces his crop as best he can and then delivers it to his market place and accepts what organized business world says he should receive therefore. He has no voice, has no bargaining power, and no one expects that he can survive under such conditions.

Supply and Demand. Supply and demand is another boo-ga-boo often used in argument and but little understood. The farmer now knows that supply and demand have practically nothing to do with the short cycle fluctuations in the price of his product. They may effect the gradual trend of prices from one crop season to another, but have practically nothing to do with the daily, weekly, and sometimes monthly "ups and downs." This old rule has been so abrogated by the organized control of those using and processing the farmers' products that its influence is no longer perceptible except in the long trend of prices.

Canned Corn. The best illustration I have is in the question of canned goods. The price has continued along year after year, fluctuating but very little, but the supply in 1925 was double any previous year's production and the year 1926 does not fall materially behind, yet an overproduction of field corn one year reduced the price from $1.2 to less than 30c.

Diversification. Another says that diversification is the remedy for the farmer's problem, yet when the western wheat farmer changes from the production of wheat to corn, he helps himself and ruins the corn producer and when the southwestern cattle producer changes from live stock t



PLOWING PEAT LAND

Ernest A. Larson, a Minnesota dairy farmer, finds that with his tractor he can plow his twenty acres of soft peat that was difficult with horses, as they sank so deep in the soil they could not pull the plow.

cotton, he may help himself but he has ruined the cotton producer. So we find that diversification is simply switching the load from one commodity to another.

Centralized Trade Control. We take as illustration both the chain store and the labor organizations and we find that the chain stores have been gradually absorbing both the buying and retailing of many commodities, and are in a position to control the marketing of such commodity in such locality. We also find that labor unions refuse the demand of the country to reduce wages following the war. They had sufficient bargaining power to maintain their wage schedule and to date have not suffered material reduction.

Price Fixing. It is the desire of the friends of the farm people to formulate legislative machinery that will assist in placing farm commodities under like control. We believe that in order to do this federal legislation is necessary. For this reason after five years of study there has been presented a legislative plan to provide such machinery.

Government Board. First there is organized a Government Board composed of a member of each of the land bank districts. The purpose of this is to have the Board representative of all of the different interests in the different sections of the country. This Board will have a similar influence on national farm policies to the Federal Reserve Board on national banking policies. It will assist in determining the advisability of legislation and also carry out the various functions provided in the bill for the control of crop marketing machinery.

Operating Period. This Board will have the right to designate an operating period when there is a depression in the price paid for such commodity. These commodities at the present time are limited to five in number. In my judgment when this machinery proves its worth this number will be greatly increased. At the present time it is the feeling that it should be confined to a limited number until put to a thorough test. Further this Board has a right after an operating period is declared to designate an agency, consisting of a cooperative producers' marketing organization to take over and handle such a commodity. This agency will determine the price at which they will try and market said product. This price would be a modest price paying only a fair return to the producer. In this way machinery would be organized that would tend to stabilize the price of such commodity at a figure fixed by such agency.

Equalization Fee. In order to pay the expense of the marketing of this commodity and particularly to cover the loss on a surplus, either domestic or foreign, a charge is to be made against the unit of such commodity as it enters interstate commerce. This charge to be made either at point of entry or at point of processing. This fee would serve two purposes. First, it would raise a fund to finance the loss on such amount of the commodity as the agency was compelled to market at a loss, and second, it would have a tendency to check the flow of such commodity into the centralizing market. The less of such commodity that reached the centralized market the easier it would be for the agency to sustain the price.

Conclusion. It is not the contention of the friends of this legislation that it will immediately bring prosperity to the farmers of this country, but it is their contention that if machinery of this kind were placed in operation it would tend to stabilize the return on farm commodities to where the farmer would not go bankrupt one year and make an excessive profit the next. It would make the price of the farmers' commodities more stable and soon they would be allocated into the economic equation of the day at the price agreed upon by the agency so designated. If the farmers' business is stabilized at a fair price then it will be up to the farmers of the country to face the future and either survive or perish with the trend of economic conditions. No one has predicted that this will bring prosperity to the front door of the farm, but the only contention is that it will give the farmer a fair chance economically against the business world.

[EDITOR'S NOTE:—The above is a resume of an address delivered by Congressman Dickinson of Iowa before the annual meeting of the National Association of Commissioners and Secretaries of Agriculture. Congressman Dickinson is an Iowa product, country bred and corn fed, and lived on a farm until he was 22 years old. Finally he went to college and studied law. He located in a county seat town of four thousand inhabitants and practically the only litigation he ever handled involved a farm question of some kind.]

Digestible and Total Protein

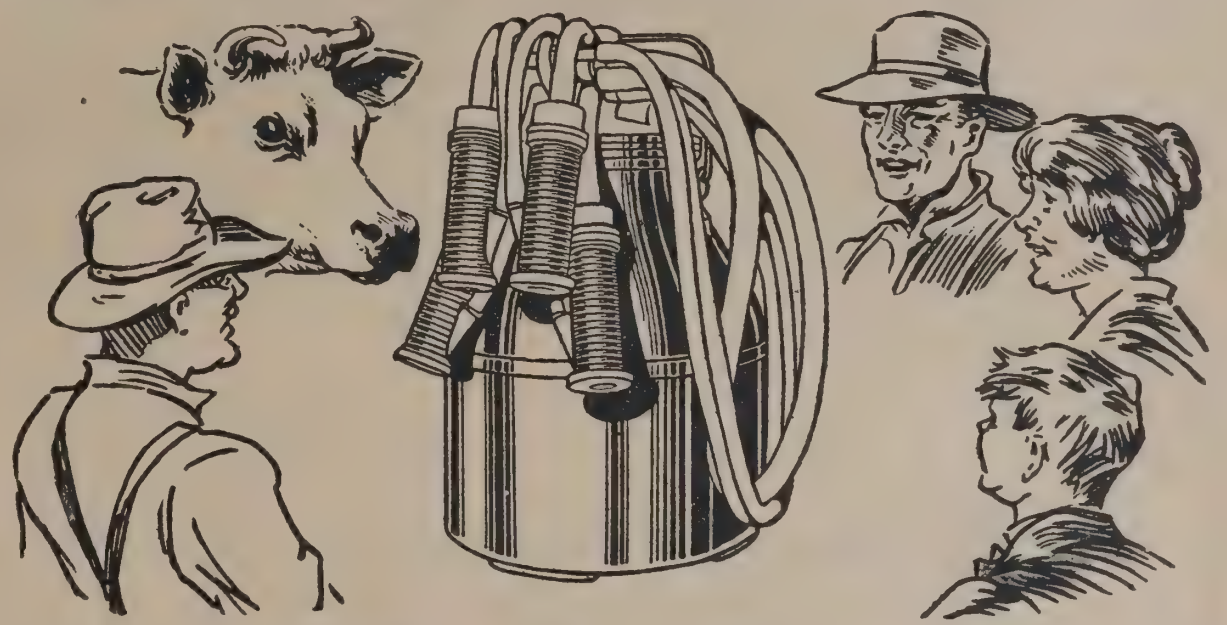
Hoard's Dairyman and the University of Maryland say the digestible protein in a concentrates mixture to be fed with timothy hay and corn silage should be between 18 and 19 per cent. A milling company says that a mixture containing 25 per cent protein is needed for these roughages, and a manufacturer of mixed feeds says a mixture containing 24 per cent protein should be used. Why the difference? Who is right?

Clarksville, Md. E. S. Z.

The difference in these figures is due to the fact that one is calculated on the basis of digestible protein and the other on the basis of total protein. In calculating rations digestible protein is the basis; in stating the content of nutrients in a feed the manufacturer uses the total protein as the basis. About 85 per cent of the total protein in a feed is digestible. On this basis the feed containing 25 per cent total protein would yield about 21 per cent digestible protein and the 24 per cent feed about 20 per cent digestible protein.

The mixture containing between 18 and 19 per cent digestible protein is advised on the basis of the Haecker feeding standard. The mixed feeds are advised partly on this basis and partly on the basis of making sure the roughages are adequately supplemented. Both are right within reasonable limits.

Aunt Ada's Axioms: The farm is one of the best places to find real home life for there the whole family works together.



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Mother likes it because there isn't so much help to care for, and because milking doesn't require the help of the whole family.

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The hired man likes it, too, because milking is so much easier, and he and the boss "trade off" milking every other Sunday, so that one has a full day off.

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Coupled with this economy of upkeep is ease of operation. The E-B Spreader spreads seven feet wide, consequently it travels only about half the distance other spreaders must travel to cover the same area. It turns a square corner, drives through a six foot door and the tight bottom saves the liquid manure. Its convenient height, 41 inches, makes loading easy. Mail the coupon for detailed specifications of this spreader and any other implement in the good old E-B line that has been saving money for farmers since 1852.

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Surplus Control Legislation

HON. E. S. BRIGHAM, VERMONT

MANY of the remedies suggested are concerned with what the government ought to do to relieve agriculture of burdensome surpluses. I come to you as one who believes that the troubles of the agricultural industry are based upon fundamental economic causes which can best be corrected by farmers themselves with the guidance rather than the financial help of governmental agencies.

What Can Be Done to Make Agriculture a Good Business?

It is a fundamental concept of economics that utility and scarcity are the factors which give value to a thing. The air we breathe has utility but it is so plentiful that we do not have to put forth any effort or labor to obtain what we need. On the other hand, bread is not only a utility but it is relatively scarce. Therefore we have to devote land and labor to the production of breadstuffs, labor and machinery to the transportation and preparation of these breadstuffs from the fields where they are produced to our tables and we must give something valuable in exchange for the capital and labor employed in this production. Suppose the owners and controllers of lands throughout the world should increase their acreage in wheat to the limit of possibility; suppose milling and baking facilities should be correspondingly increased and as a result twice as many loaves of bread should be offered in our markets. Bread would then become so plentiful that it would be deprived of its element of scarcity and its exchange value, its ability to command other commodities, would fall to almost nothing.

If we study any industry which is successful in the business sense we find that that industry has first of all so adjusted its production to the demand for its goods that the price or exchange value of its product is maintained at a level which will enable that industry to pay the costs of production and a profit.

Effort is now being made by many industrial interests to avoid the dislocations incident to the ups and downs, the alternating booms and depressions, of the business cycle by keeping in such close touch with production and consumption that business will not overextend itself and suffer a violent depression but will have a constant flow of moderate prosperity. This same adjustment, more difficult of attainment for agriculture, is nevertheless an indispensable condition of business success in agriculture.

Policies Need Revision

Our conception of agriculture, which is responsible for our policies, needs revision if agriculture is to be made a good business. When the farm family was a self-sufficient unit it became a fixed idea that we could not have too many farms or too many farmers, and our federal government encouraged the rapid settlement of our public domain first by sale to settlers at a low price and later by gift to those who would become cultivators. This policy led to a rapid extension of our farm area. In the years from 1870—1880 we added to our cultivated area 297,000 square miles, a territory equal in extent to Great Britain and France combined. The result was the disturbance of the farming industry in the older section of the United States and in the whole world. The present depression is less severe than that suffered by eastern farmers from 1870 to 1900. Still believing that there could not be too many farms or too many farmers, agriculture was not given time to recover from the effects of free land distribution before the federal government began a program of reclamation of waste lands by irrigation.

According to a statement furnished me by the Secretary of the Interior as of June 30, 1926, the federal government had under irrigation on its various projects, 1,320,300 acres of land while preparations are already made to supply water for nearly 500,000 acres additional. The government has expended in reclaiming this land a total of nearly $162,000,000 or $87.50 per acre. According to the 1923 Yearbook of the United States Department of Agriculture the exemption of settlers from interest on construction costs has been estimated at approximately $70,000,000, which is referred to in the Yearbook article as an indirect subsidy to settlers on these projects. The first session of the 69th Congress remitted over $14,000,000 of charges on irrigation projects.

For more than half a century our federal and state governments have maintained experiment stations to investigate the problems of plant and animal growth and colleges to instruct the youth of the land in the science and art of agriculture. The federal government has maintained a great department of agriculture the greatest department of agriculture in the world, and the several states have also their departments for the promotion of agriculture. Until very recently the work of these various agencies centered almost entirely upon the problems of greater production without relation to the business problems of the farm.

The opening of new lands, irrigation of waste lands, the work of all the agencies solving the problems of production have been good work, but as conditions change our policies must be changed. Solution of the business problems of agriculture now



MAPLE ARCH FARM

This farm is located in Kewaunee County, Wisconsin. It was built up by Henry Harman and is evidence that he was one of the most progressive and successful farmers in his county. At the time of his recent death, a friend wrote that he was first in many things. "First to grow alfalfa extensively by liming and inoculation, first to join the cow testing association, and always in the forefront in promoting and taking part in practical neighborhood co-operation. He was a good farmer, a good neighbor, and one of our first citizens."

eeds our closest attention. These roblems demand not only education- work which will lead to a more effi- ent and lower cost production, but so educational work which will lead a more efficient and more economi- l system of marketing and recog- tion of the fact that in the future, nds should be developed only as eeds require.

Effect of the World War

The World War introduced into griculture, just as it did into nearly ll industries, many disturbing ele- ents. The outbreak of the war ound us in a period of declining ex- orts of farm products. However, onditions in Europe soon created a emand which absorbed the produc- on of our farms at prices greatly in xcess of the normal. These prices ere so high that the owners of the etter farms had left after paying he expenses of production a large urplus of cash return. Farmers and usiness men mistook what was an bnormal condition growing out of he war for a permanent condition f agricultural prosperity and there esulted in many sections of our ountry a great land boom. For in- ance, the average value of land and uildings per acre of Iowa farms ncreased from $96 per acre in 1910 o $227.09 per acre in 1920. This ifference of $131.09 per acre largely dded by the war boom to Iowa land eans the addition of more than four nd a quarter billion of dollars to the apitalization of the lands of the tate and it also means, on the basis f a 5½ per cent on this capitaliza- ion, the addition of approximately 0 cents per bushel to the cost of rowing corn in that state. Land ooms in agriculture, like booms in ther classes of real estate, bring alamitous consequences if they over- each themselves and while our sym- athy must go out to those who pur- hased corn belt land at high prices, o those who loaned them the money ith which to buy, and to those who nce inventoried their acres at the ncreased figure, yet there is no feasi- le remedy for the losses and defla- ions which have come upon them xcept to take their losses or get a irect national subsidy in such form hat it will not stimulate greater pro- uction. Agriculture will never be a ood business in any region on the asis of inflated land values.

Prosperity Through Congressional Action

In many sections of the United tates there is an insistent de- and that the Congress of the United tates enact a law calculated to make griculture a good business by stor- g and exporting surpluses of farm roducts and thereby relieving the omestic market of their burden. ome favor doing this at the expense f the treasury of the United States -that is at the expense of all the eople; others would make a levy pon farm products to reimburse the reasury and thereby throw the ex- ense upon the farmers themselves. The proposals made really mean at demand is made upon the Con- ress of the United States to pass a w which will exempt agriculture rom the economic penalties of over- roducing. If agriculture is overpro- ucing at present prices, what will appen if Congress does enter upon policy of raising prices. Thirty- even million acres devoted to cotton 1923, with a moderate crop, pro- uced in round numbers ten million ales of cotton which brought farm- rs an average price of 31c per pound nd stocks on hand were worked off. rom 1923 on we had a progressive ncrease in our cotton acreage and arger yields. Our 1925 average was arger than that of 1923 by nearly ,000,000 acres. Prices were prac- ically cut in two and over 5,000,000 bales were carried over to compete with this crop. In 1926 we again added over a million acres to our cotton acreage. The price is now ruinously low to producers and there is prospect of a carry-over of 7,500,- 000 bales to conflict with the crop of 1927. Cotton can be carried for many years and our production can be greatly extended if the govern- ment can make cotton growing profit- able for everybody who wants to go into the business of growing it. But is it policy to employ capital and la- bor in growing cotton and in storing a supply of it far beyond the world's needs for years to come? We might just as well face now the problem of adjusting our supply of cotton to the demand as to wait until we have overhanging the industry several years' supply in storage.

The legislation proposed would in- crease rather than lessen the evil of overproduction. Furthermore, it is based upon the fallacious notion that somewhere in the world there exists a demand for any surpluses of agri- cultural products we may create. Such is far from being the fact. The surplus of most farm products is now worldwide.

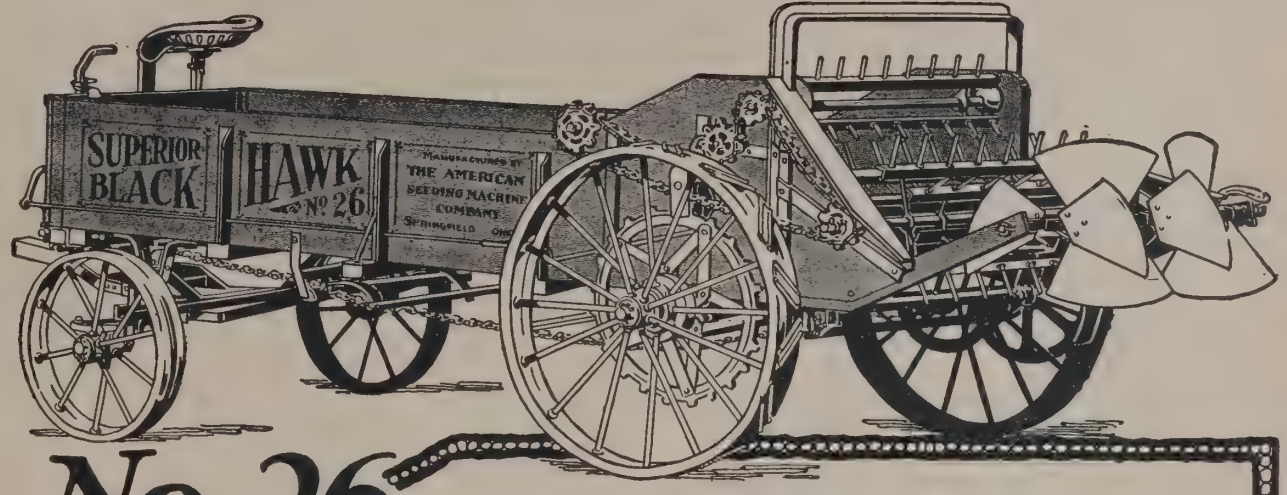
Farmer at Disadvantage

We are now in a period of indus- trial prosperity which has brought about general employment of labor at high prices. The farmer as the un- derdog today, let us assume, can re- ceive sufficient consideration from Congress so that one of the export plans can be passed and become a law. Let us assume that the plan works and results in higher prices be- ing paid by the American consumer for his food than is paid for that same food sold in other markets. Let us assume that in a short time we have an industrial depression with consequent unemployment. Let us remember that representation in Con- gress in the lower House is in pro- portion to population and the Presi- dent and the senators are elected by popular vote. Let us remember also that only 26 per cent of the gainfully employed persons are engaged in ag- riculture. Can we conclude, in view of this situation, that the prospect for farm relief through political ac- tion has anything to recommend it from the standpoint of stability or permanency?

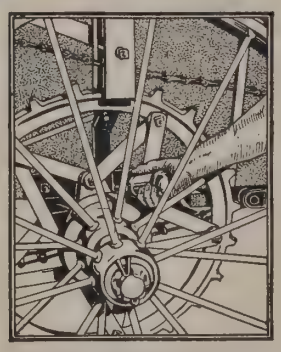
Farmers Should Resist Price Fixing Policy

Do farmers themselves want fastened upon the agriculture of this

(Continued on page 87)



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EDITORIAL COMMENT



PARENTS AND CLUB WORK

"Whatever success I have had in club work I owe to my mother," said 20-year-old Kenneth Hinshaw of Washington who was recently declared one of the most outstanding 4-H club members in the United States as winner of the Moses Local Leadership Trophy. "When the hour was the darkest," he went on, "she always said, 'Cheer up, son, it will all come out in the wash.' "

When Kenneth paid tribute to his mother, who was his only living parent, in this beautiful way he spoke a great truth. Parents have a lot to do with the success or the downfall of their children whether it be in club work, at school, or in the everyday things that go to make up life.

Almost invariably the success of an outstanding club member can be traced back to the interest of the parents. Mr. J. H. Kaiser, an Iowa farmer, but not a *dairy* farmer, urged his 10-year-old daughter and her older brother to join the dairy calf club. He attended club meetings with them. He even took them on a trip into Wisconsin to help them pick out good calves.

What was the result? Today a beautiful herd of dairy cows occupies his barns. His daughter, Gertrude, was declared the champion junior judge of dairy cattle at the 1926 National Dairy Show. Both his daughter and his son, Herbert, are a part of the farm firm of J. H. Kaiser & Co. Herbert has also made a fine club record.

"Where is A—?" a farmer of our acquaintance asked his wife early one summer's evening.

"She's gone to bed," was the reply.

"Has she led her calf today?"

"No, I don't think so," answered the wife and mother. Whereupon the father called the daughter and insisted that she get up and lead her calf. She did. That girl is one of Wisconsin's best calf club members.

In some localities there are "4-H Club Mothers' Associations." The mothers are organized to help their children. We generally find that these are the places where the boys and girls are doing the best club work and getting the most out of life. We need more of these "Club Mothers' Associations." They rank with parent—teachers' associations in importance.

But parents can, and must, function without organizations of this sort. It's the friendly encouragement, the sound advice, and occasional mild discipline that counts. And this is done first in the home. It's impressing the boy or the girl with his or her responsibility; it's working with the club member; it's attending meetings with them once in a while. These are the things that parents can do, and when they do them, satisfactory results are reflected not only in the children but in the home itself.

STABILIZING DAIRY PRODUCTS

The keen rivalry between the states of Minnesota and Iowa in the recent butter scoring contest held at the annual meeting of the National Creamery Buttermakers' Association created considerable excitement. It was first reported that Iowa had won, and they celebrated the occasion. Later it was found that Minnesota had won by so small a margin that it was necessary to go to the second decimal place to find the difference in the score of the ten highest entries from Minnesota and Iowa. The Gopher State carried away the banner for the first time since 1922.

The averages of the contending states for the banner were: Minnesota 94.5746, Iowa 94.5550, Wisconsin 93.3730, and South Dakota 92.8210.

What particularly interested us in this butter contest was that the fresh butter made in Minnesota scored 95.025 and her storage butter 94.6. The storage butter was made in June and yet there is less than one-half a point difference in the score of that butter and that made just prior to the convention. It shows that the methods of manufacturing butter are improving and that our facilities for storing butter keep it fresh and sweet almost indefinitely.

We believe the dairy interests do not fully appreciate how much has actually been done toward bringing about a system of manufacture and storage which is doing much to stabilize the price of dairy products. When butter was largely made in the summer it was cheap and before the days of cold storage, it was put away in cellars. Invariably this butter developed a strong flavor before spring and was not a satisfactory food product.

The development of a good cold storage system and improved methods of making butter have made it possible to put away the summer surplus and then market it in the winter in about as high a state of perfection as when it went into storage. This improvement in manufacturing and storing butter, together with more winter dairying, has had a tremendous influence in stabilizing the prices of dairy products. Buttermakers' conventions and butter scoring contests have helped to bring about this improvement in the dairy industry.

THE McNARY—HAUGEN BILL

In our issue of January the 10th we published a resume of the McNary—Haugen Farm Relief Bill and a few statements of proponents and opponents of this bill. In this issue we are publishing a resume of two addresses, one delivered by Congressman E. S. Brigham of Vermont and the other by Congressman L. J. Dickinson of Iowa.

It is our purpose to give our readers a clear understanding as to what the McNary—Haugen Bill proposes to do and point out the meaning of some of the phrases so commonly used by those seeking so-called farm relief legislation.

The phrase "stabilization of prices" is frequently used. It should be clearly understood that stabilization of prices means an attempt to hold prices at a more uniform level. It may mean advancing or it may mean lowering prices.

There is an advantage to be gained through the stabilization of prices. For example, if we could keep butter from going to such a low level in summer as it frequently does and keep it from being so high in winter, we believe the price of butter, on the average, would be higher. When butter reaches the retail price of sixty cents or better a pound, some consumers eat oleomargarine and this is not to the advantage of the dairy farmer.

"To make the tariff effective for agriculture," is a phrase also frequently used. It is well known that tariff does not protect an industry as effectively when that industry overproduces as it does when the industry produces just enough to satisfy domestic demand.

To us, the chief difficulty with farming today is the single crop system and overproduction. We have not been able to comprehend how legislation proposing to take care of surplus would help sections of the country that are suffering from the single crop system or planting more acres than is needed to produce the required amount of a certain crop. Alfalfa hay, for example, is selling for $25 to $35 per ton to dairy farmers in the Middle West, South, and East. Corn and cotton are selling at very low prices. It is plain more land in these sections should be devoted to growing alfalfa hay, and we might well suggest other crops. Manufacturers whose products are protected by a tariff would not be benefited by it if they overproduced, and we do not comprehend how agriculture can expect to receive protection from a tariff when it overproduces.

"Surplus" is another term commonly used. What is surplus? No definition can be given that could not be effectively challenged. We commonly understand surplus to mean the quantity of product not needed for immediate use. There may be more than one kind of surplus: Seasonable surplus, due to a favorable crop year, and surplus by planting more acreage of a certain crop than is needed, or both. We can comprehend how an export corporation could be formed for the purpose of handling seasonable surplus, but this is quite another matter than handling acreage surplus and very likely created because of an attractive price.

In 1920, 35,878,000 acres were devoted to cotton and they produced 13,444,000 bales. The average yield that year was 178 pounds per acre, or 8 to 10 pounds above the average. The world consumes in the neighborhood of 12,000,000 bales of American grown cotton yearly—perhaps a little less, but the 1920 crop had over 1,000,000 bales of surplus. The acreage in 1920 is somewhat in excess of the average for that period, but for the purpose of illustration it may be considered reasonably normal.

In 1926 we had quite a different problem, for the acreage devoted to cotton was 47,653,000. Over 11,000,000 more acres were devoted to growing of cotton in 1926 than in 1920. The yield was 187 pounds of cotton per acre, or 18,618,000 bales. This seasonable increase per acre was better than 17 pounds, a very small quantity, or less than 2,000,000 bales; while the actual surplus that is above what the world immediately needs is over 6,500,000 bales and is largely accounted for by increased acreage.

It seems to us that unless acreage devoted to a crop can be controlled, the proposed legislation in the McNary—Haugen Bill must ultimately fail. Price stimulated this increased acreage of cotton. Millions of acres of land have been opened in the Southwest because cotton is as profitable there at 12 to 14 cents a pound as it is in the Southeast at 18 to 20 cents. At least this is the statement made by Mr. B. L. Moss in the Progressive Farmer in the issue of December 18. In the southeast part of our country cotton growers need more than 18 cents a pound, in most instances, to make a profit from growing cotton. If the price of cotton were stabilized at 18 cents a pound, it would not be satisfactory to many in that section of the country, but it would be an attractive price to those growing cotton in the Southwest, and more acreage would be devoted to growing cotton. Who will buy this increased quantity of cotton? We do not care how well a firm is organized, how long it can carry its product—if it continues to overproduce, ultimately it will fail. Can we hope through legislation to protect agriculture from the influences that affect other industries?

The dairy industry, we believe, is more fortunate than any other branch of agriculture. We are better organized and through our own efforts we are stabilizing the prices of dairy products. We have not gone as far in stabilization as is desirable, but we have made splendid progress in this direction and without national legislation. For example, we have learned how to make butter from sweet cream that will remain in storage for several months and come out with about as high a score as when it went in storage six months previous. This permits storing butter during the peak of production and selling it during the time of low production. Through organization of milk marketing companies, the price of fluid milk is being stabilized. Effort is being made to eliminate the cow that does not pay for feed consumed and should there be a overproduction, it doesn't take long to dispose of a sufficient number of low producing cows to bring the production down to a point where prices will be fairly remunerative. Methods employed in stabilizing prices of dairy products, and this is being done by the farmers themselves and their representatives, are far more effective than can be accomplished by any legislation secured through Congress.

We must remember, too, that if Congress has the power to advance prices, it will have the same power to reduce them. We do not believe Congress has very much power to affect permanently the prices of farm products, for if they are fixed at the level which many people desire them, there will be overproduction and they will break ultimately to very low levels. This would be positively injurious to agriculture. If Congress through laws were to lower prices so it would be unprofitable to grow

roducts, the farmer would refrain from growing hem.

We can conceive of a plan to care for seasonble surpluses and prevent them from unduly deressing prices of farm products, but unless omething is done to control acreage and to get ingle crop sections to diversify, we can compreend nothing but serious disappointment in the roposed legislation to take care of farm urpluses.

As we desire our readers to fully understand his subject, we commend to their consideration the iscussion in this issue by Congressman Dickinson f Iowa who argues for the McNary—Haugen Bill nd another article by Congressman Brigham, a armer of Vermont, who argues against it.

Will Sweet Clover Reseed Itself

We have 20 acres of sweet clover that was seeded in 1925. It was not pastured or cut and in 1926 it all went to seed. Will this come up next year, in 1927, or will we have to break it up?

Beloit, Wis. F. D. T.

If the sweet clover that went to seed on the twenty acres was a reasonably good crop or if the plants were well scattered over the field, there will be no necessity of reseeding again next spring. Unless one has very positive information as to this, it would be well to watch this field very closely next spring and see if the sweet clover comes on in reasonably good condition and is well distributed over the field. If there is only a fair stand and the field is to be used for pasture, it might be well to go over it with a disc drill seeding oats together with 5 to 10 lbs. of scarified white sweet clover seed. If the sweet clover is a poor stand, the oats will come in to fill up the spaces and the sweet clover that has already caught will make with it a very good pasture crop. The new seeding of sweet clover will then come on for late summer pasture. This combination of oats and sweet clover will also make a good grade of hay if the oats are cut just after they come into bloom and before it has passed into the hard dough stage.

Labor Saving Information Wanted

As a subscriber of some ten or twelve years to your paper I have learned to look in it for all the latest information on all matters connected with dairy farming. However, lately I have looked in vain for information telling how our newest problem is being met by different practical dairymen. This problem is how to get along without the extra man labor needed in haying and silo filling. Perhaps this trouble has not appeared in the farms of the West and Middle West, but here in the East it is a very great problem. It is not a matter of hours and wages, as these men refuse to work on farms under any terms when work on public projects can be had.

Is it not possible for you to collect and publish some information on labor saving methods and machinery used in different parts of the country in making hay and filling silos?

On this farm the first problem is how to get in our hay with the very least amount of man labor. We have a tractor for power and use a hay loader. The hay loader is a labor saver in the field but also causes lots of labor trouble as I have had man after man quit the job when asked to work on the wagon with the loader. We also use a power fork to put the hay in the mow but we need at least two men to mow away. Farmers must have met this labor shortage by labor saving methods or machines, but unless you bring this information together where we can read about it we will never hear of it.

Our next trouble comes at silo filling time. Here we harvest and bind the corn a few days before filling. When filling we have a man or boy in the silo, a man to feed the cutter, three teams and teamsters, and three men to load. This combination works well when we can get it but lately it is almost impossible to get the men to load and the teamsters will not do it. Neighbors help each other as much as possible and there are some silo filling rings here but they all have the same labor shortage. I have heard that there is some kind of a machine that harvests and cuts the corn ready for the silo while in the field. This machine would save the loaders if it works. Is there such a machine and is it practical under farm conditions?

I think if you would ask your readers to send in any ideas that they have tried to save time and labor you would get a number of interesting and useful plans that would be of great help to all of us.

Lee, Mass. J. G. E.

The economy in the use of labor saving machinery is dependent in part on the size of the enterprise and the adaptation of the machinery to the type and contour of the land. The combined header and threshing machine has been found practical on the large grain farms of the West, but its use on smaller farms is of doubtful economy. In Northwest Canada they do not use this machine because they must harvest their grain before it is entirely ripe, partly to avoid danger of frost and more particularly to get the grain into the shock before it has matured sufficiently so that the hard winds that occur in that section do not thresh it out of the standing grain.

This is only one illustration of many that might be given to show the diverse application of machinery to the farm enterprise. It illustrates the difficulty of making exact and definite statements as concerns any farmer's particular problem. We would appreciate suggestions from readers as to how they have solved the labor problem on their farm.

In our own operations we have found a decided reduction in the labor in the caring for hay through the use of the side-delivery rake and the hay loader. We do not understand why a man should particularly object to working on the wagon when the hay loader is in operation. It doubtless keeps him pretty busy, but if there is a small boy to drive, one man can quite conveniently take care of the load. We have seen at fairs a device that can be used in mowing away hay, but we have seen none of these in operation. It consists primarily of a platform swinging from the hay track or rafters, so as each forkful is dumped it will throw it to one or the other side of the mow according as the platform is tipped one way or the other.

The combined corn harvester and silage cutter has come into considerable use on a number of the larger farms, as also in some communities where farmers can so co-operate as to make the use of such equipment practical. This machine cuts the corn, puts it through the silage cutter which, in turn, elevates it to a wagon box that is driven along the corn rows as the corn is cut. When the load is completed, it is hauled to the barn and dumped into the silage blower or elevator.

To relieve the amount of labor in the silo, it has been found quite practical by men who have reasonably deep silos, say 40 feet or more, to run the silage blower into the center at the top of the silo and then merely permit the silage to build up in a cone as it is filled, leveling it down only when the top of the silo is reached. If the corn is sufficiently moist and the silo deep enough, this seems to give sufficient packing to prevent moldy and spoiled silage.

Sudan Grass for Pasture

On March first I will move to another farm and will be short of pasture the first year unless I make use of some emergency pasture crop. I plan to seed some sudan grass for this purpose. How many pounds of seed should I sow per acre? When is the best time to seed sudan? How tall should it be when ready for pasture? If cut for hay will sudan grass make more than one cutting? If alfalfa is seeded in the spring will it be advisable to use it as a hog pasture the first year?

Rockford, Ill. S. J. M.

Sudan grass is one of the best of the crops that may be used for emergency pasture. About 15 to 20 lbs. of seed per acre are recommended for hay or pasture. This may be seeded broadcast and harrowed in or drilled. The seed bed should be prepared as for corn. Nothing is gained by seeding earlier than May 15 and quite a marked decrease will result if seeded after June 1. Sudan grass will be ready to pasture about 6 weeks after it is seeded under normal conditions. It ceases to be of much value after the first killing frost in the fall. There is a very slight danger from poisoning if frosted sudan is pastured. This danger is said to be eliminated if the frosted grass is made into hay. Higher yields of hay of better quality may be secured from two cuttings than from one cutting but the expense involved makes only one cutting advisable, in which case the second growth is pastured. If only one cutting is made the grass should be cut when the seed is in the soft dough stage. If two cuttings are made, the first should be cut just as the heads are forming, in which case there will be more difficulty in curing because of the high water content at this stage of growth. Seedings made May 25 will reach the soft dough stage in the head about August 25.

It is not advisable as a rule to cut for hay or pasture alfalfa in the fall of the same season the seeding is made. If one should have unusually favorable results from the spring seeding, such that there is a good stand of vigorous plants grown up to 18 to 24 inches tall in the fall, one could pasture the growth lightly with pigs.

Questions From a Beginner

I am a new subscriber to your paper and likewise new at dairying. I find myself in need of considerable information some of which I am asking for at this time. All the hay I have is timothy. With this I have been feeding a mixture composed of two-thirds oats and one-third corn. My five cows have gone down to 40 lbs. of milk daily since they came off grass. This is not 40 lbs. each but for all of them. They will not calve until next spring. Would a good 24% protein mixed feed bring them back?

Are cooked cull beans good for cows?

Are raw potatoes good?

Is whole soft corn good?

What results could I expect from apple pulp as a feed for these cows? Is this pulp good fetilizer for potato ground?

Can a man raise a balanced ration for dairy cows in this part of Michigan?

Leonard, Mich. L. I. C.

A good 24% protein mixed feed would not bring the production of these cows back to normal at this stage of the lactation—nor would any other mixture of feed do this. In fact it is likely that a very good ration would have but little influence in bringing up the production after the cows have gone down to the low level indicated. There is one certain cause of their going down and there may be one other cause. The certain cause is found in the ration of timothy hay and corn and oats. The ration is too low in protein; it lacks succulence and variety; it likely became somewhat unpalatable. Dairy cows require digestible protein and carbohydrates in the proportion of 1 to about 6.8, whereas this ration supplies these nutrients in a proportion of 1 to 11. A second factor that may have contributed to the causes of the reduced production has to do with the natural inherited persistency of the cows. The inheritance of these cows may dictate that they tend to dry up sooner than is desired. This is something that cannot be influenced materially at the will of the owner. The stimulus for producing milk is very much greater during the first half of the lactation period than during the last half. If cows are not supplied enough feed to meet their requirements during the first half of the lactation period they will take some nutrients from their bodies if they be persistent producers and thereafter they will decline rapidly in production after which it is impossible to return them to what otherwise would have been a normal flow of milk. With timothy hay as roughage these cows should have had a concentrates mixture containing about 20 per cent of digestible protein such as would be supplied in a 24% total protein mixed feed.

Cull beans either cooked or uncooked are not commonly fed to dairy cows. They have a greater usefulness for sheep and swine. A pound or two of the beans daily to each cow if ground and mixed with the concentrates would not be objectionable.

Raw potatoes are sometimes fed to cows in limited quantities when the price is low. Fifteen to twenty pounds per head daily should be the limit of allowance.

Whole soft corn is better than whole hard corn so far as the physical properties are concerned but even then it is advisable to grind all grains for dairy cows.

Apple pomace or pulp from cider mills is about equal to corn silage. It is low in protein like corn silage and should be properly supplemented with protein feeds. It should be fed like corn silage—about 3 lbs. daily for each 100 lbs. live weight.

Apple pomace contains a little more dry matter than corn silage. It is not quite as high as corn silage in nitrogen, phosphorus, and potassium, the three principal elements usually considered in fertilizers. In the sense that potato fertilizers are usually considered, apple pomace is not a good fertilizer although there is no objection to using it for this purpose.

So far as location is concerned one should be able to grow alfalfa and good silage corn together with oats and barley in this section of Michigan. This is being done successfully in the first county south. With these crops grown in abundance and in proper proportion one would not need to purchase very much of commercial feeds. This location is either in or on the edge of the area already infected with corn borer. What the future holds for the control of this pest no one can say. This much may be said, however, that of the known methods of combatting the pest, putting corn in the silo and cutting it low to the ground offer the greatest destruction to the borers of any crop handling method.

A Cow Guessing Contest

JAY L. LUSH, Texas Agricultural Experiment Station

IN order to test the ability of the average dairyman, a cow guessing contest was arranged for the attendants at the Farmers' Short Course at the Texas A. & M. College early in August last year. As the regular milking hour approached, each person was given a card and was told to go into the milking barn and to pick out the five highest producers of milk, age considered. The judgment was to be entirely on the basis of milk production and no attention was to be paid to fancy points or to breed type.

The conditions of the contest were just what a prospective buyer of cows for a commercial dairy would encounter if he went to buy some cows from a herd where production records were either not kept or not available to the prospective buyer. The only information given the contestants was the age of each cow and the stage of lactation period for each cow. Only those cows were included whose production had been recorded for at least one full lactation made under normal conditions in the experiment station herd.

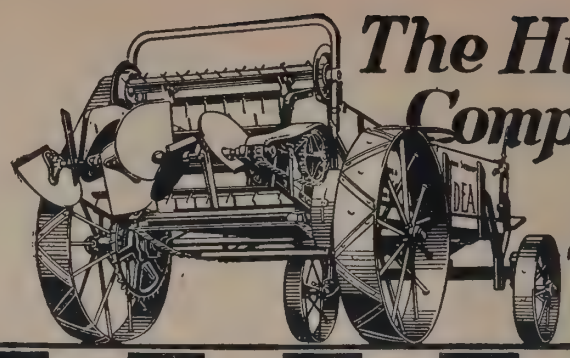
There were 27 such cows and 17 people attempted to pick out the five cows which had the highest average age-corrected milk records. One person picked out three of the five. Eight persons got two of them right. Six persons got one right. Two persons got none of the five highest producers. But that does not tell the whole story. One of the five cows evidently looked almost as good as she performed because eleven of the seventeen judges had included her in their list. However, two of the five best cows did not receive a single vote. The very best cow in the herd got six votes and the fourth best cow got seven votes. On the other hand, the cow with the lowest record among the 27 received four votes. The cow with the third poorest record among the 27 received three votes. The sixth poorest cow among the 27 received six votes, the seventh poorest received one vote, and the tenth poorest received one vote.

Enough has been said to show that this group of people could not pick out the high producing cows with a very great degree of accuracy. Yet it need not necessarily be concluded that they were poor judges as compared to average men and women interested in dairy cows. I am sure that they would be willing to challenge a similar group of practical dairy folks to beat them in picking out good cows under similar conditions.

The nature of the data makes it seem inadvisable to go into any more detailed analysis of them. However, it may be worth while to take a moment to compare the accuracy of these people's judgment with the accuracy of a week's milk record, or of a year's milk record, or of body measurements, or of expert judges' scores as indicators of a cow's producing ability. A number of detailed scientific studies have been made of these indicators of producing ability with the following general results, after allowing for age: first, that a year's milk record is a much better indicator of a cow's future production than these people's judgment was; second, that the record for the best 7 days is a little better indicator than these people's judgment; third, that a cow's weight (if comparisons are only made within a single breed) is almost as accurate as these people's judgment; fourth, that the most reliable body measurement is quite a little less accurate than these people's judgment; and, finally, that total score as given by an expert, who had in mind breed type as well as production, was only about half as good an indicator of production as was the average judgment of these people who were looking for production alone without regard to type.

Scientific studies have also been made of the reliability of selecting the high producing cows by the recorded production of their near relatives, with the general result that a man without ever seeing the cows could pick out the high producers on the basis of the normal records of a daughter, or of a dam, or of a full sister, about as accurately as these people picked out the high producers merely by looking at them. More distant relatives are not nearly as accurate but are of some use as indicators.

It seems clear that fairly kept normal records of actual production are a more reliable means of estimating a cow's future milk production than is the average man's judgment alone or the records of the cow's close relatives alone. Fortunately, we do not have to restrict ourselves to any one method of estimation in actual practice, but can use all three. The question of just how much importance to attach to each method is one which has been much discussed but never settled. The breeder would want to pay more attention to individual appearance and to pedigree than would the man whose main business is to sell milk or butter. For instance, the cow which had the poorest record of the 27 in this guessing contest, as an individual has a rather desirable conformation (as witnessed by the fact that four people voted for her as one of the five best cows) and her dam had one of the very best records ever made in this herd. Also, her dam has fifteen half sisters in the Register of Merit. We are betting that this cow has good blood in her in spite of the fact that both of her records are uniformly low without any apparent excuse, such as sickness. We may be wrong, but with pedigree and type both speaking so strongly in her favor, we will take a chance on her. She will not be culled until we get more



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evidence about her. That evidence ought to be available soon, for her first daughter is soon to freshen.

We can sum up for most dairymen the problem of selecting a high producing cow in the following words (with apologies to Paul): And now abideth individual appearance, pedigree, and an actual production record, and the greatest of these is an actual production record. The conservative man will use all three.

Grain Mixture for Alfalfa

I have good alfalfa hay as roughage, and can buy corn at $46, oats at $40, barley at $40, and bran at $46 a ton. Could these grains and the bran be properly proportioned as to make a suitable mixture for feeding with alfalfa hay or should I have linseed meal, cottonseed meal, and beet pulp? What mixture do you suggest and at what rate should it be fed? My cows average about 4 per cent fat in the milk.

Farson, Wyo. J. E.

Where alfalfa hay is the only roughage fed and cows given all they will eat of it, the grain mixture need not contain more than 10 per cent of digestible protein to properly balance the ration. Such a mixture could be made of 200 lbs. each of ground corn, oats, and barley, and 100 lbs. of bran. It should be fed at a rate of about 1 lb. for each 3½ lbs. of milk produced.

The alfalfa hay fed to the limit of appetite will furnish a surplus of protein but where this hay is comparatively cheap and grains high in price, one can better sacrifice protein by feeding the alfalfa hay to the limit. So far as protein requirements are concerned, one would not need linseed or cottonseed meal. Beet pulp would be a valuable addition to the ration if it can be purchased at a reasonable price.

Seasonable Live Stock Notes

What can I do to make my supply of feed hold out until grass comes? is a question being asked right now by a good many dairymen. Some will skimp on the feed and keep all their cows. This is a poor way to get the greatest value from the feed. Some will sell the poorest cows; this is a good way. Some will buy more feed; this is a good way provided the cows kept are good ones. Buying more feed to put into scrub cows is not good management.

High Priced Roughage

A farmer from a mid-west state writes in to say that he is paying $32 a ton for alfalfa hay. Alfalfa is being grown successfully in this state. It is seasonable to suggest in this column that men who are paying this much for roughage make some inquiry about the best ways of growing alfalfa.

Feed Plenty at Peak Production

At this season of the year the cows that freshened in November and December are at peak production. It is a good practice to follow this production up closely with plenty of the right kind of feed. If this is not done these cows will soon come down too much in flesh and then in production. Once down in production it is impossible to bring them back to normal for the remainder of this lactation period.

Alfalfa Hay for Sows

Pregnant brood sows need a high quality protein along with other nutrients if they are to farrow strong litters of pigs; they also need exercise. There is no better way to give these than to supply some good quality leafy alfalfa hay in a rack some distance from the sleeping quarters.

Cow Comfort

All dairy cows should be treated kindly at all times. The cows that freshen in mid-winter during severe weather should have an extra helping of kindness. Besides warm, dry, comfortable stalls these cows should be fed a warm bran mash for two or three days after they calve and the water offered them should be at least as warm as 60 to 70 degrees F.

Frozen Silage

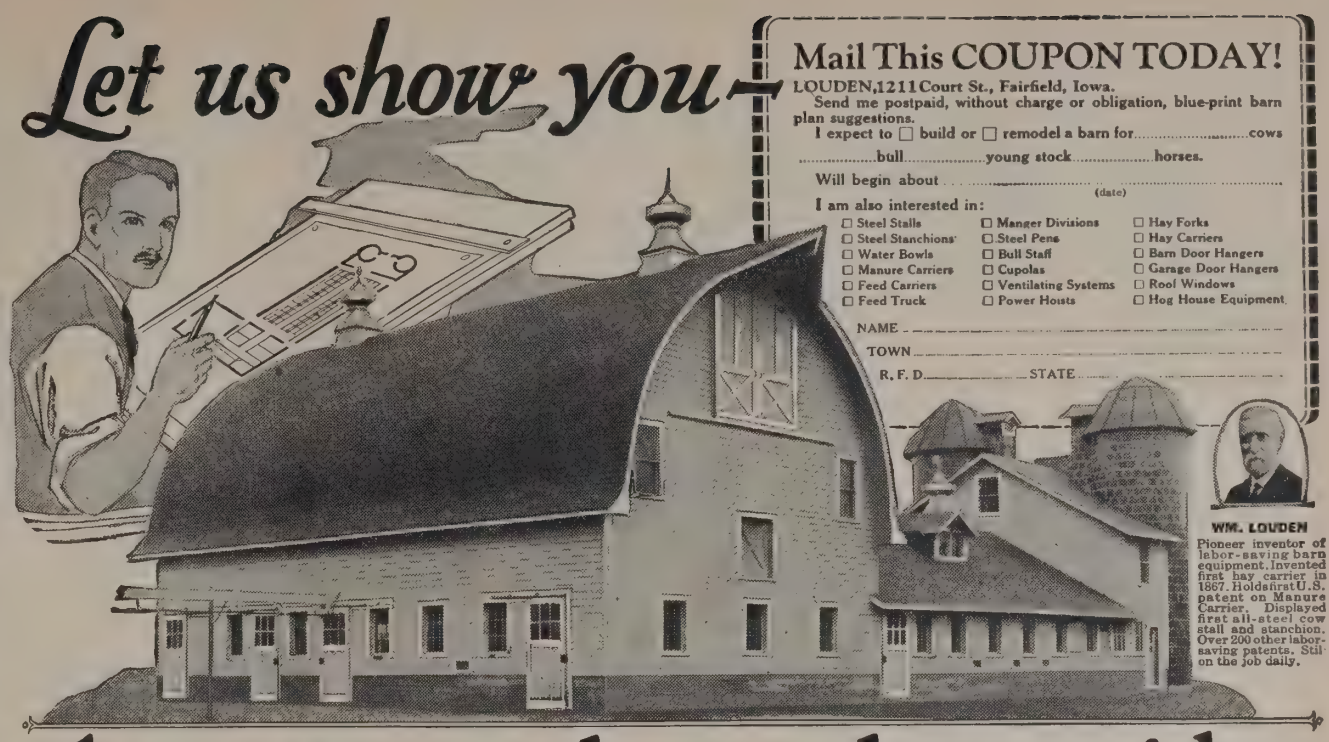
It is not always possible to avoid some frozen silage in severe winter weather but even so there is little excuse for feeding it to cows while still frozen. The dairyman who does not offer his cows ice water should not offer them frozen silage. Some silage freezes when too much is thrown down at a time. Some silage freezes when no precaution is used in removing from the silo. Keep the middle higher than around the edges. This will help some.

Injured Udders

The loss in cow usefulness and in milk production from injured udders is greater than is generally realized. Go into any good sized herd housed for 5 to 7 months of the year and ask the owner about three-quarter and half udder cows. In the nature of things in the cow barn some of this injury cannot be prevented. Some of it, however, is due to carelessness in bedding and to undue roughness in handling cows. This much can be prevented. Partitions should always be provided between cows and will help to materially reduce the number of injuries.

Frosted Headgear

A good treatment for frozen combs and wattles of poultry is to rub gently into the affected parts a mixture of vaseline and glycerine to which have been added a few drops of turpentine. Rubbing the ointment in gently helps to restore circulation.



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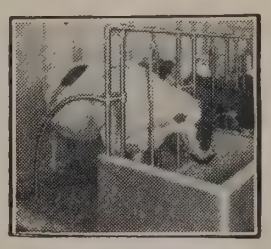
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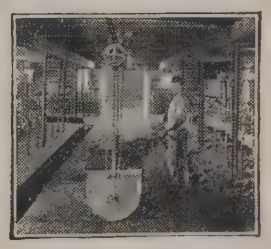


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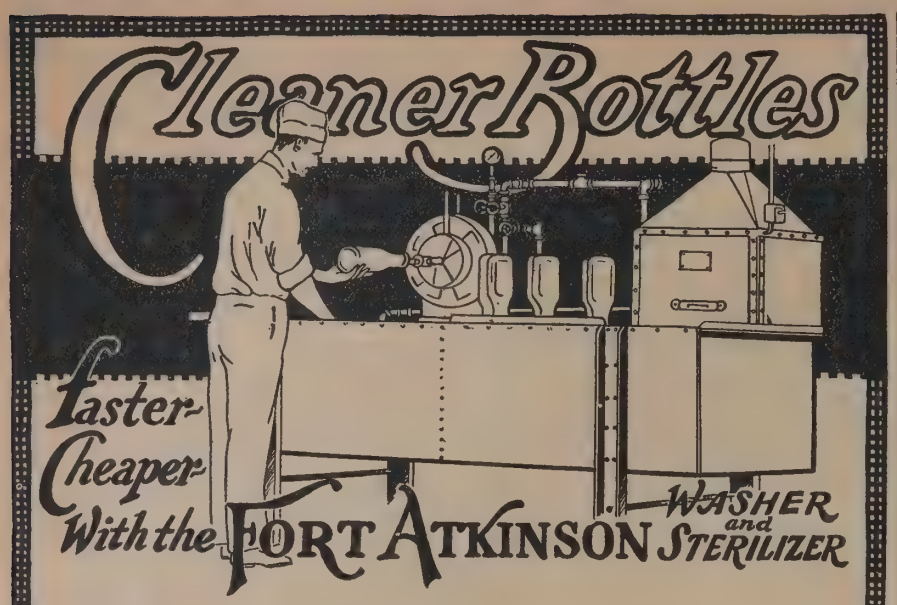
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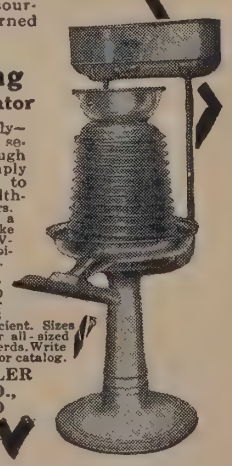
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A Farm Gate From New Zealand

N. P. NEAL, NEW ZEALAND

THE accompanying illustration shows a gate which is in use in New Zealand. It was designed by the Director of Canterbury Agricultural College—the premier agricultural college in that progressive dominion. A casual glance will show that it fulfills all the above conditions. The posts, which are of concrete, are about 12 inches square in section. The gate is made of flat and angle iron, is securely braced, and, together with the posts, is practically everlasting.

The attention of readers is drawn to the following features of the gate and posts:

1. The posts are built of reinforced concrete and are placed about four feet in the ground.

2. The gate is not swung in the ordinary way but by a system of iron straps round the post. Further, the gate swings flush with the face of the post, and allowance should be made for this in determining the exact alignment of the posts. It is claimed that hinges which are inserted into the body of the post are sources of weakness.

3. When closed, the foot of the gate rests on the foot of the post. Thus, the weight of the gate is taken evenly between the two posts, and not entirely at the point of suspension. In closing the gate it is necessary for the operator to lift the gate about one inch in order to bring it into this position of rest. The advantages of this arrangement are that the gate does not "droop" with its own weight. In consequence of this, in operation it is given free movement and hence is not damaged through lack of it, as is so frequently noticed. Should the gate be made of wood, there is less chance of its back being strained or even broken.

4. The gate is fastened by means of a short piece of chain, the end link of which slips over a piece of iron pivoted on a horizontal one-half inch rod inserted in the post.

5. The vertical rod which suspends the gate is round iron one inch in diameter.

6. Angle iron, 1½ inches on each face and ¼ inch thick, is used for the top and bottom rails and for the oblique stays. For the end posts, flat iron 1½ inches wide and ½ inch thick is used. The horizontal, intermediate rails are of flat iron ¼ inch thick.

7. The corners of the posts are beveled so as to prevent these breaking away as would otherwise be the case.

In building the posts, make the molds in four pieces so that by a system of strapping similar to that used in suspending the gate it can be easily handled and kept in position. Holes four feet deep are dug and filled with concrete to the ground level, after which the molds are placed in position. Reinforcement consists of four one-half inch round iron rods, each placed two inches from a corner. In this connection it should be noted that reinforcement in the center of the post is of little value. It should be realized that any strain to which a post will be subject, must be taken by the outside layers of the post in the first place. Hence it is near the surface where reinforcement should be provided.



Showing details of "swinging" the gate. Note that it is "strapped" to the post.

The top of the post is made in a separate mold and placed in position after the post has "set" a few days.

Michigan Milk Producers

At the close of business on September 30, 1926, the Michigan Milk Producers' Association, Detroit, had a net worth of $138,737. A considerable portion of this amount was represented by bonds, stocks, mortgages, and certificates of deposit.

The revenues of the association for the 1925-26 business year ending September 30, were $103,767. The expenses of operation were $83,385, leaving $20,381 as a net gain.

This association of 10,000 producers of fluid milk is a bargaining organization, representing its members in price negotiations with milk distributors. The association was formed at a mass meeting of about 500 milk producers, held at East Lansing, Mich., in the late spring of 1916. It now operates in Detroit, Grand Rapids, Flint, Saginaw, and Ann Arbor.



A SERVICEABLE TYPE OF FARM GATE DESIGNED BY R. E. ALEXANDER, DIRECTOR CANTERBURY AGRICULTURAL COLLEGE, NEW ZEALAND



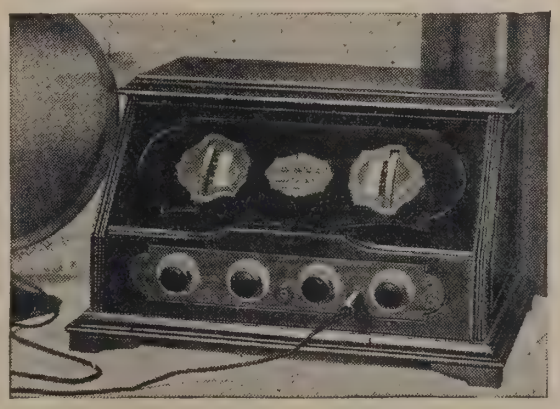
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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Jan. 31-Feb. 3—Annual Wisconsin Farmers' and Homemakers' Course, Madison, Wis.

February 1—Wisconsin Dairymen's Association, Madison, Wis. Secretary P. C. Burchard, Fort Atkinson, Wis.

Little Hans came home with two black eyes and a battered face. "Fighting again," said his mother. "Didn't I tell you that when you were angry you should count to a hundred before you do anything?"

"Yes, mother, but the other boy's mother had told him only to count up to fifty."

Vermont Ayrshire Becomes Living Champion

C. T. CONKLIN, VERMONT

ALTHOUGH fed and handled by inexperienced boys committed to the Vermont Industrial School at Vergennes, Vis Bountiful Lassie, a nine-year-old Ayrshire cow, has just completed a year's record of 24,556 pounds milk, 923.21 pounds fat, giving her the honor of being the living champion of the breed in the United States, state champion of all breeds, as well as just three points behind the championship record of Garclaugh May Mischief that has stood for eleven years.

As a member of the dairy herd of the Vermont Industrial School, Vis Bountiful Lassie was fed and handled all through her record by boys and young men committed to this institution. To be placed in charge of this cow was the post of honor in the dairy barn, and according to Superintendent Charles W. Wilson, no herdsman was ever more faithful than the lads entrusted with the daily care of their special charge. In return, thirty-two potential citizens of Vermont enjoyed a quart of milk from their favorite cow each day during the year.

The ration of the new leader consisted of a simple mixture of commercial dairy feeds, oats (of which she was very fond), beet pulp, hay, and corn silage. Unusually cold weather is common in the Vergennes region near Lake Champlain and between the ranges of the Adirondack and Green Mountains, but severe climatic conditions had no apparent effect on "Bountiful Lassie." An average of over eighty pounds of fat was made each month through the winter. It is particularly interesting to note that in eleven months of the year at least seventy pounds of fat were produced, and in no single month was the ninety-pound mark crossed.

With the exception of her horns, Vis Bountiful Lassie possesses the characteristic type of the Ayrshire. A straight top line, depth of chest and middle, and ample capacity throughout are all embodied in this liberal producer. The size, quality, and attachments of her udder are particularly good. In addition to her good records, Vis Bountiful Lassie has been campaigned successfully on the fair circuits of her native state and has several championship ribbons to her credit.

Vis Bountiful Lassie was bred by her present owners and is the fifth generation of this particular family to be bred and owned at the Vermont institution. She was sired by Jack of Hillcroft that was purchased as a calf from Matthew Hannah of Vermont, and has since proven a great sire in the Vergennes herd. Four daughters and two sons have been born to the new champion, and today three of her daughters and three granddaughters are in the herd with their illustrious ancestor.

Under the direction of Superintendent Charles W. Wilson, the Ayrshire herd at the Vermont Industrial School has increased in numbers and production until it is now considered one of the outstanding collections of cattle in New England.



VIS BOUNTIFUL LASSIE, NEW LIVING CHAMPION AYRSHIRE COW OF THE UNITED STATES, WITH A RECORD OF 24,556 LBS. MILK, 923.21 LBS. FAT. SHE WAS BRED AND IS OWNED BY THE VERMONT INDUSTRIAL SCHOOL. "THIRTY-TWO POTENTIAL CITIZENS OF VERMONT ENJOYED A QUART OF MILK DAILY FROM THE NEW CHAMPION"

Difference in Silage

HOARD'S DAIRYMAN:—There is a point in feeding silage to milk cows that I have never seen mentioned but which seems to me needs consideration.

We are told that the amount of silage that will be eaten by milk cows is ordinarily about three pounds of silage to one hundred pounds of cow or about 27 pounds for a 900-pound cow. I have fed cows and weighed their feed in years past, finding that figure to be fairly accurate, and have used it in calculating rations for such cows.

But this year I find that these same cows or similar ones will eat 40 or more pounds of silage very readily. I am thinking that this is because of the wetness, immaturity, and low nutritive content of silage this year, according to its bulk.

My point is that probably these cows are getting no more nutrients out of the 40 pounds than they have other years out of 27, and that whatever the cow will eat should probably be calculated as though it were the regular three pounds per cwt. of cow. Or, in other words, that the three pounds per cwt. is a basis for figuring but not for feeding.

Elk Mound, Wis. G. H. L.

This letter draws attention to an important point in the feeding of cattle. The rules as given for feeding are merely indications as to what should be done. In actual feeding the good feeder notices the response of his cows and he varies his practice according as the animals themselves report to him what scale and type of feeding proves best. Many people misunderstand the meaning of balanced rations and think that when we speak of them it is an arbitrary formula that they are to follow. In the first place, no arbitrary formula can be established because the actual feeding value of forages and grain will vary somewhat from season to season and from section to section. The feeding standard merely considers average feeding values. This is well brought out in this comparison of the silage. Then, too, all cows do not react the same to certain feed mixtures and no herd can be fed as a herd, but properly should be fed as individuals. Almost without exception, however, it will be found that men having good producing herds are feeding a balanced ration according to average analysis. Sometimes it is done with intention and sometimes merely by chance, and as the result of the unconscious selection of feeds by the man gifted by nature as a feeder.

Breakage of Milk Bottles

About 26,000,000 bottles of milk and cream are sold daily in the United States, according to estimates by the U. S. Bureau of Dairy Industry. A dealer must have about four bottles for each bottle delivered daily. This means he must have an approximate investment of from 48 to 54 cents in bottles for each customer.

The average bottle makes about 20 trips before it is lost or broken, according to estimates by Ernest Kelly of the Bureau. The total cost of replacing lost and broken bottles approximates $28,000,000 a year. This expense is a large item in the cost of operating a milk plant, and a large part of this expense is due to loss and breakage of bottles.

Uncle Ab says most of the remedies for farmers' ills are proposed by men who want to remedy their own political fortunes.

Radio Sixty Miles From a Railroad

HOARD'S DAIRYMAN:—The tall pine pole seen at the right of the log cabin, in the accompanying photograph, may be said to be an outpost of civilization. It is a radio antenna mast and though the lead-in wire enters this lowly hut, built of pine logs, it has a vitalizing contact with



THE LOG CABIN OF F. F. PAGE OF ARKANSAS AND HIS RADIO ANTENNA 60 MILES FROM A RAILROAD

the Boston Symphony Orchestra; Allen McQuhae, the Irish tenor; the Philharmonic Society; and occasionally with deliverances of the President of the United States.

Although F. F. Page and wife of Cushman, Arkansas, live 60 miles from a railroad, they travel the Pennsylvania Railroad Company's pullman coaches once a week; frequently listen to orchestras on the steel pier in Atlantic City; go with Cook and Sons on cruises around the world; leisurely accompany Ford and Glenn on "Twin Wheeze" trips around Chicago; follow the "cotton-picking swins" through plantations around New Orleans; bask in the sunlight of "Wonderful Jacksonville, Florida;" go to church in New York City; and attend college in Washington, D. C., by matriculating in the "U. S. Radio Farm School," conducted by the United States Department of Agriculture.

In reality, this isolated farmer and wife rarely, if ever, leave the soil which they till. The pine pole, rearing itself above the lowly log cabin, when connected by wire to a 5-tube radio receiving set on the inside of the pine-log hut, extends its reaches to Broadway, to the boardwalk of Atlantic City, and to Carnegie Hall—envisioning for this isolated farmer and wife the music, the arts, the master speeches, and the rollicking crowds of city life.

Little wonder is it, then, that Mrs. Page, in reflecting upon the former desolation of the countryside 60 miles from a railroad, told Sam Pickard, Chief of Radio Service of the United States Department of Agriculture, that she would not part with her radio receiving set for a "gold guinea." Neighbors, too, for miles around must appreciate this priceless treasure, when on wintry evenings they come in flocks to "listen to the radio," bundling their children in blankets and bringing their "knitting," prepared to keep vigil until late hours at night or, perhaps, in the wee hours of the morning. A stranger traveling in this isolated section of Arkansas, upon hearing strains of selections from Victor Herbert issuing through the muddaubed, chinked walls of this cabin, must be possessed with such an uncanny feeling as that experienced when hearing a voice coming from a graveyard or cemetery.

To Farmer Page and wife, however, radio is a godsend—a friendly counselor in a wilderness, a companion for Robinson Crusoe on an island, or a companion to travel with in a desert. Just after the sun goes down and Farmer Page has finished chopping a large "back log" for the old fashioned fireplace and the good wife has been cautious enough to establish safeguards against the chickens freezing, what a contrast it must be to turn on the filaments of the vacuum tubes, twist the dials slightly, and they hear an orchestra in Atlantic City playing, with the chorus being sung, "At Peace With the World." The oil lamp, on a side table, is figuratively converted into the brilliant, illuminating wonders of a city with its teeming thousands.

When radio brings the city to the country, the farmer who lives in a log cabin, 60 miles from a railroad, can truly realize the philosophy of another who said that the path that leads by my door leads to the end of the world. Civilization, during the last hundred years, has introduced many conveniences and utilities for robbing country life of its desolation and monotony—including the automobile, telephone, and labor-saving machinery. However, no invention is so completely capable of dispelling loneliness and bringing diversions to the countryside as the radio telephone. It has the threefold qualifications necessary to accomplish such an undertaking—it dissipates distance, it travels with the speed of light, and it is a perennial messenger—bringing both entertainment and instruction to the farm home.

Washington, D. C. S. R. WINTERS.

Wheel it in—and start milking!

Nothing to install — no pipelines — no vacuum tanks — no special pails



Gas Engine, Electric or Hand Power

If the power gives out, you or your boy (yes, your 10 year old girl) can pump by *hand. A wonderful* advantage.

Clean in 1 Minute

Just Pump Water Through!

It almost cleans itself. No rubber lined teat cups to wash. No pipe lines or vacuum tanks to clean. No pulsator. No extra parts to bother with. No pails to wash—*you milk right into YOUR OWN shipping cans.* Boon to housewives. *Absolutely sanitary.*

YES, **Mr. Dairyman,** here it is—at last—the milking machine that *solves* the dairy problem!——Find out—investigate—get the catalog and special offer ***now,*** while this special offer lasts!

Here's your one chance with this wonderfully simple machine to find out on a REAL Free Trial what the milking machine will mean for you on your own cows. Why? Because you get this machine and start right in milking; there's nothing to install; nothing to build or fit into your barn; just move the PAGE in and start milking. No bother, no expense. Payment only after you've given the milker a thorough trial.

DO SEND for our monster size circular with letters from hundreds and hundreds of farmers all over U. S. A., telling what they know about Page Milkers and *what these practical farmers say about the way to use a milker! Investigate* —Mr. Dairyman. Don't miss this—write for that circular of farmer letters.

So simple! So very, very simple!

That's the secret of this successful milker. That's why it's *so* easy to clean; that's why the upkeep is almost nothing; that's why the cows take to it so quickly. A positive *stop* of ***all*** vacuum on each stroke of our simple pump; that's *the* way for teats and udder! The secret? Our simple, direct air release pump and teat cup—no pulsator, no rubber lined cup. Our catalog explains. *Read it!*

What Dairymen Say:

Thousands of dairymen write us like this:

"The Page Milker is a Godsend. So simple—so sure and easy to use. It can be cleaned so quickly."—W. F. Wolf, Milford, Mich.

"I have used my PAGE Milker twice a day for over two years, and have milked as high as twenty-two cows. I also want to say that your company has given me the very best of service." Yours truly, Albert E. Nelson, R. F. D. No. 2, West Chicago, Ill.

"The PAGE Milker does very good work and is far ahead of hand milking. It lets us out about one hour sooner than if we were milking by hand."—Frank H. Fuller, Orvell, Ohio.

"I still like my milking machine fine. It is giving entire satisfaction. We are milking fourteen cows and have milked in thirty-five minutes. We could not begin to do it without our machine."—Fletcher Peterson, Rt. No. 2, Brownstown, Ill.

"Can milk 6 cows and strip them in 15 minutes. Cows like it better than hand milking. Easy to keep clean. My wife can use it just as good as I can."—Geo. Miller, Rt. 3, LaSalle, Ill.



down **AFTER free trial**

Don't pay us a cent *until* you are satisfied that this milker is just right for *your own* cows—No money down—No C.O.D. to us. Just wheel it in and TRY it *thoroughly*—nothing to install. *Then* if you are satisfied:

8 months to pay

—and yet, while allowing 8 months, we give you a *rock-bottom price,* direct from the factory. Also our iron-clad 10 year guarantee—yes, 10 years.

Send for complete information on this wonderful milker and the long time payment plan today—**NOW while offer is still open.** Find out NOW even though you are not yet ready to buy. No obligation. Write for free catalog **NOW.**

FREE Book on Milking

"The Page was always a success with me I used it 6 years."—W. R. Olson, Fairchild, Wisc.

"I milk 14 cows in 35minutes."—Arthur Forrester, El Centro, Calif.

"I am milking 250 cows, and I use 3 of your machines. I highly recommend the Page."—G. Anderson, Lemon City, Fla.

"The cows take to it like a duck to water."—Ward C. Baily, Hornell, N. Y.

Mr. Dairy Man: Even if you don't want to try out a milker for many months, do write ***at once*** for our catalog and get your name on our list for our extra special offer. It costs you nothing and no obligation. Now we WARN YOU: write now if you just ***may*** be interested in a trial ***later.*** We ***do*** want you to find out, to investigate—***now.*** Learn about the latest discovery in machine milking, get the facts, the figures. See coupon! Don't miss this chance to ***find out*** the ***latest*** and best news on milking machines.

This offer is POSITIVELY for introductory purposes! Void the day we have a dealer, agent or salesman in your neighborhood. So, if you don't want to try a milker now, *reserve* the right for this offer (also for user agent offer right) later—no obligation. Write at once for catalog or you may be too late.

Burton-Page Co.

Dept. 9621, 400 No. Michigan Avenue, Chicago

BURTON-PAGE CO. Dept. 9621
400 No. Michigan Ave., CHICAGO

Please send me your free booklet containing the facts on milking machines and full details of your free trial, easy payment offer on the Portable Page Milkers.

Also copy of your 10-year guarantee, and your mammoth size circular of letters from farmers telling how they use your milker on their own cows.

Name.....

Address.....

.....

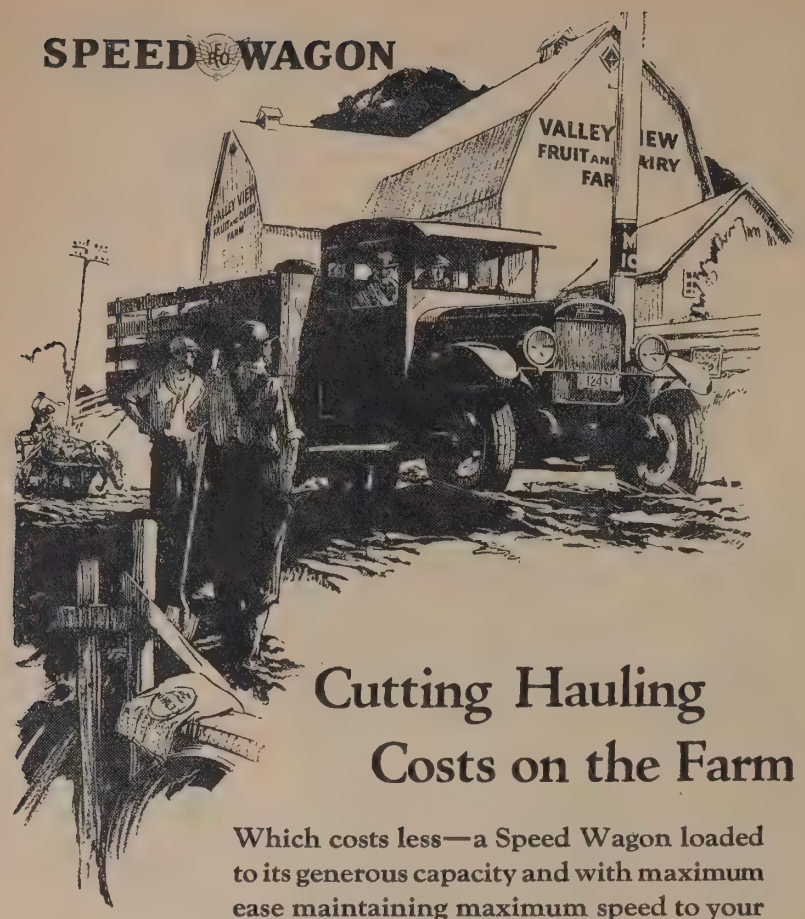
Would you like to be a FARMER AGENT?.....
Some farmers have made big money as agents *without* leaving the farm.

Do you also want our cream separator offer?.....

If you are going to be in the market for a separator any time within the next twelve months, state here about when?.....

The editors of many leading farm papers know the Page Milker. A leading editor said, "I advise you to investigate all good machines, including the Page offer as per coupon above."

SPEED WAGON



Cutting Hauling Costs on the Farm

Which costs less—a Speed Wagon loaded to its generous capacity and with maximum ease maintaining maximum speed to your markets and home again? Or an overloaded light truck banging over the roads, risking damage to load and truck, wasting costly hours in slow traveling?

Which costs less—the thousands of easy trips to market, the years of efficient service, the low depreciation, moderate upkeep, and constant reliability of the Speed Wagon? Or the heavy depreciation, the steady charges for maintenance, the loss and bother of layups, the short life of the too-light truck?

Last year 49% of the Speed Wagons sold to farmers were purchased by former owners of too-light trucks, by men who had learned the answer to the question "Which Costs Less?"

CHASSIS PRICES
at Lansing
6-Cylinder 4-Cylinder
$1240 $1090
Heavy Duty
$1985

Consult your Speed Wagon dealer about your own hauling problems.

© R. M. C. Co., 1927

REO MOTOR CAR COMPANY, *Lansing, Michigan*

The Two Standards of Perfection

Get the BEST in Silos!

If you want a wood silo—the INDIANA is recognized as the best wood silo ever made. If your farm layout calls for a tile silo—get the HOOSIER, the leader in its field. Both of these silos are now built and sold by the same company. An INDIANA or a HOOSIER will give you years of wonderful, money-making service. See our nearest dealer or write us for prices telling size silo interested in. Special discount for early orders. Fine territory open for salesmen. Address DEPT. K5, Albany, Indiana.

Hoosier GLAZED TILE SILO

INDIANA WOOD SILO

HOOSIER BLDG. TILE & SILO CO.

Save Your Stock—Your Money With the Old Reliable Kalamazoo

It *pays* to give your stock the *Best*. Learn how to put a wood stave or glazed tile Kalamazoo Silo on your farm by easy payments—and get your *money back in 1 year.* Farmers using these acid-proof, moisture-proof silos, tell us they *make* $200 to $300 a year *profit* in better feed, healthier stock, better *yields.* Read what they say; get facts, figures, before you build *anything*—house, barn, or silo. Write us and we'll send *Free* book of plans.

A Silo Book Sent Free

KALAMAZOO TANK & SILO CO., Dept. B-2, Kalamazoo, Mich.

Kalamazoo Silos

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Organize to Solve Farm Troubles

HOARD'S DAIRYMAN:—I have just finished reading an article, written by Mr. C. Fleming, which appeared in the December 10 issue of your magazine. Mr. Fleming suggests that the salvation of the farmer lies in a fixed price on farm products. I am wondering if Mr. Fleming has stopped to think what would happen if there were a fixed price on everything the farmer produced. This is what would happen: Say, for instance, that the government had set a price of $1.00 a bushel for potatoes. I, and every other farmer that I know, would increase our output of potatoes fifty per cent. What would happen? The market would be flooded at once. Then, I am wondering what Mr. Fleming would have the government do with the surplus of potatoes that the consumers could not use. It was all very well for the United States to set a fixed price on farm products during the World War, when all of Europe was anxious to buy everything we could produce for them. Our government could well afford to set a price then, for no matter how much the farmers produced they could sell it to the Allies. However, now there is no anxious Europe to take our surplus off our hands when we cannot handle it ourselves. If Mr. Fleming will suggest a solution for this problem of disposing of the surplus which would result, I will agree with him that the government set a standard price.

Banking conditions, Mr. Fleming states, are O. K. for the city business man but not for the farmer. I, as a farmer, have always found the banks quite fair. I have always been able to get what money I wanted on a 90-day note. When that time is up, I can go back to the bank, pay my interest and renew the note for another ninety days. In that time even the least prosperous farmer should have gotten the money to pay his note. I don't believe the farmer or anyone else can ask for anything more reasonable from the bankers.

Mr. Fleming speaks of the advance in prices just before Christmas. It seems to me that every wide-awake man or woman, who knows of these conditions, (and who does not?) can arrange to buy their $20.00 hats and their $500 fur coats some other time. If I understand Mr. Fleming rightly, he mentions the above articles as necessities. Perhaps farming is a more prosperous occupation in Pennsylvania, but I'm sure that in my part of the country we do not consider $500 coats and $20 hats a necessity. I have lived for some time, but I have yet to see the common farmer whose wife did not consider these articles as luxuries.

Perhaps I have seemed too harsh on the farmer. You who read this may think that I believe there is no help for the farmer. There is, but it lies with the farmer himself. The solution to his problem is, that the farmers must organize. There is no other class of people who are not organized. Even the laborers in the city have their labor unions. I suggest this, then, to the farmer. Organize, and your troubles are over. If all the farmers would get together, decide upon their output for a certain year and stick to that. the consumers would have to pay them a fair price. As long as each one tries to cut the other's throat by trying to produce just a little bit more than the other, why expect better treatment from the city people than we give each other?

So far, the farmers have been unable to co-operate and work together. When they can, if that time ever comes, there will need to be no more agitation for a standard price set by the government.

A LUMBERJACK FARMER.
Oneida County, Wis.

Dairy Advancement in South Africa

HOARD'S DAIRYMAN:—Dairying seems to be coming into its own in this area and I am convinced, in no small way, that this is due to the influence of your paper. As times goes on, with improved methods, silos, etc., this area is destined to take its place among some of the largest producers of dairy products in the Union of South Africa. Our present handicap is finance, but no one knows better than I do that there is no better means of lifting mortgages than through the help of the right sort of *dairy cow.*

In the past we have had all our "eggs in one basket," growing maize, but many have been rudely awakened this year to the fact that success is impossible on the present lines. Hence the change—silos, stables, and out with the scrub!

At present I'm interesting myself with the establishing and growing of alfalfa on dry lands. We have an excellent black soil which grows up to 27 muids of 200 lbs. per acre, in a good season, without fertilizer. This land has natural available lime in the soil and is very retentive of moisture. I am quite convinced that it will flourish here under ordinary conditions; in fact, a few plants that are growing in my garden with no attention whatever, prove this to me.

I do not wish to mislead you with regard to the maize yield quoted. This is naturally an exception. The usual yield is 10—15 muids of 200 lbs. per acre, and the average on most farms over a number of years is in the vicinity of 8 muids.

I wish you continued success and hope at some future date to be able to report good progress here—on the right lines. STUART AYLWARD.
Pretoria, South Africa.

For the Five-day Dairy Cow

HOARD'S DAIRYMAN:—Henry Ford and William Green, president of the American Federation of Labor, want an 8-hour, 5-day week. How would the proposition work out for the dairy industry? Can cows go without milking and children go without milk from Friday night till Monday?

These gentlemen are doing all they can to make general labor discontented till it's near impossible to get help in the dairy line—with a 7-day week—at a price the business can afford to pay.

Other industries than Ford's must be made to pay for his advertising.
Ohio. E. G. SCRIPTURE.

She: "Would you go through fire and water for me?"

Store Boy: "Look here; if that's the kind of fellow you're looking for you'd better marry a fireman instead of a grocer's clerk."—Progressive Grocer.

Winter with Linseed MEAL

Winter—
THIS Winter—
can be made the most profitable season you have yet had. Linseed Meal is the key to cheaper gains in milk, meat, wool and eggs.



Means Spring *the year 'round*

As you watch your cattle standing in the winter's snow and ice, mud, or slush —you dream perhaps of the springtime—with its rich forage of luxuriant grass; your thoughts turn to the increased production that comes with pasture.

But wait—have you given due consideration to that actual rival of summer pasture —a rival in conditioning, laxative, and proteid properties—*Linseed Meal?*

Do you know that many farmers get results equal to or better than with pasturage by dry-lot feeding it the year 'round?

Do you realize that in proper combination with other feeds it pays as high as 100%?

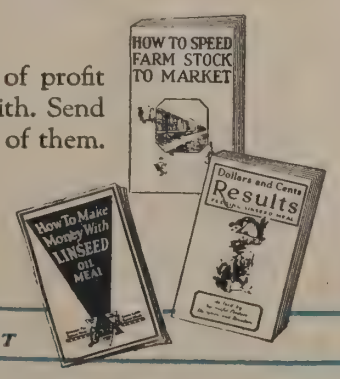
We want you to understand those proper combinations—then you'll be an all-year-'round *Linseed Meal* enthusiast as are thousands of others.

Linseed Meal Pays—with *All Farm Animals* —including poultry.

Let others tell you their stories of profit in the booklets described herewith. Send to Dept. T-1 for any one or all of them.

"How to Speed Farm Stock to Market"

is the title of a brand new book that will prove of great value to every one who buys, feeds and sells hogs, cattle and sheep. It emphasizes the fact that skillful marketing is equally as important as skillful feeding. It shows how Linseed Meal enables the feeder to market his live stock thirty to forty days earlier than otherwise, but is primarily a book of "pointers" on the best weights, the best time and the best place to buy and sell. By all means get this book—and the others, too, if you do not already have them.



"Dollars and Cents Results"

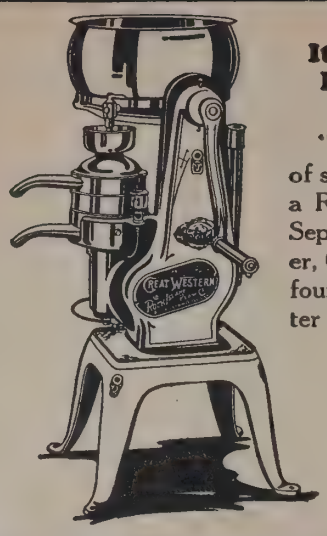
This book written by successful dairymen, feeders and breeders—practical men who have learned by the hard knocks of experience the "100% value" of Linseed Meal.

"How To Make Money With Linseed Meal"

This book written by Prof. F. B. Morrison, author with W. A. Henry of the famous book, "Feeds and Feeding," and Director of the Wisconsin Experiment Station.

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FEED Linseed MEAL PAYS AS HIGH AS 100% PROFIT



It Tested 4/100 of One Per Cent Butterfat in the Skim Milk

"I have just tested a sample of skimmed milk separated with a Rock Island 'Great Western' Separator and sold by your dealer, Carl Owen & Sons, here, and found 4/100 of one per cent butter fat in the skim milk."

Sanitary Creamery Co.,
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Rock Island "Great Western" Cream Separator

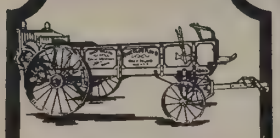
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Low-down supply can—easy to fill; slow speed, close skimming, perfect flushing, self-draining bowl; ball bearings; enclosed self-oiling gears—these are reasons why you will take pride and make more profit in using a "Great Western."

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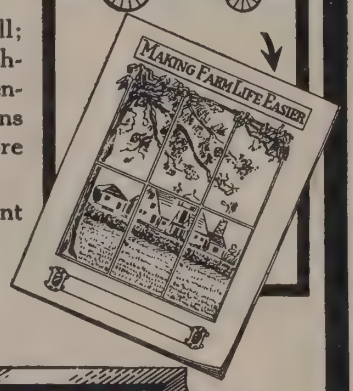
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Your choice of style spreaders with the famous "Great Western" continuous ratchet feed—a success for over 30 years on hundreds of thousands of spreaders.

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WE REQUIRE A
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willing to push none but our products in this special line and to take up the EXCLUSIVE SALE FOR UNITED STATES OF AMERICA.

Our brand has for decades been considered the Standard in most milk-producing countries; we are indeed the largest manufacturers of dairy preparations in Continental Europe.

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Know what they are producing. Such knowledge pays big dividends in cash.

We will send samples and prices of our handy milk record sheets for five cents in stamps.

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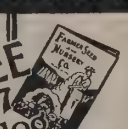
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GLOVER'S IMPERIAL DOG MEDICINES

News from Washington, D. C.

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, D. C., Jan. 15—A new, complete commercial powdered milk plant has been installed in the laboratory of the Bureau of Dairy Industry recently, and was put into operation on an experimental scale January 10. The plant is a model and replica of a commercial unit in every respect except that it is slightly smaller in size. It is a very important addition to the equipment of this dairy industry laboratory.

It seems certain at this time that the Lenroot Milk & Cream Import bill will be passed at this session of Congress, but there are disquieting complications in connection with it which are of some interest, especially to those who are watching legislative trends with an eye to future possibilities along legislative lines dealing with the milk industry. The bill was reported favorably by the Committee on Agriculture by a unanimous vote after a hearing in which most of the opposition was nullified and withdrawn by reason of an amendment which would permit milk and cream from borderline farms, that is within 20 miles of milk plants on the American side, to handle their milk to and through these plants if there it was properly pasteurized or processed either as fluid milk or as condensed or evaporated milk. Then it came up for debate in the Senate January 6.

Senator James A. Reed of Missouri at once took a position in opposition to it, claiming that it seemed to be a move to give a milk monoply to the producers living around New York and Boston, instead of being a health measure. They have the right to control the sanitation of their milk either in these cities or in the states through state laws, he claimed; why then seek the power of the federal government to put a restriction on imports.

Senators Bruce of Maryland, King of Utah, Walsh of Massachusetts, Robinson of Arkansas, and Bratton of New Mexico joined in the attack on the bill, declaring that this measure was the beginning of an effort to control the milk business through federal laws, when it was in every respect subject instead to state laws and regulations which ought not to be invaded.

The bill was defended on health as well as economic grounds by Senators Lenroot of Wisconsin and Copeland of New York but in spite of their defense and explanations the objections continued to such length that other business intervened, and the consideration of this bill was once more postponed.

The Agricultural Appropriation Bill had much clearer sailing and faster action in the Senate. It was passed January 5, carrying all of the extra items asked for by the American Dairy Federation, $21,700 in all for increased work in dairy research, including new building costing $6,700 at the Beltsville Dairy Farm. It is expected that the House will not oppose this very slight addition to the bill, as compared with the magnitude of many other items. However, as this is written the House has not acted on the bill.

The Dairy Bureau will receive, if the Senate amendments stay in the bill, the sum of $516,794 for the next fiscal year's work, as compared with $495,094 this year. There is no new work provided for specifically as the general authorizations are held to be sufficiently broad to cover most of the new research which has been suggested as needed at this time. The increase does, however, provide for a good extension of activities, particularly in breeding and feeding work, in research in the problems of powdered milk and ice cream manufacture, and in the chemistry and bacteriology of milk, having to do with both problems of transportation and the technic of by-product utilization.

Dr. T. C. Atkeson, Washington representative of The National Grange for the past eight years, retired from active connection with this organization January 1. He is succeeded by Fred C. Brenckman, former secretary of the Pennsylvania State Grange. Dr. Atkeson was given a testimonial luncheon by friends and associates in the business and agricultural organization work in Washington, Tuesday, January 4, about 100 being present at the Hotel Harrington, where an appropriate gift was presented to him, and he was named by Hon. Nathan B. Williams, representative of the National Association of Manufacturers, as the Emeritus Representative of American Agriculture in the National Capital. Dr. Atkeson will continue to reside in Washington.

Both House and Senate will be considering farm relief bills in the remaining weeks of the session, but without much of a chance of anything being passed. There is a whole crop of new bills, of all shades and kinds, but the only one which will get anywhere near the stage of a final vote will be the McNary—Haugen equalization fee bill. The chances favor this measure being reported favorably in both House and Senate.

The addition of Louisville, Ky., to the list of larger cities to put T. B. ordinances into effect, indicates the necessity of the T. B. appropriation of nearly $6,000,000 carried in the Appropriation Bill, at the insistence of the American Dairy Federation. This is the latest addition to the list of cities requiring T. B. free milk.

Wisconsin Dairymen

The Wisconsin Dairymen's Association will hold its 55th annual meeting at the College of Agriculture, Madison, on Tuesday, February 1. In his announcement, Secretary Burchard says:

"Every cow testing association should be represented at this meeting by one or more members and by its tester. A copy of the official badge is enclosed. Put it on today and help advertise. Wear it when you come to Madison.

"The meeting is held at the College of Agriculture during Farmers' Week so that you may kill two birds at one trip—attend our meeting and take in the other good things at the College.

"We have real dairy farmers on the program from each section of the state. They speak from experience and know what they are talking about. Mr. Conklin will bring to us a message of large import to members of cow testing associations, and you will want to hear him."

John—Do you know why Adam was one of the first radio fans?

Lewis—I'll bite, why?

John—He made a loudspeaker out of his spare parts.

A Texas Co-operative

(Continued from page 60)

the Southwest, puts out such a complete list of products.

Although the dairy has a full variety of products, it has not stopped growing as to quantity. The farms in the near valley supply milk for the whole milk, cream, and sweet cream butter trade, and the more distant points supply cream for creamery butter, but still the dairy cannot get enough to fill its orders. At present it is receiving sour cream from non-members who are 200 miles or more from El Paso. The outgoing products, chiefly butter and ice cream, are distributed over a territory 700 miles wide.

Almost all the 500 stockholders have been, or are now, producer members. On August 1, 1926, there were about 250 members sending milk, cream, or eggs to the dairy. The incoming milk averaged 3,600 gallons daily, which was an increase of 1,300 gallons daily over the receipts of October 1, 1925.

The quality of the incoming milk is improved by the carrying out of a contract recently entered into by the association and the trucking companies which bring the milk from the farms to the dairy. Formerly the trucks were unloaded in the order in which they arrived at the dairy. As many as six would arrive in a period of twenty minutes, and since it takes about twenty-five minutes to unload one of them, the others had a long wait in the famous El Paso sunlight, which is very warm sunlight, even in the very early morning. The result was that the milk in the trucks which stood longest deteriorated as to flavor and became an inferior product. Sometimes it was entirely wasted. The recent contracts provide that the trucks shall be at the loading places at specified times, and that the members shall load their trucks accordingly, so that the trucks shall arrive at the dairy only one at a time, with long enough intervals between so that the first can be unloaded before another gets there.

These trucks which haul the milk from the producer to the dairy are the only part of the equipment which is not owned by the association. The fleet of forty-five vehicles, including motor trucks and horse-drawn milk route wagons, are owned by the association and repaired and painted by the association employees in shops owned by the association. The painters in these shops also prepare advertising posters to be displayed at advantageous places, and paint wall signs.

Mr. H. F. Deitrich, the manager of the dairy, and his brother, A. F. Deitrich, the assistant manager, are graduates of the Texas Agricultural and Mechanical College, and have been associated with the dairy business since they were boys. These men, and more than a hundred other of the highest paid employees in the dairy products field of the Southwest, are handling the most successful co-operative dairy in that part of the United States. It proves that a properly financed and properly managed co-operative whose members have the habit of co-operating, is a sound business.

The yearly business handled by the Rio Grande Valley Dairy Association in 1921 was $150,000 while the fiscal year ending December 31, 1926, the dairy expects to do over $1,000,000 worth of business.

At the same time that the dairy has been getting its business stabilized and into working order, the dairy prices have been stabilized so that the farmers do not bid against one another for a marked outlet. This elimination of bidding against each other is especially fortunate because it gives the farmers around El Paso a chance to learn to work unitedly while the other industries of the section are new. Their united business grows up, so to speak, with the other industries and has a better chance to survive.

ATWATER KENT RADIO



The receiver illustrated is the extra-powerful Model 32, with ONE Dial; price, less tubes and batteries, but with battery cable attached, $140; Speaker, Model H, $21.

"ONE DIAL —just what I was waiting for"

"I WAS minded to buy a radio set, but those I had seen were too complicated. My wife and I didn't want to fuss over a thing that looked like the dashboard of an automobile. We didn't want *work*—we get plenty of that. We wanted to *listen*.

"Well, a couple of weeks ago, over at a neighbor's, we found what we were looking for. It was one of those Atwater Kent sets, with only ONE Dial. It looked simple, and was simple.

"When I got my fingers on that ONE Dial, it seemed as if I could go anywhere. I heard a lecture, a fiddling contest and a band concert in the first ten seconds—just by turning that ONE Dial. The band concert suited both families, so I let go the dial and stayed with it until they signed off.

"Then we rounded out the evening by getting the latest news from Omaha, and the next day's weather forecast from Des Moines. All we had to do was to shift the ONE Dial.

"The next Saturday I went to town and got a set just like it. It is even better than I thought it would be. It's what I call the real thing in Radio—just what I was waiting for."

That's what a Middle Western farmer told us. It's the same sort of story we are hearing from farmers everywhere. If *you* thought Radio was complicated—try *your* fingers on an Atwater Kent ONE Dial.

EVERY SUNDAY EVENING:—The Atwater Kent Radio Hour brings you the stars of opera and concert, in Radio's finest program. Hear it at 9:15 Eastern Time, 8:15 Central Time, through:

WEAF	*New York*	WGN	*Chicago*
WJAR	*Providence*	WFI	*Philadelphia*
WEEI	*Boston*	WCAE	*Pittsburgh*
WRC	*Washington*	WGR	*Buffalo*
WSAI	*Cincinnati*	WOC	*Davenport*
WTAM	*Cleveland*	KSD	*St. Louis*
WTAG	*Worcester*	WWJ	*Detroit*
WCCO	*Minneapolis-St. Paul*		

Write for illustrated booklet of Atwater Kent Radio

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A. Atwater Kent, President
4769 WISSAHICKON AVENUE PHILADELPHIA, PA.

ATWATER KENT ONE Dial Radio is *the* Radio preferred by farm families. Surveys made by your own farm papers prove it. Drop in at any Atwater Kent home and see why. Mark the ease, speed and certainty of Atwater Kent ONE Dial operation. Note that this is a *real* ONE Dial—no secondary adjustments are needed—ONE Dial does it all. Note the true, natural tone of Atwater Kent Radio Speaker. Let your dealer show you how reliable Atwater Kent Radio is. Tested 159 times in our factory so that when it reaches your home it works and keeps on working. That's the way it's made.

Prices slightly higher west of the Rockies and in Canada



Model L Speaker, dark brown crystalline finish, $16.



Model 30, six-tube One Dial receiver, less tubes and batteries, but with battery cable attached, $85.



Model 35, six-tube ONE Dial receiver, shielded cabinet, less tubes and batteries, but with battery cable attached, $70.

Feeding Flaxseed

I have been advised to feed ground flaxseed to my cattle. I would like to have your opinion. This meal has a large quantity of oil in it.

Elverson, Penn. I. H.

Flaxseed is little used for feeding cows principally because the value of the oil in it makes the price prohibitive. The price received by producers during the past decade averages about $2.25 per bushel of 56 lbs. This makes the price around $75 to $80 a ton. The retail price would be considerably higher and in Pennsylvania this would be increased because of freight charges from the points of origin which are, so far as domestic production is concerned, Minnesota, North and South Dakota, and Montana.

There is little starch in flaxseed, its principal constituents being protein and oil. One had much better buy linseed meal, cottonseed meal, gluten feed and meal, and such like to supply protein. Carbohydrates are supplied much cheaper in corn, barley, hominy feed, and feeds of similar character.

Aside from the factor of cost, one would not find it advisable to feed very much flaxseed because of the extreme laxative eff[illegible] duce, besides t[illegible] digestive di[illegible] oil conte[illegible] product[illegible] more[illegible] it i[illegible] co[illegible]



Releasing man-power for the many other tasks, the STAR can always be depended upon to furnish ample water for all farm needs. Even in 8 to 10-mile breezes, you will find it on the job, day after day — *for years.*

Timken Tapered Roller, or No-Oil-Em bearings, running in oil, enable the STAR to get all the work out of light breezes, with a very small amount of attention. The famous GALVAZINK Coating, together with the fine mechanical features, means long years of perfect satisfaction.

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YOU can make more money with a Case tractor because you can do more work with it.

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It gives you dependable power for any farm job, under every condition of climate soil and weather.

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of "Modern

Future of the Pure-Bred Business

E. PARMALEE PRENTICE, MASSACHUSETTS

MR. R. D. Canan, of the Indiana College of Agriculture, has performed a valuable service by calling public attention to the present critical situation of the dairy breeds, as he did in his article, "Registration of Pure-bred Cattle," published in Hoard's Dairyman on the 25th of November.

A year ago discussing in the New England Homestead the problem now before the dairy breeds, I said: "There is no magic in the pure-bred name. The magic is in the pure-bred achievement." These statements Mr. Canan puts at the head of his article and I think practical dairymen will agree. It is because they are commercially profitable that pure-bred animals are valuable and this is their achievement. The dairy breeds have been a source of breeding stock available to every dairyman to improve the productivity of his herd, and so well have they answered this purpose that their use has been universal, and the fields are full of productive grade cattle clearly marked with the characteristics of the different dairy breeds. In number the pure-bred animals are less than 5 per cent of all the dairy cattle in the country, but small as the number is, they are an essential factor in the success of American dairying. No dairyman whose herd lacks the marks of pure-bred influence can hold a place in the dairy business.

Now Mr. Canan calls attention to the fact that in the last ten years the increase in registration of pure-bred animals has not been as great as one would expect. This is very significant and deserves the attention of everyone. Producer and consumer are alike concerned. If registration of pure-bred animals, which have contributed so much to the progress of dairying and to public welfare, is less than it should be, it is well to know the cause of this falling off. Are pure-bred animals for any reason less efficient producers than they used to be?

On this question we have definite information. A letter recently received at Mount Hope Farm from the United States Department of Agriculture says:

"A tabulation recently made here of the cow testing yearly records of 12,830 pure-breds, and 34,031 grades of the dairy breeds, Ayrshires, Holsteins, Jerseys, and Guernseys, showed an average milk production of 7,667 lbs. for the pure-breds and 6,999 lbs. for the grades. The average fat production for the pure-breds was 296 lbs. and for the grades 281 lbs."

It seems, therefore, that the difference in productivity between pure-breds and grades is disappearing. We know that so far as production is concerned, there is no hard and fast line between the two. Many pure-breds produce less than grades and some grades rank with the best pure-breds. At the present time if the figures of the department be a fair measure of the average productivity of pure-breds and grades, the grades produce 91 per cent as much milk and 95 per cent as much butterfat as pure-bred dairy cattle. The department gives no figures on the comparative cost of feeding the cattle included in the statement, and the omission is important, for the small difference in productivity here shown could well be accounted for by a difference in feed. Very fortunately it happens that recent figures compiled in Wisconsin cover this point. The Wisconsin statement covers 7,285 pure-bred cows and 26,669 grades in 157 cow testing associations, during the period 1921-26, and shows that—

"The average production by the pure-breds was 7,677 lbs. with 291 lbs. fat, average test 3.8 per cent, and of the grades 7,004 lbs. milk, 290 lbs. fat with an average test of 4.1 per cent. The value of production came out at $146 per cow for both grades and pure-breds. The cost of roughage was $41 for the pure-bred and $39 for the grades, and grain $27 for the pure-bred and $22 for the grades. The returns over feed cost are therefore $78 on the average for the pure-bred and $85 for the grades."

It will be seen that the Wisconsin figures are not far from the figures of the United States Department of Agriculture and that in both cases the grade percentage of butterfat is the higher. The suggestion is strong that if it had been sound business policy to feed the grades at as much cost as appears to have been put upon the pure-breds, the expensive difference in amount of milk and butterfat produced might wholly disappear.

On the subject of the Wisconsin figures, Mr. Roy T. Harris of the Department of Animal Husbandry in the University of Wisconsin, says:

"It should be pointed out that the results are not uniform in all of the associations; in fact, in all but one of the groups of associations considered, the pure-breds show a substantial increase in production over the grade cows in the same association. In most cases they also show a higher feed cost and in four out of fifteen comparisons they show greater returns over cost of feed. The eleven out of fifteen show either substantially the same returns as from the grades or varying amounts less. These figures furnish food for thought and give an interesting sidelight on the development of dairy cattle in a dairy section. If the average production were lower we might feel that our pure-bred herds were deteriorating, but this can hardly be true with an average production of nearly 300 lbs. The facts appear to be that through rigid selection based on profitable production the grade herds have been improved to such a point that they can no longer look to the ordinary pure-bred herd for further advancement. They will have to look to the upper fraction of such herds for herd sires with which to make further progress."

This is very significant and far reaching, for when grade herds cease to look to "the ordinary pure-bred" for improvement, and are compelled to seek an extraordinary one, they take him when found not because he is pure-bred, but because he is extraordinary. The words "pure-bred" are beginning to lose their value and we face an individual competition among all cattle—pure-bred and grade together.

I believe that this comparative loss of position by the dairy breeds would in the end be an injury to the whole dairy business. All high production came originally from the dairy breeds, and it is to the general interest that these breeds should improve as grade cattle improve, always keeping the pure-bred standard so high that the dairyman can be sure of finding among the pure-breds the animals he can rely upon to improve his herd.

Is it impossible for the dairy breeds to keep this position which they have held so long? How does it happen that while improvement is going on, the pure-breds should be unable to make an average improvement as great as the grades? Mr. Canan answers this question by saying:

"A great many of our leaders believe that this condition is due to the fact that a great many of our registered cattle have not proven to represent all that should be represented in a registered animal. In other words, there are many demonstrations that conclusively prove that scrubs exist among our pure-breds."

There is the whole situation. And the scrubs get in among the pure-breds because there is no effort to keep them out. Pure-bred animals are registered on pedigree only with no questions asked about productivity. Then, since the tendency is to keep and use all registered females, we find that scrubs give birth to scrubs and the various pure-bred associations are loaded with inferior cattle.

With grade cattle the situation is quite different. Grades are bred for production only. They are kept for practical purposes and practical purposes dominate their breeding. There is no motive which leads a dairyman to perpetuate the blood of inferior animals and sooner or later these animals and their offspring disappear. As Mr. Harris well says, the improvement of the grade herds has been

(Continued on page 98)



MILLICENT OF WALHALLA.

Millicent is one of four Brown Swiss cows to finish good records at Walhalla Farms, New York. She produced 19,673.7 lbs. milk, 813.94 lbs. butterfat as a 5-year-old. The others are Rhoda of Walhalla, 13,363.5 lbs. milk, 576 lbs. fat; Ola's Daughter, 20,147 lbs. milk, 754.4 lbs. fat; and Annis of Walhalla 14,263 lbs. milk, 597.82 lbs. fat in 305 days—a world's record for all ages in that division.



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TAKE that any way you like. If you have always wanted to smoke a pipe, but felt you didn't dare, Prince Albert will convince you that you *can* . . . and enjoy it! If you are already a pipe-smoker, but don't know the joys of P. A., this tobacco will be a revelation.

Beginners and old-timers alike are amazed that any tobacco can be so mild and still have that satisfying body that men demand in a smoke. They revel first of all in its fragrance, promise of a wonderful taste to come. And when they light up and pull in—ah . . . !

Buy yourself a tidy red tin of P. A. today. You'll find it cool, as a dip in the surf is cool. You'll find it sweet, with a sweetness that never cloys. You'll find it mild as Indian summer . . . a mildness that lets you smoke to your heart's content.

You may think your present brand is the last word in pipe-tobacco. Don't stop there. Be inquisitive. It will bear repeating: P. A. revises all your pipe-ideas. Make the test today—the only test that counts: a tidy red tin, a jimmy-pipe, and a match!

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



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"U. S." Blue Ribbon *boots are made with sturdy gray soles. The uppers are either red or black—knee to hip lengths.*

THESE new "U. S." Blue Ribbon boots and overshoes are built to give the longest wear a boot or overshoe can give.

They're made with a thick, oversize sole—tough as an automobile tire. In the uppers is put rubber *live as an elastic band*—so that constant bending and wrinkling won't crack or break it. The reinforcements are the strongest ever used in boot construction. They give you all the rugged strength you need.

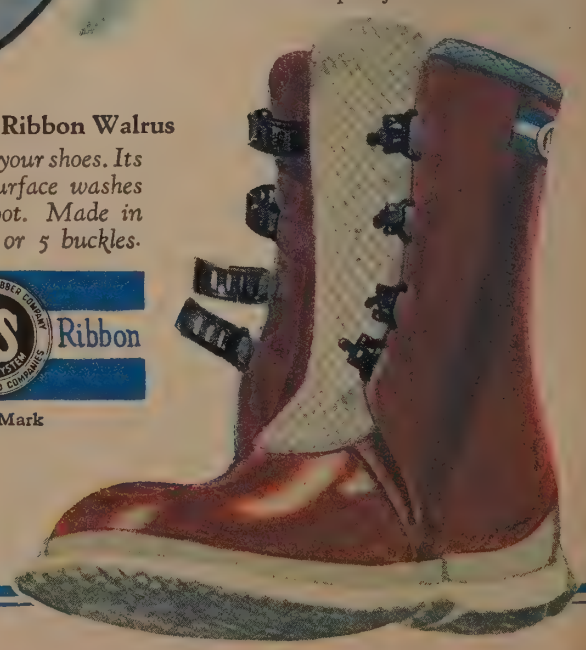
"U.S." Blue Ribbons will give you a new idea of how much wear can be built into a boot or overshoe. They'll stand the wear and tear. You can depend on them every time. And they've got all the flexibility and comfort you could ask for. Try a pair *and prove it!*

United States Rubber Company



FIVE TIMES ITS LENGTH! *That's how much you can stretch a strip of rubber cut from any "U. S." Blue Ribbon boot or overshoe. It resists cracking or breaking—stays flexible and waterproof.*

The "U. S." Blue Ribbon Walrus
slips right on over your shoes. Its smooth rubber surface washes clean like a boot. Made in red or black—4 or 5 buckles.



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THE work of the Minnesota School of Agriculture at University Farm, St. Paul, has several stinguishing characteristics. At ast two of them were unique when troduced several years ago. One bstituted the illustrated address or



D. D. MAYNE, PRINCIPAL OF THE MINNESOTA SCHOOL OF AGRICULTURE FOR 22 YEARS

vid demonstration of subject matter arned in class rooms for the essay the sweet girl graduate and the set scourse of her big brother. The her added the home and community oject to the course of study.

Commencement Day at the school is re again. Attendants have silently d swiftly arranged the properties, d Erhardt Bremer of Lake City kes his stand amid various charts, pliances, and chemicals to demonrate his subject, "Sawdust as Cattle ed." Citing the tremendous inease in the world's population he oks ahead to the time "when Necesty, that hard master, will make us ed our live stock on sawdust, seaed, or any seemingly waste aterial."

"This small quantity of sawdust," says, while sifting it through his gers, "has been treated with sulphuric acid and put under pressure of .5 to 120 pounds per square inch. he acid acts on the cellulose or ody fiber of the sawdust, causing to unite chemically with a definite amount of water, thus forming glucose sugar which is two-thirds as sweet as cane sugar and furnishes the animal with heat and energy. When the acid liquors have been removed by centrifugal force and repeated washing in hot water, a product is revealed that is slightly sticky with glucose and is highly relished by animals."

Results of experiments at various stations are given to show that dairy cows maintained their production and weight when this treated sawdust was used in their ration.

"If your taxes are high," says the Commencement Day speaker to the disgruntled taxpayer, "it is because you voted to make them so at your annual town meeting. Taxes have been raised in the last few years because we are depending on the government to do much that we have done for ourselves in the past. Taxpayers call upon the government to give their children a more complete education. Then they kick about paying the bill."

The Minnesota School of Agriculture has one principal objective—to fit young men and women for successful farm life and useful citizenship. They enter the School of Agriculture after completing the eighth grade or the course offered in the rural school and these are comparable to those taken in high school. It must be kept in mind that this School of Agriculture is not the College of Agriculture. The school course runs for three years and provides for the study of English, mathematics, chemistry, physics, agriculture, and home economics for six months of each year at University Farm and for two six-month periods of supervised farm home or community project work, the purpose of which is to give the students opportunity to apply their classroom training in the actual operation of a farm or a farm home or the organization of an enterprise for the betterment of the neighborhood.

The Minnesota school was the first in the United States to develop the "project" as a definite and integral part of the school curriculum. This is no make-believe affair. The project work, like the class work, is under the immediate supervision of members of the faculty who visit the students regularly through the spring and summer to give instruction and check up on the progress made or lack of progress. The student is never out of school. What has happened is that he has taken his studies from the classroom and the campus to his chamber in the farm home and to the fields constituting the farmstead. He knows he is "under fire" all the time and that he simply has to make good.

Much of his home project work is for some form of rural community betterment. The girls organize and train guilds and clubs of younger girls or form dramatic societies of the young farm people in the community. Public socials are held and plays staged, the proceeds of which are usually spent for town and village improvements. The boys promote cow test association work, lead junior clubs, organize and coach baseball nines, revive a moribund farmers' club, or prepare a township booth for the county fair. Rural life is quickened and brightened by enterprises set in motion by these young folks from the farm school.

Graduates of the school number about 3,800. Many of them have reached commanding positions in world activities.

D. D. Mayne, formerly of Wisconsin, has been principal of the school for 22 years and introduced the demonstration in commencement programs.



ERHARDT BREMER DEMONSTRATING HIS TALK ON "SAWDUST AS CATTLE FEED"

Goats in the Silo

HOARD'S DAIRYMAN:—Due to early d continual fall rains in our section Illinois, our silo ring experienced e problem of filling the silos with rn cut entirely by hand. This cessarily entailed considerable more ne and labor than in an ordinary ason when binders are used. The lds were so soft that only small ads could be hauled, thus necessitatg more wagons and men to handle e corn. Even then operations moved wly enough because of the mud. e men cutting the corn also had eir troubles, not only because of the d, but the winds and the rains had n much of the corn flat and twisted. Because of the extra labor required veral men decided to use Angora ats for the tramping process in the o. Two men in the neighborhood had already used goats for this purpose for the past two years, and were pleased with the results. So with the idea of saving the tramping labor, several other members of the silo ring decided to use the goats this year also.

It was found that in a small silo of 10 to 12 feet diameter, one man to run the conveyor pipe and another to attend the goats were all that were necessary. This eliminated the work of at least two men. In the larger silos of 14 to 18 feet diameter, it was found best to use three men, one to run the conveyor pipe and two to attend the goats. The work of at least three men was done away with in the larger size silos. The main job of the "goat-herder," as he became known, was to keep the goats moving about near the wall of the silo, tramping and packing the silage in the process. In the smaller silos, 6 to 8 goats did this work fine. In the larger silos 12 to 14 goats were used, divided into two bunches for better handling. Where filling is incompleted at the end of the day's run, the goats are simply left in the silo overnight. They drink very little water and the corn is their feed.

Goats used for the tramping and packing in the silo should have horns, so that they can readily be let down from the top of the silo with rope and pulley when filling is completed. They can be bought in most any live stock market at a nominal price. They should be active and not very old, it being a good plan to change every year or two. From the results of this year's experience in saving labor and the excellence of the work performed, goats have become popular in our silo ring and undoubtedly will be used again next year.

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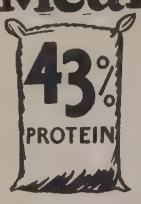
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Hoard's Dairyman Fort Atkinson, Wisconsin

DAIRY MARKET NEWS

December Foreign Butter

The following table of December foreign butter prices gives the average of weekly quotations as published by the U. S. Department of Agriculture:

Market	Dec. 1926	Nov. 1926	Dec. 1925
	Cts.	Cts.	Cts.
New York	54.7	50.6	49.2
Chicago	52.5	48.9	47.4
Copenhagen	37.1	34.9	36.5
Berlin	39.3	36.9	36.7
London:			
Danish	40.2	37.6	40.9
New Zealand	36.8	32.3	38.1
Australian	36.2	31.4	35.7
Argentine	32.2	29.9	31.6
Siberian	32.7	28.3	31.4

December Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers for 3.5% milk delivered at factories during December is based on reports made by condensed milk and evaporated milk firms:

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.34	$2.34
Middle Atlantic*	13	2.37—2.75	2.63
E. No. Central	79	1.95—2.40	2.21
W. No. Central	6	1.92—2.20	2.09
North Western	7	1.75—2.13	2.04
South Western	10	1.70—2.10	2.01
United States	116	1.70—2.75	2.22

*Fifty-three additional factories reported prices to be based in part on the current month's wholesale butter quotations. Twenty-six factories reported prices not determined, and twenty reported plants closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for November:

	Range	Ave.
Condensed, per case	$5.60— 6.55	$ 6.00
Condensed, per cwt.	9.38—13.00	10.09
Evaporated, per case	3.75— 5.05	4.32
Evaporated, per cwt.	7.50—10.00	8.90
Condensed skim, per cwt.	4.55— 9.00	5.83
Evaporated skim, per cwt.	2.75— 5.38	3.87

November Dry Milk

(From Report by U. S. Dept. of Agriculture)

The wholesale prices given below are based on reports from manufacturers governing actual sales f. o. b. factory during November.

Dry Skimmilk: Prices ranged from 7.5 cents to 13 cents for dry skimmilk in bulk, averaging 9.8 cents a pound for sales, totaling 5,997,659 lbs. When packed in one-pound cans the price reported was 32.5 cts. a pound.

Dry Whole Milk: Prices ranged from 21.5 cents to 28.5 cents for dry whole milk, averaging 24.5 cents for sales totaling 565,181 lbs. When packed in one-pound cans the price reported was 48.5 cents a pound.

Dry Buttermilk: Prices ranged from 7 cents to 10.5 cents for dry buttermilk in bulk, averaging 9.3 cents a pound for sales totaling 1,186,879 lbs. When packed in one-pound cans the price reported was 10.4 cents a pound.

Connecticut January Milk

The Connecticut Milk Producers' Association announces the following prices for Grade B milk delivered during January at market milk centers:

All milk sold in fluid form, 9.5 cents per quart for 4 per cent milk, and 4 cents per point allowed for other tests; all milk made into cream that is sold in fluid form, ten cents per pound fat above the average monthly price of 92-score butter on the Boston market; all milk made into butter, at a price per pound fat equal to the month's average on 92-score butter in Boston.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on Jan. 1, figures being given in thousands of pounds (000 omitted):

	Jan. 1 5-yr. av.	Jan. 1 1926	Jan. 1 1927
	lbs.	lbs.	lbs.
Butter, creamery	44,802	52,785	34,355
Cheese, American	43,704	58,457	54,495
Cheese, Swiss	7,320	8,958	8,394
Cheese, Brick	1,833	2,347	1,799
Cheese, Limburger	1,022	1,449	1,626
Cheese, all other	5,773	5,438	5,606
Eggs, case	1,372	1,683	1,111

These holdings include stocks in both cold storage warehouses and packing house plants.

December Cheese

Cheese prices on the Wisconsin Board ruled steady, registering an advance of one cent during the month. The average for December on Single Daisies was 24.8 cents, as compared with 23.8 cents a year ago. During the forepart of January prices were steady and unchanged at 25.25 cents, with the terminal markets firm and unchanged. Total storage on January 1 was four million pounds less than a year ago, but is eleven million pounds in excess of the five-year average.

Cheese production for the first eleven months of 1926 was 394,975,000 lbs., a decrease of 14 million pounds from that of 1925. Net imports were greater by 17 million pounds, and the total storage holdings were a half million pounds less on November 30 than a year previous. The net result was a trade output, or consumption, of 455,456,000 lbs. cheese for the first eleven months of 1926, or 1.4 per cent greater than for the same period in 1925.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market:

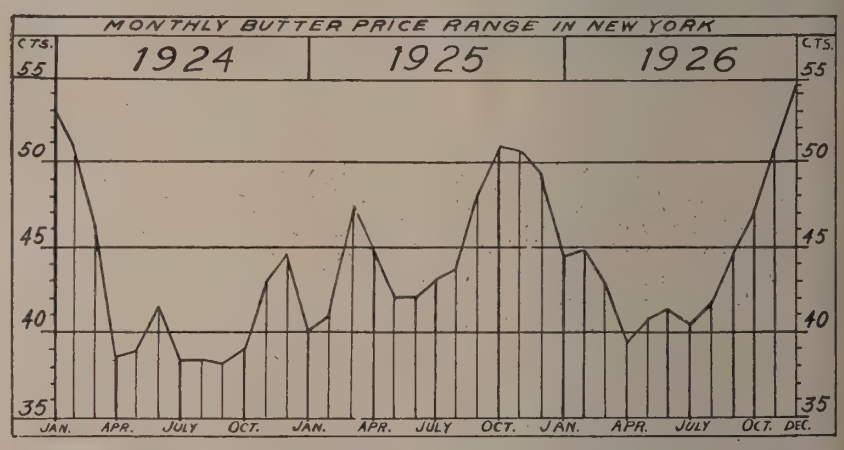
	Dec. 1926	Nov. 1926	Dec 192
	Cts.	Cts.	Cts
Twins	24.5	23.4	23.
Single Daisies	24.8	23.9	23.
Longhorns	25.7	24.3	23.
Square Prints	26.5	25.5	25.
*Receipts since Jan. 1	195,358	180,232	211,70
*Receipts for month	15,126	15,332	13,46
*Storage (end of mo.)	16,598	18,941	23,45

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—00 omitted.)

December Butter

Butter prices in December at New Yor advanced from 53.5 cents to 56 cents, the just prior to Christmas, dropped suddenly t 52 cents and closed the month at 54 cents The daily average for the month was 54. cents, which was 4 cents above Decem ber, 1925, and 5.5 cents above 192 While demand appeared to clear the ma ket at these prices, dealers seemed ner ous toward the close of the month with fe of imports and the possibility of increasir production.

This unsettled condition continued into Ja uary and by the tenth butter had dropped 49.5 cents in New York. Market reports i dicate supplies in excess of demand, but th does not seem in accord with the report th the receipts of butter at the four large ma



Butter averaged 54.7 cents in December, the highest monthly average since December of 1920. Despite this sudden rise, which was lost in part at the close of December, the monthly average for the year was 44.4 cents. This is one cent under the average for 1925 and two cents above the 1924 average.

kets for the first twelve days of January were two million pounds less than for the same period last year. Added to this is the fact that the report on cold storage of butter on January 1 shows 18 million pounds less than a year ago and ten million less than the five-year average on January 1.

While the government weekly report for January 8 states that all four markets are very weak and unsettled, it also reports a good demand. The lower price is doubtless due to "bear" sentiment that prices were too high to maintain a good movement of butter into consumptive channels. To one on the fence and inclined to optimism, it would appear that by the close of January prices should strengthen somewhat and possibly approach those of December but not exceed them.

The total production of creamery butter for the first eleven months of 1926 was 1,257,252,000 lbs., which is 13 million pounds less than for the same period in 1925. Net reports were one-fifth of the previous year and the total storage holdings were nearly 10 million pounds less on November 30 than on the same date a year previous. The trade output, or consumption, was 1,789,592,000 lbs., or 1.5 per cent less than the same period of eleven months of 1925.

Daily quotations from the U. S. Department of agriculture show the following average wholesale prices on 92-score butter (extras) at four of the principal markets, together with receipts and storages:

	Dec. 1926	Nov. 1926	Dec. 1925
	Cts.	Cts.	Cts.
Chicago	52.5	48.9	47.4
New York	54.7	50.6	49.2
Boston	53.7	48.4	49.2
Philadelphia	55.7	51.9	50.0
*Receipts for month	35,141	33,291	34,904
*Receipts since Jan. 1	558,334	523,193	558,922
*Storage (end of mo.)	19,620	36,207	25,619

*In thousands of pounds at the four markets (i. e.—000 omitted). Ninety score butter averaged 48.7 cents for December in Chicago, with centralized butter at this market selling for 48.6 cents. Jobbers' prices on extras sold to retailers averaged 55.1 cents in Chicago, spread of 2.6 cents above wholesale.

Wisconsin December Condensery Prices

Fifty condenseries reported to the Wisconsin Department of Markets the prices paid in December per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $2.06 to $2.45, the average being $2.21. This is 7 cents above the previous month.

Thirteen factories sent delayed reports for November, the average being $2.23. This is 9 cents above the previously reported average of $2.14 for 45 factories.

Wisconsin November Butter

Wisconsin co-operative creameries paid producers a net price of 56.1 cents a pound for butterfat in November according to reports from 95 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 50.4 cents a pound for butter, making a spread of 5.7 cents between the price received for butter and the price paid for fat.

The range of prices paid for fat was from 49 to 62 cents, with the price received for butter ranging from 48.2 to 58 cents. The overrun ranged from 21.2 to 25 per cent. Receipts of butterfat averaged 18,652 pounds per creamery.

Milwaukee December Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of December:

For the portion sold as fluid milk, $2.90 per cwt.; and for the portion manufactured, $2.26 per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Seventy-three and five-tenths per cent of the total receipts were sold as fluid.

Philadelphia Milk Prices

The Inter-State Milk Producers' Association announces that the January basic price for milk will be $3.29 f. o. b. Philadelphia and $2.71 per hundred at receiving stations in 51—60-mile zone.

The December surplus prices were $2.77 first surplus f. o. b. Philadelphia and $2.19 at all receiving stations on railroad.

These prices are based on milk testing 3 per cent butterfat with a differential of 2 cents for each half point of test up and down.

New York's Milk Problem

Ten Eyck Committee Holds Hearing

HOARD'S DAIRYMAN:—There are two committees in New York State having to do with better organization of milk producers. One of these may be called the Ten Eyck committee and the other the Dillon committee, because these men are chairmen of their respective committees. The former committee has just held a hearing of two days and will hold another later. This one is composed of representatives of all groups while the Dillon committee represents only three of the groups. The Ten Eyck committee is going to the foundation of the matter and will have information that will form groundwork for some definite conclusions. It will not consider a form of organization until the information is at hand.

At the hearing there were several from the College of Agriculture, specialists in their respective lines. It was remarked by the committee that the figures show that the dairyman is either getting practically nothing for his work or is receiving nothing as interest. The cost of producing is pretty well determined and the chairman thinks that it cannot be lowered as an average on large numbers of farms. Whether the retail price can be elevated was not fully determined, but there seemed to be some evidence that it may be raised a little if handled properly. Then there remains the question of lowering the costs of distribution. On this point I am sure that the hearing thus far shows that it may be done. Professors of marketing, milk handlers, and producers who were present seemed to practically agree on this point,—and the dealers were no less than President Fox of the Borden Company and V. A. Hovey of the International Ice Cream Co.

An investigation by the college shows that right in our best producing section there were 56 plants where a careful survey made it plain that 22 might have accommodated all concerned as well. This was by the college. Mr. Fox mentioned two plants that were handling a hundred thousand pounds of milk a day each with five men in each plant to do the work. He also mentioned 45 plants handling substantially the same amount of milk as these two but with 126 men being required to do the work. One farmer organization to do the selling could eliminate vast costs in the way of distribution it would seem. Both milk dealers who presented facts and opinions favored farmer organization but both seemed to think that there is need of co-operation between dealers and the organization.

It was interesting to study the men and the evidence. There was every appearance of sincerity not only on the part of the committee but those who presented information. As I see it they are following the only course that can mean definite results. Some four committees have tried to work out something before. Now it is the aim to get ample information upon which to base recommendations. The Dillon committee has been invited to listen and to present information if ready to do so. No arguments are expected between groups but facts are welcomed. The whole situation seems to be well handled.

Among the many whom it is expected will be heard later, are some one from the Sheffield Company, Mr. Halliday of the Sheffield producers, Professor Myers who has just spent a year studying co-operation in Europe, Mr. Dillon, Mr. Fox of the Bordens, the president of the Milk Conference Board, and other dealers. Some other co-operatives will be studied in some way. Producers are to be heard if they will present something of interest as no doubt they will, and the list is not yet exhausted.

New York. H. H. LYON.

Uncle Ab says if you must kick, apply it where it will do the most good.





What's Left Over

After every big dinner, or after the preparations for a holiday or for a lot of company have been completed, there are dabs of this and that left over that can be used to good advantage on the succeeding days. Upon looking into the cupboard on the day following such preparations, there may be found bits of cooked or uncooked meat, some vegetables, potatoes, cake, cooked cereal, egg-yolks or egg-whites, ends of bread, sour milk or some sour cream.

"Not enough for the table and too much to throw to the chickens," says the housewife, and the food is set back into the cupboard again, perhaps until it spoils and is lost. Unless we take time to think of some way in which these ends may be saved, they will stand around taking up space, spoil, contaminate other food, and will finally have to be thrown out.

It is a good idea to have in mind a list of things that left-over foods can be converted into, and in this use of foods, women most often request help. There are many new and interesting dishes that can be made from left-over foods, and the family usually likes them as well or better than the original dishes. The addition of the convenient casserole and the deep fat frying basket to our kitchen equipment is especially helpful in the making of attractive things from left-overs.

In almost every case, meat when purchased in a larger quantity is much cheaper, because some of the cheaper meat is sold with the good part of the cut. The same we experience when we cut a ham. We know that there are just so many fine slices of ham and then there are sure to be some ends, some trimmings, and finally the butt. It is much better to plan to have a casserole meat dish when these ends are left over than it would be to plan to have one when a nice fresh slice of ham must be cut to make it.

No matter what kind of meat or vegetable is used, the foundation recipe for a souffle or a croquette is always the same. When once these basic recipes are learned it is an easy matter to adapt whatever there happens to be left over to fit the evening meal. When meat is the left-over food in question, it may be turned into the following things: It may be combined with mashed potato, bread crumbs, or cooked cereal and made into meat balls, escallops, casserole dishes, hash, loaf, or it may be combined with vegetables and made into a salad, souffle, sandwiches, soup, or a meat pie.

When ends of potato or other vegetable are left over, they may be combined with cream sauce and cheese and made into au-gratin or escallops, fritters, soups, salads, and souffles.

Cooked cereals immediately suggest fried mush. We are so fond of fried mush in our household that we always plan to cook some extra so that there will be some left over to fry. I know there are many households that do the same. But when there is just a little, not enough to fry, just try and substitute it for bread or potatoes to line a casserole dish or mold it in cups and serve it with fruit juice and cream as a dessert. It can be used very nicely to stretch the flavor of meat in making meat balls or meat croquettes. Or, it may serve as a substitute for flour in making muffins, pancakes, cookies, or as bread in making stuffing, or take the place of some other cereal in soup.

Bread crumbs are so convenient for use that it is indeed unfortunate to find that the crock in which they are always kept has been completely emptied. They may be used with meat or vegetables for stuffing, for making croquettes, cutlets, escallops, meat or vegetable loaf, puddings, muffins, and griddle cakes.

Fruits and fruit juices are so very popular that there are seldom any left over. When there are any they can quickly be turned into some kind of dessert or into a cocktail. When there is only one peach, we can still have peach cobbler, and when there are only a few berries and some good juice, we may have some good gelatin dishes, a salad, some frozen dessert, or a pudding.

Sour milk will make cottage cheese, cake, cookies, steamed breads, hot biscuits, and griddle cakes, and sour cream will make the best slaw, salad dressing, cake, or cookies.

Egg yolks left over after making angel food cake have been probably one of the hardest problems in the kitchen. But there are ways in which they may be used to great advantage and my favorite way is making a chocolate frosting for which I will give the recipe, because I think it is quite an unusual one, and the very best I know how to make.

To make it three egg yolks are used. Two ounces of bitter chocolate are melted over hot water. When melted it is beaten into a mixture of ½ cup of milk, 3 egg yolks, and 1½ cups of sugar which have been beaten together and allowed to boil until thick. This frosting is soft but not sticky when it is cold and it can be piled on the cake quite high.

Some of the egg yolks can be used in making custards, mayonnaise, boiled dressing, cookies, gold cake, potato stuffing, potato cakes, croquettes, and meat loaf. The whites are always welcome in making toppings, frostings, cakes, and pies.—S. K. ORMOND.



CONVENIENTLY ARRANGED FARM KITCHEN IN THE MODERN HOME OF MRS. W. P. JONES, INDIANA

Note especially the amount of light in the corner of the kitchen where the most of the work is done.

The Kitchen Bulletin Board

Did you ever hear of a kitchen bulletin board? It is a new idea to many but is of untold value to any housekeeper. A large board of any size will serve the purpose, although one of soft wood is preferable so that push tacks may be used easily to hold the lists in place. Or, it may be a large square of heavy burlap enclosed in a large picture frame. Pins may be used on this to hold the various papers in place.

You hear a great deal about budgeting your income, and you hear a little about budgeting your time, but my idea is to do a little budgeting of a great many things. And then I post these budgets or lists upon my bulletin board in the kitchen, where I can study them a great many times a day. Every housewife will concede that work runs smoothest when it is well planned. Therefore, I plan my work upon paper, using small pads of scratch paper for the purpose. I make a list of the work for the whole week ahead. Probably it reads like this—Monday, wash and iron. Tuesday, bake, mend, and darn. Wednesday, make Margy's crepe dress. Ladies' Aid in P. M. Thursday, clean upstairs, dentist, etc. Budget your work, and if you have a maid, budget her time and work for each day. You will achieve almost twice as much and so will she. She may not like it at first but it will accomplish wonders in the end.

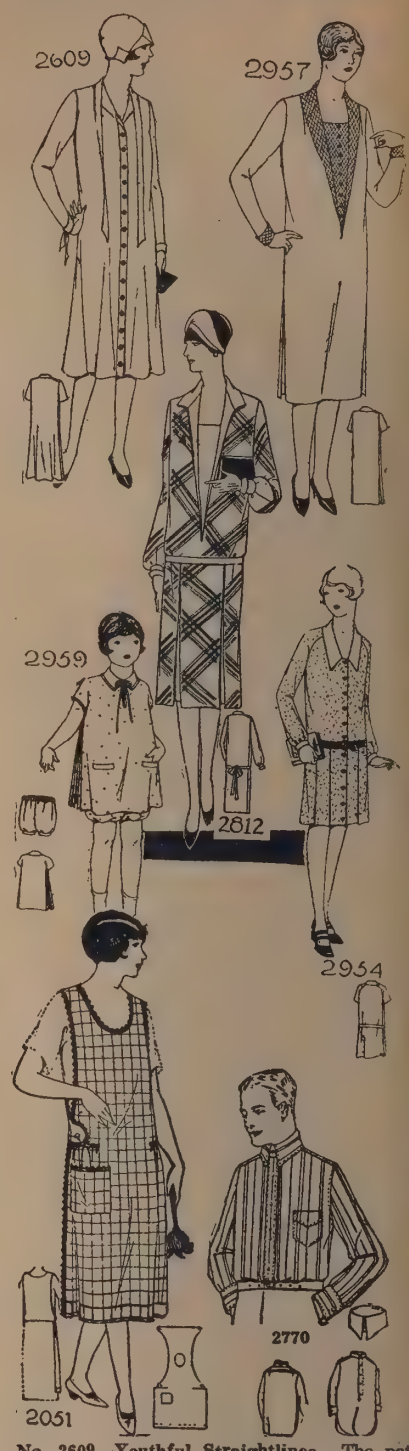
Make a memorandum of the groceries you must buy for the week, the material you wish to purchase for sewing, the patterns and trimming you need, or perhaps it is bread pans and paring knives.

I always list the sewing I have to do, both in spring and fall. I make a separate list for each member of the family, first of the clothes he needs, second what part of it is to be purchased, and third that which I must sew for him. I do likewise for the household articles, such as bedding, linens, curtains, towels, etc.

And as I purchase or finish an article on any list, I check it off. In

(Continued on next page)

Miscellaneous Fashions



No. 2609—Youthful Straightlines. The pattern cuts in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3¾ yards of 40-inch material.

No. 2957—Slenderizing Lines. The pattern cuts in sizes 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 2¾ yards of 40-inch material with ¾ yard of 32-inch contrasting.

No. 2812—Slenderizing Lines. The pattern cuts in sizes 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 2⅞ yards of 40-inch material with ¾ yard of 40-inch contrasting.

No. 2959—Bloomer Dress. The pattern cuts in sizes 2, 4, 6, and 8 years. Size 4 requires 2⅜ yards of 36-inch material with ⅜ yard of 18-inch contrasting and 2 yards of binding.

No. 2051—Attractive Apron. The pattern cuts in sizes small, medium, and large. The medium size requires 2 yards of 36-inch material.

No. 2954—Ragland Sleeves. The pattern cuts in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1⅞ yards of 40-inch material with ⅜ yard of 32-inch contrasting.

No. 2770—Men's and Boy's Blouse. The pattern cuts in sizes 12½, 13, 13½, 14, 14½, 15, 15½, 16, 16½, 17, 17½, 18, 18½, and 19 inches neck. The 15½ inch size requires 3½ yards of 36-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Hoard's Dairyman patterns cost only 10 cents each. If you are buying any patterns it will save you money to buy from us. Fashion Magazine also only 10 cents.

this way I can always tell just what is left.

Many plan their whole week's menus out ahead of time and post them for the week. I always plan menus for guests and thrashers and keep them in sight, so that at the last moment I can tell at a glance whether I have everything ready and on the table or not. My aunt entertained forty at Christmas dinner last year, and about four o'clock in the afternoon she cried, "Oh, girls, what do you think I've done? I forgot all about those four pans of dressing that I made yesterday and set away for dinner."

Lists are such a help at Christmastime. My mother painted china for years and always gave away great quantities of it at Christmas. Everyone marvelled how she could remember just what she had given and never duplicate a dish, and many times give piece after piece in the same pattern. The secret of it was that she kept a booklet in which year after year she wrote whom she gave to, just what she gave them, and what decoration she had put upon it.

Memorandas of housecleaning are invaluable. I plan out just what order I will take the house in, how long it will take me, how much I will do each week, and what I will add extra to the washing each time.

Another suggestion I heard over the radio recently was to plan out the children's school lunches for the week ahead, and I believe this is an excellent plan. In this way we may vary the lunch from day to day and the children will enjoy it more. The children will be eager to find what new treat there is hidden for each day.

If you do not have a bulletin board in your kitchen to hold all these numerous lists, they will soon be lost and useless. By all means, have your husband or son make you one some evening soon. And often in the corner of mine I keep a cheery verse, a brave little motto, or a small picture I have treasured, even though it is only one cut from some magazine.—ETHEL MORRISON—MARSDEN.

The Imaginative Age

"Oh, mother, a big bear chased me into the house, and our house was burning as I passed the corner of father's bedroom."

Have you ever had such reports from your four-year-old, or even from the seven-year-old?

I had heard so many mothers say it had been such a hard problem to teach the kiddies the difference between truth and imagination, so when my little girls began to talk I began to wonder just what the task might be for me, and just how I could teach them to distinguish between fact and fancy. I early resolved not to punish them for the "stories" they might tell me, until I was sure they were old enough and really trained to know "really true stories" from "play stories."

First I decided to take myself in hand and learn more about the workings of the mind of the normal child that I might work with nature rather than against nature. It is natural for the active, healthy child to have a highly imaginative mind. I soon learned my girls were perfectly normal in this respect.

We made a game out of it. They enjoyed sitting by my side whenever I sewed at the machine, mended the clothes, ironed, prepared the vegetables for the meals—in fact they sometimes liked to sit so near me that it was difficult to do the work at hand, but those were times when we had great talks. So as long as they were willing to sit still, I tried to make the most of the opportunity to play the little games that I hoped would teach them to be truthful, and at the same time make them feel that mother understood.

"My house is a brown bungalow with a room for mother and daddy, and a room for sister and me; it hasn't any kitchen—we go out for all our dinners," and the five-year-old would ramble on telling about the house of her imagination, until the four-year-old would pipe up, "Every room has a stairway in my house—don't you wish you lived in my house?" Then I would enter into the game with a remark, "And my house has glass floors." How they would laugh when mother added a bit to the make-up story, but they very quickly inquired, "Well, mother, how can we play in your house—we would break your floors?" The opportunity I wanted was mine—a chance to throw in a little information about real things and make-believe things.

"Aren't you glad that was just a 'play' house? Mother's 'real' house has solid floors of wood that her little girls can play upon. Now let's talk about our real house." Then we described our own little cottage just as the girlies knew it to be. When

(Continued on next page)



No. 2848—Slender Lines. The pattern cuts in sizes 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3⅝ yards of 40-inch material.

No. 2950—Youthful Sports Dress. The pattern cuts in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 4 yards of 40-inch material.

No. 2956—Jabot Dress. The pattern cuts in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 2⅞ yards of 40-inch material with 1 yard of 40-inch contrasting.

No. 2955—Bolero Frock. The pattern cuts in sizes 14, 16, and 18 years, 36, 38, and 40 inches bust measure. Size 36 requires 3 yards of 40-inch material with ¾ yard of 36-inch contrasting and ¾ yard of binding.

No. 2953—Morning Dress. The pattern cuts in sizes 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3½ yards of 40-inch material with ¼ yard of 6-inch material for vestee.

No. 2942—Smart Plaited Model. The pattern cuts in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1⅞ yards of 40-inch material with ⅜ yard of 32-inch contrasting.

No. 2884—Surplice Closing. The pattern cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅝ yards of 40-inch material with ¾ yard of 36-inch contrasting.

No. 2321—Straightline Styling. The pattern cuts in sizes 16 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3⅝ yards of 36-inch material.

No. 2718—Junior Frock. The pattern cuts in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1⅞ yards of 32- or 36-inch material with ⅝ yard of 36-inch contrasting.

No. 2312—Attractive Apron. The pattern cuts in sizes 36, 40, 44, and 48 inches bust measure. Size 36 requires 2⅝ yards of 36-inch material.

No. 2951—Smart Plaid Woolen. The pattern cuts in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1⅝ yards of 40-inch material with ½ yard of 40-inch contrasting.

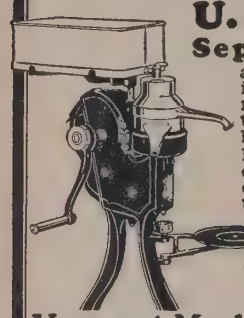
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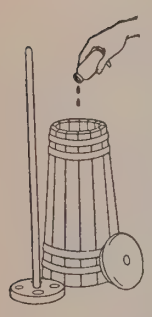
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an imaginative idea slipped in, I would say, "Oh, no, that was in the 'play' house—we are talking about the real house now that we are living in." They got the idea quickly. The topics varied, but I always managed to get around the fact or fancy explanation after we had had our fun with the stories.

When they came to me with remarks, I would listen and show my interest in whatever they told me, and then ask, "Was this play or real?" Very soon they made the distinction and could tell me correctly. But I displayed as much interest in their play ideas as in their ideas about real things. As soon as I had distinguished for them or led them to make the distinction for themselves, I showed them that I was truly interested in whatever they had to tell me. I was never shocked at anything they told me, or at least I never allowed them to feel that they had shocked me.

One day Lillian came to me saying, "A big cat caught two little chickens while I was playing in the sand pile." I did not know how true it might be.

"We must get that cat and look after the other little chick—was it a 'play' cat or a really truly cat?" I inquired of my little four-year-old girl.

"Mother, I think it was a really truly cat—let us go out and see."

We went out and I counted the chicks. Not a one was missing. No cat was in sight. I did not scold her. We just laughed and had a game. "Why, the cat has brought them back," I said. "Real cats do not do that but play cats do—it must have been a 'play' cat. We will have to watch for that 'play' cat—we do not want him to worry girlies' mothers and baby chicks any more."

A few days later she hurried into the house to tell me Gretchen, the Police dog, had broken her chain. I looked startled, but she quickly informed me it was a 'play' Gretchen that had been naughty, that real Gretchen was a good dog.

I do not believe my girls have been very different from other children. I think I simply took the time to understand their little minds and to enjoy their imaginative ideas with them, and by making a little game of it and allowing my own imagination to mingle a bit with theirs, I have taught them to know the truth. My girls are now nine and ten years old. They have not been the problem I feared they might be when I listened to other mothers tell of the "lies" their children had told. Perhaps had I called my girls' stories "lies," I, too, might have found myself miles away from them in sympathetic understanding and unable to guide them in their first encounter with fact and fancy. But as it is, I think we have safely passed the imaginative age and because of our understanding of each other's interests, we are better prepared for that next difficult time—the adolescent period.—(MRS.) W. R. CURRY.

Wisconsin Homemakers' Week

Has mother had a vacation recently?

A trip to Madison during Wisconsin Homemakers' Week, Jan. 31 to Feb. 4, will give her a happy holiday.

Believing that all work and no play is as bad for mother as for anyone else, many plans are being made to insure the women who go to Madison a happy time as well as a profitable one, according to Mrs. Nellie Kedzie Jones, head of Home Economics Extension at the Wisconsin College of Agriculture.

The luncheons for the out-of-town visitors at the homes of the Daughters of Demeter which were so successful last year will be repeated, Mrs. Jones says, and the same organization is also planning to hold the annual reception.

Friday, the Dane County Home Talent Tournament will be held. The winners of four district tournaments in the county will compete for the final prize, and an old time evening of fun is in store for the visitors.

Common Stain Removers

The Home Economics Extension Department of Purdue University advocates the following stain removers:

Grass—if colored material, use dark molasses—if white material use ammonia and water, being careful to wash all ammonia out before drying.

Blood—wash in cold water, then soap and warm water or paste of uncooked starch.

Ink—soak in sweet or sour milk several hours; if dry and set use Javelle water or ink eradicator. Javelle water is good for removing iron rust, mildew, fruit stains, etc., and is made from the following ingredients: 1 lb. washing soda; 1 qt. boiling water; ½ lb. of chloride of lime; 2 qts. cold water. Add the boiling water to soda. Dissolve the lime in cold water. Let the mixture settle and pour the clear liquid into the dissolved soda. Bottle and keep in dark place. In using Javelle water, place stained portion over a cup or bowl, and apply remover with medicine dropper, rinse with clear water.

Tea, Chocolate and Cocoa—soak in cold borax water, pour boiling water through it.

Mildew—lemon juice, salt, and sun. Or soak in sour milk over night and sun. Javelle water may also be used.

Fruit—if fresh, use boiling water poured from height; if set, apply salt and lemon juice and expose to sun, or Javelle water may be used.

Iron Rust—lemon juice, salt, and sun or Javelle water.

Milk and Cream—wash in cold water, then soap and warm water.

Axle Grease—apply lard or butter and wash in hot soap suds.



Style is not a matter of money. The woman who spends the most money on dress is not necessarily the best dressed. Very often her neighbor, with much less money to spend, will be more smartly clothed. It's largely a matter of taste.

In our Spring Fashion Magazine, we present a wide range of styles that are new, smart, and in good taste. For each one a pattern is offered and the designing is so clever that the styles are easily made.

In addition to afternoon and evening frocks, there are styles for wear around the house, also lingerie, children's clothes, embroidery, and some picture dressmaking lessons that are of interest to anyone who sews and of real help to the beginner.

Send 10 cents today for your copy of this book. Its style value is much greater than the price you pay and will be saved many times over on patterns. Address Fashion Dept., Hoard's Dairyman, Fort Atkinson, Wis.

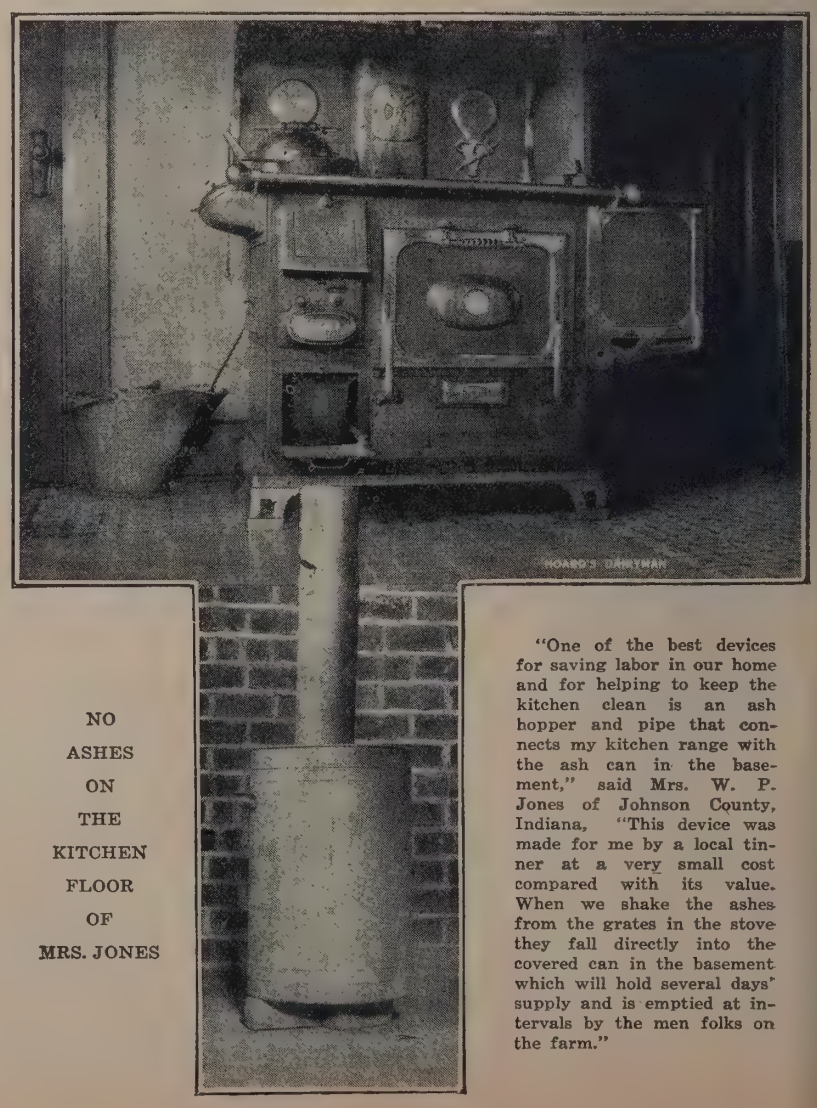
Then and Now

Gertie: To think you used to catch me in your arms every night!

George: Yes, dear, and now to think I catch you in my pockets every morning!—Good Hardware.

Flipp: "What a surprise to see you in a full-dress suit! Did you rent it?"

Flapp: "No; but every time I stooped over I thought I would."



NO ASHES ON THE KITCHEN FLOOR OF MRS. JONES

"One of the best devices for saving labor in our home and for helping to keep the kitchen clean is an ash hopper and pipe that connects my kitchen range with the ash can in the basement," said Mrs. W. P. Jones of Johnson County, Indiana, "This device was made for me by a local tinner at a very small cost compared with its value. When we shake the ashes from the grates in the stove they fall directly into the covered can in the basement which will hold several days' supply and is emptied at intervals by the men folks on the farm."

Surplus Control Legislation

(Continued from page 65)

country a policy of governmental price control which, if it works to raise prices in the interest of producers, may at some future time operate to lower prices in the interest of the consumers? The Yearbook of the U. S. Department of Agriculture for 1923 estimated the average area from 1914—22 devoted to crops for direct and indirect export involved a total of 61,000,000 acres of crop land. The estimate is made also that if this area were devoted to production for our own use, we could maintain an increase of population of 21,000,000 persons. Our own population is increasing at the rate of 1,500,000 persons a year. Then in 14 years on the present basis of increase in population our cultivated land area held at its present acreage and without further artificial stimulation of production will be needed to supply our own people. When that time comes, and it will come before 14 years because we shall always continue to export commodities in the production of which we have a special advantage, such as cotton and hog products, what will happen if American agriculture has fastened upon itself a policy of government price control which may so easily be made to work to the disadvantage of the producer?

It is urged that government action to raise the price of farm products of which we have an exportable surplus would only be doing justice in making the tariff effective for agriculture. Our government from its very beginning has from time to time for one reason or another levied duties on certain articles. The avowed purpose has generally been to protect commodities produced within the country from the competition of similar commodities of foreign production. The idea that the government should take action to raise the domestic price above the world price by the amount of the duty is a new departure in tariff legislation. Common justice would demand that the government, if it is to embark upon this new policy, should not confine it to a few farm products but should extend it to all farm products. Agriculture is today so interdependent that the products which the farmers of one region sell in the market become the articles of purchase and the raw materials of the farmers of other regions. If the government is to take action to raise the price of bread and meat and grains which the dairyman, the poultry raisers, the potato growers, and general farmers of the East must buy, then action must also be taken to raise the prices of their products. If the tariff is to be made effective for agriculture, must it not in all fairness be made effective for manufactured products as well?

In view of all these considerations, I am confident time will reveal that the real friends of American agriculture are those who in this crisis resisted a price fixing policy on the part of the government.

[EDITOR'S NOTE:—The above is a resume of an address delivered by Congressman Brigham of Vermont before the annual meeting of the National Association of Commissioners and Secretaries of Agriculture. Congressman Brigham is a Vermont product—born and raised on a farm. He is a farmer by profession and owns and operates the farm which has been the property of the Brigham family since 1803. His great grandfather, Paul Brigham, owned and run this farm from 1803 to 1838; his grandfather, from 1838—1875; his father, from 1875—1913, and it came into possession of Congressman Brigham in 1913.]

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The Quick-Lite Lantern is the handy, all-purpose light for outdoor chores, around barns, sheds, feed lots, granaries, garages, cellars, etc. Built on same principle as the lamp. Has mica chimney—rain-proof, wind-proof and insect-proof. Safe—can't spill fuel even if tipped over. Two popular models: L427, with built-in pump, U. S. Price $8.50; L327, with separate pump, one dollar less.

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Oat Hulls

Will you please tell me how I can feed the following feeds to the best advantage to dairy cows? I have timothy and clover hay mixed, good corn silage and cornstalks for roughage. I am now feeding a grain mixture composed of 50 per cent ground corn, 25 per cent ground oats, and 25 per cent oat hulls. In addition to this I feed about 2 lbs. of linseed meal daily to each cow. If it is necessary to add some other ground feed to obtain best results, what do you advise?

Burlington, Wis. H. W. K.

The silage and hay should be fed to the limit of appetite or all the cows will clean up. It is doubtful if much value can be had from the cornstalks, they being unpalatable and of low feeding value. In the winter time cows should not be turned into stalk fields because the cold wind will usually take more out of them than they gain from the stalks.

A grain mixture suitable for feeding with silage and mixed hay should contain from 16 to 17 per cent of digestible protein. The mixture now being fed contains 7 per cent of digestible protein if the linseed meal is not considered. A cow fed 8 lbs. of this mixture plus 2 lbs. of linseed meal would receive a mixture containing 11.6 per cent of digestible protein which is too low for the roughage fed.

The oat hulls have little feeding value. They contain only 3 per cent of protein but less of total nutrients than ground corn cobs. The fiber content is very high. The principal value attached to oat hulls is in using them to lighten heavy feeds such as ground corn.

A concentrates mixture suitable for feeding with silage and mixed hay could be made of 200 lbs. each of ground corn and oats, 100 lbs. each of bran and oat hulls, 250 lbs. of linseed meal, and 200 lbs. of gluten feed. This mixture contains 16 per cent of digestible protein. It should be fed at a rate of about 1 lb. for each 3½ to 4 lbs. of milk produced by Holsteins and 1 lb. for each 2¾ to 3¼ lbs. of milk produced by Jerseys or Guernseys.

Jersey Cow Supersedes Daughter

Dairymen in Northern Wisconsin closely followed the unusual production test conducted in the herd of G. B. Reedal. An 11-year-old registered Jersey and her mature daughter were both on test and both promised to break the 305-day Jersey record for this state.

The daughter, King Milan's Daisy 2d, finished the 305-day test first with an official record of 625.43 lbs. fat and 13,585 lbs. milk. She made this record with calf and therefore won the American Jersey Cattle Club Gold Medal in addition to the state Jersey championship.

Her dam, King Milan's Daisy, finished test twelve days later with a record of 645.62 lbs. fat and 12,799 lbs. milk in 305 days. She thus supersedes her daughter as state champion. In a previous 365-day test she made a record of 729.92 lbs. fat and 13,499 lbs. milk.—American Jersey Cattle Club.

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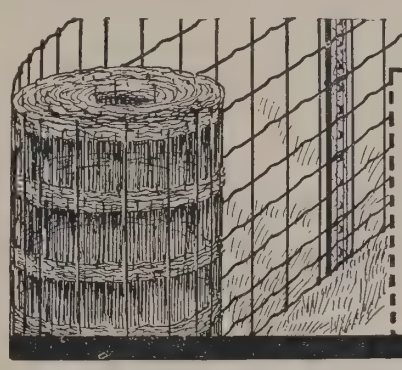


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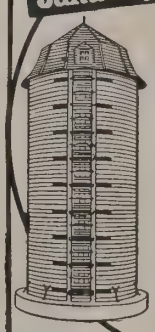
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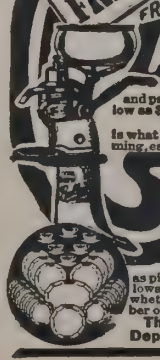
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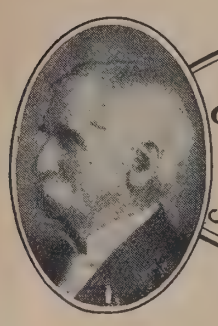
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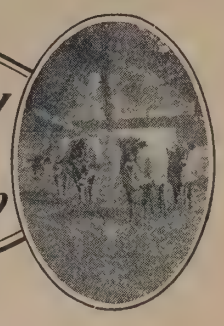
HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS



Autobiography of a Pioneer Dairyman



H. B. GURLER, Illinois

(Continued)

One of the most interesting of my recollections was of my acquaintance with W. D. Hoard. I cannot fix the date of my first meeting with him, but think it was at the first meeting of the Northwestern Dairy Convention at Mankato, Minnesota, which was forty or more years ago. As I remember, Hoard was president at that time, and continued to hold that office until the old Northwestern Dairy Association quit business, after the four states, Wisconsin, Minnesota, Iowa, and Illinois, had organized their state associations.



W. D. HOARD

I remember we held two conventions at Mankato and two at Algoma, Iowa, after which one was held at Beloit, Wisconsin. By this time the officers of the Northwestern thought we had done our work and we quit the field. I was treasurer when we disbanded, and had $250 in my hands which we divided between the Iowa, Wisconsin, Minnesota, and Illinois State Associations.

I visited Mr. Hoard at his home frequently, searching for information and inspiration as well, finding it a profitable place to go. I followed his experiments growing alfalfa on city lots in Fort Atkinson, going there frequently, and spent many hours digging into dairy subjects.

New ideas and methods were appearing fast in the dairy and creamery field at that date. The Babcock test and the centrifugal cream separator were revolutionary in their field, and a person in the business needed to be wide awake all the time or he was soon far down in the procession, which was neither profitable nor pleasant.

On one of my visits with Mr. Hoard, he told me he was looking for a young man to put in training for the Dairyman. Said he was getting old and that George Burchard was also quite an old man, and they would both be compelled to get out of the harness in a few years. Before the end of my visit, I told Mr. Hoard that I knew an outstanding young man whom I believed had the metal and a good start in training for such a man as he desired. I neither thought nor heard anything about it for about a year, when I heard A. J. Glover was with Hoard's Dairyman.

First Public Farm Talk

My first effort to talk about my farm experiments in public was made in 1881 at Professor Hall's fourth annual institute at Sugar Grove, Ill. Hall had heard of the hog and calf feeding experiments that I had been conducting for several years to learn the feeding value of skimmilk, and he went after me in the same manner that Professor Henry did ten years later to get me into dairy school work.

Hall used some of my pig feeding experiments as problems in an arithmetic he published about that time. This was a short time in advance of Professor Henry's experiments published in the old National Live Stock Journal. I did not agree with those experiments and this led to our acquaintance.

Hall was one of the best all around men I ever knew. My contact with him caused me to grow as it would any man who had anything in him. It caused his son Clyde to grow as a farmer until he won a gold medal as Master Farmer from the Prairie Farmer. Mr. Hall sacrificed himself in his work as superintendent of Farmers' Institutes in Illinois. I visited him frequently in his last illness, and it was painful to see him slipping away.

Chapter IV

Civil War Days

MY DEAR JUNIORS:—When writing my life story for you and I reached the time I enlisted for the Civil War, I felt that you would expect me to say something about my experience in it so I wrote something over 1,000 words. But it read just like the story of thousands of other soldiers. This caused me to throw what I had written into the waste basket and write your editor that he could not plan on anything about the Civil War. After a little thought this did not look good to me as you boys might think I was ashamed of my part in the Civil War. It occurred to me to write some little incident showing that I was there at least, so here goes.

My regiment was located one summer at the junction of the Tennessee and Ohio rivers. This was important ground as it was the line between the North and South. We were given the duty of guarding three miles of this line. Our lines extended from the Tennessee river to the Ohio river three miles below its junction with the Tennessee. The Tennessee ran through Rebel territory and was alive with an alert and resourceful enemy.

At the junction of the Ohio and Tennessee rivers there was a ravine some 100 feet wide and about 40 feet deep, and there were quite large trees growing in the bottom. Our most important and dangerous picket post was on the bank of this ravine. Quite frequently our pickets would be shot at from the opposite bank.

We tried many times to capture the enemy by sending men to get behind them. This was very difficult as these attacks were always on extremely dark nights. The Rebels could see very little unless we had a fire, but they knew the exact position of our post, and they succeeded in killing a man occasionally.

This condition existed when my regiment was sent there. After several months of this annoyance the colonel ordered the first lieutenant and myself to take 25 men and try to solve this problem. When it was so dark that we could just see to locate the men, we placed them along the ravine. We all laid on the ground and listened. We had to be guided by feeling and hearing as we could not see one foot from our faces after we had been in our location a half hour.

The men all had their instructions, and each man had to act on his judgment as no commands could be given without the enemy being warned. We laid for about two hours when a single gun exploded, followed by a terrible yell, then silence. The lieutenant and I were about 100 feet or less from the place where the incident was taking place. After feeling our way to one of our men, we laid with our ears to the ground and listened.

Soon a tree fell in the ravine. This was hard to account for as there was not a breath of air moving. We could do nothing until daylight. Then we went to the place in the ravine where we heard the tree fall and found that this was half a tree that had grown in two parts, one part of which split off and fell.

We discovered by close examination that the bark on this fallen part was torn, showing that someone had been climbing it. There were some large limbs just at the level of the ravine bank and we reasoned that the enemy had located themselves on these limbs and when they shot at us it looked as if they were shooting from the opposite bank. They probably felt, after the shot and yell, that the tree was safer than the ground.



MR. GURLER DRESSES UP IN HIS 62-YEAR-OLD CIVIL WAR UNIFORM

Our report to the Colonel was "One shot, one yell, and one tree felled." We had no more trouble at that post.

Chapter V

Hunting Experiences

MY DEAR JUNIORS:—I have two bear stories that I have not told you about. In one of these stories the bear beat me as I could neither shoot him nor get him in a trap. I will tell you now of one that did *not* get away from me.

I spent my time mostly hunting deer on this trip and was staying with a woodsman at a lumber camp seven miles from the farm. This lumberman was watching a dam to let the water go down the river as it was needed to take a drive of cedar logs down to the mill at the river mouth. One day when he came up he told me that he stopped at a cabin on his way up and was in the kitchen looking at pictures that the cook had pasted on the log walls the previous winter when he heard a noise under the window. Looking out he saw a bear feeding from the slop hole.

He also told me he was to open the gate wide two dates as the drive was then below the next dam, and that he would follow on a raft, taking the flood water to help him over some rocks and rapids. I told him I wished to go with him to the camp where he saw the bear and that I would go up to the farm eight miles the next day and see if an expected friend had come up to hunt with me. I started up the next morning, but when half way to the farm met the friend.

The next day we took the raft, after the woodsman had let the water flow for a couple of hours, as he told us that the raft being made of dry cedar logs would run faster than the flood water and there would be danger of our getting on rocks in shallow places. We had run several miles when I heard the roaring of water and asked our man what it meant but got no reply. We soon reached a point where we could see the water going over a drop.

There was no way of dodging the matter so we dove over the drop of four feet. Luckily the water was no deep below the fall so no damage was done outside of wet blankets, guns and food. Soon after this we reached the camp and unloaded. The woodsman went on to the next dam where the men working the drive were located. We dried out our clothes and food that night but made no move to get the bear.

The next day we planned how we would try to get him. As the slop hole was directly under the kitchen window, I took two panes of glass from the window and placed them in the sash inside the kitchen so we could move them when we got a chance to shoot. When night came my friend took the first watch. He was to call me and we would both shoot at a signal from him. He had a rifle and I had a double barrel shot gun loaded with heavy buck shot.

I laid down on the floor of the

(Continued on page 96)

England Wins Contest

For the first time in some years the junior cattle judges representing England defeated the junior judging team from the United States at the annual international cattle judging competition held this past summer in England. The winning team thereby came into possession of the Daily Mail Gold Cup.

The score of the English team was 828 points as against 811 points made



ENGLAND DAIRY JUDGES WIN

Left to right: Edward Wise, 18 years old; R. G. Noakes, club leader; Edith Harriott, 16 years old, and John Harper, 17 years of age.

by the Maryland judges. Edith Harriott with a score of 283 and Edward Wise with a score of 280, both of England, were first and second respectively in the individual judging. Ralph Walker, Maryland, was third, followed by Arthur Dunnigan, his teammate, with John Harper of England, fifth, and Stanley Sutton, the third member of Maryland, last.

Judges for the contest were H. H. Kildee of Iowa and Allan Skelton of England. The umpire was E. A. Weir of Canada. The judges agreed unanimously on the winning team.

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

Three series of interesting and instructive articles begin in the January 10th issue. They are: Trailing Holsteins to South America, Which Breed is the Best?, and What I Am Trying to Do on My Farm.

What has John Zoberlin accomplished? Coming to this country from Bavaria 29 years ago without a dollar in his pocket, he worked the first year for $120. Hard work and thrift have earned him a beautiful 200-acre Wisconsin farm and a fine herd of dairy cattle. In his herd he has had six 1,000-lb. cows, seven 20-lb. cows, two junior three-year-olds that made world's records last year, and he has raised General Homestead Mercedes, an outstanding bull of the Holstein breed.

How is one to decide on the best breed? These several considerations are important to the man who would discover which is the best cow for his farm: "Which one do you like?" "What is your market?" "Market price of the breeds," and "What do the neighbors own?" The last is by far the most important.

How does W. J. Dougan maintain soil fertility on his farm? Says this southern Wisconsin dairyman, "Every field on my farm is analyzed. Most of my fields need lime from two to four tons per acre, and they get it. The other element that must be supplied from without is phosphorus. I have bought some rock phosphate, but find that an abundance of manure from a herd fed on a ration containing bran and oil meal is putting back into the soil the elements sold off in milk. I am supplying the soils on my farm with humus by growing legumes, clover and alfalfa. Therefore, my soils are cheaply and abundantly supplied with nitrogen.

Why does he practice crop rotation? To avoid impoverishing a field for a single crop, and to avoid putting the soil elements out of balance. His clover rotation consists of corn one or two years, small grains seeded to clover one year, clover hay or pasture one or two years, and then manured and back to corn.

How does the government grade hay? Alfalfa hay, for instance, is graded on the three factors: color, leaves, and foreign material. U. S. No. 1 alfalfa must have 50 per cent or more color, 10 per cent leaves, and not more than 5 per cent foreign material such as leaves and old rakings. (See "Are You Buying Hay?")

Does the government inspect hay? Yes, at the present time there are two licensed inspectors available for shipping points in Nebraska. Both of these men are located in Dorsen County.

Junior Letters

A Hoard's Dairyman Fan

Hoard's Dairyman Juniors:—Here's another Junior, it's a girl, though! I don't suppose the boys will like that.

I've always been planning to be a Hoard's Dairyman Junior, but it always seemed that there was something else. But finally, here I am!

I'm just a country girl, almost 15 years of age, brown eyes, brown hair, five feet, three inches tall, weigh about 110. My birthday is the 10th day of March. Maybe I have a twin sister. Please write to me if I have.

We live on a 280-acre farm. We milk 34 cows, have 4 horses, 2 colts, about 40 pigs, 100 chickens, a couple of cats, a dog and a little puppy.

I have a brother a year and a half older than I, and one three years younger than I.

My father bought this farm seven years ago. He used to be a Swiss cheesemaker near Madison, Wis., close to a little town named Mount Horeb.

He has taken Hoard's Dairyman ever since he bought this place. We all like it because there are articles in it for every member in the family.

I always read the junior page. There are often very interesting articles on that page.

My father and mother like it because sometimes there are things in it from Switzerland, their home country. They have lived in the United States for 18 years.

We have about 70 or 80 head of cattle on this farm all the time, including the calves.

All those wishing to write to me, address to R. 6, Eau Claire, Wis.

Helen Wittwer.

Subscribes to Hoard's Dairyman

Hoard's Dairyman Juniors:—I have been reading our page every time Hoard's Dairyman comes. The reason I haven't written before is that I have been helping with the farm work and now have started going to high school. I do not have very much time for writing letters during the week, so have to wait for Saturdays to come.

Thursday, Oct. 7th, the 4-H club workers had a fair in Waterville. As I am in the garden project, I brought some nice big carrots. I won first prize or a blue ribbon. My garden didn't turn out as well as I expected.

I am subscribing for the Hoard's Dairyman instead of my dad. He will read it just the same. He says, "there are many interesting articles in it." I agree with him.

My address is Waterville, New York.

Muriel Northrop.

Virginia Future Farmers

Hoard's Dairyman Juniors:—You will notice on my enclosed application as a member of Hoard's Dairyman Juniors that I said I belong to the future farmers of Virginia, (F. F. V.'s.) This is a new organization of all the boys taking vocational agriculture in the high schools.

There has been a considerable amount of work done on this organization in the last year and it is a very good organization. I am president of the Chapter of Broadway High School and will try and answer any questions that you wish to ask me in regard to it.

I enjoy reading Hoard's Dairyman very much and my only regret is that it doesn't come oftener. We have arranged to have the magazine comes to our agricultural class and we get very much information on dairying through it. My address is Broadway, Virginia. Carl G. Showalter.

On the Care of Calves

Hoard's Dairyman Juniors:—I am glad I can be one of the club's members. I have been given a calf to be mine as long as I take care of it. I will tell you how I feed it.

Uncle told me that a young calf should be by itself and not jostled around, so he made me a pen with lots of light, and where it is dry. I keep my calf there by itself for two weeks or even three, then we have a large pen where the larger calves are kept, and we turn my calf out there when it is able to stand the cold better; and it can get more sunlight but be sure the calves are kept dry so they don't take cold.

I feed my calf first, whole oats and skimmilk and a little alfalfa hay and clear, cool water, and salt each day.

When she is three months old which is soon, I will feed her ground oats and corn, clover and alfalfa hay.

I wish some of the juniors would write to me. My address is care of Verner Sorenson, Mount Tabor, Wis.

Christine Jensen.

A Sand Table in School

Hoard's Dairyman Juniors:—We have been working in our sand table at school. First we made a map of South America and put all the products on it. Now we have a farm built on it. We put corn shocks on it too.

We have started to walk to school. We walk 1½ miles each day.

My sister is writing for Glen this time. We have our school room all cleaned up. We put up new pictures and white window curtains.

Well I must close, wishing good luck to the Juniors. Ina Smith.

My address is Goldendale, Washington.

Wins in Club Work

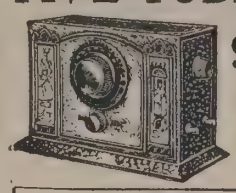
Hoard's Dairyman Juniors:—I'm real glad to join the Junior Club, and I also belong to clubs in my home town. I will have a great time reading the Hoard's Dairyman.

I want to thank the Hoard's Dairyman for giving me a year's subscription to their paper. I was planning on subscribing for it when I was surprised to get the first copy. Next year I am going to subscribe for it and tell other people about the paper.

I have a little to say to my new Junior Club friends, and I say that a trip to the state fair is a great adventure. I had a great time at the fair and had a big surprise when I was presented a silver cup for champion showman of South Dakota.

S. Dakota. Arden Witham.

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HOARD'S DAIRYMAN
JUNIOR EDITOR
FORT ATKINSON, WIS., U. S. A.

Dear Sir:—

I hereby apply for membership in the HOARD'S DAIRYMAN JUNIORS' CLUB. I agree to read the Junior Department of Hoard's Dairyman regularly and do all I can to make the Juniors' Club a success. Please send me the badge, Watch Fob [ ] Necklace [ ] [mark (x) after your choice], the Button, and the Dairy Farm Boy's Creed.

My name is .....
[Write distinctly or print]

My address is .....
[R. F. D.] [City] [State]

I am ..... years old. Hoard's Dairyman comes to my home addressed to .....

..... My favorite breed of dairy cattle is.....

My father's name is ..... Do you belong to a Boys' and Girls' 4-H Farm Club? ..... If so, what kind? .....

1-25-27



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Shady Nook Holsteins. Two heifers sired by 24-lb. bull, due in April. Three bulls 10 to 13 months, 42-lb. breeding. Federally tested. W. R. GATES, Ft. Atkinson, Wis.

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

My Entire Herd high grade Holstein cows mostly springers or just fresh, will sell any number. FRANK FISHER, Janesville, Wis. 27-3

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

For Sale—Some splendid grade Holsteins. Cows springing, heifers and calves; clean herd, seventy head to pick from. CAMPBELL FARMS, Hopkins, Minn.

Three handsome Holstein heifer calves, registered, $100. ALFAKORN FARM, Evansville, Wis. 2-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

Grade Guernseys. Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years experience. Can also furnish grade or registered Holsteins. JOHN ERICKSON, Wauraca, Wis. 19-Spl

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernsey Bull and heifer calves and yearling heifers. ALBERT B. HANSEN, Luck, Wisconsin. 1-3

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

High Grade Guernseys. Justamere Guernsey Farm is offering your choice of herd, no reactors, 60 day retest guaranteed if they go into clean place. Fresh, springing and fall cows. Prices very reasonable. CHAS. W. BLOTT, Mukwonago, Wis. 17-*

Guernsey Bulls of serviceable age from A. R. dams; also grade Guernsey springers. FRUIT BROS., Waukesha, Wisconsin. 1-3

A good herd of heavy producing Guernseys. 22 young cows, registered bull. T. B. tested, free from disease. Priced reasonable. C. J. FRIES, Ogdensburg, Wisconsin. 2-2

For Sale—Four young Registered Guernsey cows. Fresh. Half-sisters to a 906-pound class leader. Federal accredited herd. HARVEY LONGLEY, Dousman, Wisconsin. 2-2

For Sale—Guernsey heifers, Holstein heifers, Guernsey cows, Holstein cows, entire herd sixty head. All raised on one farm. Reason of selling short on feed. CHAS. W. O'NEILL, Bridgeport, Wis.

Guernseys for sale. Rock County Guernsey Breeders' Association Co-operative. Write FARM BUREAU, Janesville, Wisconsin. 2-4

Young Guernsey Bull—Seven nearest tested dams average 768 fat. FRANK KLEMM, Baraboo, Wisconsin. 1-2

For Sale—Fine herd of fourteen high grade Guernsey cows, milking and some springers; also fine herd bull; clean herd. CAMPBELL FARMS, Hopkins, Minn.

For Sale—Yearling Guernsey bulls from tested dams; also registered females. Federal accredited herd. ROY BURTON, Eagle, Wis. 26-*

For Sale—Special offering 2 registered Guernsey heifer calves and 1 bull not related. See display ad page 103. LINWOOD GUERNSEY FARM, Homer Rundell, Livingston, Wis. 1-*

Guernsey Herd for Sale—20 heavy producing, young, high grade cows, T. B. tested, free from disease. Priced reasonable. WALTER KEMP, Ogdensburg, Wisconsin. 26-6

Ayrshires—20 bred heifers, several due in March, balance next August. Price $150—200. Year old heifers $100 each. Bull calves by Ping Pong and several ready for service. ADAM SEITZ & SONS, Waukesha, Wis.

Sunny Crest Farm Registered Jerseys. Young bulls 7 to 9 months, $45. Sire's 6 nearest dams average 630 lbs. butter in 1 year. M. EMERSON & SON, Wheeler, Wis.

Registered Jerseys. L. & C. MASON, Armington, Illinois. 27-4

Registered Brown Swiss Bulls. Three to fourteen months old. Herd federal accredited. JOHN ROCKE, Carlock, Ill. 2-2

LIVE STOCK WANTED

Will Buy Dozen Good Producing Registered Jersey or Guernsey cows, three to five years old. Must freshen in three months. F. P. EARLE, Fayetteville, Arkansas. 27-2

Wanted—Registered Holstein bull. State price. McLAIN BROS., Ord, Nebr.

EXCHANGE

Will Exchange equity in quarter section farm, for dairy cows. THEODORE M. JACOBSON, Route 4, Worthington, Minn. 2-2

SWINE

Wanted—One serviceable boar of bacon type, at once. BROWN BROS. LBR. CO., Rhinelander, Wis.

Thoroughbred Yorkshire boars for sale. E. C. RANSOM & SONS, Avalon, Wisconsin. 1-2

Large Yorkshire boars and bred gilts. MILTON HAND, Center Point, Iowa. 2-4

FOXES

Alaskan Blue and Silver Black Foxes—Breeder-agents wanted, who will start with our foxes, insured 12 months, express paid. Booklet free. Twenty year references, six banks. CLEARY BROS. FOX FARMS, Seattle, Washington. 20-12

GOATS

Wanted—Good grade Angora buck. O. K. OLSON, Fort Ripley, Minn.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

MACHINERY

Wanted—Farmers, who would like to make $20.00 or more per acre by growing soybeans with the corn, to write for 36 page book. Address L. C. NOTBOHM, Rome, Wisconsin. 2-3

Bargain—New, latest type, double unit Empire Milker used two months. Complete with tank, pipe, petcocks, 14 cow outfit. First check $125.00 takes it J. C. MARLOW, Mankato, Minn.

New Perfection Two Double Unit milking machine used only sixty days. Will sell at big discount for want of use. OSCAR D. GRUVER, Abbottstown, Pennsylvania. 1-3

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Bottle filler and De Laval No. 17 cream separator, like new. F. H. BOYLE, Peebles, Wisconsin. 1-2

For Sale—Cherry pasteurizer, 150 gallon capacity. Brown recording thermometer used less than one year. MRS. AGNES RUEHMAN, R. 5, Davenport, Ia. 2-2

For Sale—2 unit De Laval milker complete with pipe, $125. Address BOX 262, care Hoard's Dairyman.

For Sale—Used Hinman milker outfit. Address BOX 255, care Hoard's Dairyman.

For Sale—32 volt power and light outfit. THOMAS RAMSAY, Merrimack, Wisconsin.

CREAMERIES

For Sale—Creamery in large California city. Manufacturing 1000 to 1500 pounds of butter daily. Butter sold to local stores. Address BOX 991, Oakland, California. 1-4

BUTTERMAKERS

Buttermaker wants position. Backed by experience and dairy course. No booze or tobacco used. References. Come on short notice. 110 WATER ST., Eau Claire, Wis.

FARMS FOR SALE

In the San Joaquin Valley of California farming is now a paying business, feeding millions of people in towns. Dairying, hogs, poultry and fruit should yield a good income. A small one-family farm, with little hired labor, insures success. You can work outdoors all the year. Best crops to plant are well proved. Selling is done co-operatively in established markets. Newcomers welcome. The Santa Fe Railway has no land to sell, but offers a free service in helping you get right location. Write for illustrated San Joaquin folder and get our paper, The Earth, free for six months. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Railway, 951 Railway Exchange, Chicago. 26-6

Equipped 112 acre dairy farm. Only $3500; with $5000 house and barn; convenient good village and markets; crops of 200 bus. potatoes, 40 bus. oats, 2 tons hay per acre; 60 acres cultivation, spring watered pasture, wire fences, estimated $4000 worth wood, 50,000 ft. timber, variety fruit; good 8-room house, view for miles, 80-ft. hip-roofed basement barn. Will include horses, poultry, furniture, machinery, tools for quick sale at $3500, part cash takes it. Details pg. 42 big Illus. Catalog. Copy free. STROUT FARM AGENCY, 255-DL, 4th Ave., New York City.

North Florida Dairy Farms. No tuberculosis. Lowest summer price for milk $5.80 per hundred. Beautiful, high, rolling country. Permanent all year around legume and grass pastures. No feed to buy. No blizzards or hurricans. Cooler in summer, warmer in winter than your country. Improved farms ready for plow $25 to $50 per acre. Easiest terms. Splendid water, good roads, schools and churches. Many Northern farmers with pure bred herds now here. Land values rising. For details write CHAMBER OF COMMERCE, Monticello, Florida. 27-4

320 Acre Farm in Clark County, South Dakota, and 320 acres in Richland County, North Dakota, for sale; or will exchange for Yakima Valley land. Also have dairy ranch in the Yakima Valley for sale to close estate. TRUST OFFICER, Yakima Valley Bank, Yakima, Washington. 1-2

Splendid Irrigated Farms in the dairy, corn and alfalfa district of eastern Montana. Low Prices. Easy purchase plan. Good markets. H. W. BYERLY, 117 Northern Pacific Ry., St. Paul, Minn. 1-2

For Sale—260 acres, modern dairy farm; near town, on concrete highway, southeast Wisconsin, excellent buildings. Full equipment including livestock, machinery and crop. Compelled to sacrifice. WISCONSIN MORTGAGE & SECURITIES COMPANY, 312 Brumder Bldg., Milwaukee, Wis. 26-4

Farm For Sale—Forest County, Wisconsin. 200 acres with 125 acres under cultivation. Modern buildings. On trunk line, four miles from station. Good schools and churches. Inducement for immediate sale. D. J. RAYMOND, Wrightstown, Wisconsin. 27-*

219 Acre Farm for quick sale near Lake Geneva in Walworth County, Wisconsin. Modern improvements. Compelled to sacrifice. WISCONSIN MORTGAGE & SECURITIES COMPANY, 105 Wells St., Milwaukee, Wisconsin. 2-2

Wisconsin. Dairy farm—80 acres. Good location, house and barn; on main road—schools—near town. We also have other 40- 80- 160-acre farms. Cash payment only $500.00 to $1500.00, balance small payments. Ask for list. These farms are priced to sell quickly. Write today. DEPT. 20, FEDERAL LAND BANK, St. Paul, Minn. 2-spl.

OUR READERS are looking for pullets, yearling hens, good cockerels, etc. —TELL THEM WHAT YOU HAVE!

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for free samples. MADISON CORPORATION, 564 Broadway, New York. 13-19

Agents—Our new household cleaning device washes and dries windows, sweeps, cleans walls, scrubs, mops. Costs less than brooms. Over half profit. Write HARPER BRUSH WORKS, 295 3rd Street, Fairfield, Iowa. 1-2

SALESMEN WANTED

Salesmen wanted to sell "Waukesha Mineral Feed." Exclusive territory, good commissions. Ask for particulars now. H. T. WELCH, Box 111, Waukesha, Wisconsin. 2-8

DOGS

Pups—Satisfaction guaranteed. Registered Police, $12.50. Collie-Shepherd, heelers with nerve! males, spayed females, $10.00. Bulls—spayed females, $10.00. Rat Terrier—spayed females $7.00. WILBUR DAY, Brighton, Iowa.

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

White Collie puppies from registered pair, some with small spots on head, $7.00 and $10.00. WERNER STOLL, Howard Lake, Minnesota.

Two Pedigreed English bull pups, large size, with undershot jaw. Male, $75; female, $25. Six months old. DANIEL GRUNZ, Owatonna, Minn.

For Sale—Pure Old English shepherd pups. The ideal farm dog. Natural heelers. H. G. LOUCKS, Birmingham, Ohio.

Hundred Fox and Wolf Hounds—Cheap. Catalog. KASKASKENNELS, Herrick, Illinois. 1-2

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

POULTRY

Bronze Turkeys, Toulouse Geese, McCRADIE, Hendrum, Minnesota. 1-4

W. H. Turkeys; hens $7.00; toms $8.00. MRS. ROSA CHAPIN, Tripoli, Iowa.

Mites exterminated from any chicken house in thirty days without oil, spray, or poison. Method endorsed by Minnesota School of Agriculture. Write for free circular. A. D. SCHIEK, 307E Fawkes Building, Minneapolis, Minnesota. 2-2

BABY CHICKS

Unusual chicks—Peters-Certified now for the fourth season sent with a real guarantee to live. This insures that the chicks are properly hatched from healthy flocks and helps protect you against loss during the first two weeks which may occur if chicks are not delivered in perfect condition. We are a reliable organization of 250 successful poultry breeders and supply at very reasonable prices only chicks from our own Peters-Certified flocks having high egg production records. All popular breeds perfected in egg laying and health by our poultry specialist, A. G. Peters, as explained in our illustrated catalog supplied on request, which also tells how you can secure a complimentary copy of our valuable poultry book, "A Money-Making System of Poultry Breeding." PETERS-CERTIFIED POULTRY BREEDERS' ASSOCIATION. Just address Peters-Farm, Box 571, Newton, Ia. 2-*

Liberal Discount on Broiler Chicks—Get chicks for broilers that you can raise. We can supply left-overs from heavy, or light breeds from Peters' Certified Flocks. These are positively not culls, but big, strong, bright eyed chicks that grow rapidly. Order now. Big discount on orders booked early. These are exceptional values. 100% live delivery guaranteed. Write for catalog and price list. PETERS POULTRY FARM, Box 572, Newton, Iowa. 26-*

FARMS FOR SALE

Dairy Farms Big Opportunity: South Florida where fast growing population makes high priced markets—richest muck and prairie land grows all year forage, as well as fruit and truck crops. Good water, good transportation, two cross state highways, paved, borders property. Two mainline railroads nearby, adjacent to the fast developing, beautiful Ridge Section. One of the best dairy developments in the state adjoins this. Both east and west coast cities market available. Prices of milk very high. Cost of feed low. Large holdings to choose from. For further information write M. W. WOOLSEY, 430 South Michigan Avenue, Auditorium Hotel, Chicago. 2-3

Dairying in the Ozark Region of Southern Missouri and Northern Arkansas means 9 or 10 months open grazing—pure mountain spring water—wonderful grass—mild and healthful climate. Proximity of the great markets of St. Louis, Kansas City and Memphis makes quick delivery and good prices. Prosperous growing communities, good schools and fine hard surfaced roads. Land can be bought or farms rented at prices that insure good profits. Write for full information about this land of great opportunity. FRISCO RAILWAY, 883 Frisco Bldg., St. Louis, Mo. 23-spl.

Come "Where Sunshine Spends the Winter," and buy 100 splendid registered Holstein dairy cows, together with as much irrigated alfalfa land as you may desire. We cut alfalfa 6 times a year. We have no crop failures; no blizzards—sunshine every day and cows sleep out in the open. Fine market for everything we produce. Splendid residences, beautiful location, fine neighborhood. Full information upon request. GILLETT'S DAIRY, El Paso, Texas.

For Sale or Rent—Du Page County farm, 491 acres. Improved highway, close to Chicago, unusual dairying facilities. Close to two schools, one-half mile several railroads. Three houses, all improvements. Possession March. Address 2905 HUBBARD, Hannibal, Mo.

For Sale—180 modern Northern Illinois dairy farm, or will rent same if party buys one-half interest in personal property and machinery. A good income from retailing milk in live city. Please do not answer if you have no money. Address BOX 269, care Hoard's Dairyman.

For Sale—540 acre well improved dairy farm one mile from Hettinger, the county seat—a good, live town. Good new buildings, house wired for electricity, excellent water. For terms and particulars address owner, J. A. BALSIGER, Hettinger, N. Dakota. 2-3

80 Acre Farm for sale or rent in Waukesha County, Wis. Electric lights in house and barn. Some machinery, feed, and three horses. M. L. COYLE, 781 Cass St., Milwaukee, Wis.

For Sale or Rent—Highly improved dairy farm, 155 acres, located on the edge of city limits Fergus Falls, Minn. Possession Mar. 1, 1927. ULLAND LAND CO., Fergus Falls, Minn. 2-3

54½ acre farm; brick house, basement barn, machinery shed, silo, 6 acres of nice timber woods, good soil, opposite public school and ¼ mile from Catholic church and school; 7 miles from Milwaukee near Highway 15; terms reasonable. Address JOHN WICK, R. 2, Box 145, Menomonee Falls, Wis.

Wonderful opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Georgia.

Farms for Sale in Clark Fork Valley, O. S. McCLURG, Clark Fork, Idaho.

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

FARMS WANTED

Need several fully equipped farms, immediately. WALT MILLER, Carpenter Bldg., Milwaukee.

FOR RENT

For Lease or Sale—One of best equipped dairy farms in Arkansas, on paved highway, 5 miles from city of 100,000 population. 330 acres of rich bottom land consisting of 100 acres in permanant pasture, 220 acres in high state of cultivation, 40 acres now in alfalfa. Buildings—1 good owner's dwelling, 7 rooms and bath, all modern conveniences. 1 six room overseer's house. 7 tenant houses. 1 large two story and basement mule and hay barn. 1 modern dairy barn with concrete floors and steel stanchions, feed and litter carriers and 51 stalls. 1 110-ton concrete stave silo. 1 large hay and feed shed separate. 1 milk house and cooling room. Plenty of good water. Will sell this desirable property or lease for a term of years to responsible and experienced dairyman. Address BOX 266, care Hoard's Dairyman.

For Rent—Farm 160 acres, highly improved, two miles from Charles City, Iowa. Also 1000 acre stock ranch located near Newburg, Phelps County, Missouri. 800 acres fenced hog tight, good buildings, near school, ranch spring watered. If interested write W. E. WALLER, Charles City, Iowa, for terms and full particulars. 2-4

To Rent—250 acre modern dairy farm with herd of 25 pure bred Holsteins, for term of years. References required. GEORGE L. WYMAN, Nunica, Mich. 1-2

For Rent—First class dairy farm. GEORGE DAY, Fond du Lac, Wis. 2-2

For Rent on Shares to practical dairyman 150 acre farm 1¾ miles from Cedar Falls, Iowa. 32 head Holsteins, also hogs and chickens. Would prefer Dane, Swede or Norwegian with family. R. E. BOYD, Garrison, Iowa.

WANTED TO RENT

Experienced dairy farmer (Swiss) with own help wants to rent large dairy farm (Ohio preferred). Give full details in first letter. JOHN STAUFFENEGER, Twinsburg, Ohio.

Wanted on Shares. Modern dairy farm, the South preferred, by man, wide experience. Reference. BOX 49, Jupiter, Fla.

DAIRIES

Dairy For Sale. Doing $850 per month business. Established 8 years. Write J. R. JENNINGS, Ladysmith, Wisconsin.

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Hay—Alfalfa and other kinds. Get our delivered prices. We serve you best. W. A. FERSON HAY & GRAIN COMPANY, Kansas City, Mo. 17-*

Alfalfa Hay for Sale. Write for delivered prices. ALBERT MILLER & CO., 192 No. Clark St., Chicago, Ill. 18-*

Alfalfa and all kinds hay. Ask for delivered prices. HARRY D. GATES COMPANY, Jackson, Michigan. 22-*

For Sale—Alfalfa and other hay, car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 27-*

Alfalfa and Prairie Hay. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 1-3

MINERAL FEEDS

Feed—Cow County Mineral Feed as fed by Waukesha County Dairymen. Send $2.50 for 100 pound trial bag. WAUKESHA MINERAL PRODUCTS COMPANY, Waukesha, Wis. 2-4

FEED BAGS

We are now paying higher prices for empty feed bags. Write for quotations. THE DAYTON BAG & BURLAP CO. Dayton, Ohio. 23-*

SEEDS

Winter-Hardy sweet clover, certified Grimm alfalfa. Order clover early, crop smaller than normal. Alfalfa from state registered fields; higher quality, lower prices. Write for free samples and delivered prices on Winter-Hardy seeds. NORTH DAKOTA GRIMM ALFALFA ASSOCIATION, State College Station, Fargo, N. D. Co-operative organization of over 500 growers. 2-2

Alfalfa Seed—Do you know why your alfalfa winter killed? You no doubt did not use hardy grown WESODAK alfalfa seed. The seed we market is grown by our members who live in Western South Dakota. We market from producer to consumer. We grow S. D. No. 12, Registered Grimm and Cossack, and absolutely guarantee genuineness of variety. Write for price and samples to THE WESTERN SOUTH DAKOTA ALFALFA SEED GROWERS EXCHANGE, Nick Caspers, President, Mgr., Rapid City, S. D. 1-*

Plant Kudzu for Hay and Pasture—More nutritious than alfalfa and yields more. Grows on well drained soil without lime or fertilizer. Never has to be replanted and never a pest. Write for information. CHEROKEE FARMS, Monticello, Florida. 1-4

Pure Certified Grimm's Alfalfa Seed direct from the man that grows it. Hardiest and best. Send postal for samples and folder for full information. TRIANGLE RANCH, Cottonwood, S. D. 27-*

Certified seed corn and Grimm alfalfa. Pure grass seeds, seed grains and poultry supplies. Booklet of seed bargains free. Write NORTH STAR FARM, Cokato, Minn. 2-4

Clover, Alsike and Timothy Seed mixed, $4.75 per bushel. Alsike and Timothy mixed, $4.50 per bushel Clover and timothy mixed, $4.65 per bushel. Bags free. J. W. RICHARDS, Ferris, Ill. 1-

Alfalfa Seed—92% pure, $6.80 per bushel; Scarified sweet clover, 92% pure, $5.00; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

Genuine Grimm Alfalfa Seed. White and yellow sweet clover. Reasonable prices. SAM BOBER, Newell, South Dakota. 27-

For Sale—Seed Corn: Silver King, Golden Glow Northwest Yellow Dent. CHESTER KEISTER Orangeville, Illinois. 1-

Nebraska-Grown choice alfalfa seed. $13.50 per bushel. ROSENBERG BROTHERS, Lexington Nebraska. 2-

KODAK FINISHING

Amazing Trial Offer! One Kodak roll film developed; 6 fine glossy prints; only 15c. ASSOCIATED PHOTO, Box 1463-L, Cincinnati, O. 24-

MILK BOTTLE CAPS

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY Middletown Road, Muncie, Ind. 21-

RAW FURS WANTED

Wanted—Ginseng, Skunks, Raccoons, Minks, Musk rats, $1.75, Weasels, $1.50. Postage refunded. Fur price list free. STERNS', FURS, New Brunswick New Jersey. 1-

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or member of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm, ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-

TOBACCO

Homespun Tobacco—Smoking or chewing, 4 lbs., $1.00; 12, $2.25. Send no money, pay postmaster on arrival. Pipe free for ten names of tobacco users. UNITED FARMERS OF KENTUCKY, Paducah, Kentucky. 2-4

Aged leaf tobacco. Select chewing 3 pounds $1.00; 10—$3.00. Best smoking 10—$2.50. Good 10—$2.00. Scraps, 10—$1.00. Prompt shipment. Money back if not pleased. CO-OPERATORS, Murray, Kentucky.

Guaranteed Homespun Tobacco—Chewing or smoking, 5 lbs. $1.25; ten $2.00. Cigars $2.00 for 50. Pipe free. Pay when received. FARMERS' ASSOCIATION, Maxon Mills, Kentucky. 1-2

Homespun Tobacco. Guaranteed. Chewing, five pounds $1.50; 10, $2.50; Smoking, 10 $1.50. Pipe free. Pay when received. UNITED FARMERS, Bardwell, Kentucky. 1-2

Homespun Tobacco. Chewing or smoking 5 lbs. $1.25, ten $2.00; cigars, $1.80 for fifty, $3.25 for 100. Guaranteed. Pipe free. Pay when received. FARMERS' UNION, Paducah, Ky. 2-4

Homespun Tobacco—Mellow, sweet, aged in bulk; Smoking, 15 lbs. $1.50; Chewing, 15 lbs. $2.25. Satisfaction guaranteed. Pay when received. FARMERS' UNION, Mayfield, Kentucky. 2-2

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

MISCELLANEOUS

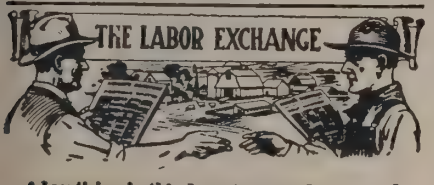
Investigate before buying harness. Send for "Wear-More" catalog. Pay $5.00 after thirty days free trial. Easy monthly payments. JOHN C. NICHOLS CO., 1867 Erie Avenue, Sheboygan, Wisconsin. 1-4

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid, HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*

Wanted—Experienced tester for cow test association, organized and ready to start work. Need not apply unless first class recommendations and training. WALDO McCORKLE, Secretary, Columbia, Ia. 2-2



Advertising in this department is 8c per word. Remit in advance.

POSITIONS WANTED

Dairy Farm Manager open for position March 1st or later. 35 years old, married, 3 children, life experience pure-bred Holsteins, modern machinery, crops, soils, feeding, fitting for show and test. Made several world's records. Competent of taking full charge. Best of references. Willing to board help. Prefer Ohio or Michigan, but will go anywhere. R. N. LYKE, Woodlands Farm, White Plains, N. Y.

Experienced, single farmer, 33, looking for good size farm on percentage salary or both. Thorough knowledge of tractors, farm machinery, and all practical farming. Can prove it. Have good married man if needed. Good worker and good man to get along with. Five years on present job. HAROLD MINDORFF, Fitchome Farms, Aurora, Ill.

Single dairyman, 24, desires position May 1st. One year tester, two years herdsman, A. R. experience, lifetime farmer. Thoroughly understand rations and feeding. Capable farm manager. Permanent place desired. $85 and bonus. Satisfaction or no pay. References exchanged. Address BOX 258, care Hoard's Dairyman.

Wanted—Position as herdsman on up-to-date breeding establishment by married man, 24 years of age; 7 years experience with pure breds; State school education, 12 medals including one medal of merit last 4 years. References furnished. $120 per month; available immediately. HERDSMAN, 91 Main Street, Attica, N. Y.

Wanted—Position as manager or herdsman. Experienced in production and reproduction of cows and crops, raising calves. Am a good mechanic. Can furnish A-1 references and A. R. records. Prefer position with room for advancement. HAROLD LIVINGSTON, Geone City, Wisconsin.

Married man, 35 years old, Swiss descent, no smoker or boozer, experienced in practical farming, desires position on farm, or will rent on share where no capital is required. References exchanged. Address BOX 274, care Hoard's Dairyman.

Position wanted as manager or herdsman. 36 years old, married, two children. Experienced in the breeding and showing of pure bred cattle and production of high class market milk. Now in New Jersey. References exchanged. Address BOX 263, care Hoard's Dairyman.

Wanted—Position by March 1st as manager, by middle aged man, Swiss nationality, on up-to-date retail dairy farm or in milk plant. Can produce finest market milk. Experienced farm and dairyman. References. Address BOX 261, care Hoard's Dairyman.

Wanted by experienced herdsman and son, small family, position on first class Holstein dairy farm. Familiar with different kinds of milkers. Hustler, honest, reliable. Address BOX 260, care Hoard's Dairyman.

Wanted—Position. By honest, reliable, experienced and successful farmer in all lines modern breeding, testing, showing and caring for dairy cattle; field work and modern machinery. Address BOX 277, care Hoard's Dairyman. 2-2

Position Wanted—Experienced, practical farm manager and stockman. Can handle men and get results. Wife would cook for few men. Exceptional references. Address BOX 259, care Hoard's Dairyman. 2-2

Experienced, single man wishes position as test cow man in good herd. Holsteins or Guernseys preferred. Good references. ROBERT MARSH, Quincy, Michigan.

Wanted—Good farm home for eighteen-year-old boy, for wages and good environment asked. MARY B. ORTON, Route 1, Sandy Hollow Road, Kinsey's Addition, Rockford, Illinois.

Qualified farm manager. Certified milk, official testing, general, grain, dairy, fruit, forestry. Marketing, wholesale, retail. Farm and college training. C. D. ALLEN, Williamsburg, Mass.

Experienced, married herdsman seeks position with Guernseys. Good references. Illinois or Southern Wisconsin preferred. Wife willing to help with housework. Address BOX 256, care Hoard's Dairyman.

Position wanted for March 1st by experienced farmman on modern dairy or stock farm. Wife can help in dairy or board additional help. Good references. Address BOX 267, care Hoard's Dairyman.

Married herdsman. Fully experienced. Available March 1. Prefer Great Lakes region. References—Nationally known breeders. Address BOX 275, care Hoard's Dairyman.

Wanted—Caretaker position on gentleman's estate, dairy work. Experienced. Reference. WILL LOOK, Quincy, Michigan.

Wanted—Position dairy barn work. Good milker. GEORGE CRAMER, Box 321, Sidney, N. Y.

POSITION WANTED

Position wanted as herdsman March 1st by middle aged, married man and grown son. Swiss nationality. Holstein herd and southern states preferred. Address BOX 257, care Hoard's Dairyman.

Wanted—Position by thoroughly experienced single man in bottle house, barn, or test barn. Best habits. State salary and living conditions. Address BOX 272, care Hoard's Dairyman.

Wanted—Position. Single man, age 35. Lifetime experience with dairy cows, good dry hand milker, good calf raiser. Clean and good habits. Available at once. L. J. STOCKERT, Churubusco, Indiana.

Married man, 26, wants foreman job on Ranch in Montana. No children. Address BOX 268, care Hoard's Dairyman.

Single man wants position as herdsman or manager on up-to-date dairy. Reference. State wages. HENRY SKOW, Pine River, Minn.

Wanted—Job on farm by March the first, 22 years old, 8 years' experience. Good worker. PAUL CZAIKA, 125 Sycamore St., Hamilton, Ohio.

Position Wanted as herdsman. Single, age 30, college graduate, best of references. WM. HALL, Paul Smiths, N. Y.

Manager—Salary or shares. Expert Holsteins, poultry, hogs. Practical, fully informed. Address BOX 273, care Hoard's Dairyman.

HELP WANTED

Help Wanted—Married man thoroughly experienced operating Surge milkers. Must know how to operate, care for the machines, and keep cows' udders in perfect condition. Also married man thoroughly familiar with milk house work in certified dairy. Also a first class barn man for certified dairy. Unless you have had plenty of experience, are willing to work any place in the dairy where needed, and can furnish first class references from previous employers, do not waste your time nor mine. Salary $75.00 per month with living quarters, garden spot and milk. Give full details and number in your family in first letter. EDWARD SOPH CERTIFIED JERSEY DAIRY, 215 Alexander Building, Tulsa, Oklahoma.

Wanted—Experienced men for farm work on a modern Michigan farm, to start work March 15th or April 1st. Must understand good farming methods and machinery, be good with horses and willing to do good work. Give experience and qualifications in first letter. Wages $60.00 per month with room, and board. Address BOX 242, care Hoard's Dairyman. 1-2

Wanted—By March 1, on large dairy farm, man with tractor and farm machinery experience. One able and willing to take the lead as working foreman. Steady work and good home. In writing give age, experience and possible wages expected. References required. Address BOX 245, care Hoard's Dairyman. 1-2

Wanted—A herdsman who is capable of taking complete charge of a pure bred Holstein herd of forty animals, twenty milking cows with De Laval milker. Some Advance Registry experience preferred. Apply stating wages expected. Six room modern house with heat and milk furnished. COLORADO SCHOOL FOR DEAF & BLIND, Colorado Springs, Colo.

Wanted—Single, middle-aged man to work on dairy farm. Must be familiar with all kinds farm work. Farm of 100 acres. Milking about 15 cows. Mechanical milker. No cigarette fiend or crank need apply. Steady work year round, good home. State wages expected in first letter. CHARLES ZINGG, Lime City, Ohio.

Wanted—Experienced creameryman for bottle house on large Holstein farm, 40 miles from Chicago. Modern up-to-date creamery and farm. Some preference to single man. References must prove his ability and character. Only first class man considered. Write in detail to BOX 270, care Hoard's Dairyman.

Real farmer, able to handle all farm crops, keep help busy in field, run tractor and all farm machinery; willing to work under manager. Good opening for experienced man. References required. State wages. Near Philadelphia. Address BOX 276, care Hoard's Dairyman.

Firemen, Brakemen, beginners $150-$250 monthly; also clerks, railroads every where (which position?). RAILWAY ASSOCIATION, Desk M-10, Brooklyn, New York. 1-2

Experienced Test Cow Feeder, either married or single wanted. An excellent opportunity with one of Wisconsin's best Guernsey herds. The right man will be advanced as he demonstrates his worth. LARSENS FERN-DELL FARMS, Green Bay, Wis. 1-*

Wanted—Married man, no children, March 1st. Good wages for man handy with tools, tractors, etc., or good teamster. Wife to board help at $35.00 per month per man. References required. Address BOX 265 care Hoard's Dairyman.

Wanted—Married man age 25 to 35 to work on farm and help milk. Must be steady, good worker. One hundred month. Good three room house, milk, garden, and steady employment. To be here by first February. JACOB CHARAK, Shasta, California.

Wanted—Reliable single man on small dairy farm. Good living and working conditions. No smokers. References required. CLAUDE EWART, Route 2, Akron, Ohio.

Railway Positions—Men, 17-40, wanting positions office or on trains, $125-$400 monthly, free passes, experience unnecessary. Write BAKER, Supt., 124, St. Louis, Mo. 1-24

Wanted—Single man for farm work. Must be experienced and reliable. State age and wages. Year around job. HERMANN KELCH, Whitewater, Wisconsin. 1-2

Single man of good habits for year round dairy and general farm work. Modern equipment. State age, experience, and wages expected. Your letter answered. EDGAR HUEBBE, Beloit, Wis.

Wanted—Experienced single assistant for bottle house on dairy farm in Illinois. $65.00 per month, good board and $150.00 bonus for year of satisfactory work. Address BOX 271, care Hoard's Dairyman.

Wanted—Single man by March first to work on dairy farm. Must be a dry hand milker, no smoking allowed in buildings. Wages $50.00 per month. NOTTEN FARM, Grass Lake, Michigan.

Wanted—Married man with small family on dairy farm, near Milwaukee. Separate house, steady position. Address BOX 264, care Hoard's Dairyman.

Wanted—Married man on 65 acre Island farm, for cattle, hog and poultry raising. LOCK BOX 42, Hustisford, Wis.

Wanted—Single man to work with Holstein cows. Also married man with small family for general farm work. Good wages paid and only high class men wanted. LAKEFIELD FARMS, Clarkston, Mich. 2-2

Wanted—By March, small family with two or three good milkers. Modern buildings, good pay. Address JOHN SPANGER, Hebron, Ill.

Wanted—Single man on modern dairy farm ½ mile from city. No cigarettes. State wages first letter. BYRON GATES, Fort Atkinson, Wis. 2-*

Man Wanted—Single, for farm work. Experienced and good milker. State wages. R. KRISTENSEN, R. 3, Woodstock, Ill.

Wanted—Man for general farm work. State wages in first letter. JOE REUSCH, Elizabeth, Illinois.

Wanted—Man to work farm on shares or by the month. GRANT RANDELL, Hebron, Ill.

Married farm help wanted. State experience. ALBERT SCHROEDER, Route 4, Marseilles, Ill.

Wanted—Good dairy hand at once. Holsteins. State wages. PLAINS DAIRY, 3127 Thomes, Cheyenne, Wyo.

HOW OFTEN DO YOU SEE THE SAME AD?

Our friends watch these columns closely and it pays to advertise to them if you want a job or want a man.

COMPLETE DISPERSION SALE

FRIDAY, FEBRUARY 25, 1927

At Stevens Stock Farm - ½ mile west of SYCAMORE, ILL.

80 REGISTERED HOLSTEINS

36 Cows in milk, all young in ages; 11 Heifers ready to breed, 16 Heifers bred to freshen soon; 12 Heifer Calves; 5 Bulls

This includes our three herd sires whose dams have 30.73 lbs., 31.67 lbs., 32.47 lbs. butter seven days. For years we have only used the best bred seven-day and yearly record herd sires we could obtain. Watch next advertisement for details or send for circular which will soon be ready to mail.

GEO. A. FOX, Prop., SYCAMORE, ILL.

R. E. HAEGER, J. E. MACK—Auctioneers

Red River Valley Breeders' Ninth ANNUAL HOLSTEIN SALE

FEB. 10th

CROOKSTON MINNESOTA

60 PURE BREDS

Choicely bred animals largely of Sir P O M and Bess Burke breeding. A great lot of females from calves up. Several springers and record cows. An exceptionally fine lot of bulls, most of which are ready for service.

Further particulars gladly furnished

MELIN-PETERSEN Co., Sale Mgrs., 306 Gorham Bldg., MINNEAPOLIS, MINN.

Minnesota Pure-bred Sire Campaign

Through the co-operation of the various live stock breeders' associations in the state of Minnesota, and particularly through the efforts of the members of the Minnesota Live Stock Breeders' Association, the Minnesota Pure-bred Sire Compaign has been taken over by the Minnesota Live Stock Breeders' Association and will be carried on in the same manner as the bull campaign but will be wider in its scope.

Axel Hansen, nationally known Holstein judge, has been employed by the Minnesota Live Stock Breeders' Association to act as state manager of the pure-bred sire campaign and in making this selection the association has secured a man whose training in live stock development is very sound.

The pure-bred sire campaign as conducted by the Minnesota Holstein Breeders' Association was very successful when it is considered that the management was busy with many other projects relative to the state Holstein Association. During the time the work was carried on, over a period of three years, seventeen counties were covered and a total of 1,215 pure-bred sires of all breeds were placed, making an average of 71 per county. —The Minnesota Holstein Breeders' Association.

Sale Announcements

Jan. 26—Andrew Dixon & Son, Holsteins. Rockford, Minn.

Feb. 10—Holsteins. Ninth Annual Red River Valley Holstein Sale, Crookston, Minnesota. Melin—Petersen Co., Mgrs.

Feb. 15—Holsteins. Bailey & Bailey, Belvidere, Ill.

Feb. 16—Holsteins. Spring Dell Stock Farm, C. H. Lichtenwalner, Prop., Monroe, Wis.

Feb. 25—Holsteins. Dispersion of George Fox's Holstein herd at Sycamore, Ill. R. E. Haeger, Mgr.

March 23, 1927—25th and semi-annual sale of Registered Guernseys. Waukesha County Guernsey Breeders' Ass'n., Waukesha, Wis., F. E. Fox, Sec'y.

Mar. 24—La Crosse County Guernsey Breeders. Registered and high grade Guernseys, West Salem, Wis. H. W. Griswold, Sale Mgr.

April 26—Holsteins. U. S. National Blue Ribbon Sale at Oconomowoc, Wis. Haeger, Baird & Darcey, Sale Mgrs.

April 27-28-29-30—Holsteins. U. S. National Spring Sale at Waukesha and Watertown, Wis. Haeger, Baird & Darcey, Sale Mgrs.

May 3, 4, 5, 6, 1927—Fond du Lac, Wis. 400 head registered Guernseys. O. G. Clark, West Salem, Wis., Sale Mgr.

May 9, 1927—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.

3 GOOD BULLS

9 to 12 Months Old

All three are by Segis Prospect Eminent, a 30-lb. 1,165-lb. grandson of Matador Segis Walker and Segis Pietertje Prospect.

No. 1, born Feb. 8, '26, is from Piebe Homestead Ormsby Fobes, 25.7-lb. 4-year-old that has produced over 500 lbs. fat each of past two years in C. T. A. Price $175.

No. 2, born Feb. 20, '26, an excellent individual, from De Kol Netherland Homestead, 25.19-lb. cow. Price $200.

No. 3, born May 7. A good, straight, well bred calf, priced worth the money at $150.

The herd is clean. Write today.

THE W. T. RAWLEIGH COMPANY

Props. Rawleigh's Ideal Farm

FREEPORT ILLINOIS

YOUNG BULLS

Priced to Sell!

I am sold out of serviceable bulls but have some excellent bull calves 2 to 4 months old, priced right. They have the type and breeding that will suit you and are from A. R. dams. Write today.

HARRY M. WOOD, Delavan, Ill.

UNITED STATES SOLDIERS HOME DAIRY

WASHINGTON, D. C.

OFFERS FOR SALE at reasonable prices from the first accredited herd in the United States. **PURE BRED HOLSTEIN-FRIESIAN MALE CALVES** from one month to seven months old, from yearly tested dams and sons of General Piebe 323266 H. B. One of the richest bred sons of the well known K. P. O. P. whose descendants have in the past eight seasons won no less than 553 first prizes. His five nearest dams, all have 1,200 lbs. butter in 265 days. **Also sons of Grahamholm Colantha Pauline Lad 297377 H. B.**

BULLS!

Grandsons of North Star Joe Homestead

T. B. Tested — Age 1 to 6 mos.

H. OF C. FARM, No. Milwaukee, Wis.

SERVICEABLE BULLS — FOUNDATION HEIFERS

Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.

BAIRD BROS., Box 177, WAUKESHA, WIS.

AKONA HOLSTEIN FARM

A FEW REGISTERED HEIFER CALVES for sale. Sire's dam 1,016 lbs. butter in year. Dams have good records. Prices $50 to $75. Accredited herd.

B. A. NORRIS, Anoka, Minn.

HEAVY PRODUCING

JERSEYS

Serviceable bulls and younger for sale, from herd that averaged 505.71 lbs. butterfat in C. T. A. past year. Accredited herd, no abortion. Prices reasonable. Write or call and see herd.

W. H. EDDY HOWARD LAKE, MINN.

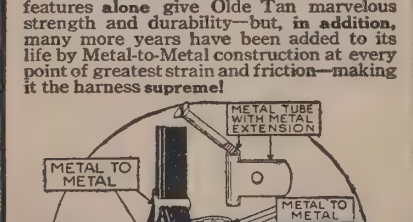


Waukesha Ricardo
Replacement Head for FORDSON
Earns Dollar a Day for User
Users often save that much fuel and time each day and get three to five more horse power
INSTALLATION EASY
Only a wrench and an hour's time needed. Sold by dealers, garage men or direct. Moderate in price and sold with a money-back guarantee. Write for "Ricardo Replacement Head" book describing and giving prices on Fordson, Ford, Dodge and Graham Bros. Ricardo Replacement Heads.
GIVES 3 to 5 HORSE POWER MORE
Waukesha Motor Company
960 St. Paul Ave., Waukesha, Wisconsin
BUILDERS OF HEAVY DUTY MOTORS FOR TWENTY YEARS

Don't Pay for 4 Months

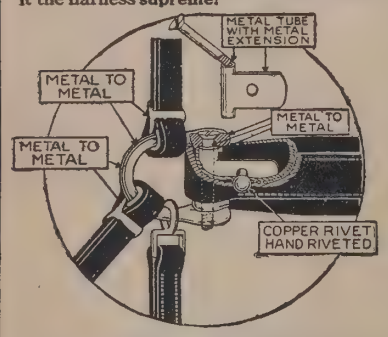
We will send you an Olde Tan Metal-to-Metal Harness—and you need not pay us a cent for 4 months. You have a 30 days' Free Trial—without the slightest obligation to buy unless satisfied. Use this harness as if it were your own and put it to every test. If not satisfied, send it back at our expense. If satisfied, pay us nothing until four months after you receive the harness.

Olde Tan Metal-to-Metal Breeching Harness With Back Pads
Nine Other Models



Olde Tan Harness

Write at once for the remarkable story of this famous Olde Tan Harness. Olde Tan is made extra heavy, of only the strongest hides, perfectly tanned, and has the "Buckleless Buckle," which is far stronger than the ordinary buckle, and **cannot** slip. These features **alone** give Olde Tan marvelous strength and durability—but, **in addition,** many more years have been added to its life by Metal-to-Metal construction at every point of greatest strain and friction—making it the harness **supreme!**



One of the *many* places at which **Metal-to-Metal** reinforces Olde Tan

"Not a Cent for Repairs!"
So writes Lewis Hunt, Prescott, Kas., after 3½ years' use, and he adds, "If I had to buy 100 more sets they would all be Olde Tan." "4 years and no repairs" writes W. H. Grady, Wall, So. Dak. "A runaway, with a corn binder, cut off three fence posts and four telephone poles—and we have proof nothing ripped or tore on the harness." —C. W. Schubbe, Elgin, Ill. **If you want a harness you can depend on—get Olde Tan!**

Mail Coupon for Free Catalog!

Do it now! A poor harness is dear at **any** price! If your harness breaks down during spring work, the delay may cost you many times the price of Olde Tan. So don't wait! Get it NOW! **Remember—30 days' free trial, $7.50 per month. Or nothing to pay for 4 months, if you prefer. But you must act quick! Write for free book TODAY!**

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2843 W. 19th Street, Chicago, Ill.
Please send me free your Olde Tan Harness Book telling all about your Don't Pay for 4 Months offer on Olde Tan Harness.
Print your name and address plainly
My Name
My Address



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Mo.	Lewis Co.	Nov.	249	369	18.7	J.	8	611	36.0	W. Conover
"	Harrison Co.*	Dec.	236	339	18.4	J.	10	559	32.2	J. Van Hooser
Ida.	Pioneer	Nov.	492	520	23.8	J.-H.	8	892	36.1	J. R. Crawford
"	Gooding-Jerome	"	612	635	27.9	G. H.	15	1193	44.7	G. Faulkner
Minn.	St. Louis Co. 1*	Dec.	318	529	21.5	G. G.	9	660	30.7	B. Fisk
Tenn.	Hamilton Co.	"	647	498	24.7	G. J.	16	593	34.7	A. A. Little
Ill.	Ogle Co.	"	406	695	24.0	R. H.	8	1232	43.5	J. Hemingway
W. Va.	Pan Handle	"	261	615	27.3	R. J.	15	686	38.6	J. R. Lough
Va.	Loudoun 3	Nov.	731	446	20.6	H.-G.	17	858	34.8	F. T. Anderson
Wis.	Algoma	Dec.	378	603	23.7	G.	16	653	30.8	H. Harmann
"	Spring Valley*	"	411	555	23.6	G. H.	16	1066	37.9	Dugdale & Walker
Utah	Cen. Cache Co.	"	605	705	25.9	G. H.	5	1516	48.7	V. Perkes
Mich.	So. Newaygo*	"	258	452	19.4	G. J.	8	824	35.9	L. Hoyt
"	Ionia-Belding*	"	392	708	27.9	R. H.	6	1367	44.0	E. Larson
"	Kalamazoo 3*	"	228	592	24.4	J.-H.	7	1025	42.3	F. Jager
"	Leelanau Co.*	Nov.	213	343	13.9	J.	8	527	31.2	J. Hilbert
"	Livingston*	"	317	654	24.3	R. H.	14	1043	37.1	E. H. Morlock
"	Chippewa*	"	270	557	21.8	H.	8	921	35.6	Curtis & Caldwell
"	Branch Co.	"	194	550	26.2	R. J.	8	630	33.8	J. Pridyears
"	No. Wexford	"	184	344	16.9	G.	6	780	40.9	S. Teed
"	So. Kent Co.*	"	269	579	24.5	R. G.	8	830	40.9	E. Ruehs

*Retest rules followed.

Use of Barn Sheets

HOARD'S DAIRYMAN:—The average production of the South Newaygo Association of Michigan is gradually increasing, although cows are freshening much later than usual. Despite the adverse weather conditions this fall the production was slightly greater than last year until this month when the average was four pounds fat below December of last year, due to the smaller number of fresh cows.

In regard to the keeping of barn sheets, I would like to say that the idea of carrying them for three or four months is very good. A tester then has them for comparison. But it seems to me that a tester has a great plenty to carry with him without any unnecessary luggage. Why not leave the barn sheets each month in the member's herd book? They are always handy for the owner in looking over and comparing one month with another and the tester has access to them each month. When a cow has freshened soon after my previous visit, then her record is figured for a full month and the extra day's credit written in above the month's record. The two are added together when put in the herd book, mostly as a matter of neatness, but the barn sheet not only shows the complete record but also the record for the 30 or 31 days in that testing period. Thus the barn sheet may show things in a more detailed form than the herd book and may help the owner in looking over the month's work.

Furthermore, detailed feed help should be on the back of each and every barn sheet, showing the ration suggested to feed together with the amount of grain each cow should have. CLARENCE PRENTICE, Tester.

Michigan.

Alfalfa as the Only Feed

HOARD'S DAIRYMAN:—Figures of the second annual report of the Lake County, Montana, C. T. A. indicate that good alfalfa hay and well kept irrigated pastures which were the feeds used mostly by the members were also the most profitable feeds.

Of the nine herds qualifying for the National Honor Roll, four were fed from $6.81 to $23.31 worth of grain in addition to alfalfa, with returns above the cost of feed of from $91.41 to $98.57 per animal. Of the remaining five herds, three were fed $.25 to $3.75 worth of grain and two herds had only alfalfa hay and irrigated pasture. Their returns above feed cost ranged from $104.19 to $136.17 per cow. The high herd in the association was one of the two herds last mentioned, making 386 lbs. fat each on alfalfa hay and irrigated pasture alone.

Grouping the cows according to the returns above their cost of feed finds that of 27 cows with an income above feed cost of over $125 each, nine were fed considerable grain, eight were fed less than 200 lbs. each, and ten received no grain.

Of 31 cows with an income of from $100 to $125 each above feed cost, 12 were fed more grain, 10 less than 200 lbs. each, and 9 were fed no grain.

Of 69 cows with an income of from $75 to $100 each above feed cost, 24 were fed more grain, 16 less than 200 lbs. each, and 29 were fed no grain.

Alfalfa hay was sold at around $8 per ton in the stack but figured here at $10 per ton and the pasture around $2 per cow per acre monthly. The usual grain mixture was barley, oats, and bran, figured at a cost of from $30 to $35 per ton.

Montana. C. A. ARNET, Tester.

An Iowa Report

HOARD'S DAIRYMAN:—The fact that more members of the Tama Association of Iowa are becoming interested in dairy husbandry work is: Twenty-three take a dairy paper, ten own milking machines, twenty-four own silos, and twenty-two have purebred sires. Members have increased their legume acreage to 277 acres of sweet clover, 91 acres of soy beans, and 85 acres of alfalfa. The result of this increase is that four will not need to buy a protein-rich concentrate as they will have enough home grown feeds to balance their dairy rations. Twelve of those who have to buy will save $125 by buying co-operatively 20 tons of oil meal and 10 tons of alfalfa hay that have been ordered and received.

Three cream separators tested twice more than .05% while six tested but once more than .05%. One separator on a board floor lost its owner 13.2 lbs. fat valued at $6.33, loss due to vibration. If the separator had not been changed to a concrete floor the loss would have been $72 for the year.

The member showing the most interest in milking and feeding regularly was the one who had the high herd of 29 cows that averaged 366 lbs. fat. He also had the high cow, with 535 lbs. fat.

Iowa. WILEY WHITEHEAD, Tester.

Does Continued Testing Pay

HOARD'S DAIRYMAN:—Macomb No. 2 C. T. A. of Michigan was organized in May, 1923. It is now in its fourth year and a partial answer to the question, "Does continued testing pay?" is found in the fact that in 1924 twelve members continued testing, in 1925 there were 25 members who continued, and in 1926 there were 22, and there is a waiting list.

A practical example of three years' progress is shown in a herd that in 1923 were just grade cows whose ancestry was not definitely known, and were fed by guess, and that's 'good enough." During the three years following, two good sires were used. The first year the herd averaged 262 lbs. fat, the next year 280 lbs., and the third year 349 lbs.

The increased production in the second year was due to better feeding, installation of drinking cups, and interior of barn remodeled for more comfort. The third year increased production was due to influence of breeding and management, only one of the original cows remaining in the herd. The herd now consists of eleven head, nine of which are under five years old and all daughters of the original cows.

Did improvement stop here? Well, let's see. In the beginning no farmers' bulletins were read and discussed. Today this farm house is a *home,* with modern conveniences such as bath room, septic tank, pressure water system, kitchen and pantry remodeled, radio, and improved farm management.

Here is what happened to another herd in 1925: For sale, Ute, a raw boned, homely two-year-old, just fresh. Although priced at $90 there were no buyers. Along came the tester two weeks later, saying: "Where did you get that thing?" John replies, "I have a notion to beef her. She gives lots of milk but it looks blue. I admit she is a homely looking rack of bones." Findings of the first test showed 59 pounds of milk daily and 52 pounds of fat for February. The first 8½ months she made 11,978 lbs. milk and 379 lbs. fat. Ute doesn't look quite so homely now and is not for sale.

Our county fair was held in September. "Best cattle exhibit in years," was the comment of the old timers. How come these good cattle exhibits? Due to the co-operation of the members of the four cow testing associations in the county of Macomb.

Above are a few incidents of progress accomplished by co-operation. Every tester takes pride and pleasure in working with progressive members. Both members and tester gain knowledge, ambition for the best, and success by "continued testing."

Michigan. CASPER BLUMER, Tester.

Annual Association Reports

State	Association	Year ending	Total cow years	Ass'n. Milk	Ave Fat	Cows culled	300-pound Cows	Herds	Fat records High cow	High herd	Tester
				Lbs.	Lbs.				Lbs.	Lbs.	
Wis.	Stanley—Thorp*	Aug.	368	6,719	272	60	126	10	505	371	J. Frazee
"	Poynette*	Sept.	369	8,670	302	30	157	11	642	460	W. E. Constable
"	Glenwood	Oct.	582	7,527	275	54	175	9	729	386	G. Schroeder
Mich.	Kent—Gr. Rapids*	Dec.	2,401	8,630	345	73	47	16	517	456	W. B. Taylor
Mont.	Lake Co.	Feb.	223	6,909	276	38	82	9	513	386	C. A. Arnet
Iowa	Tama Co.*	Oct.	313	7,750	290	57	67	9	535	366	W. Whitehead
"	Warren Co.	Nov.	353	7,028	296	39					A. Smith
N. D.	Burleigh Co.*	Aug.	238	6,821	266	75	74	3	516	353	H. E. Balk
Wis.	Rewey		390	6,716	290		175	11	529	423	A. Hesse
Minn.	St. Louis Co. 1*	Jan.	264	7,785	315	67	122	8	649	408	H. O. Pague

*Retest rules followed.

Sanitation

We have heard frequently and with much volume lately the word "sanitation" in connection with the prevention and control of diseases and parasites of swine. What is sanitation with respect to its beneficial influence? It is timely that we understand fully the positive side of this practice and thereby not be disappointed by a faulty use of something that we think is sanitation.

L. Van Es of the Department of Animal Pathology and Hygiene of the University of Nebraska has said some things about false notions of sanitation that we think are more than worth the reading.

He says: "The word 'sanitation' often is a mere commonplace uttered when the problem in hand is especially baffling, while often something alleged to be sanitation is undertaken merely because it yields a certain degree of comfort of the conscience when something is done or said with the best of intentions.

"Sometimes disinfectants are promiscuously scattered about the premises and this is called sanitation when in reality nothing more is accomplished than the creation of a smell. In other cases stable yards and pens are divested of their rubbish and this completes the process of sanitation as if the disease would disappear at a mere gesture.

"With the prevalence of such ideas it is not surprising that the results are often far from those hoped for, that sanitation so frequently inspires but little confidence and that farmers are so commonly induced to pin their faith in the useless nostrums, biologic or otherwise, which are constantly dangled before them by the clever salesmen of our day.

"Sanitation thus is often given a rather vague and indefinite position among the measures of disease control. This is further enhanced by the fact that the most costly of all swine diseases, hog cholera, is probably one which is least amenable to purely sanitary methods.

"Yet there is no fallacy more potential of costly mischief and of far-reaching bad results than the belief that sanitation is only of a subsidiary importance among the various factors of our disease fighting machinery. In fact, in the case of a certain group of highly important swine diseases, real sanitation is as yet our only hope in coping with rather disastrous situations."

The words of this investigator imply that there is much false understanding in employing the weapon of sanitation in health defense in pig yards.

Cholera is generally rated as the disease of greatest importance both from an economic and mortality standpoint. It is quite likely, however, that if a careful survey were made of pigs from birth to market weight it would be found that parasites, necrotic infections, and pneumonia-like diseases take a far greater economic toll than is commonly calculated even though the mortality of these is very much lower than with the hog cholera. Of these three groups of pig troubles, parasites and necrotic infections are best controlled by real sanitation. False sanitation will do little good.

By sanitation is meant the creation and maintenance of an environment which is safe to animal life. Since the soil in the constantly and frequently over-populated hog yards is the repository of most of the body excrement of swine, it is important that any measures of prevention and control consider purification of this soil.

Obviously the contaminated soil of the hog yards cannot be disinfected in the sense that we ordinarily understand this practice. It follows, therefore, that other means must be employed of ridding the soil of disease germs and parasite eggs. Nature with the aid of cultivation and time will purify the soil. In the meantime it is necessary to provide other clean yard and pasture quarters for the young, susceptible pigs.

In other words, two things are absolutely essential in providing safe quarters for swine. The first of these is that the contamination in the old yards must be cleaned up if one expects to grow clean hogs in these yards; the second is that temporary, clean quarters must be provided while the old yards are being purified. No half-way measures will succeed.

Comparing Feeds

Frequently swine producers are concerned about the comparative feeding value of different grains for feeding pigs. When fed in feeding trials in such a way as to make a fair comparison and using corn as a basis, it has been found that 100 lbs. of corn are equal to 110—120 lbs. of ground barley, to 120—125 lbs. of ground oats, to 102 lbs. of ground rye, to 90 lbs. of ground wheat, to 105 lbs. of hominy meal, and to 110—120 lbs. of ground grain sorghum. With these figures and the prices of the different feeds one can determine which is cheapest to feed.

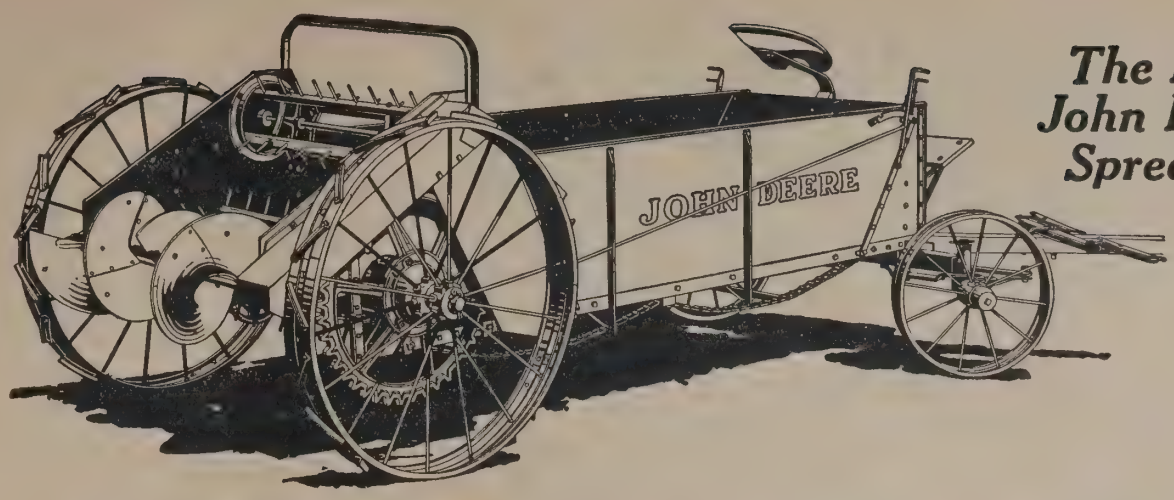
Hog Prices

Averaged for a period of years the gain in price per hundred pounds of hogs marketed in September as compared with the price in December or January is found to be about 15 per cent; the gain for hogs marketed in October about 9 per cent over the December or January prices.

Over a series of years September is the month of highest hog prices and January the lowest with December very close to January prices.

Pigs marketed early get the advantage of higher prices but lose out on the advantages of hogging down corn or frequently on the lower price of new corn. Pigs full fed for early market do not make as full use of forage crops as pigs fed limited grain on forage.

Hogs make money only while they are in good health. A sick pig gains little if any and more frequently loses weight. Safeguarding the health of pigs is just as essential as feeding them. What does it profit to feed a sick pig?



The New John Deere Spreader

This New Spreader Gives You the Four Features You Want

This new, narrow, tight-bottom John Deere Spreader **with the beater on the axle and the box-roll turn** gives you a spreader that **is easier on you, easier on your horses, does better work** and **lasts longer.** It combines in one machine the four essentials that are really important to you in a manure spreader.

Its low, easy-loading box saves you from 15 to 25 per cent of the work in loading. The energy required to load 100 loads of manure onto the ordinary spreader will load from 115 to 125 loads onto the New John Deere. This is a tremendous advantage in itself.

Then consider the saving of your horses. Hundreds of present owners of the New John Deere who have always used three and four horses on the ordinary spreader are using only two on this machine. Its higher drive wheels, fewer moving parts and roller bearings give you lighter draft in a spreader than you have ever known before.

Another important point; notice that the beaters are low to the ground; manure is not thrown high in the air, therefore, winds do not cause drifting and uneven, unsatisfactory spreading. The New John Deere spreads a wide, even blanket of manure beyond the drive wheels—its better work you will surely appreciate.

This new spreader is built to the high standard of quality that has made John Deere implements famous for longer life and lower upkeep costs. It will prove a money-maker for years to come.

Remember, that two exclusive features, the beater on the axle and the ingenious box-roll turn, make possible this combination of outstanding qualities.

Right near you, at your John Deere dealer's, this new spreader is on display. See it. If you compare it carefully with others you are sure to want its exclusive features.

The New John Deere Spreader is a fitting team mate for the famous John Deere Spreader, the spreader with the beater on the axle. In a tight-bottom spreader you can now get the exclusive features heretofore found only in the John Deere.

Be Sure to Write for These Free Booklets

"Soil Fertilizers," in a new and better form, is a comprehensive treatise on the value and use of farm manure and other fertilizers—worth money to you. The other booklet fully illustrates and describes the New John Deere Spreader. Both free. Address John Deere, Moline, Illinois and ask for booklets S-414.

JOHN DEERE

JOHN DEERE MOLINE, ILL.

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

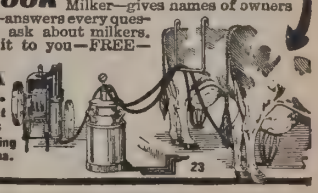
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S. C. White and Brown Leghorns	$6.00	$11.00	$52.50
Barred Rocks, S. C. Reds, Anconas	7.00	13.00	62.50
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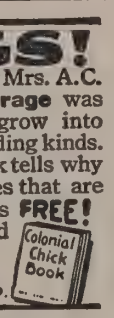
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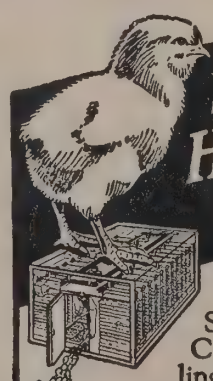
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Chicks with the right start pay best,—grow better. Less disease among Smith Hatched Chicks than any other kind.

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Poultry on the Dairy Farm



Turkey Raising

The average farm turkey raiser is meeting greater competition each year in attempting to rear a respectable percentage of those hatched. Part of this is due to the greater prevalence of blackhead and part to the fact that chickens and turkeys do not seem to range together satisfactorily.

Some very interesting experiences are encountered each year among parties that are making a success of turkeys in the state. One of the pioneers in the day-old turkey industry is H. V. Gregory of Wisconsin. He started shipping day-old poults some years ago and has now established a business that has developed beyond his supply. The poults are shipped in the same manner as day-old chicks over the same distance and with practically no loss.

In addition to this phase of the business which Mr. Gregory has sponsored, he has also developed a flock of exceptionally large, well colored Bronze. Most of his outlet is through the sale of breeding stock but a reasonable percentage of the inferior individuals is sold for market purposes.

Chickens are used for brooding purposes. During the hatching season there is a standing order for broody hens. With this method and the range which his farm offers, the mortality has been exceptionally small.

The southern end of Douglas County, in the Solon Springs section, is a big farm flock turkey area. Some of the exceptionally fine turkeys used for the boat trade are developed by Mrs. Frank Waterbury. On this farm they have had the Hollands, Bourbons, and Slate but now raise Bronze. Mrs. Waterbury is partial to the Bourbon, however, because of the shape of the dressed carcass and the chance to avoid black pigmentation resulting from the colored feathers.

Last year she had ten hens mated to a yearling tom. The average production per hen is about twenty eggs in the first clutch and sixteen or eighteen in the second. One of the hens was still laying early in November.

The turkey range is a large fence tract of cut-over land. A frame building boarded on three sides and covered with wire on the front is the only house utilized. It is single boarded; the floor is covered with clean sand; roosting poles are supplied and all stock is quartered in this structure. An attempt was made to house the turkeys with the chickens one winter but was so unsatisfactory it was never repeated.

Nesting boxes are distributed around the enclosure. Watch must be maintained constantly to detect other nests which the hens may establish. Regular gathering prevents chilling of the eggs.

Some of the turkey hens are allowed to set on the first clutch of eggs and the rest are set under chickens. When the poults are hatched all are given to turkey hens. Each brood is carefully watched and brought into their house each night and not allowed out in the morning until the grass is dry.

First feeding is a combination of chick scratch feed and a mash that is low in corn combined with bran and middlings. Enough red pepper is added to give a decided color to the mash for the first few weeks. When possible this is moistened with milk.

About 160 poults were hatched this season and 140 were on hand this



A FEW GOOD DINNERS



A CHEAP, SATISFACTORY TURKEY HOUSE

fall. This is a small loss and discounts some of the statements made about heavy losses. This is a clean range kept only for the turkeys.

A short feeding period of two weeks on a heavy corn ration is followed just before marketing. This allows sufficient time for finishing and yet avoids a heavy loss.

In direct contrast to this method we find another in practice on the commercial turkey farms. There are three of these in the state—Spooner, Holcomb, and Stanley.

The Badger Turkey Farm incubates and broods all the poults artificially. The hens to be mated with a tom are carried in a lot together. The eggs are collected regularly and incubated in a machine. When the young turks hatch they are placed in a colony house with a coal burning brooder.

The Axtel method is followed in that the house is placed on a clean, fresh alfalfa range with four yards. The lot is turned into each yard in succession as the forage becomes short and poor in the one preceding. A prerequisite for blackhead elimination is thus insured.

A second step is made by properly controlling the ration. It is apparently not so important what the combination of feeds may be as long as the method of feeding is correct. Overfeeding does more damage than probably any one other thing.

All the young stock is kept confined until past the danger period. They are then allowed range on alfalfa but the field is clean. Green feed s an important item in the ration.

An abundant supply of milk is always available. With this and fresh, succulent green feed the important part of the ration is supplied. A constant growth in the young stock is maintained until late fall when they are finished for market.

Each of the methods gives satisfactory results. One outstanding similarity is the important role that clean range plays. Most of the failures that are so commonly noted each season undoubtedly result from lack of attention to this fact. The turkeys and poults are allowed to range over the same ground and with the rest of the poultry. Losses occur from contaminated soil, parasites, and lack of good general sanitation.

Turkey raising has become rather a specialized branch of poultry keeping. With the average loss that most farms encounter it is rather doubtful whether they should continue along this line. A large percentage of the young turkeys is lost by blackhead and a second loss occurs on heavy rain feeding after harvesting.

It is possible for any interested party to follow the methods outlined. Clean range can be supplied. Young turkeys develop rapidly in confinement and one can obtain the necessary equipment and range to operate profitably.—J. B. HAYES.

Chickens That Lay White Eggs—Ration

HOARD'S DAIRYMAN:—Kindly tell me what strain of chickens lays pure white eggs. I would also like to have ration for laying hens for winter months.

Bantry, N. D. K. M. D.

There is considerable difference in the answer which one will give to a question of strains of chickens that lay white eggs, and this would be dependent on the fact of whether one said white eggs, or if one said pure white eggs. In the second case it is assumed that pure white may mean a flock that never at any time has any individual that produces an egg that shows any tint to it. This, I believe, is almost an impossibility, although there is a requirement that is very greatly stressed for the top grade of eggs on the better eastern markets.

One can best determine the white egg breeds by the color of the ear lobe, in that your fowls producing the white egg have a white ear lobe, and those producing the brown shelled eggs have a red ear lobe. This very nearly classifies it according to the Mediterranean fowls, being the particular producers of white shelled eggs.

Most of the better known and most prominently advertised strains of principally the S. C. White Leghorns are at this time producing eggs, the greater percentage of which will grade into top grades because of shell color, and a great deal of selection has been made along this particular line. There are always exceptions to this, and this is noted principally among the pullets during the time they are producing their first eggs.

There are a number of mighty good rations that one can mix at home that will give satisfactory results. The old standard one is what is known as the Big 5, consisting of 100 lbs. each of ground corn, ground oats, wheat bran, standard middlings, meat scrap or tankage, and 5 lbs. of salt, or one pound of fine table salt added to each 100 lbs. of the mash mixture. It is usually advisable to also give the flock access to alfalfa or to add about 10% to the mash mixture. This ration has been used to a great extent and is the one most commonly recommended by the state institutions, I believe, and is adaptable on that account.

Another ration which has obtained a considerable amount of publicity recently, and one that apparently is working satisfactorily is what is known as the Farmingdale Contest Ration, which is given below. This one is just a little bit more complicated, and probably the use of it will be limited to some extent on that account. The few scattered experiences which people have had with this, however, have been satisfactory and they have been well satisfied with results.

It is assumed also that if one is going to push for high production that cod liver oil feeding will be accepted as a part of the ration, being added at the rate of 2% to the mash, and artificial light where it is possible to use it regularly is thought of as part also of good management during the winter months.

Farmingdale Ration—100 Red Dog flour, 100 wheat bran, 100 yellow corn meal, 100 gluten meal, 100 hulled ground oats or reground rolled oats, 100 meat scrap, 50 alfalfa meal, 25 bone meal, 15 granulated charcoal, 3 pounds sulphur, 3 fine salt.—J. B. HAYES.

Feeding Hens

In your issue of March 25, I read your ration for hens—scratch feed and mash. Just what amount would you give 188 hens of the scratch feed at each feeding that as yet are confined inside, and what amount would you give them when out on open range?

The mash ration given is to be the same whether housed up or out on range, isn't it, and kept before them all the time? I feed one-third scratch feed mornings and two-thirds at night. At present, am giving a ten-quart pail of scratch feed mornings and one and one-half pails or more at night. Not knowing whether this amount was enough or too much, I ventured to ask your advice.

Randalia, Ia. (MRS.) F. D. T.

It is impossible to state definite amounts of grain feed which a flock of any definite number of hens should have. The amount of grain given to them is controlled by the development of the birds, their egg production, the time of the year, the climate, whether or not lights are being used, and a number of other factors of this sort. A person should guide grain feeding by first noticing whether or not the hens are beginning to lose weight. When the pullets are put in in the fall of the year, they are good and fat, or should be, and it is expected that some weight will be lost from this. This loss does not want to be severe, and if it is noted that they are losing this flesh, the amount of grain should be increased.

A second means of doing this is to keep increasing the amount of grain feed given to the flock at night until it is noticed that the bulk of them have their crop well filled and that no grain is left on the floor. Then about one-half of this amount should be given in the morning and that amount or twice the morning feed should be given at night. This, of course, wants to be balanced with the mash consumption, and with this system of feeding, it will be found that probably an equal amount or one-half the amount of mash will be consumed during the time that they are consuming the grain.

I might cite amounts of grain to give to a flock of 100 hens, according to monthly distribution of it, but don't have an awful lot of confidence in this method of feeding because it is a long ways from being reliable.

As you indicate, the mash hopper should be kept filled at all times, and left before them so that they can help themselves. During the summer, with an average flock under average farm conditions, I would discontinue the grain feed in the morning entirely, leave the dry mash there and just give them what grain feed they will clean up at night. This, probably, is given to you as definitely as it would be to give them 12 pounds to 100 birds in December, 10 pounds another month, and 8 pounds another month, but it is giving a person a better opportunity to check on the feeding formula and amount for their flock.—J. B. HAYES.

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New Invention
Saves your Chicks
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No Adjustment of Oil Level Required

100% Safe—100% Efficient

The New 1927 Sol-Hot Wickless Brooder is the most wonderful brooder we have ever built—it is the crowning achievement in Sol-Hot's many years of undisputed leadership in the brooder field. Nothing like it—nothing that can even compare with it has ever been offered to poultry raisers before.

Ever since the first Sol-Hot Wickless Brooder was placed on the market several years ago it has grown in tremendous favor with poultrymen, because, being WICKLESS, it put an end to the troubles and endless worries caused by the inefficient, old-fashioned wick-burning brooders, which must be cleaned and trimmed daily—which splutter and smoke—burn unevenly and often go out entirely, smothering chicks with smoke from smoking wick and allowing others to get chilled and die.

This season we have invented and developed a New Improvement that makes the 1927 Sol-Hot still BETTER. It is the TWIN-FLOAT AUTOMATIC OIL LEVEL.

You can set the New 1927 Sol-Hot anywhere. It makes no difference whether your floor is level or not—you don't have to give a moment's thought to the oil level—the TWIN-FLOAT takes care of that automatically. You just light the burner—turn the valve to get the flame the size you want, and that's all there is to it. Sol-Hot will burn just as you set it as long as there is oil in the container. No danger of flame going out or flaring up—no danger of chicks being smothered from smoking burner—no danger of chicks being chilled because of heater dying down. Burner cannot go out—cannot overflow—burns an even, steady flame all the time.

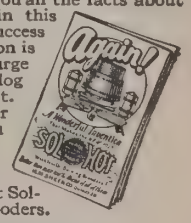
The New 1927 TWIN-FLOAT Sol-Hot is the brooder of brooders—it raises more chicks—it saves trouble, work and worry. Just as simple to operate as a gas stove.

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It is impossible to give you all the facts about this wonderful brooder in this advertisement, but your success in raising chicks this season is so important that we urge you to send for our catalog telling you all about it. Don't buy a brooder of any kind until you get our free catalog and see for yourself how far superior the New Twin-Float Sol-Hot is to all other brooders. Write today!



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How to Tell Roup Canker

Poultry Flu, Coccidiosis and other poultry diseases

It's mighty important to know what's wrong when birds take sick. The disease may spread thru the entire flock almost overnight. Quick action is needed to stop loss. Our poultry book tells how to recognize different poultry and chick diseases,

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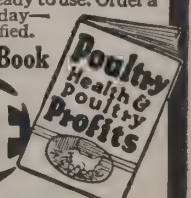
This book has SAVED poultrymen thousands of dollars. It's really so easy and costs so little to **prevent disease** by feeding B-K in the drinking water and spraying with the famous B-K smoky vapor. It's simple, it's safe, it costs little and thousands of poultrymen know it's dependable.

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More Profit from each cow

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This *balanced* dairy ration bears the money-back guarantee of the world's largest millers

Read what Mr. Henry J. Young, owner of Spruce Grove Farm, Barron, Wis., has to say. This is only one of such letters we are continually receiving.

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All the ingredients in Gold Medal Vitamin Dairy Ration are so *balanced* that it is *the most easily digested ration on the market.* Thus it is completely assimilated. The milk flow quickly increases—both in quantity and in butter fat.

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If any sack of Gold Medal Vitamin Dairy Ration does not prove absolutely up to guarantee printed on the sack, and does not prove entirely satisfactory in every way—then return unused portion to your dealer. He will refund full purchase price. We will repay him.

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Gold Medal Vitamin Dairy Ration (20% protein.) North Star Molasses Dairy Ration (16% protein.) Gold Medal Hard Wheat Mixed Feed (16% protein.)

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Send me your folder on feeding Gold Medal Vitamin Dairy Ration to my herd.

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Autobiography of a Pioneer Dairyman

(Continued from page 88)

cabin and could hear all that was going on through the solid wall of logs. My chum did not have patience to sit still and watch but kept moving about. I told him that the bear would certainly hear him tramping over the log floor but this had no influence on him.

I soon dropped asleep. After a time my chum woke me and said that the bear had been there twice and gone. You will have to draw on your imagination to know how I felt. I asked him what he had been doing. I ordered him to go and lie down, and I would watch the rest of the night. The bear had been frightened away twice, and I did not expect he would come again that night.

The next afternoon about three o'clock I posted myself on watch, reasoning that as the bear got no supper the night before, he would come early. About five o'clock I saw him creep out of the woods at a point where he could look straight at the deer. This ended that hunt as I had to get back to my business.

Hunting Canada Lynx

Now, boys, I am going to tell you about a lynx hunt. I was making my home for the hunting season at the Ford River Farm some miles back in the woods from Metropolitan, Michigan. There was one camp twelve miles from the farm where I had discovered plenty of bear signs. On my way forth and back I had come across tracks of some large animal of the cat tribe, and also found plenty of rabbit tracks that this animal was evidently hunting.

The men at the farm said there had never been a panther seen in that section and that these tracks were those of the Canada lynx. As the lynx is a night hunter, to get a shot at this fellow I needed to use my headlight. This was a diminutive locomotive headlight worn on the cap and placed over the left eye so that when the head is turned to sight down the gun barrel the light is in line with the gun barrel, and one



H. B. GURLER AND LOVING CUP PRESENTED HIM BY MISSISSIPPI DAIRYMEN

kitchen window. He would walk a few feet and sit down on his haunches, bear fashion, watch a time, and then move a few feet and sit down again. He repeated this until he was near enough so I could get him with the shot gun.

I had lost confidence in my chum the night before as he failed me completely and I could not guess what he might do at the second chance. I called him to the window and when the bear was near enough we both shot. My friend made a beautiful shot, and I tore his neck, breaking the bone into several pieces with the buck shot.

My chum collapsed with a sick headache and went with his blanket into the dining room and laid down on the floor. There was a den of skunks under the floor. They crawled up the logs and commenced investigating. But he knew skunks better than I and lay perfectly still. The skunks left not a bit of their liquid.

The next morning we skinned the bear, and after getting our breakfast started for home. It was twenty miles through the woods and twelve miles out to the railroad. We had our guns, blankets, and the bear skin to pack. A green bear skin is a fairly good load to pack of itself.

We got home in the afternoon in time for me to go out and kill a nice shoots at the reflected light of the animal's eyes.

I had planned that I would go out some very dark night and try to get a shot at him. On the way to the lynx hunting ground I ran into a family of young skunks, and it was laughable to see them perform when the light was turned on them. I had a lot of fun with them until they went away. I wore moccasins and followed a supply road so there was no danger of getting lost and nothing to fear from any source.

While going through a patch of sweet fern I caught a pair of yellow lights like a cat's eyes. I lost no time in getting my gun in position and letting go one barrel of a ten gauge loaded with buck shot. I had to guess where the animal's body was so I shot a little low, thinking I might get him in the neck. But when I got to him I found I had given him a lengthwise shot killing him so dead that I could not hear a movement of the body.

I felt I had done a pretty neat job. Tying his legs together, I slung him over my shoulder and started on my six-mile hike back to the farm, reaching there at two o'clock in the morning as happy as I was when I caught my first one-pound brook trout when a boy in New Hampshire.

(To be continued)

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Talk Number 6

Are You Killing Off All Your Buffaloes?

"Willful waste makes woful want," and to rent is to waste.

Fifty years ago great herds of buffalo roamed the plains of America and afforded the plainsmen an ever ready commissary. Hunger was unknown. Even in the most unfrequented sections of the Middle West, a delicious dinner of half beef, half venison flavor was a matter of a few moments only, and the meat course of the pioneer's meal was always fresh.

But the farmers of the East were buying buffalo robes to keep themselves warm when they drove to town on winter mornings. Robe dealers were paying a pittance for the hides and the plainsmen were short-sighted. Day after da they stalked the magnificent herds. Thousands and tens of thousands of carcasses were left to decay on the ground every year. No more willful waste is recorded in history, and the plainsman lived to see the result of his folly. He awoke one morning to the realization that the buffalo was gone. His kind was all but extinct and the plainsman had profited practically nothing from his wholesale slaughter.

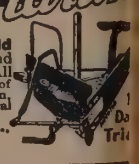
The buffalo was the victim of thoughtlessnes and mismanagement in the time of plenty. H was like your rent dollar. One by one your ren dollars drop into your landlord's pocket, an you get in return even less than the plainsma realized on his hides.

Have you ever counted the rent dollars tha have gone that way? Figure it up—then thin where you might be today if you had applie them to a good piece of dairy farm land in Wi consin. It isn't too late. Write now and let u explain how you may store your rent capital an become an owner of a fine dairy farm in th greatest dairying State in the Union.

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BUY FROM OUR ADVERTISERS

Some Cow Testing Benefits

THE story of the value of cow testing association work is so effectively told in a new circular from the Wisconsin College of Agriculture that we are persuaded to pass parts of it on to our readers in the hope that the appeal will find fertile lodgment in the minds of many who are not fully convinced of the merits of the work.

In telling the story the experiences of several members of associations are related, experiences typical of many thousands that could be found among dairymen who have tried the work and found it good. The best part of the story is that these experiences may be written in the language of dollars and cents.

Dairyman Saved $343

A new member in the Waunakee Association received the tester the first month with a feeling that he would not get back the value of his membership fee which was $40. The tester on checking up the skimmilk found the separator putting 1.9 per cent of butterfat into the skimmilk. This was 42 per cent of the daily production in fat. This discovery translated into dollars and cents saved this dairyman $343 the first year. Before joining the association he did not know what was wrong. He put his suspicions in the wrong place—on the creamery and on his cows.

Better Cows Increased Profit

A grade Guernsey herd tested for 3 years in the Thiensville—Lakefield Association originally consisted of 13 cows which averaged 277 lbs. fat the first year. The average feed cost was $74.34. The third year the herd was culled to 8 cows and their average was 368.6 lbs. fat; their average feed cost was $93.31. With butterfat at 50 cents a pound and no credit given for the skimmilk, the average return above feed cost the first year was $65.16; the third year, $90.99.

Balanced Ration Pays

A member of the Whitewater Association had 10 cows the first year in the work; he did not pay much attention to feeding. He fed silage, mixed hay, and ground oats; his feed bill was $47.40 for each cow or $474. For this expenditure he received $1,130 for butterfat, leaving $656 above feed cost.

The second year he fed silage, alfalfa hay, and a concentrates mixture composed of 100 lbs. each of corn meal, ground oats, bran, and 50 lbs. of linseed meal. His feed cost was $65.40 per cow or $654 for which he received $1,505, leaving him $851 above feed cost for the ten cows. Translated into terms that anyone can understand, this dairyman learned from the tester how to feed his cows for which he received $19.50 more from each cow than he would have received had he not gained this knowledge.

Summer Grain Feeding Profitable

A twelve-year-old Guernsey cow in the Genesee—Eagle Association produced 1,117 lbs. more milk for the four summer months she was fed grain than during the same period a year before when no grain was fed. Her grain cost $13.75 while the increased milk brought $33.50, leaving $19.75 net after paying for the additional feed.

Testing Finds Unprofitable Cows

A member of the Whitewater Association kept a poor cow on test two years, thinking the second year would be better. The first year this cow produced 241 lbs. of fat at a feed cost of $48. The second year she produced 229 lbs. fat after the feed cost had been increased to $58. This cow put on flesh and was soon headed for the butcher.

Testing Saves Good Bull

The Thiensville—Lakefield Association saved a valuable bull for one of its members because the records showed that the first 2-year-old daughters of this bull averaged 52 lbs. fat more than their dams as mature cows. Translated into dollars and cents the saving of this one bull was worth nearly as much as all the members of the association paid in a year as fees, provided the bull was given an opportunity to exercise his full usefulness after it was discovered that he had prepotent power to transmit producing ability to his daughters.

Helps Grade Up the Herd

Two brothers, members of the Augusta Association, said: "We did semi-official testing while we were members of the C. T. A. The official record of one cow in class D showed a production of 433 pounds fat while the C. T. A. record showed 429 pounds fat. This indicates the association work is a reliable index of the producing ability of cows when properly fed. Cow testing taught us how to pick our best cows for breeding foundation and it also helped us to check up the sire through the production of his daughters."

Helps Increase Alfalfa

Not all the gains from the association work are measured directly by the scales and Babcock test. The first sign of gain usually comes when the new member becomes interested in feeding his cows the way cows should be fed. The next sign of improvement comes when the new member realizes that some changes should be made in the crops he is producing.

Just how much influence association work has on bringing about this change is hard to say. In this connection it is significant to note that of 443 members in 18 associations 419 or 94 per cent are growing alfalfa. Anything that promotes the growing of alfalfa on dairy farms is worth looking into by everyone who would add to their net income.

Better Living Standards

If some of the gains of cow testing association work did not find place in better living standards of those who participate in the work the story would not be complete.

We have selected at random from such annual reports as we have available some data that indicate that the gains from this work do find place in better standards of living.

Of the 22 members in the Caledonia—Mt. Pleasant Association, 11 have radios, 21 have automobiles, and 18 have electric lights.

Of the 123 members in 5 associations in Pierce County, Wisconsin, 69 have running water in their homes, 122 have automobiles, 40 have radios.

Of the 25 members in the Waunakee Association, all have automobiles, 15 have gas or electric lights, and 10 have running water in their homes.

Of 122 members in 5 associations in Waukesha County, 46 have water systems in the home and 114 have automobiles.

Washington County has 7 associations with 173 herds tested last year. Among the members, 52 have water systems and 181, automobiles.

The average cost per year of a membership in a cow testing association is about $40. We recommend it not only as a safe investment but also as one that will return a good dividend.

First Cost Is *Last* Cost

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California Redwood

THAT building is most economical that costs least to erect *and maintain.*

Make First Cost Your Last Cost by using California Redwood, which is impregnated by nature against decay.

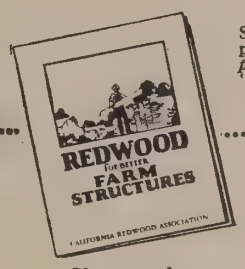
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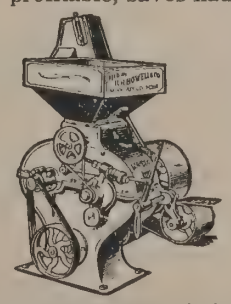
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Should Rates for Luxury Travel Be Reduced?

A persistent and serious effort is being made to get Congress to pass a law abolishing the "surcharge" that passengers now pay the railways when they ride in sleeping or parlor cars rather than in day coaches.

There are at least three unanswerable reasons why farmers should urge their senators and representatives in Congress to vote against this legislation.

First, the passenger in a sleeping or parlor car should pay the railway more than the passenger in a day coach, because it costs the railway more to carry him and he is given luxury service.

Second, the railways get $40,000,000 a year from the "surcharge," of which the western lines receive $16,000,000. If they are deprived of the money from this source, they will have to get it through freight rates.

Third, the Interstate Commerce Commission first authorized the "surcharge" and later has upheld it as reasonable. It has said "whatever capacity the railroads may have for rate reduction should be utilized for the benefit of other forms of traffic." For Congress to pass a law abolishing the "surcharge" would be for it, under political pressure, to overrule a deliberate decision of the commission fixing rates. Rates should be fixed by the Commission, not by Congress. It was because the public did not want regulation to be subject to political influence that it caused an expert and judicial investigating body such as the Commission to be created.

It is respectfully suggested that it will be to the interest of farmers to let their senators and representatives know what they think about this matter.

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS

740 Transportation Building, Chicago, Illinois

We Needed One and So Do You

Many times at sales, farmers' meetings, on the street, in hotels, on trains and even at dances we have been asked for information regarding the Hoard's Dairyman herd. We missed many sales because we could not give our friends and new acquaintances all the information they wanted in definite form. In order to "be prepared" for these emergencies we planned the Hoard's Dairyman Vest Pocket Herd Book. The demand for them is exceeding our highest expectations The investment of $2.00 will come back to you many times and the satisfaction of having "your figgers" right handy is worth much more than the cost of the book.

Will accommodate 100 head. Loose leaves (easy to remove but firm during use); good leather cover; index, sketches, records breeding, service records, gestation table and blank pages for memoranda. All sent postpaid for $2.00.

A BOOK YOU WILL CARRY EVERY DAY

HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin

A Fad That Became a Leading Crop

(Continued from page 57)

made Ontario preeminent as an alfalfa producing province.

Drainage Essential

Physicians claim that many human ills may develop from "wet feet." Alfalfa in this respect is very like the members of the human family. It cannot survive on land where its roots are constantly wet. Drainage is therefore essential for its well being. The Ontario farmer has, fortunately, been the recipient of nature's legacy in the form of land with a rolling topography which is so ideal from a drainage standpoint for the development of good alfalfa crops.

Acid Soils Unadapted to Alfalfa

Most folks like their food sweet rather than sour; so does alfalfa. This plant has no appetite for the food of sour soils and it will not thrive on soils which, when analyzed, give an acid reaction. The soils of Ontario farms are to a large extent sufficiently sweet, because of their content of lime, for the establishing of profitable alfalfa crops. Where acid soils do exist, facilities for the manufacture of ground limestone and for the distribution of it to the localities where it is needed are now fairly adequately provided.

Nitro-Cultures Assist

When Hermann Hellriegel in 1886 discovered the fixation of atmospheric nitrogen by leguminous plants through the medium of bacteria in the nodules on their roots, he made an inestimable contribution to mankind. Outgrowing from this discovery came the laboratory preparation of cultures or colonies of bacteria with which to treat the seed of alfalfa and other legumes in order that the production of these desirable nodules filled with minute organisms might be stimulated and the legume associated increased in growth. Reports from farmers who received alfalfa cultures from the Dominion Bacteriologist at the Central Experimental Farm at Ottawa have indicated that the crops of 90 per cent of those who have grown alfalfa for the first time have been benefited by this seed inoculation. The accessibility to the farmers of Ontario to these billions of microscopic workers found in alfalfa cultures is another factor which has furthered the cause of alfalfa in many districts of Ontario where it had never been grown before.

Home-grown Hardy Seed Now Plentiful

The winters are cold up here in Ontario but they favor hardy constitutions. Canadian grown alfalfa seed has acquired the characteristics of the people and winter-killing is practically unknown when home-grown seed is sown. In 1925, Ontario produced 90,000 bushels of hardy Ontario variegated alfalfa seed. This seed was sold at prices, in most cases less than that asked for red clover. Dr. Zavitz in a recent radio address stated that Ontario variegated alfalfa having passed through a rigorous climatic process of elimination for over 50 years has become peculiarly well suited to the conditions of Northern and Eastern America. It originated from a blend of hardy variegated varieties coming from Alsace—Lorraine and the neighboring district of Baden, the latter being the original home of the Grimm.

The production and use of Canadian grown seed has, I believe, done more to stimulate the growth of alfalfa in Ontario than has anything else. Countless farm trials with alfalfa in the past were unsuccessful because southern or European grown seed was sown. This difficulty has now been largely overcome by the production of hardy seed right at home.

Alfalfa production in Ontario is hardly past its infancy and although its rate of increase in the future may baffle prophesy there can be no doubt that when any farm practice has gripped the farmers of Ontario, as has the growing of alfalfa in the past five years, that practice has not only come to stay but is certain to fill a much larger place on the valleys, plains, and rolling fields of Ontario in the years to come.

Future of the Pure-Bred Business

(Continued from page 78)

made "through rigid selection based on profitable production." There in one phrase of seven words is a comprehensive summary of all methods of breed improvement. If a short statement of methods of breed debasement be sought it can be found in the pure-bred practice of registering and breeding from scrubs. And so while the grades breed up, large portions of pure-bred cattle breed down, until we reach the point where grades and pure-breds are not far from equal in average productivity, with the advantage on the side of the grades that they are much cheaper to buy.

Then, what is the future of the pure-bred business? The answer is plain,—that if the pure-bred is to continue to have a special value greater than the value of other cattle, the breed associations must adopt some system so that pure-breds, at least as much as grades, will be bred by "rigid selection based on profitable production." It is impossible to register inferior animals and hold a superior position. Moreover, it is not easy to regain a superior position after it has been lost. The time for the breed associations to take whatever action is necessary to save their places in the dairy world is right now. As Mr. Canan well says, "we see conditions which make us feel it is imperative that immediate consideration be given this problem."

The question before the breed associations is not difficult to answer. Some action to exclude inferior animals from registration is inevitable. That is the whole story. The difficulty is that breeders do not like to discard animals and for this reason all the associations delay to take action, and when finally action is taken there will be a tendency in some associations to make requirements as low as possible, so that few animals will be excluded. Nevertheless, no half-way measures will meet the needs of the situation. So long as there is "rigid selection of grades based on profitable production," just so long will the pure-bred have to compete with the high-producing stock which rigid selection develops. The associations which adopt half way measures will in the end fail to meet this competition. Any association, on the other hand, which establishes a system of rigidly selective registration based on profitable production, will not only save its own prestige and the value of its animals, but will more and more take up and occupy the field of those breeds whose associations fail to establish adequate safeguards for the reputation of their stock.

Ayrshire Cattle in the United States

(Continued from page 59)

ficial yearly records, up to June 30, 1926, are listed below:

Sire	No. of daughters
Beuchan Peter Pan	57
Finlayston	55
Baron's Best of Bargenoch	47
Earl's Choice of Spring Hill	43
Kate's Champion of Penshurst	38
Nox'emall	35
Netherton Statesman	32
White Cloud of Hickory Island	32
Kate's Good Gift	30
Penshurst Rising Star	28

The offices of the Ayrshire Breeders' Association are located at Brandon, Vermont. C. T. Conklin is secretary.

Scale of Points for Ayrshire Cow

HEAD	10
FOREHEAD. Broad and clearly defined	1
HORN. Wide set on and inclining upupward	1
FACE. Of medium length, slightly dished; clean cut, showing veins	2
MUZZLE. Broad and strong without coarseness, nostrils large	1
JAWS. Wide at the base and strong	1
EYES. Full and bright with placid expression	3
EARS. Of medium size and fine, carried alert	1
NECK. Fine throughout, throat clean, neatly joined to head and shoulders, of good length, moderately thin, nearly free from loose skin, elegant in bearing	3
FOREQUARTERS	10
SHOULDERS. Light, good distance through from point to point but sharp at withers, smoothly blending into body	2
CHEST. Low, deep, and full between back and forelegs	6
BRISKET. Light	1
LEGS and FEET. Legs straight and short, well apart, shanks fine and smooth, joints firm, feet of medium size, round, solid and deep	1
BODY	13
BACK. Short and straight, chine lean, sharp and open jointed	4
LOIN. Broad, strong, and level	2
RIBS. Long, broad, wide apart and well sprung	3
ABDOMEN. Capacious, deep, firmly held up with strong muscular development	3
FLANK. Thin and arching	1
HIND QUARTERS	11
RUMP. Wide, level, long from hooks to pin bones, a reasonable pelvic arch allowed	3
HOOKS. Wide apart and not projecting above back nor unduly overlain with fat	2
PIN BONES. High, wide apart	1
THIGHS. Thin, long and wide apart	2
TAIL. Fine, long and set on level with back	1
LEGS and FEET. Legs strong, short, straight, when viewed from behind and set well apart; shanks fine and smooth, joints firm, feet medium size, round, solid and deep	2
UDDER. Long, wide, deep but not pendulous nor fleshy; firmly attached to the body, extending well up behind and far forward; quarters even; sole nearly level and not indented between teats, udder veins well developed and plainly visible	22
TEATS. Evenly placed, distance apart from side to side equal to half the breadth of udder, from back to front equal to one-third the length; length 2½ to 3½ inches, thickness in keeping with length, hanging perpendicular and not tapering	8
MAMMARY VEINS. Large, long, tortuous, branching and entering large orifices	5
ESCUTCHEON. Distinctly defined, spreading over thighs and extending well upward	2
COLOR. Red of any shade, brown, or these with white; mahogany and white, or white, each color distinctly defined. (Brindle markings allowed but not desired.)	2
COVERING	6
SKIN. Medium thickness, mellow and elastic	3
HAIR. Soft and fine	2
SECRETIONS. Oily, of rich brown or yellow color	1
STYLE. Active, vigorous, showing strong character, temperament inclined to nervousness but still docile	4
WEIGHT. At maturity not less than 1,000 lbs.	4
Total	100

Scale of Points for Ayrshire Bull

HEAD	16
FOREHEAD. Broad and clearly defined	2
HORN. Strong at base, set wide apart inclining upward	1
FACE. Of medium length, clean cut, showing facial veins	2
MUZZLE. Broad and strong without coarseness	1
NOSTRILS. Large and open	2
JAWS. Wide at the base and strong	1
EYES. Moderately large, full and bright	3
EARS. Of medium size and fine, carried alert	1
EXPRESSION. Full of vigor, resolute and masculine	3
NECK. Of medium length, somewhat arched, large and strong in the muscles on top, inclined to flatness on sides, enlarging symmetrically toward the shoulders, throat clean and free from loose skin	10
FORE QUARTERS	15
SHOULDERS. Strong, smoothly blending into body with good distance through from point to point and fine on top	3
CHEST. Low, deep and full between back and forelegs	8
BRISKET. Deep, not too prominent and with very little dewlap	2
LEGS and FEET. Legs well apart, straight and short, shanks fine and smooth, joints firm, feet of medium size, round, solid and deep	2
BODY	18
BACK. Short and straight, chine strongly developed and open jointed	5
LOIN. Broad, strong and level	4
RIBS. Long, broad, strong, well sprung and wide apart	4
ABDOMEN. Large and deep, trimly held up with muscular development	4
FLANK. Thin and arching	1
HIND QUARTERS	16
RUMP. Level, long from hooks to pin bones	5
HOOKS. Medium distance apart proportionately narrower than in female, not rising above the level of the back	2
PIN BONES. High, wide apart	2
THIGHS. Thin, long and wide apart	4
TAIL. Fine, long and set on level with back	1
LEGS and FEET. Legs straight, set well apart, shanks fine and smooth, feet medium size, round, solid and deep, not cross in walking	2
SCROTUM. Well developed and strongly carried	3
RUDIMENTARIES, VEINS, ETC. Teats of uniform size squarely placed, wide apart and free from scrotum; veins long, large, tortuous with extensions entering large orifices, escutcheon pronounced and covering a large surface	4
COLOR. Red of any shade, brown, or these with white; mahogany and white, or white, each color distinctly defined	3
COVERING	6
SKIN. Medium thickness, mellow and elastic	3
HAIR. Soft and fine	2
SECRETIONS. Oily, of rich brown or yellow color	1
STYLE. Active, vigorous, showing strong masculine character, temperament inclined to nervousness but not irritable or vicious	5
WEIGHT. At maturity not less than 1,500 lbs.	4
Total	100

[EDITOR'S NOTE: This is the second of a series of six articles on the dairy breeds in the United States. The next will appear in an early issue.)

Windbreaks

HOARD'S DAIRYMAN:—Three agencies in the state, viz.: The Extension epartment, University of Minnesota; College of Forestry, University Minnesota; and the State Forestry epartment have recognized the imortant part which windbreaks and helterbelts play in rural and state evelopment, and as a consequence ave for a few years been establishg demonstration areas for the purpose of showing how windbreaks should be planned as well as clearly pointing out species which are most adapted to the use required.

These demonstration areas are now handled entirely through the respective county agents whose duty it is to recommend good, outstanding farmers who will take on such a demonstration, prepare their land properly, and follow instructions given. Only two demonstrations per township are allowed, however, and usually only three to five per county in any one year as the quantity of stock available is limited. Trees are furnished to co-operators at cost, that is, $1 per hundred or fraction thereof, plus the express from the nursery.

The co-operator must own and live on the land where the demonstration is to be placed. Applications for demonstrations are made out on forms furnished by the county agent and later sent to the Extension Forester at University Farm. One important prerequisite before trees are furnished is that the land must be prepared at least one year prior to actual planting by putting it in some cultivated crop like corn or potatoes to insure proper cultivation, conservation of moisture, and what is more important to keep the land free from competing weeds and grasses.

For the actual windbreak only standard plans are submitted, that is, no plans are drawn to fit the farm. The farm itself must fit the plan; in other words, it must be situated so that a windbreak can be planted on the north and west sides. Such a planting will, therefore, be at right angles to the prevailing storm winds of the region.

For best results such a planting should not be any closer to the building than 100 feet, and should extend 400 feet on the north side and 400 feet on the west side. Such a windbreak gives adequate room for an orchard between the windbreak and the house, besides furnishing the maximum protection to the farm house, barns, chicken house, etc.

Minnesota. P. O. ANDERSON.

A hundred pounds of skimmilk is estimated to be worth six times the market price of a pound, live weight, of hogs or half the market price of a bushel of corn when fed to hogs. It is worth more than this when fed to young calves, chickens, pigs, or colts.



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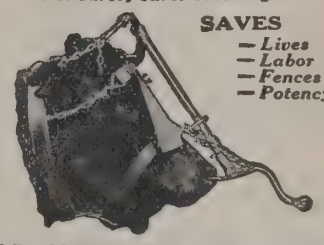
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For most cuts, chaps, cracks or bruises Bag Balm will effect a healing between milkings. The wonderful soothing, penetrating power of this ointment restores injured tissues before you would think it possible. For all inflammation, Caked Bag, Bunches, Cow Pox, or for any external sore Bag Balm has no equal. It cannot taint the milk. Once used you will never be without it. It has scores of uses on the farm.

Bag Balm, in the big 10-ounce package, 60c at feed dealers, general stores, druggists. Will mail, postpaid, if your dealer is not supplied.

Dairy Association Co.,
Incorporated
Lyndonville, Vt.

BAG BALM



"MADE BY THE KOW-KARE PEOPLE"

LOWELL'S COW CLEANING PRESCRIPTION

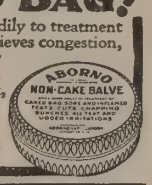
Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It relieaves GARGET and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1 a pkg. 6 for $5
Mfg. by Lowell Blaisdell & Co.
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Use the C. H. Dana system to mark your calves as soon as dropped. Identity of ownership prevents confusion and loss. Easily applied, cheap and permanent. Send for free samples. Also herd books, bull rings, and complete line of breeders' supplies. Write for catalog.
C. H. DANA CO.
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Caked bag and sore teats yield readily to treatment with Aborno Non-Cake Salve. Relieves congestion, stops soreness, softens tissues. Every dairy farmer should keep it on hand for time of need. Send 75c for 9 oz. box, prepaid—money back if not satisfied.
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The strongest Ear Tag on the market. Easily attached in one operation. Sufficient space for name, address and number.
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DON'T WEAR A TRUSS


MR. C. E. BROOKS

BE COMFORTABLE—Wear the Brooks Appliance, the modern scientific invention which gives rupture sufferers immediate relief. It has no obnoxious springs or pads. Automatic Air Cushions bind and draw together the broken parts. No salves or plasters. Durable. Cheap. Sent on trial to prove it's worth. Beware of imitations. Look for trade-mark bearing portrait and signature of C. E. Brooks which appears on every Appliance. None other genuine. Full information and booklet sent free in plain, sealed envelope.
BROOKS APPLIANCE CO., 219 State St., Marshall, Mich.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Relieving Choked Cattle

It sometimes happens that a piece of root or mass of dry feed lodges in a cow's gullet, quickly causes bloating of the paunch, high up in the left flank, discharge from the nostrils, return of feed and water by that route, and weakness and absorption of poisonous elements. If not relieved, such choking soon proves fatal and the assistance should be prompt and intelligent.

One veterinarian has suggested a novel plan of relief, especially for the horse in which animal it is not safe to use a probang to force the lodged object downward. He fills two 1 ounce gelatin capsules with bicarbonate of soda (baking soda), slits the side of each capsule and then thrusts the two into the gullet, by way of the mouth. Doing so, he says, causes generating of gas which distends the gullet so that the blocking substance passes downward. That treatment would also seem worth trying in choke of cattle.

Administration of small doses of raw linseed oil, cottonseed oil, or slippery elm bark decoction, at intervals of an hour, lubricate the gullet, soften the lodged mass, and help it to pass downward. Such treatment always should be given before starting to massage a lodged mass of dry feed and trying to work it upward or downward. Doing so will also facilitate removal of a root by way of the mouth. It must also be done before running a probang, oiled rubber tube, or greased, smooth hempen rope down the gullet and by its means helping to force the lodged object downward. Such an operation must be gently and judiciously done, as there is great danger of badly injuring or even rupturing the gullet by rough use of such an instrument or a buggy whip or flexible stick. Gangrene of the gullet usually follows injury by the improvised probang, especially in the horse. Rupture of the gullet quickly results in escape of gas which distends the skin and soon spoils the meat. It is incurable and when it happens, or it is seen that the choke cannot be relieved, the animal should immediately be slaughtered for meat, provided it is in fit condition.

Veterinarians give hypodermic treatment with arecolin, pilocarpin, or some other alkaloidal drug to relieve choke, in addition to local treatment, and such an expert should at once be employed for the treatment of a valuable animal. If it is found severely bloated on his arrival his first act will be to draw off the gas by tapping the paunch with a trocar and canula. When that is done the lodged object sometimes immediately passes downward into the stomach. It should always be done before giving other treatment, when the distension is severe and the animal is evidently threatened with suffocation.

While a hen's egg, which sometimes causes choke, may sometimes be crushed in the gullet, it is cruel and dangerous to attempt crushing of a root by placing a piece of board on each side of the gullet, at the place where the object has lodged, and then striking a hard blow with an axe or sledge hammer. The object may be crushed by such brutal means but the gullet will also be crushed with the result that fatal gangrene will ensue. When the medicinal and local treatment fails and it is not desired to slaughter the animal for meat, the veterinarian can remove the lodged object by opening into the gullet. The earlier that operation is performed the safer it will prove.

Cowpox

Please explain the cause of cowpox and the best treatment for a cure.
Logansport, Ind. J. D. H.

Cowpox is *variola vaccina* and is caused by a specific virus which cannot be seen with a powerful microscope and passes through a porcelain filter. It is therefore called an ultramicroscopic filterable virus. A person convalescing from smallpox or recently vaccinated against that disease may infect the cows he milks. Cowpox may also affect a milker's hands and the attack immunizes the person against smallpox. The disease has to run its course of about 20 days but in cows only affects the teats. New crops of papules may form as others heal. The chief object of treatment should be to prevent spread of the disease and infection of the sores. Isolate affected cows. Have them milked by one who does not attend to other cows. Several times daily bathe affected teats with hot water containing all the boric acid it will dissolve. Each evening swab the sores with a 2 per cent solution of mercurochrome and dust with bismuth subnitrate. Keep the stall floors clean and freshly bedded.

Failure to Breed

My 20-month-old heifers fail to come in heat now. They came in all fall and summer very regularly but have not been in heat the last six weeks. Is there anything that I could feed that would throw them in heat immediately so they will freshen early next fall?
McLean, Ill. E. A. L.

Massage the ovaries, by way of the rectum, to rupture cysts or dislodge persistent "yellow bodies" is the surest way of bringing in a period of heat but can only be done by a qualified veterinarian. Until an expert can be employed try the effect of syringing out the vagina 2 or 3 times a week, with blood warm (100°F.) boiled water tinged light pink with permanganate of potash. Also feed a complete ration including alfalfa hay and minerals.

Is the Bull to Blame

I like your advice on all dairy subjects so would like to know your opinion on a purebred bull which for two years has bred nearly all bull calves; say, only one or two heifers out of about twenty calves. As I want heifers this is a great loss, but this bull has very good breeding and is a good individual. I hate to part with him. Do you think he is to blame for the bull calves and will next year's crop be the same, all bulls?
Hillsboro, Wis. F. G.

It cannot safely be concluded that the bull is to blame. Nature "balances her books" between males and female offspring and it is quite likely that the next crop of calves may have the usual proportion of males and females. We cannot confidently state that such will be the case, however, as that is a matter no one can correctly predict.

Abortion Infection

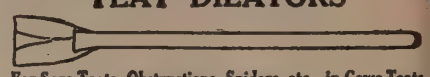
Would it be advisable to breed cows to a bull where there was abortion last spring? The bull hasn't served any cows for 5 months.
Richland Center, Wis. E. C.

It should be safe to use the bull for service in a place not visited by affected cows. Infection of the contagious abortion disease is chiefly spread to susceptible cows by feed contaminated by the vaginal discharges of affected cows. The bull is no longer considered a fertile source of infection.

Ergot

Some place in my reading I have seen that rye contains ergot and that it has a deleterious effect on the uterus of animals which eat it. I have been planting rye in my alfalfa every year and then cutting it with the hay in June. The heads never became ripe, and I have been wondering whether they contain enough ergot to impair the breeding qualities

PURPUL MEDICATED WAX TEAT DILATORS



For Sore Teats, Obstructions, Spiders, etc., in Cows Teats
Sold by Dealers or Mailed Postpaid. 25c doz. or 5 doz. $1.00

TESTIMONIALS

The greatest thing ever invented for cows teats.
E. Stafford, R 5, Little Falls, N. Y.

Did not have much faith at first. Thoroughly convinced they are the remedy.
J. C. Noble, Enosburg Falls, Vt.

FREE Let us prove the merits of Dilators by sending you a package by mail, Free.

MOORE BROS., Dept. H, ALBANY, N. Y.

BARREN COWS Wanted!

We guarantee to teach the average breeder or herdsman how to make barren cows breed, keep cows breeding, the truth about abortion, remove the afterbirth without pulling, diagnose pregnancy, disease prevention, male sterility and a good working knowledge of the generative organs. This school was originated 17 years ago and has run continuously without a dissatisfied student. We cover the breeding troubles only.

At the school we kill cows, hang them up with the sides open where the students make actual demonstrations. Fresh, warm generative organs are used in large numbers. A practical course is given in the breeders' language. A special education not necessary.

By our car fare plan the student living 400 miles from the school can attend nearly as cheap as those near the school. An instructor visits each student after he attends school. This co-operation is continuous without extra charge.

Five Days at Each Place

For Breeders and Herdsmen Only

St. Louis, Mo., January 25-29
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Now's The Time —
A Vest Pocket
HERD BOOK!
is worth money to you. Have the story of your herd with you at sales and meetings. Price $2.00.
HOARD'S DAIRYMAN
Fort Atkinson Wisconsin



Heaves, Coughs, Conditioner, Worms. Most for co Two cans satisfactory f Heaves or money back. $1. per can. Dealers or by ma
The Newton Remedy C Toledo, Ohio.

of my herd, because I have had considerable trouble getting some of my cows with calf.
Nephi, Utah. A. E. W.

Large quantities of ergot of rye in feed may cause abortion, but ordinary amounts do not have that effect nor have we ever suspected ergot as a cause of barrenness or "shy breeding." However, an examination should be made to determine how much ergot there is in the feed. It may be added that we see no advantage in seeding rye with the alfalfa and that might as well be discontinued. As infection of the contagious abortion disease is such a common cause of barrenness we should advise you to have a sample of blood from each cow and heifer tested for that infection at the state experiment station, veterinary division.

Leaking of Milk

I have a Jersey cow that gives about four gallons of milk a day but she loses some as it drips from her for quite a while before I milk her. What could I do for her to help her hold her milk? This cow has a very large udder for the amount of milk she gives. It is just about as large after I am through milking as when I start. Is there any way to work this beefiness away?
St. John, Kansas. S. M.

Milking 3 times daily may prevent the leaking of milk or let a calf nurse. If you do not care to do so, then dip the tips of the teat into tincture of iodine and work a little of it into the opening of each teat. Repeat the application when required. A fleshy udder is natural and cannot be improved by treatment.

Abortion Infection

I have 30 Holstein cows which I bought in 1923. They all freshened that spring. Now I have 8 of them I can't get with calf. They don't come in heat regularly. I also have one that shows no signs of coming in heat at all for the last 18 months. I also have one that never goes out of heat. I was troubled some with garget with some of these cows. I also have some cows in my herd whose milk is watery in one or two teats at first, then when they let down the milk it seems all right.
Arco, Idaho. R. M. K.

There can be little doubt that your herd has become infected with the contagious abortion disease. To determine that, however, you should have a sample of blood from each animal tested by the agglutination method at the state experiment, veterinary division. Your veterinarian can attend to that. He should also massage the ovaries of the cow that does not come in heat, to rupture cysts or dislodge persistent "yellow bodies." That treatment may also help some of the cows that have irregular periods of heat. Meanwhile isolate all affected cows and cleanse, disinfect, and whitewash the stable, including the floors and gutters. The cow that is in heat all of the time might as well go to the butcher. This is also the best course as regards cows that have chronic garget as that disease is incurable when established.

Apples for Cows

I have about 500 bus. cull apples that I would like to feed to my cows this winter. I was figuring on about 20 lbs. to the cow per day. Is this amount O. K.? A veterinarian told me if I did so, the cows' stomachs would become paralyzed and the result would be a decrease in their milk flow. Later a farmer stated he had put his whole herd dry in this way a few years ago. Can this be the case unless the cows were overfed? Of course I know an overdose of almost anything would kill a cow and all has to be fed with judgment.
Belleville, Penn. A F. G.

For dairy cows apples are said to have about 40 per cent of the value of corn silage and apple pomace is practically equal to the same weight of corn silage. Apple pomace silage at the rate of 24 to 35 pounds a day per cow is as much as an animal will eat in addition to 8 lbs. of grain and 10 to 12 lbs. of hay. The apple-pomace silage had no deleterious influence on the cows or their milk (Vermont report 1903). Better make cider of the cull apples and feed the pomace to cows along with plenty other feed. It is commonly believed by dairymen that when apples are heavily fed the milk yield will materially lessen if not dry off. Judiciously fed, apples have not that effect and possibly may prove beneficial in laxative effect.

Warts

I wish information on killing seed warts on cows' feet.
Guthrie, W. Va. E. D. H.

The warts should in time disappear if you keep the affected parts well covered with a thick paste of pure castor oil, salt, and flowers of sulphur or a 5 per cent ointment of oil of white cedar (thuja) which you can obtain from a druggist.



Do Your Calves Have

A BRIGHT EYE and a SLEEK COAT?

Are they hungry at mealtime and are their bowels in a normal condition? If not, they are in danger of Indigestion, Scours and Calf Cholera, which if neglected is fatal. Dr. David Roberts

CALF CHOLERA REMEDY



prevents fermentation of food, liquifies the poisonous gases, has a soothing, healing antiseptic effect on the mucous membrane of the digestive organs and regulates the flow of gastric juice so that the calf's digestion becomes normal, the trouble disappears and the calf naturally recovers. For sale by dealers or postpaid $1.00. Ask for FREE copy of The Cattle Specialist and how to get the Practical Home Veterinarian without cost.



Veterinary advice FREE.

Dr. David Roberts Veterinary Co., Inc.
195 Grand Avenue
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Buy from Hoard's Dairyman advertisers and tell them you saw their ad in Hoard's Dairyman.



Make Cows Pick Up
—*give more milk*

FOR all-winter Milk profits, without interruption, most cows need more than simply good food. The sudden change from tender pasturage to dry, hard-to-digest feeds is too much for them to overcome—without aid. Part of the expensive diet simply GOES TO WASTE.

And this wasteful milk loss NOW! Take several of your poor milkers and give a tablespoonful of Kow-Kare with the feed—note the almost immediate improvement in the milk pail. It's those ADDED quarts that boost your milk profits. You'll be amazed at the convincing proof of the Kow-Kare aid to increased milk flow.

Kow-Kare has a direct, positive, action on the digestive and assimilating organs. It enables them to carry a heavy load without a break-down. It builds greater vigor into the cow while it is putting more milk into the pail. A single can of Kow-Kare will ration one cow one to two months, depending on the dosage you deem necessary. It's a small investment to pay for profit and health insurance.

Treating Cow Diseases

For Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Lost Appetite, etc., Kow-Kare is your one sure remedy. It attacks these diseases by quickly building up to robust health the organs where these troubles originate. If you have never tried Kow-Kare, ask your neighbor. Kow-Kare has a well earned reputation as a profit-maker and a money-saver in the cow barn.

For cows about to freshen, Kow-Kare provides just the strengthening aid needed to bring cow and calf through without costly disorders and loss of production. Feed it two to three weeks before and after calving; it costs little, brings sure results.

DAIRY ASSOCIATION CO., Inc., Lyndonville, Vermont

Makers of Kow-Kare, Bag Balm, Grange Garget Remedy, American Horse Tonic, etc.

Feed dealers, general stores, druggists have Kow-Kare—$1.25 and 65c sizes, (Six large cans, $6.25). Full directions on can. Mail orders sent postpaid if your dealer is not supplied. Our valuable free book on cow diseases sent free, on request.



KOW-KARE

FAMOUS CONDITIONER OF MILCH COWS

Wonder Healing Compound FOR MAN or BEAST

—It's CORONA WOOL FAT

Soothing Healing Ointment That Works Like Magic

Corona Wool Fat is made from the oil extracted from sheep's wool. It's different from any salve or ointment you ever tried. It heals and soothes, but will not smart or blister the most sensitive wound. It has healed thousands of stubborn wounds where other lotions have failed.

Hardly a day passes but what you'll find some use for Corona. For sore shoulders, sore necks, collar boils, split hoofs, scratches, sore teats on cows, caked udders, cuts, wounds, burns of any kind on man or beast it is unequalled.



LIBERAL SAMPLE FREE Corona is sold by nearly all druggists or direct from us on receipt of price—8 oz. tins 65c, 20 oz. tins $1.25, postpaid. If you will send your name and address, we'll mail you a liberal sample and book of uses Free. We want you to see for yourself the wonderful healing properties of Corona.

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Cut Rates

A man stepped up to a grocer's cigar counter and bought two 10-cent cigars. A Scotchman who was waiting to be served pushed forward.

"You sell those cigars three for a quarter, don't you?" he asked.

"Yes," replied the grocer.

"Well," said the Scotchman, producing a nickel, "I'll take the other one."—The Progressive Grocer.

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Registered Ayrshire Cows

We are offering for sale a number of choice young cows bred for fall freshening. Several are bred to Aldebaran Victor, he a son of that great cow, Highland Polly. Others are daughters of "Victor" bred to a son of Bargenoch Gay Cavalier. Priced from $175 up. Herd under federal supervision.

ALDEBARAN FARM, E. J. Nelson, Mgr., RACINE, WIS.

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Center, Wis.

AYRCROFT FARM

is offering some good bargains in Ayrshires. Write for what you want. Herd Federal Accredited.

B. B. SIMMONS & SONS, PEWAUKEE, WIS.

Ayrshires -- For Sale

COWS, HEIFERS and HEIFER CALVES.
Accredited Herd

SPINNEY RUN FARMS, Gurnee, Illinois

WOOD FORD FARM

AVON, CONNECTICUT
— OFFER —

Grandson of the World's Champion Mistress Thistle of South Farm.

Sire—McAllister Betty's Son.

Dam—Barclay's Thistle. R. of H. record, 9159 milk, 4.02% fat, Class EE.

J. J. ANDERSON, SUPT.

South Farm Ayrshires

Will sell a limited number of Young HEIFERS and BULLS.

Let us know your wants.

SOUTH FARM, Willoughby, Ohio

Spring Valley AYRSHIRES

Accredited Herd

Foundation FEMALES - BULLS

For Sale At All Times!

Choicely bred Cows and Heifers for sale — mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

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AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us.

Federal Accredited Herd.

SYCAMORE FARMS, Douglassville, Berks Co., Pa.

Penshurst Ayrshires

HEALTH—PRODUCTION—QUALITY

Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.

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Ayrshire Bull

BORN: MAY 16, 1926. Sired by Penshurst Rising Star, 20922, A. R. 260, with 30 daughters having records averaging 10,688 lbs. milk, 436 lbs. fat, 4.07%. Dam, Auchinbay Ella, 70176, has the following records: Sr. 2-year-old, 14,153 lbs. milk, 547 lbs. fat and Jr. 4-year-old, 15,665 lbs. milk, 618 lbs. fat. 100 official yearly records average 12,236 lbs. milk, 492 lbs. fat, 4.02%. 6 World's Champions in 6 years. This offering is white with red cheeks and very typy.

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FULLY ACCREDITED

300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

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SPENCER, MASSACHUSETTS

Ayrshires

—are a plain business proposition. "Profit" is always the biggest possible return from the least possible outlay. That is "AYRSHIRES" in a nut shell.

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SWISS VALLEY GIRL 7th No. 4678

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N.
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(The Former Kinnelon Herd)

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from ten to fourteen months old. Good breeding. From accredited herd. Write for information.

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4-times-a-day
Milk Record Sheets

10 cows for 31 days
5c each prepaid
Hoard's Dairyman, Ft. Atkinson, Wis.

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Write For SALE-LIST

of bred daughters of Xenia's Sultan and You'll Do's Volunteer. Breed up QUALITY TYPE AND PRODUCTION in your Jerseys with an ELM HILL BULL.

ELM HILL JERSEYS,
LEE BOYCE, MGR.
Brookfield, Mass.

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

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YOUNG BULLS from two months to 1½ years. From dams producing up to 500 lbs. fat with ordinary farm care. PRICES range from $25 to $100.

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We have for sale two young bulls of serviceable age, also a few calves of excellent type from R. of M. cows. Prices reasonable.

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Ibsen's Chief—herd sire. Serviceable bulls and younger from high producing dams including the state champion in the 305-day division. We now have 16 cows on R. of M. test, and a choice lot of young stuff, both sexes for sale.

Federal Accredited herd and no abortion.

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-- AN ACCREDITED HERD --
Of Representative Jerseys
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MAJESTY'S and SYBIL'S — of Quality

Offering 6 well grown heifers of excellent type and quality—ready to breed.

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University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.

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I AM OFFERING MY HERD SIRE, IMAGES OWL, grandson of Vive La France, No. 198697, also a few cows and heifers and calves of either sex. Herd Federal Accredited.

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Entire Herd REGISTERED JERSEYS For Sale

12 cows, heifers and heifer calves, 1 bull. Write for full description. Priced to sell.

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Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

A 23-YEAR-OLD PRODUCER



LAURA

Laura, a pure-bred Jersey, is 23 years old and the mother of 19 heifers and 1 bull calf. In her twentieth year she made a record of 408 lbs. of butterfat. One Pennsylvania herd is made up entirely of her direct descendants.

Look to the Jersey for persistent, profitable production!

THE AMERICAN JERSEY CATTLE CLUB, Dept. B
324 West 23d St. - NEW YORK

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

The Kind of Care That An "Ordinary Farmer" Can Give

Under this condition the pure bred Guernsey cow, May's Emma, finished last year right by producing

8850 lbs. milk, 519.2 lbs. butterfat in ten months

She's a New York cow — started her record at two years old — carried a calf for 249 days of the record — was milked only twice daily — and on the last day she gave 22 lbs. of milk testing 6.5%. She is a typical Guernsey cow. For further information on the breed,

Ask for *"The Story of the Guernsey"*

THE AMERICAN GUERNSEY CATTLE CLUB
8 Grove St., - PETERBORO, N. H.

BUY HOLLISTON BLOOD!

We have sons and grandsons of Langwater Holliston that will develop into real breeding bulls. They have real individuality and persistent production back of them. We can sell you a good bull calf from either A. R. or untested dams. Our prices will interest you.

D. G. TENNEY, 15 West Fourth St., NEW YORK CITY

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this

m. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show g records indicate Cherub blood the really sure way. Let us ad- e you about your next sire.

MARSH FARM, WATERLOO, IOWA

Oaks Farm Guernseys

herd of 175 head is absolutely free of CONTAGIOUS ABORTION. The four herd sires are of Y ROSE, CHERUB, SEQUEL, and VALENTINE breeding. We always have young bulls of breeding on hand to offer at a price which will interest you. (No bulls raised except from ed dams.) If you are looking for registered fema'es we can offer you something which will se you and which we will guarantee to be as represented. All inquiries cheerfully answered.

ALTER S. KERR, Manager COHASSET, MASSACHUSETTS

igh Production Guernsey Bulls -- Ready for Service

MERS' PRICES—We Offer Three Sons of Langwater Mary's Royal (82716), grandson of Gerar Pearl & Lang- r Hope (8th Class A—6th Class F). Sire:—Gerar Pearl's Royal. Full brother to five class leaders. Dam:— gwater Mary. 12,681.8 lbs. milk, 688.03 lbs. fat. ABBIE'S ROYAL OF POMEROY (104876)—Born:—Au- 3, 1924. Dam:—Abbie of Pomeroy (139441). Dam's record:—Milk, 10,231.9 lbs.; Fat, 448.7 lbs. (Class . HOPE'S ROYAL OF FERN-DELL (115935)—Born:—September 27, 1925. Dam:—Hope of Pomeroy 3d 31). Dam's record:—Milk, 11,808 lbs.; Fat, 609.8 lbs. (Class DD). ETHEL'S GERAR ROYAL OF FERN- LL (106745)—Born:—January 14, 1925. Dam:—Ethel of Maple Shade (131123). Dam's records:—Milk, 0.7 lbs.; Fat, 510 lbs. (Class GG). Milk, 11,379.1 lbs.; Fat, 601.9 lbs. (Class C—unofficial).

N-DELL GUERNSEY FARMS, A. W. FOX, MGR., GREEN BAY, WISCONSIN

uttergold Guernseys

LL CALVES out of Advanced Registry s or cows now on test, sired by National nd Champion bull or sons of his.

RR BROS., NEW AUBURN, WISCONSIN

Young Bulls $100 to $125

ve for sale several good young bulls from A. R. priced to move at once. Their breeding will suit The herd is clean. Write for sale list.

. HARVEY, R. 2, Waukesha, Wis.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

GUERNSEYS! GUERNSEYS!!

GRADE and PURE-BRED, compare our price, type and quality before buying. Now is the time to buy fresh and springing cows.

FOND DU LAC GUERNSEY BREEDERS' ASS'N.,
Geo. M. Newlin, Sec., FOND DU LAC, WIS.

Do These HEIFER CALVES Appeal to You?



They are daughters of Anton's King Confidence, our senior herd sire. He has many more like them. Our younger sires, King Harvester of Prospect and Mixter Claimant, are also getting very desirable individuals. Write us for pedigrees of our sires then you will know what it means to have a bull at the head of your herd from our farm.

Square Udders—Deep Bodies—Dairy Temperament Combined with Persistent Production for Generations

Our bull calves sell fast, consequently we have none of serviceable age to offer. Write us for our reasonable prices on bull calves up to six months of age.

HOARD'S DAIRYMAN FARM Fort Atkinson, Wis.

SHOW BULL -- State Record Dam

READY FOR SERVICE — CHERUB BREEDING

Begonia's Cherub of Chippewa is one of the best bulls we have for sale. He is a showy fellow, ready for heavy service. His sire, Proud Prince of the Prairie, is a prize winning son of Cherub's Prince. His dam, Queen Begonia of Chippewa, produced 630.07 lbs. fat in GG (state record). I also have a few cows and heifers for sale from my herd of over 100 head. Write or come to the farm.

L. P. MARTINY -:- CHIPPEWA FALLS, WIS.

LINWOOD GUERNSEY SIRES

COMBINE TYPE AND PRODUCTION

PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. CINDERELLA'S FAME OF MOUND CITY 78385. Dam: Cinderella's Josephine 909 lbs. fat.

2 REGISTERED BRED HEIFERS also 4 FINE BULLS with A. R. dams, records 740—669—634 and 624 pounds fat. Write for prices and pedigrees.

LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.
Homer Rundell Federal Accredited Herd



SOLD FOR $22,000.00

CORIUM GUERNSEYS . .

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

FOREMOST GUERNSEYS

We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Heifers FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

FOUNDATION GUERNSEYS

FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

LUXERIN GUERNSEYS

(SHERIDAN'S)

Fond du Lac - Wisconsin

TWO VERY HIGH CLASS YOUNG BULLS, born Feb. 9th and Feb. 10th, well-grown, good color, very good type (show kind) sired by Saugerties May Rose King 50343 A. R., one of Wisconsin's best sires. Dam's records 677.13 fat A. A. and 652.8 A. respectively. Accredited herd. Blood tested.

Helendale Guernseys

One serviceable bull and one bull calf nine months of age. Prices on application. Herd free of abortion and Federal Accredited.

HELENDALE FARM, Athens, Wis.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

GEO. E. LARSON, AMHERST JCT., WIS.

GUERNSEYS! GUERNSEYS!

Carloads of pure-breds or grades. Prices are right. Come or write.

LACROSSE COUNTY ASSOCIATION,
VILAS YOUNG, Sec., West Salem, Wis.

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

Trailing Holsteins to South America

(Continued from page 61)

we were away at last. At last, at last. The long looked-for "at last."

About noon the captain spoke of running into trouble toward night as the glass was acting queer and that anything loose on deck should be looked after, or "made fast" as he put it. And right here I began to absorb nautical cant, for who ever heard of the expression "made fast" in Chillyville.

And sure enough. The prediction of the Old Sea Dog was right. For to quote the latest in slang aboard the Humming Bird, one should say: "He knew his vegetables." At dark the wind was fit to be tied, and by 10 p. m. the Humming Bird was lunging and plunging fearfully. Neptune was carousing, the sea was on a wild drunk, and spray and great showers rolled up her weather beam and spread over the deck like a fan.

Tonight I did not milk, it being too risky. Once when I was maneuvering to cross the deck with two pails of water, the Humming Bird dived with her nose into a crater of the sea and flung me into the scuppers. The upshot of it was that I quit carrying water. At dusk the sea was a wilderness completely corrugated with coulees and range behind range of silver mountain crests.

December 19. We nosed into a storm this afternoon off Cape Hatteras, and accompanied by a gale that was a humdinger. We had fire drill at 1 p. m. and had everything to make it a success but the fire. I was drafted and became a member of boat crew No. ———, well, I forget the number. But I know the way to the boat in case of fire, having a homing bird's instinct in that respect. Jimmie Wong and Jimmie Wing, Hong Kong, are appointees with me to furnish draught for one davit when lauching our lifeboat. Together they weigh 214 lbs. The davit is very rusty and pulls hard. I wish Wong and Wing would pull the same way. As things now stand, we have to scratch to swing our end clear.

[EDITOR'S NOTE:—This is the second of a series of six articles by Mr. Beattie. The next will appear in an early issue.]

GUERNSEYS

Bay Cliffs Herd SOLD!

This splendid breeding herd of 71 head have been sold to Loma Farms, Marquette, Michigan. By keeping the entire herd together in this manner the same blood lines will be maintained. We have several mighty fine young bulls to offer right now and at very reasonable prices. All interested write

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.,
MARQUETTE, MICHIGAN

Bargains in Bull Calves

A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD Lines—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, Pa.

PENNCREST FARMS

ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pronounced by authorities as the best son, individually, of Ne Plus Ultra, whose offspring, for a number of years past, have invariably topped the sales of major importance. Near descendants of this great sire are becoming harder to secure, and in the near future will be valuable acquisitions. Breeders desiring the best there is in this blood will do well to investigate, as we are offering stock at the right price. Address inquiries to

WM. P. SMEDLEY, MGR., MEDIA, PA.

PRODUCTION BULLS--*Righto*

When they sire daughters which produce
A TON OF MILK A MONTH

Brookmead's Banner, sold as a youngster (Sight Unseen) for a reasonable price, is the sire of Silverwood's Diana:
December, 1925—2,158 lbs. Milk—ONE TON
January, 1926—2,187 lbs. Milk—ONE TON
Our present sales list carries equally good ones.

BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81288, world's champion Guernsey in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

MAYOWOOD FARMS

GUERNSEY BULLS

DO YOUR GUERNSEY SHOPPING EARLY

We are sold out of bulls of serviceable age, but still have a number of younger bulls from some of our best producing dams, which we are offering at attractive figures. Buy One and Develop Him Yourself.

O. C. JENSEN, Supt., ROCHESTER, MINN.

CLOVER BLOSSOM FARM

RED WING, MINN., R. F. D. 1

Bulls from A. R. dams, 843 lbs. B. F. records, will surely increase your herd average. A few ready for service.

AUCTIONEER
OLIVER S. JOHNSON
AUCTIONEER



TIPTON, - - - IOWA
2000 SALES 18 STATES
Sample Iowa Engagements
Dec. 28, Reg. Hampshires, Ed Behrends, Monticello.
Dec. 30, Reg. Holsteins, F. J. Kukklick, Preston.
Jan. 4, Reg. Herefords, Geo. Roehlk, Bennett.
Jan. 25, Reg. Jerseys, Chas. Hoffmiller, Baldwin.
Feb. 1, Reg. Guernseys, R. L. Wintz, Cedar Rapids.
Feb. 10, Grade Guernseys, Prosser-Smith, Central City.

Buy that herd bull from a Hoard's Dairyman advertiser. You'll be better satisfied.

HOLSTEINS

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

L. E. FERGUSON, LAURENS, IOWA.

HOLSTEINS (Homesteads)

MILWAUKEE COUNTY INSTITUTIONS FARM will sell ten Homestead bred yearling heifers (open) from high producing dams; sires, King Canary Homestead Segis, a 31-lb. sire and Milcoaggie Oak Homestead, another 31.69-lb. bull. Not show individuals but fine foundation stock, if you are looking for production. Also selected bull calves from good blood lines.

HERD T. B. TESTED EVERY SIX MONTHS.
Inquire of:
MILWAUKEE COUNTY INST. FARM
WAUWATOSA, WISCONSIN
E. C. THOMPSON, FARM MANAGER

Springers and Fresh Cows
HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

Quality Holsteins

Jefferson County Holstein-Friesian Breeders Association has them. Over 1000 herds to select from. Write your wants to our field man.

BERT ANTHES, Fort Atkinson, Wisconsin



EAR TAG A—1132. Born July 2, 1926—A Show Bull Son of Prospector

Here is a Son of Prospector

Prospector, our junior sire, weighs 2850 pounds as a four-year-old. His calves are as like as peas in a pod, inheriting his color markings and great size. Prospector combines the blood of Carnation's two greatest cows, and transmits marvelous udders.

His son, pictured above, is from a 29-pound Homestead-Ormsby cow. Her average test for the year is 4%—and study the topline and depth of the bull himself.

Don't Miss This Chance

Address all correspondence to
111B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY. NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Come to Hollyhock Farms For Your Herd Sire!

Although we seldom have a bull of serviceable age, we always have some very good younger ones sired by Sir Bess Ormsby Fobes or by Creator out of Sir Bess' daughters. We have a few good ones right now with the right type and from good record dams. Write us or come to the farm.

HOLLYHOCK FARMS (Waukesha County) P.O. DOUSMAN, WISCONSIN
GUSTAVE PABST, OWNER F. J. SOUTHCOTT, MGR.
A Clean Herd Under State Supervision

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

JOHN H. PULS ALLENTON, WISCONSIN

THE NORRIS FARM—Home of King Homestead Veeman Pontiac, 1

N lb. son of Piebe Laura Ollie Homestead King and Molly Veeman Segis P tiac—daughter of King Segis Pontiac Count.

MUKWONAGO *Federally Accredited* WISCONS

STATE and FEDERAL TESTED ## HOLSTEINS

BUY FROM AN AREA TESTED COUNTY

The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.

Write or wire for information or appointments.

WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

REGISTERED HOLSTEIN HEIFERS

We offer several bred heifers due in March and April. All are sired by a 1,040-lb. Homestead sire and all are bred to a 990-lb. grandson of Iowana Sir Ollie. Accredited herd.

CHAS. HUGHES & SON, NEENAH, WIS.

$350 Buys a Serviceable Son

of a 952-lb. four-year-old. Sire a 1,000-lb. brother of Madam Artis Wayne Denver. Send for photo and pedigree. Accredited.

S. B. SIMONS, Sullivan, Jefferson County, Wisconsin.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

MILFORD MEADOW

Where long-distance records and high test counts

Our daughters of King Bess Burke Orm (1164 butter) and Marathon Aaggie (1 butter) are most all bred to

SIR TRIUNE PANSY (1,317 lbs.)

First to freshen in January. You will pleased with this combination of type and duction.

W. W. KINYON, Mgr., LAKE MILLS, W

Come to St. Croix County a Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-b and grades of all breeds. One or a car Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond,

HOLSTEIN Bulls - Female

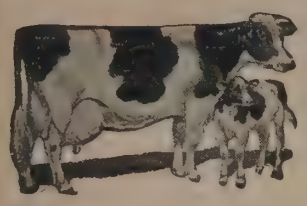
YOUR PICK OF 150 HEAD. Abortion t and T. B. free. First prize National Show, 36-lb. Ollie bull, also Pietertje Or Mercedes Della, sire of World's Champio

F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES

Jefferson County Holstein Sales Associ

can assist you in purchasing good, clean dairy Grade or pure-bred in any number you wish. all correspondence to A. F. GAFKE, secretary, FERSON, WIS.

When buying mention Hoard's Dairym your merchant or dealer—it helps us!



If all the Dairy Cows In Iowa Were HOLSTEINS—

On January 1, 1926, there were 1,369,000 dairy cows in Iowa which produced approximately 6,200,000,000 pounds of milk last year at a feed cost of approximately $95,000,000. If all farmers were milking cows that were as productive on the average as the 811 cows (Holsteins) on Iowa state farms operated by the Iowa Board of Control, it would have only taken 617,600 cows to produce this 6,200,000,000 pounds of milk and if they had been as economically fed as the state cows, there would have been a saving of approximately $35,800,000 last year alone.

This statement was made by the Iowa State Secretary of Agriculture, Mr. Mark Thornburg, before the recent joint convention of the Iowa Creamery Buttermakers and the Creamery Managers and Secretaries Associations.

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN *Association of America*

230 E. Ohio St. Room 601 **CHICAGO**

WINTERTHUR FARMS HOLSTEINS

HOME OF THE SPRING BROOK BESS BURKE 2d FAMILY

BULL CALVES FOR SALE

Born since March. Write for price list. Herd under Federal Supervision for Tuberculosis; negative to Blood Test for Abortion.

WINTERTHUR FARMS, Winterthur, Del.

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.

P. S. Come and make selections.

---

2 YEAR RECORD SONS OF COUNT WALKER HOMESTEAD SEGIS

are offered by HIGHLAND FARM, LAKE GENEVA, WIS. "Count" is a son of that great producer, Walker Ollie Homestead. These calves are 7 and 9 months old, and very well grown. One is from a 30-lb. 2-year-old granddaughter of Iowana Sir Ollie 508 lbs. butter—11,026 lbs. milk in 305 days); the other from Walcowis Gift Butter Maid—670.52 lbs. butter, 17,051.3 lbs. milk in a year as a jr. 2 year-old. Write for pedigree and price to

JOHN H. ALCOCK, 3460 W. Adams St., Chicago, Ill.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB

NELS PARSON, SALES SEC.,

NORTHFIELD, MINNESOTA

COME VISIT OUR HERD

and see the great daughters of Dean of the Ormsbys, and St. Olaf Ormsby Sensation, our two herd sires. We are now sold out of bulls and will not have any to offer for some time.

ST. OLAF COLLEGE FARMS,

Northfield, Minnesota

All we can Offer in .. BULLS

Ear tag 575. Born December 1, 1926, evenly marked. Dam, a show cow, daughter of 1,227-lb. bull. Sire proven son of "Piebe." Get this calf for next year. Price $75.00.

Federal Accredited.

CARLETON COLLEGE FARM,

Northfield, Minnesota

P. Frost Spaulding Farm Co.

Offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir Ormsby O. M. backed by two generations of 1,000 lb. dams. Get our prices.

L. SPAULDING, MGR., Warren, Minn.

Healthy Holsteins

If you are in the market for grade or registered Holsteins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.

608 S. Dearborn St., CHICAGO, ILL.

Illinois Greatest Holstein Herd

For 5 years every cow in this herd has been regularly tested by the Ogle County Cow Test Association. We have and offer for sale young bulls carrying both official and C. T. A. proven production records. May we describe them to you?

Rock River Farms, Byron, Ill.

Buffalo Creek Farm Holsteins

ORMSBY BRED BULL CALVES FOR SALE out of tested dams. Oldest calf born last February out of 20-lb. two-year-old, mostly white, price $100. Younger calves out of year record dams with year records up to 970 lbs. butter. Write for pedigree and prices. Federal supervision.

BINGHAM BROS., Arlington Heights, Illinois

WARWOOD FARM HOLSTEINS

YOUNG BULLS FOR SALE

These youngsters are sired by a 1000 lb. grandson of Sir Pietertje Ormsby Mercedes 37th and are from our best producing cows. Write today if you want a bull with type and backed by productive breeding.

FRED LANDORF, GLEN ELLYN, ILL.

YOUNG BULLS FOR SALE

We have some real good bull calves from one to three months old. They are real straight calves and from our highest record cows. They are priced reasonably, quality considered. Our herd is under federal supervision.

ELLWOOD & NELSON, DE KALB, ILL.

Hyde Park Farm

is now located at

Palos Park - Illinois

where our fully accredited herd of high-producing registered Holsteins is headed by a splendid son of Matador from a 35 lb. dam. We sell our Bull Calves at reasonable prices to local dairymen.

JOHN A. CARROLL, Owner

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Dams have good 7-day and 305-day heifer records. Both calves nicely marked, the October calf ⅔ black, the December calf ⅔ white. Both fine, straight individuals.

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A SON OF "FOBES 6th"

is senior sire in the heavy producing Traverse City State Hospital herd where 98 cows and heifers averaged over 13,000 lbs. of milk during the past year.

HIS SIRE, Marathon Bess Burke, has two daughters with 30 and 37.8 lbs. and two above 1,000 lbs.

HIS DAM, "Fobes 6th," is a 38.5-lb. 1,105-lb. cow of wonderful type and quality.

Marathon Bess Burke 32d represents a wonderful combination of Ormsby—Bess Burke—Fobes breeding.

His sons from the heavy milking Traverse dams are bred for production. We have only a few to offer. Send for pedigrees.

"MICHIGAN STATE HERD"

BUREAU OF ANIMAL INDUSTRY, Department B, Lansing, Mich.

Detroit Creamery Company Holsteins

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Ambassador Fobes not only has the best of type but he is a proven sire with the best of breeding. He is a son of S. P. O. M. 37th and that great foundation cow, Wisconsin Fobes (1,153 lbs. butter in a year). His full sister, Fobes 5th, produced 1,079 lbs. butter in 305 days and another sister, Fobes 6th, had 1,105 lbs. in a year, 38.5 lbs. in 7 days.

Write us when you want a bull or, better still, come and make your own selection. You will like our breeding herd. Our cows have both type and good production records.

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Flint Ona Hengerveld Segis



Our Junior Herd Sire

He is a son of King Ona from Clover Farm Mercena Segis a granddaughter of King Segis that has 4 records over 30 lbs and has produced 950.4 lbs. butter in a year. He already has a nice list of A. R. O. daughters. Sons and daughters of Flint Ona Hengerveld Segis have both type and production. **Write us for information about one of his sons from a daughter of Maplecrest Korndyke Hengerveld.**

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Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



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A 1281-LB. SON OF K. P. O. P.

was 1st prize 3-year-old at New York State Fair in 1924 and a consistent winner wherever shown. His dam made 1281 lbs. butter with an average test of 4.34% for the year. She also has a 41-lb. seven-day record. Am offering sons of Friend Piebe from dams with good year records for from $200 to $400 delivered anywhere in the U. S.

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Ours is a business herd of over 250 registered Holsteins headed by King Ona and one of his good sons. Our cows must be profitable producers and the young bulls we offer are out of that kind of dams. We have several good youngsters from A. R. O. cows for sale at present. They are priced to move quickly. Write

The Rieck Certified Dairy Farms Co., Roots Town, Ohio

KEEP TAB ON YOUR COWS

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We don't ask any man to buy the Surge Milker on our say so. We tell you what it will do—then we prove it to you in your own barn, on your own cows, without the slightest obligation on your part. After the FREE demonstration you can decide whether you want to buy or not. Don't buy any milker any other way. Mail coupon below NOW. Get the big facts about this great liberal Free Offer!

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or Electricity?_____

*Name*_____

*Address*_____ *R. F. D.*_____

Ed July 27
College of Agric
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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 3 Fort Atkinson, Wisconsin February 10, 1927

JAMES E. KANE
Route 6, Dubuque, Iowa

MR. KANE is well known in his part of the country for his strawberries and grapes. Honey and chickens are other profitable products of his twenty acres. He has a fine big family of four boys and three girls, and this is what he says about the footwear they have for bad weather: "If I don't keep my feet dry I can't keep well, and all the boys and girls are like me in this, so when it comes to such things as rubbers, we buy the best. We always ask for Ball-Band and it's easy to tell that we are getting it, on account of the Red Ball trade mark. I have worn Ball-Band as long as I can remember, and I like it because I get good fit. I wear the four-buckle rubber arctic most of the time, with Ball-Band wool socks. The girls and Mrs. Kane wear cloth arctics and regular rubbers—all Ball-Band."





O. S. BUNDY
Proprietor Sugar Loaf View Farm, Winona, Minnesota

MR. BUNDY devotes his 250 acres principally to strawberries and red raspberries. At the height of the season he employs 125 workers, with an average of 15 men throughout the summer. He also plants 15 acres of asparagus of a quality that finds a ready market. Mr. Bundy is a Director of the Winona Milk Corporation. The whole Bundy family are wearers of Ball-Band footwear. The son has on Ball-Band leather top rubbers, his wife and his father are wearing Ball-Band boots. "I remember," said Russell Bundy, "the first pair of boots I ever had. I was eight years old and that little Red Ball on the shiny rubbers was a beautiful thing in my mind." His father interrupted: "Ball-Band in our family goes back to nearly twice your age," he said. "Your mother and I have not only bought Ball-Band rubber and woolen footwear for ourselves and children ever since we came to Winona forty years ago, but we have bought it from the same Ball-Band dealer. He wouldn't think of offering us anything else and we wouldn't think of buying any kind of rubbers that didn't have the Red Ball trade mark."

Outdoors in bad weather . . . but they keep their *feet* warm and dry

Read how they do it and what these farmers say about how to get *more days wear* in boots, arctics and all kinds of rubbers

MEN—and women—like those whose pictures are shown here, can go about their work in all sorts of bad weather, with perfect foot comfort. Their feet are always warm and dry, no matter how wet or cold it is under foot. That is because they wear Ball-Band boots, rubbers and arctics.

They enjoy foot comfort not only because Ball-Band footwear keeps out the wet and cold, but because their footwear *fits*. Every article with the Red Ball trade mark is shaped to fit the human foot.

And good fit results in more days wear. When your boots and rubbers last longer you spend less for footwear. Look for the Red Ball and be sure of getting *more days wear* for your money.

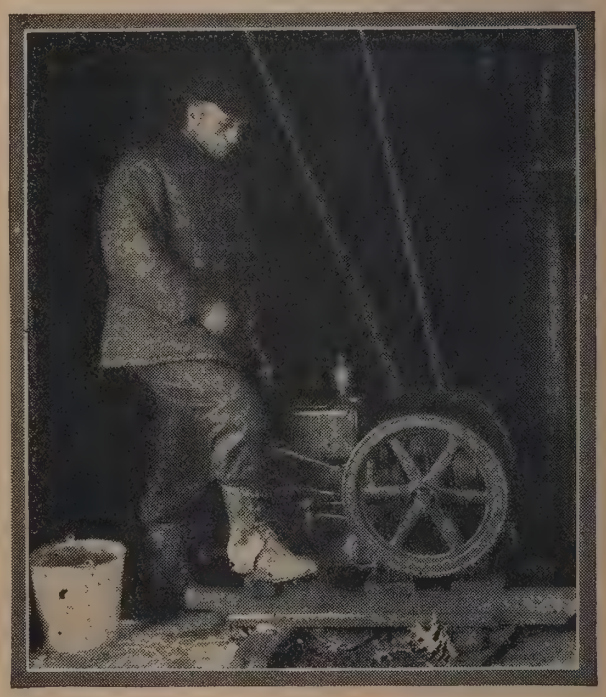
Whatever you need in rubber and woolen footwear, you can get it in the Ball-Band line. The stores where you trade no doubt have a wide variety of styles and sizes. If not, write for booklet and name of a nearby dealer who can supply you. Mishawaka Rubber & Woolen Mfg. Co., 313 Water St., Mishawaka, Indiana.

TRADE MARK

BALL-BAND

RUBBER & WOOLEN FOOTWEAR

BOOTS · LIGHT RUBBERS · HEAVY RUBBERS · ARCTICS · GALOSHES · SPORT AND WORK SHOES



THEO E. MYERS
Manager Hayden Farm
Route 8, Ft. Wayne, Indiana

THE Hayden Farm is conspicuous among the farms around Fort Wayne for its many attractive buildings. Mr. Myers is a graduate of the Agricultural College of Purdue University, class of 1917. He didn't go to farming immediately after graduation, for Uncle Sam had a job for him until 1919. Since then, however, he has demonstrated how productive a farm can be made when brains are applied to it. He cultivates 160 acres and raises corn and oats for feeding some 60 hogs and around 650 head of sheep (Western feeders). "One of the things I learned at college," says Mr. Myers, "was the wearing qualities of Ball-Band footwear. Whenever there was rough work to do in bad weather everybody seemed to blossom forth with boots with the Red Ball trade mark. Here on the farm I wear the four-buckle rubber arctic mostly, with heavy dull sandals for going to town, and Ball-Band short boots for real wet weather and wet fields. I often marvel how any manufacturer can produce such a large line of rubber footwear of such remarkably uniform high quality."

ountry Saving as Well as Spending

Despite evidences on all hands of ːe spending, the American people ve been making a better record for ving than they are generally given edit for, as is indicated in the fol- ving statements from the National ty Bank of New York:

Sales of life insurance during 1926 ain broke all previous records, the :al for the eleven months through)vember approximating $10,117,- 0,000 or 6.6 per cent more than in e corresponding period of last year.

Three million more persons owned vings deposits at the close of the cal year 1926 than at the beginning, d there was an increase of $1,562,- 0,000 in the amount of funds on posit. At $211 per capita, total de- sit savings reached a new high cord for all time.

Christmas club savings funds broke e record last year, with total distri- tions of nearly $400,000,000, an in- ease of about 27 per cent over the stribution a year ago.

Building and loan association mem- rship increased from 9,886,997 to ,275,000, and total assets increased 70,000,000, or 14 per cent, to $6,- 0,000,000, a new high record.

The demand for investment securi- es has been extraordinary. The only niting factor on the bond business is been the inability of distributors supply the issues as fast as they e wanted. Above all, the amazing ing is the growing legion of indi- dual investors whose purchases are r cash.

Added to the thousands of investors ho have bought securities in the)en market are the large numbers ho are acquiring stock in the com- anies for which they work, usually nder some company aid plan. At ie close of the year more than 200,-)0 employes of the American Tele- hone & Telegraph Company were eported as contributing $2,500,000 onthly under one of these stock pur- ase plans. Approximately 60,000 nployе-shareholders of the United tates Steel Corporation are esti- ated to have profited to the extent $22,000,000 from that corporation's ecent dividend action, and there are any other similar examples where nployes by their contributions dur- g the past year and previous years ave earned the right to share in the rosperity of industry.

Yet on top of all this the American eople still had savings enough to ef- ect during the year a reduction of pproximately one billion dollars in ie national debt.

There can be no better measure of ie extravagance, or otherwise, of uying than the movement of prices. me need not fully endorse the pres- nt practices in regard to installment redit or minimize the importance f the production and credit prob- ems created by it, to point out nat despite all the attention giv- n to this form of financing, neither ie movement of bank loans nor of rices gives any evidence that the use f bank credit or the relation of pur- hasing power to production has been nduly affected thereby. Bank loans ave increased only moderately dur- g the year, while the downward rift of prices has already been com- ented upon. Here indeed is the es- ential difference between the pros- erity of 1926 and that of 1919—20. ix years ago we did have a great ver-expansion of buying, and its ymptoms were a large increase in ank credit and great upward surge f prices. None of these symptoms re present at the present time.

Compare the
CHRYSLER "50"
With other Fours

$750
(and upwards)
f. o. b. Detroit
Subject to Current Federal Excise Tax

Compare the Chrysler "50" with the other four cylinder cars of large production and satisfy yourself how unmistakably the extra value of the Chrysler "50" stands out.

Chrysler Standardized Quality gives you these outstanding features in the Chrysler "50"—

1. Full size with ample family seating capacity;
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3. Amazing power, speed of 50 miles and more per hour;
4. Economy of 25 miles to the gallon;

—all at an amazingly low price both for investment and maintenance.

If you will picture the four other cars in your own mind you will be able to make a convincing and conclusive comparison of values that can lead you to but one decision—Chrysler "50".

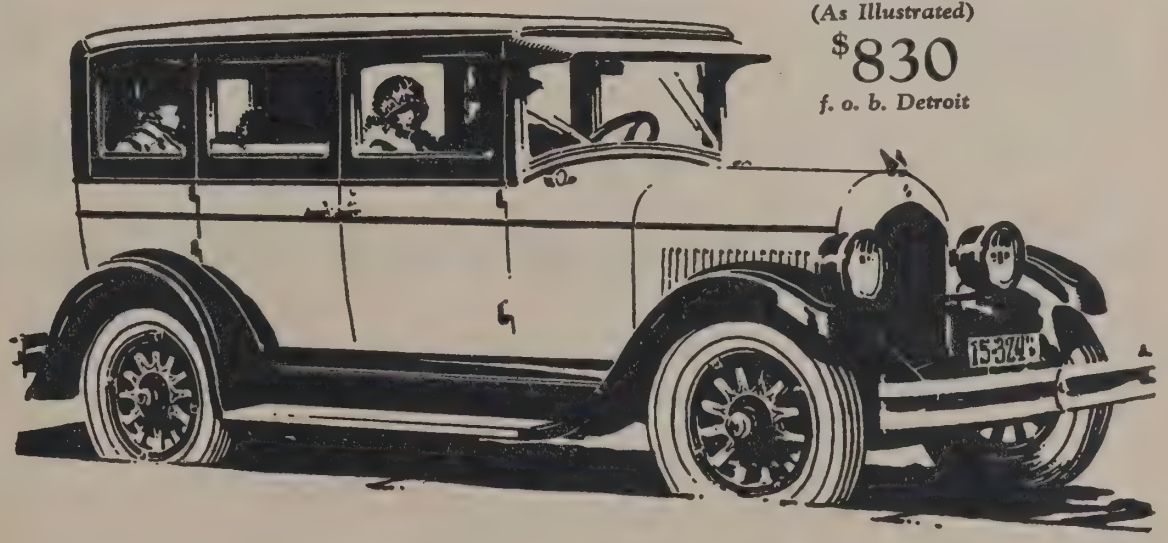
Coupe $750 Roadster $750 (Rumble Seat extra)
Coach $780 Sedan $830

All prices f. o. b. Detroit, subject to current Federal excise tax.

All Chrysler cars are protected against theft under the Fedco System.

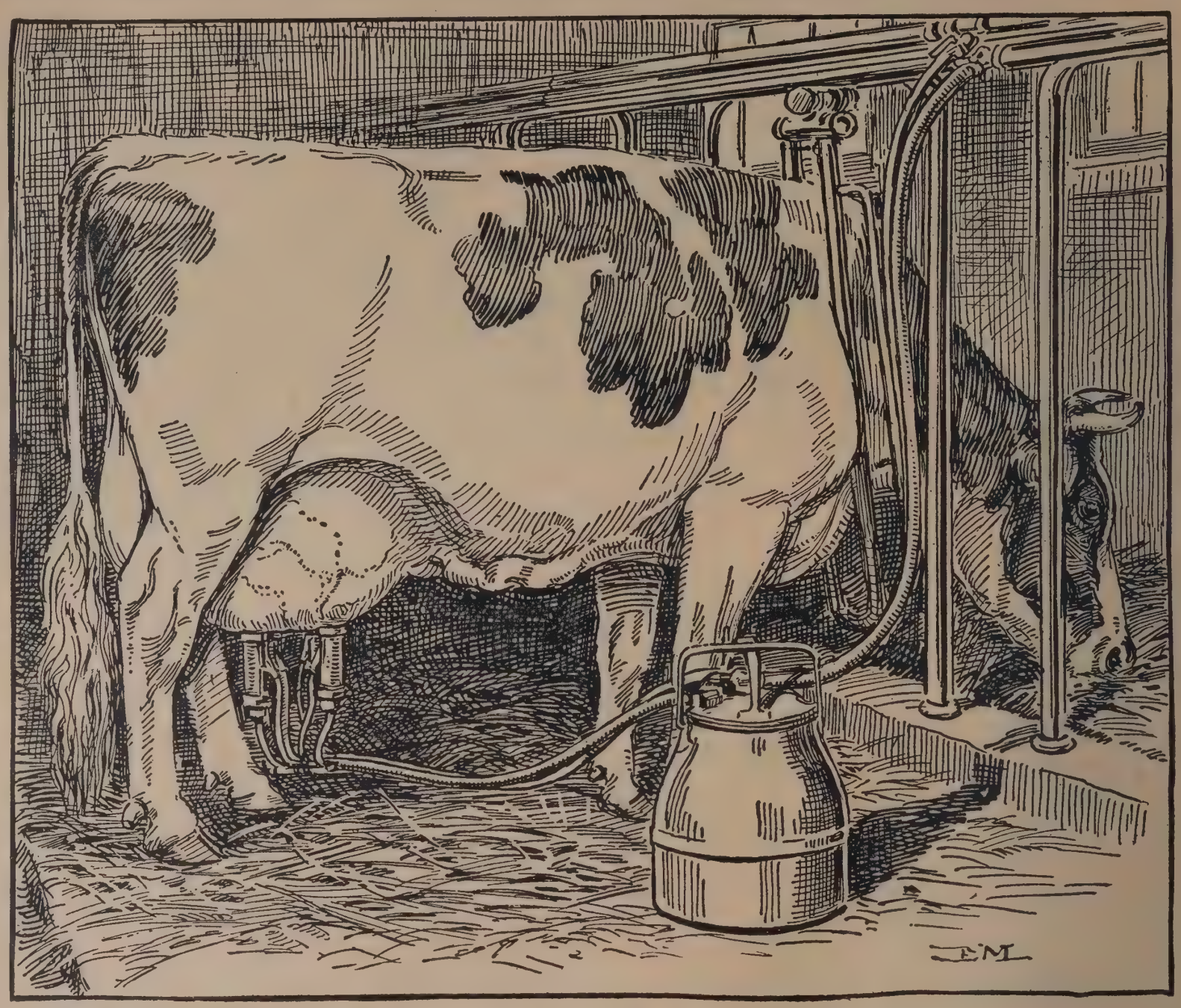
All Chrysler dealers are in position to extend the convenience of time payments. Ask about Chrysler's attractive plan

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CHRYSLER SALES CORPORATION, DETROIT, MICHIGAN
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Proof of the overwhelming superiority of De Laval Milkers is shown in the rapidly increasing numbers which are being put to use by progressive dairymen everywhere. With more than 650,000 cows (including some of the highest producers in the world, and many owned by agricultural colleges, experiment stations, public institutions, producers of Certified, Special and Grade A milk) now milked with De Laval Milkers, the economy and efficiency of De Laval milking is firmly established.

Thousands of De Laval users say that it has made dairying more pleasant and profitable for them, that it milks their cows better and quicker than ever before, and produces more and cleaner milk.

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Name .....

Town .....

State .....R. F. D. .....No. Cows .....

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

Semi-monthly

Three Years $1.00

ıtered at Fort Atkinson, is., as second class matter.

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ELECTRICITY FOR THE FARMER

How It Brings Winter Eggs

E. R. MEACHAM, WISCONSIN

LIGHTS in the poultry house are giving the hen a twelve-hour day the year round. They let er eat more, drink more, and exer- ise more. She no longer uses up all f her feed for the extra warmth the old weather demands. Instead of aving to draw on her supply of ats she has a surplus for egg pro- uction. And winter eggs mean dou- led poultry profits.

Of course the flock must be prop- rly bred for production; the hous- ıg conditions must be right; and ıe general standards of poultry ıanagement must be observed before ; will pay to use light for this urpose.

"The hen is not overworked by aving a working day twelve or thir- een hours long," says Mr. H. L. Harver of the State College of Wash- ıgton in a recent publication. "She vas a native of the tropical regions vhere the length of the days and ights is nearly equal throughout the ear. Between three and four hours nly are required for her to digest er feed and very soon thereafter he is drawing on her store of fats. f her night is rendered shorter by neans of artificial light, much of her eed will go to the production of ggs, rather than to the building up nd absorbing of fats."

The discovery that the hen could e fooled into yielding her heaviest gg production when prices are high- st is of Yankee origin. It is be- ieved that to Dr. Waldorf, a Buffalo hysician, belongs the honor of first aving tried the experiment of light- ng his hen house to reproduce the ong working days of summer. This vas in December, 1889. But Dr. Waldorf was interested in scientific research and the commercial value of the increased production in his flock was not given publicity among poultry folks.

Nine years later a poultryman running a large Leghorn farm in New Jersey began using lights with his flocks.

In 1906 when Mr. Halpin, now of the University of Wisconsin, was an extension worker in Michigan, he tried the experiment of lighting his hen houses. He thought that he was originating the idea, but in his travels about the state he ran across a Michigan farmer who had been using lights to get winter eggs for years.

About the same time a back lot poultryman over in one of the suburbs of Liverpool attained marked success in getting winter eggs because he ran a grocery business in the city during the day and did not get home to feed his hens until around ten o'clock at night. He used to go directly to the poultry house, call the birds from the roosts by lantern light, and give them their evening meal.



This light is encouraging the production of winter eggs in the hen house on the Southern Wisconsin Company's Electric Farm, Wisconsin.

Mr. and Mrs. George Shoup fell upon the scheme of lighting their hens quite by accident. They have told the story of their discovery of the effectiveness of lights many times.

They were living in cut-over land out in Western Washington, faced with all of the problems of the pioneer. There was land to clear and shingle bolts and firewood to cut, besides the regular farm routine. In the fall of 1911, they had a flock of 300 pullets ready for production. They had made it a practice to do no work by daylight that could be managed by lantern light. Cleaning the dropping boards in the hen houses became a lantern light job that fall. Cleaning the dropping boards in the poultry house is as much a part of the daily routine with a well managed flock as cleaning the gutters of a dairy barn.

Soon they noticed that some of the pullets would fly down from the roosts to take advantage of the light and began to scratch about in the litter for kernels of grain that remained from the last night's feed. They even set the lanterns down, now and then, to watch the pullets scratch busily about, but they never left them long, for chores were always pushing them on.

An old English neighbor followed them through the coops one Sunday and laughing with them at the greedy hens gave them the hint that revolutionized their poultry practices.

"Why don't you give the bloomin' 'ens lantern light to h'eat breakfast and supper by?" he asked.

They did at once—all the brightest lanterns they could buy.

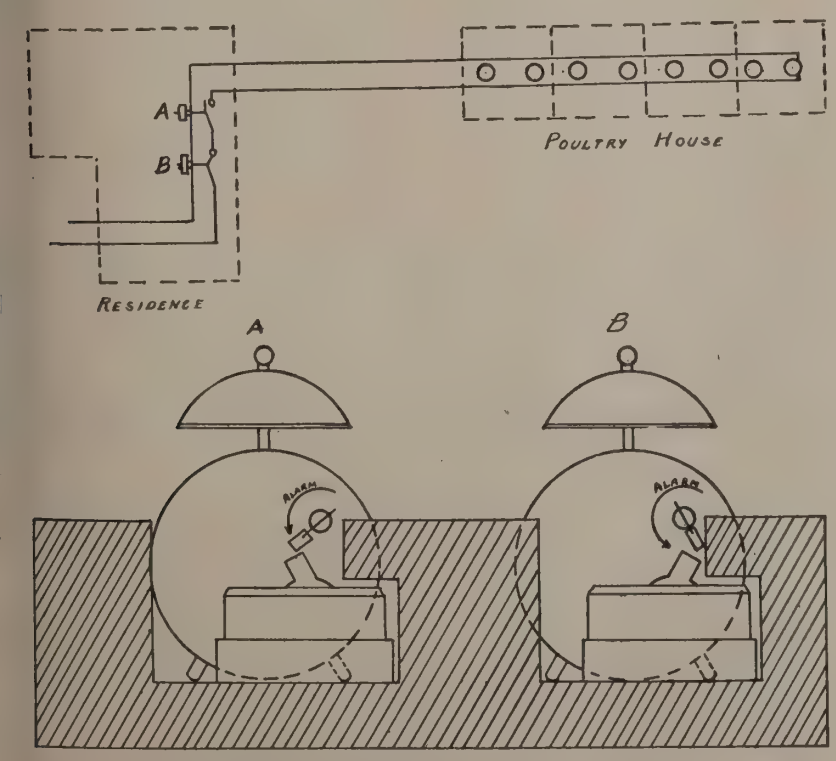
"The birds were so evidently pleased with this arrangement that we could hear them singing long after dark, and in ten days from the purchase of the lanterns our production had gone up from 45 to 200 eggs a day," concludes Mr. Shoup in a letter to the editor of the Reliable Poultry Journal.

A few years later the Western Washington Experiment Station persuaded Mr. and Mrs. Shoup to come to Puyallup and give all of their time to investigating the whims and fancies of the hens.

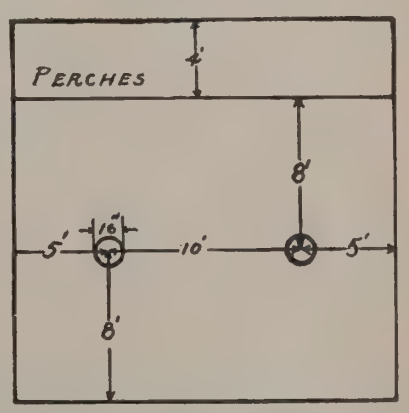
That station has since made extensive studies in the problem of hen house lighting. The experiments have shown its practical value, and the station has made definite recommendations for its application.

One of the first concerns in planning the lighting of a pen is the avoidance of shadows. The hens will only work well when there is brilliant

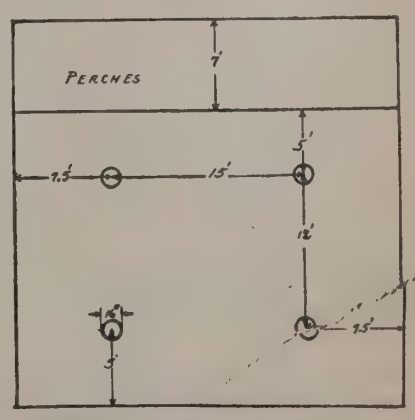
(Continued on page 151)



Clock "A" is set to switch on the lights at the desired hour. Clock "B" opens its switch at the end of the lighting period.



Location of lights in a 20x20 foot house —suitable for 100 hens.

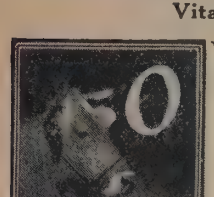


Location of lights in a 30x30 foot house —suitable for 300 hens.

THE FEEDING OF DAIRY COWS

No. 8—Air, Water, Minerals, and Vitamins

If a Dairyman Could See Air; if He Would Believe That Milk Is 87 Per Cent Water; if He Knew That 1,000 Lbs. of Milk Contain 7 Lbs. of Mineral Substance; if He Could See Vitamins or Understand Their Functions, He Could Help His Good Cows to Do Better.



OWNERS of cows fifty or even twenty-five years ago were little concerned about air, water, mineral matter, and vitamins as factors in helping cows to return greater values for feeds consumed. A half century ago cows were fed mainly on pasture and dry roughage. The ration of the improved cow may include anything from chemically treated sawdust to sunflower silage, from cocoanut meal to cottonseed hulls, from potatoes to peanuts, from mangels to molasses, and from oat hulls to apple pomace, besides different combinations of the more commonly used feeds. Then cows were not closely housed for very long periods of the year; the modern cow is frequently housed from five to seven months of the year and some cows get no pasture at all.

Thus in man's effort to produce dairy products in the diverse sections of our country, in his effort to utilize diverse kinds of feed, in his effort to adjust production to seasonal demands, he has created a somewhat artificial environment for cows and thereby laid upon himself greater responsibilities in the feeding, housing, and general management of them.

The foregoing facts give us the reason for including a discussion of air, water, mineral matter, and vitamins in this series as factors that help cows to make better use of good rations.

What About Air?

Modern dairying requires that many cows be comfortably housed during the winter months. Comfortable housing implies plenty of pure air along with uniform temperature, dry beds, and clean quarters.

The chief function of air is, of course, to furnish oxygen for carrying on the life processes. As a result of the intake of oxygen and its use in the life processes, carbon dioxide, a poisonous gas, is exhaled as a by-product along with moisture, ammonia, marsh gas, and some other organic matter from the lungs. The problem is clearly one of supplying the right amount of oxygen and of removing the by-products to the extent that cows will have a normal air environment from which and in which to do their work.

Man has created a dairy cow that needs more air than her distant ancestors and in many sections he requires her to live indoors for several months of the year. What he does to supply her with a normal air environment depends, to no little extent, on how clearly he fixes in his mind's eye the movement of air from the atmosphere into the cow's body, its function, the movement of the by-products out of the cow's body into the atmosphere, and its effects if not removed.

When a dairyman builds a barn, he provides for the storage of roughage and concentrates; he provides a place in front of each cow from which the feed may be eaten; he provides a place for the daily collection of the manurial excrement and a carrier for removing it from the barn; he puts in a milking machine by which to remove the milk; and he puts in watering cups or provides a nearby place to drink.

When it comes to air, he too often takes for granted its supply and the removal of the by-products from its use in the cows' bodies. He can not see air; he does not feed it in a basket or remove the by-products with a fork or shovel. It is difficult for him to measure with his eye the effects that poor ventilation has on the production or health of his herd. About the only time he senses anything wrong is when the atmosphere in the barn has a foul odor or when moisture collects on the walls and ceiling.

A dairyman does not feed air by the basketful or use a fork or shovel to remove the poisonous by-products of its use in the cow's body, that are exhaled into the atmosphere of the barn. He cannot see air. He too often takes for granted that his cows are surrounded with the proper kind and amount of air from which and in which they do their work.

A dairy cow inhales about twice as many pounds of air in 24 hours as she takes in of feed and drink. To supply her with good air requires about 3,550 cubic feet per hour. A cow eating enough feed and water to supply the requirements for producing 33 lbs. of milk a day will exhale about 40 lbs. of moisture into the atmosphere of the barn in 24 hours. A herd of 15 such cows would exhale about 75 gallons of moisture. If the construction of the walls and ceiling is not right; if the ventilation is inadequate, some of this moisture will be collected on the walls and ceiling and the bedding will become damp and cold. In addition to this, the cows will be forced to breathe the impurities of exhaled air over and over again.

Space does not permit a discussion of how good ventilation may be obtained. We have sought to arouse more interest among dairymen in feeding air as well as roughage and concentrates and of removing the impure by-products of the use of air as well as the manurial by-products of the use of feed. We have pointed out why this is an essential part of getting greater values from the good rations one has learned to make and feed.

Milk is 87 Per Cent Water

It is easier to visualize the feeding of water to cows than the feeding of air. But even with this, the average dairyman does not fully realize the importance of supplying cows with water under conditions that will tempt them to drink all they need. He does not quite realize that heavy producing cows need proportionately much more water than other classes of live stock. He can not quite visualize that milk is 87 per cent water.

The quantity of water a cow needs daily depends largely on her size, production, and the character of her feed. The quantity she will actually consume depends somewhat on the conditions under which the water is offered.

The amount of water a cow needs depends mainly on her size, production, and on the character of her feed. The amount she will drink depends somewhat on how convenient it is for her to get water and on the character and temperature of the water after she gets to it. Anything that causes cows to drink less of water than they need is just as bad as cutting down on their feed.

Eckles reports observations on a Jersey cow producing 27 lbs. of milk daily and consuming 77 lbs. of water plus that in her feed. Another Jersey cow producing 13 lbs. of milk daily consumed 40 lbs. of water plus that in her feed. A Holstein cow averaging 110 lbs. of milk daily over a seven-day observation consumed from 215 to 350 lbs. of water daily plus that in the feed consumed. These same Jersey cows consumed 15 and 9 lbs. of water daily when dry.

One cannot see the mineral substance a dairy cow consumes in her feed nor the factors that are of greatest influence in helping her to convert these into body uses and milk production. He cannot see 70 lbs. of mineral substance in 10,000 lbs. of milk and yet it is there. If the ration is deficient in minerals he cannot see the cow deplete her body to make milk and yet this is what she does. If one could see these things, he would realize more fully the need of adequate mineral supply to dairy cows.

The individual drinking cup has made a good reputation among dairymen because it makes it convenient for cows to get good water whenever they want it. In many instances the drinking cup has proven that cows were not getting all the water they needed as shown by the increased production after the cups were installed. There is no mystery about drinking cups in supplying water to cows. They are merely a convenient way—a labor saving device—that does the job better than the average dairyman usually does it when watering cows from a tank.

Cows that are offered ice water even though several times a day will rarely drink all they need. It is no necessary to supply warm water i the winter. No one has determine if there is an ideal temperature fo water for cows. It is generally as sumed that cows will drink all the need of water ranging in temperatur somewhere between 50 degrees and 7 degrees Fahrenheit, if given oppor tunity to drink two to four times day.

Besides constituting 87 per cent o milk, water also plays an importan part in digestion, in the eliminatio of waste, and in the regulation o body temperature.

Mineral Requirements of Cows

The mineral requirements of dai ry cows are not fully understood o it might be better to say, the factor which govern the converting of mi eral substances of the feed into bod uses and all their functions are n well understood. It is comparativel a new subject and the positiv knowledge is limited. Some specula tive knowledge is in the process o being proved and the future alon can tell what new things science wi disclose. How much of mineral sub stances, which ones to feed, how an when to feed them are questions tha can not be fully answered. It is time ly, however, to point out the impor tant known facts and to sugges practices that will help to safeguar dairy herds from the known effect of mineral deficiency.

Of all the mineral elements foun in the cow's body and used for mak ing milk, it is thought the ones mos likely to be deficient in the ration ar calcium (lime), phosphorus, sodium chlorine, and in certain sections, io dine. It has been found that feedin rations extremely low in calcium an phosphorus results in the reproduc tion of dead calves or even abortion and the calves that are born alive ar frequently too weak to survive. I high producing cows it causes a weak ening of the cow's bones, a conditio known as osteoporosis. It causes reduction in milk flow. Sodium an chlorine are the components of com mon salt. An experiment by Bal cock and Carlyle of the Wisconsi Station shows that depriving cows o salt for extended periods of tim brought about a complete breakdow with marked loss of appetite, listles eyes, rough coats, and a very rapi decline in live weight and yield o milk. In certain sections the lack o iodine in feeds and water causes go ter in calves.

The foregoing facts are evidence that mineral substances are neede by dairy cows. The dairy farmer i interested in knowing what to d about it. He is concerned mainly wit what to feed, when to feed it, an how to feed it.

The chief source of calcium in farm grown feeds is in the legume hay The chief source of phosphorus is i the grains and their by-products suc as wheat bran, cottonseed meal, lin seed meal, and middlings. Salt sup plies sodium and chlorine. Iodine, i needed, may be obtained from potas sium iodide. The following feedin and management practice is recom mended to safeguard cows from th effects of mineral deficiency:

(1) Include a legume hay with th roughage; (2) balance the ratio with suitable concentrates; (3) fee roughage to the limit of appetite an concentrates according to productio as already given in a previous art cle; (4) provide salt; (5) give cow from 6 to 8 weeks rest or dry perio

Vitamins, like electricity, are known more because of their effects than from their composition. Their function seems to be to promote growth, health, reproduction of young, and production of milk. Good rations and proper cow management are thought to supply sufficient vitamins and in most cases give them proper conditions for doing their work.

(Continued on page 154)

BROWN SWISS CATTLE IN THE UNITED STATES

THE original home of the Brown Swiss breed is in witzerland where it s been developed dur- g many centuries. It probably one of the dest breeds in exist- ce, and it is thought at no outside blood has en introduced since cords began.

nportation and Distribution

The first importation Brown Swiss into the nited States was made Massachusetts in 1869 id another in 1882. A mber of importations ve been made since, it only in small num- rs. After 1906 there ere only a few impor- tions because of regu- tions due to the prev- ence of foot and outh disease in Europe. here are in the United ates about 8,000 regis- red animals, and about 2,000 grades carrying ore or less Brown wiss blood. These are be found scattered in 25 states, e largest numbers being in Wisconsin, Illinois, New York, Minnesota, ichigan, Iowa, Pennsylvania, and hio. Of late years the breed has ade notable increase in popularity.

General Characteristics

The large frame of the Brown wiss cattle indicates that they have een developed for service as draft nimals as well as for milk. They are ubstantial in appearance, well pro- portioned, with the body well covered ith flesh. The calves weigh from 65 90 lbs. at birth. The heifers are ow in maturing. When full grown e cows weigh from 1,100 to 1,600 s., averaging about 1,250 lbs.; and e bulls range in weight from 1,500 to ,200 lbs., averaging about 1,750 lbs.

The color of the Brown Swiss aries from dark to light brown, and t some seasons of the year ap- roaches gray. There is usually a ght stripe of gray along the back. White splashes near the udder are ound on some animals, but white plashes on the sides of the body or n the back are objectionable. The air between the horns is usually a ighter shade than the body. The ose, switch, tongue, and horn tips re always black, and there is usually light or mealy ring around the muzzle.

Production

Brown Swiss produce milk with an verage butterfat test of just about 4 per cent. The 490 cows which have finished records up to July 1, 1926, have an average production of 12,634.5 lbs. milk, 505.42 lbs. fat per cow. The ten highest milk producers and butterfat producers for the breed are listed below:



REUBEN, LEADING BROWN SWISS ADVANCED REGISTRY SIRE WITH 24 A. R. DAUGHTERS

Ten Highest Butterfat Producers

	Milk lbs.	Fat lbs.
June's College Girl	24,571.6	1062.30
Believe	25,847.8	1002.62
Hawthorn Dairy Maid	22,622.6	927.23
Alice Lee 2nd	22,385.0	914.38
Clothilda Werder's Aggie	22,809.4	880.22
Goldie Merrillan	22,092.7	873.51
Darling D	20,274.7	860.52
Swiss Valley Girl 8th	20,811.9	850.89
Hawthorn Dairy Maid 2nd	21,178.7	850.77
Millicent of Walhalla	19,673.7	813.94

Ten Highest Milk Producers

	Milk lbs.	Fat lbs.
Believe	25,847.8	1002.62
Alice Lee 2nd	24,844.7	899.13
June's College Girl	24,571.6	1062.30
Clothilde Werder's Aggie	22,809.4	880.22
Hawthorn Dairy Maid	22,764.5	898.72
Sterling Pride of Lake View	22,597.2	782.50
Goldie Merrillan	22,092.7	873.51
Belle Windsor of Tarpleywick	21,211.4	793.73
Hawthorn Dairy Maid 2nd	21,178.7	850.77
Swiss Valley Girl 8th	20,811.9	850.89

Bulls

The ten Brown Swiss sires having the highest number of tested daughters are listed below in the following table:

	No. of A. R. daughters
Reuben	24
Vogel's College Boy	11
Collier	10
Junker	10
College Master	10
Tom Phylis	9
Swiss Valley Reuben	8
Casper C.	7
Ben Hanson	7
Sunny Hill Bob	7

The office of the Brown Swiss Cattle Breeders' Association is located at Beloit, Wisconsin.

(Editor's Note: This is the third of a series of six articles on the dairy breeds in the United States. The next will appear in an early issue.)

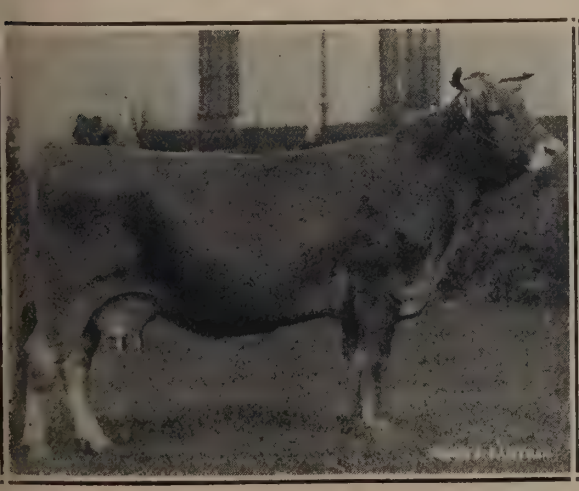
Scale of Points for Brown Swiss Females

	No. of points
Head, medium size and rather long	2
Face, dished, narrow between horns and wide between eyes	2
Ears, large, fringed inside with light colored hair, skin inside of ear a deep orange color	2
Nose, black, large and square with mouth surrounded by mealy colored band, tongue black	2
Eyes, moderately large, full and bright	2
Horns, short, regularly set with black tips	2
Neck, straight, throat clean, neatly joined to head, shoulders of good length, moderately thin at the wether	4
Chest, low, deep and full between and back of fore legs	6
Back, level to setting of tail and broad across the loin	6
Ribs, long and broad, wide apart and well sprung with thin arching flanks	3
Abdomen, large and deep	5
Hips, wide apart, rump long and broad	4
Thighs, wide, quarters not thin	4
Legs, short and straight with good hoofs	2
Tail, slender, well set on, with good switch	2
Hide, of medium thickness, mellow and elastic	3
Color—shades from dark to light brown, at some seasons of the year grey; white splashes near udder not objectionable, light stripe along back. White splashes on body or sides objectionable. Hair between horns usually lighter than body	4
Fore udder, wide, deep, well rounded but not pendulous nor fleshy, extending far forward on abdomen	12
Rear udder, wide, deep, but not pendulous, nor fleshy, extending well up behind	12
Teats, rather large, set well apart and hanging straight	8
Milk veins, large, long, tortuous, elastic, and entering good wells	6
Disposition, quiet	2
Size, evidence of constitution, and stamina	5
	100

(Continued on page 149)

Leading Brown Swiss Producers for 1925

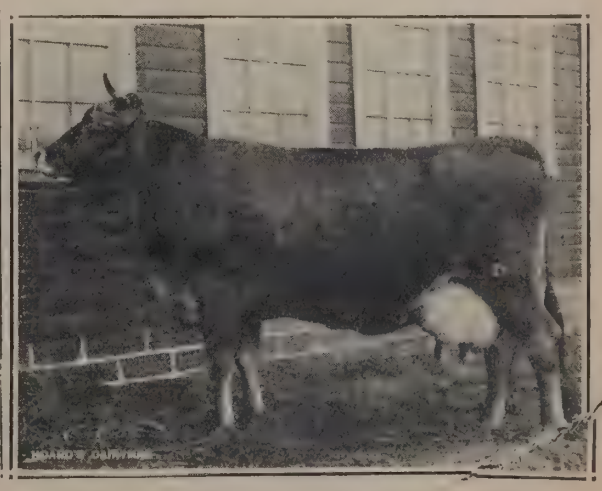
Class	Name of cow	Owner	Milk	Fat
Yearly test			lbs.	lbs.
Mature	Alice Lee 2d	E. A. & E. P. Galloway, Wis.	24845	899.1
5 year	Clothilda Werder's Aggie	E. A. & E. P. Galloway, Wis.	22809	880.2
4 year	Goldie Merrillan	C. F. Osborne, Iowa.	22093	873.5
3 year	Juliet Marshall	Hawthorn Farm, Illinois	18446	788.2
Ten months' test				
Mature	Mernerview of Allynhurst	N. C. Schmid, Wisconsin	15827	677.0
5 year	Ideal Sallie	N. C. Schmid, Wisconsin	15336	605.9
Sr. 4 year	Ruth of Reffreeg	Wilken Bros., Illinois	13981	604.6
Jr. 4 year	Mollie's Violet	Wilken Bros., Illinois	14140	553.6
Sr. 3 year	Sylvia of Flint Dell	Vernon Hull, Ohio	13921	562.4
2 year	March Molly 3rd	Mrs. N. C. Schmid, Wisconsin	11411	443.2
Farmer's class				
Mature	Dayton Beauty	E. J. Norton, Ohio	13399	542.2
4 year	Dame's Girl of Crescent View	Kohl Bros., Illinois	8624	369.3
3 year	Ruth of Vandalia	E. J. Norton & Son, Ohio	9747	381.5
2 year	Lauretta I	John Ingold, Wisconsin	7973	320.3



BROWN BABY OF ALLENHURST, GRAND CHAMPION BROWN SWISS COW AT 1926 NATIONAL DAIRY SHOW



SWISS VALLEY GIRL 7TH COLLEGE BOY, GRAND CHAMPION BROWN SWISS BULL AT THE 1926 NATIONAL DAIRY SHOW



JUNE'S COLLEGE GIRL, THE WORLD'S RECORD BROWN SWISS COW WITH 24,572 LBS. MILK, 1,062.3 LBS. FAT

What I Am Trying To Do On My Farm

To Solve My Marketing Problem

W. J. DOUGAN, WISCONSIN

I DO not want to pose as an expert on the great problem of marketing farm products. This subject is engaging some of the brightest minds and shrewdest business experts, still they are baffled and far from a comprehensive solution of this problem. There are a few facts bearing on this subject that have become manifest to me in my experiences in trying to dispose of my products at a fair profit.

If one is to market a product he must have a standard quality in sufficient quantity to meet the demand. It must be easily available to the consumer and he must let the consumer know regarding the product. Thus marketing reaches back to production; includes distribution and advertising.

Soon after I had started my dairy business, Dean Henry gave me this trite counsel: "Dougan, keep right on producing the quality and let the people know what you are doing." Whatever success I have had in marketing is due to conformity to these principles. When I went onto the farm I had a definite purpose, viz., to produce and distribute to the people of Beloit the best milk to be had anywhere and to get a price for it that would enable me to live in conformity with standards of the community. Through the years of development, this purpose has remained constant. The development of the business was gradual both in the improving and standardizing of the quality and the increase in business and the increase in price.

In quality I was a law unto myself. I fixed my ideals of a good milk and used the knowledge of the University in developing and testing my product, then practiced and still practice eternal vigilance to keep the quality up to standard. One of my greatest difficulties has been to always have the milk to meet the demand. The business has had to produce its own capital. At one time when I was getting four or five cents above the usual price, another milkman wanted to know, "Where in h—— I found people who would give ten cents per quart for milk." I told him, "I didn't, I found them in Beloit," and I will tell you I found them by advertising. I have used various means of advertising—newspaper ads, circular letters, store window displays, floats in business parades, demonstrations at fairs, etc. Through all my advertising is a fixed purpose. I never beg nor never ask for customers. I never hit the other dealers. I never advertise a cut price sale but I aim to give information of how my milk is produced, its great value as food, and its extreme value in saving the babies. I aim to keep my name and methods so completely before the people of our town that if a stranger should ask any man, woman, or child, "Who produces the best milk in Beloit," they would answer without hesitation, "Why, Dougan, of course."

Perhaps the uppermost question in your minds is the same as my fellow dairyman asked years ago, "How am I able to get people to pay 20c per quart for milk during the past five years? The question is partly answered in the foregoing, "I am producing a quality product that is needed in my town."

In 1921, I was close pressed because prices in every farm product were falling. However, my cost of production was increasing. Moreover, I had been running on too close a margin during the war. I could not reduce price, keep up quality, and remain in business.

I took into counsel some of the business men and the doctors. They invariably advised me not to quit or reduce quality. The doctors said, "Beloit needs your product." I give this incident to show how I play above board. I have sought the confidence of the public. Another factor in holding this confidence is, I play no favorite. I have one price for all.

The poorest family in town which sacrifices to get its quart of milk for a sick or young babe gets the same quality of milk and the same service as do the wealthy.

Another reason for my control of price is that I give full value for price received. One lady expressed it this way when I informed her that the price had gone up, "All right," she said, "it is worth it," and pointing to two youngsters remarked, "We consider it a good investment."

What I have worked out in marketing in my little business can and must be done by organized and united farmers in all farm products.



THESE FLOATS APPEARED IN THE PARADE FOR THE FOURTH OF JULY CELEBRATION AND REPRESENTED MR. DOUGAN'S HERD, THE PRODUCTION OF MILK ON HIS FARM, AND HOW HE HANDLES THE MILK IN THE MILK ROOM

Wisconsin's Earliest Cow Tester

GUY A. PETERSON, WISCONSIN

FOR more than 20 years now H. C. Searles, fieldman for the Wisconsin Dairymen's Association, has been connected with the program of improving dairy cows in the Badger State. Today, Wisconsin, with about 175 active associations, leads the nation in this type of co-operative endeavor. No small amount of this credit must go to the veteran fieldman from Fond du Lac. He organized the first Wisconsin cow testing association in 1906 and was its first tester, and since he has had experience with some of the most vital testing problems perhaps it would be well to relate some of these experiences.

Began Work in 1905

Searles started work with the Wisconsin Dairymen's Association on Aug. 1, 1905. He was appointed as an instructor in butter and cheese making, but his chief activities were limited to visiting factories and aiding in the improvement of the quality of dairy products. The work covered was practically the same as that done by the Dairy & Food Commission, so Ex-Governor Hoard made the suggestion that the association should be working at the source of the dairy business, the dairy cow, and something should be done to improve the quality of the stock.

Acting upon this suggestion the Wisconsin Dairymen's Association advertised that it would carry on testing work for a year in some part of the state to ascertain about what per cent of the cows were unprofitable. It was agreed that the work was to be done free of charge to the farmers who joined and H. C. Searles was delegated to the task. Math Michels, who was then located at Cream City, invited the association to send a man to test and keep records of the herds delivering milk to his creamery and Chas. Hill asked that herds in the vicinity of Rosendale and Eldorado be allowed to enter.

Three Organization Meetings Held

"We held organization meetings at these three places," says Searles, "and accepted those who volunteered to allow records to be kept on their herds. The following men entered their herds in that pioneer association: Walter Vienyon, John Edwards, Will Hoyt, Warren Hoyt, Wm. Averbeck, Levi Bronson, from Rosendale; Ed. Beyer, Herman Olem, Math Michels, Frank Berg, Henry Berg, John Bast, Herman Rupp, and John Simmons from Malone; Ed Berg, Wm. Schusman, and Wm. Schley, from Cream City; Wm. Bock, Henry Yockey, and Frank Rather from Calumetville; Fred Abbs, Leroy Duel, and Dennis O'Hearn from Eldorado; and Antone Moersch and Wm. Rather from Pueblo.

"I began testing in the spring of 1906 and kept a record of these 26 herds for one year, and Arthur Henning of Eldorado tested them in 1907. There were about 400 cows in the association but we found that about 100 of them were not worth feeding.

Try Canadian Plan

"In 1907 I started to organize cow testing associations on the Canadian plan of allowing the farmers to take their own samples and deliver them to a central point, usually a creamery or cheese factory. The price for this form of testing would vary from 25 to 50 cents per cow per year. We had a great deal of faith that our farmers would carry on such important work for the full year without the aid of a

(Continued on page 165)



H. C. SEARLES, FIRST COW TESTER IN WISCONSIN AND FOR OVER 20 YEARS AN ACTIVE WORKER FOR THE ORGANIZATION AND MAINTENANCE OF COW TESTING ASSOCIATIONS

TRAILING HOLSTEINS TO SOUTH AMERICA

The Log of Their Keeper

JAMES G. BEATTIE, WISCONSIN

DECEMBER 20. Everything is progressing today, even the Humming Bird. She is skirting the Gulf Stream to dodge the current, and by so doing makes 8.4 miles per hour. The temperature has



THE BOATSWAIN WITH A DOLPHIN CAUGHT WHEN TROLLING IN THE WEST INDIES

jumped to 76 degrees now. Everybody is peeling off the sheepskins and heavy underwear. The skipper watched me take the blankets off the cattle today. He calls them, in his naive way, rugs.

December 21. Summer raiment now, and all the rugs are shifted. We are in latitude 26 N., temperature 82, and somewhere out from Miami. This morning an oiler, trolling, caught a dolphin, which is considered quite a feat. It weighed 14 lbs., and not a few gathered around and watched it change colors while dying; several, in the meantime, narrating instances of catches where the present unfortunate fish was a mere stripling, which, of course, is human natural. And it worked out as it invariably does, the fellow who waited till the last was the fellow who caught the biggest dolphin.

December 22. Latitude, 22 N. Like fresh yeast the temperature is rising, being temporarily at 88 degrees. The weather is getting very pleasant and warm; in the latter respect it could be accused of being too impetuous. Last night the third mate pointed out a lighthouse on San Salvador, the place where Columbus made his first landing.

December 23. Saw galloping fish in Milwaukee one time, but not until this morning had I ever seen them flying. In leisure moments I watch them over the bulwarks. Sometimes the bow scares them out of the water and sometimes hostile fish. They receive their momentum to fly or volplane along by a spirited rush upward from the depths, their wings coming into play then and carrying them along for perhaps fifty yards, more or less. This morning two were so unfortunate as to light on the deck and fall into the hands of hungry Spanish firemen, who dressed them in a hurry.

At sundown we are entering the Windward Passage, the natural shortcut for shipping between North Atlantic ports and the canal. Haiti and her blue ridges loom to port, while Cuba and her purple peaks rise out of the haze to starboard.

December 25. Well, this is Christmas without trees or snow, and we are crossing not the Bar but the Caribbean, with our progress impeded only by a rough sea. The sailor-quartermaster has the Humming Bird's beak trained on the breakwater gate of Colon, which is a matter of only 75 or 80 miles over the horizon. The sea strikes on the port bow so that from it we derive a sort of double pitch, a lunge with a roll resembling the tilting of a skillet when you run something round and round in it. The cattle are having excruciating times, as one minute their heads are 30 degrees up and the next minute it is their sterns, and so on. But they have a weary patience about them that one cannot help but admire.

We had an old gobler for dinner that was something of an enigma for those having false sets, and all during the meal the defenseless bird was the subject of much and varied comment.

December 26. For awhile last night we had a lively time on the after well-deck. The sea got to acting up and began coming over the bulwarks in such dimensions and mass formations that the skipper almost, but not quite, changed the course. He disliked doing it because it would result in a loss of time and this "time" proposition at sea is (and again is not) an eternal nuisance. But the height of the billows diminished abruptly after being at their peak, probably because we passed the center of the storm's path, and from then on, through the last hours of night, they did not threaten again.

The lights of Colon were visible on the sea rim at 3 p. m., two hours before we took refuge behind the breakwater from the rampageous Gulf waves. Palm trees and tropical vegetation were very much in evidence, and green grass. General's dreamy eyes spied the shore line, in fact all detected the delicious fragrance with their nostrils, and such lowing and begging for a gambol has gone on here this forenoon as is seldom heard.



AT THE PACIFIC ENTRANCE OF THE PANAMA CANAL

The port doctor came out in a launch and examined us, and after that there was something to do or look at every minute. The ship went alongside and took bunkers, water, some supplies, and a pilot with crew to take us through the canal; and while thus engaged, some bananas and oranges were dickered for in a private way.

At 9 a. m. we started through, passing from one lock to another under our own steam and held in position at all times by electric "steel mules" that kept apace on either side the ship. At 12 noon we were in Lake Gatun, past three locks—halfway. You know, I always thought the canal ran east and west, and I wouldn't doubt that there are some more around Chillyville that think the same. But that idea is wrong, absolutely. The direction is about parallel with the general course of the Missouri river, northwest and southeast, the Atlantic entrance being on the northwest side. The three locks on the Atlantic side elevate the ship 88 feet, then you steam through artificial Lake Gatun—24 miles, and descend in three steps to the level of the Pacific.

There is lots of interesting history connected with Panama and the digging of the canal. For instance, it was the French that started it and not the States. It was malaria and fever that put them out of business, then it was the States whipping the mosquitoes that made the canal a "go." There are enough dead Frenchmen laid head to foot and foot to head to reach as far inland as they went. This I relate as I heard it, without guarantee.

At 5 p. m. we are through, and passing out to the great Pacific. Warm from the skipper's lips comes this nicely weighed comment: "A fine big ocean this." As we passed Balboa and Panama City, the sea rose up to meet us like a beautiful painting, calm, glassy smooth, and nothing to disturb it except now and then a pelican or gull or some other water fowl languishing in the composure of night.

December 27. Sunday is the same at sea as other days; only this morning there was a little variation in the routine when a fight took place between some spic firemen and an engineer. Not being around at the time I saw neither the first nor the last round. But I heard all about it, for news travels on a ship just the same as it does anywhere. The former had knives and the latter a monkey wrench. The deciding round is pending, so with that kind of boxing gloves I suppose it will be the fellow who gets in the first crack.

At 4 p. m. some mountain range looms vaguely through the haze to port. And at twilight a flock of sea swallows were following close after the Humming Bird. The sailors call them Mother Cary's chickens and every time a sailor dies, so they say, his spirit turns into one.

December 28. Buenaventura, Colombia, our first stop with cargo, is situated on an estuary of the sea—25 miles back from the ocean. There is a dangerous bar at the entrance and high tide is necessary for a ship of 8,000 tons to pass. We arrived this morning when the tide was low, so that waiting outside until after dinner or for the flood was necessary. We proceeded cautiously at half-steam ahead, continually taking

(Continued on page 155)



DAMAGED CATTLE SHEDS

This damage was done by freight from the slings used to bring the cargo out of the hold. It would have been better to have built the cattle sheds at either end of the ship, rather than directly opposite each other.



IN THE PANAMA CANAL

The cattle sheds are shown in the foreground on either side of the aftermast. The narrow opening in the rear shows the gates of the lock nearly closed after the Humming Bird had entered. One of the six steel mules that hold the ship in place so it will not damage the lock, is shown at the top of the wall at the left.



Batteries that give instant starting in the coldest weather

WITH battery ignition on your engine, and with Eveready Columbia Dry Batteries to feed an intense, fat spark to the cylinders, you can laugh at the harshest weather that winter can bring.

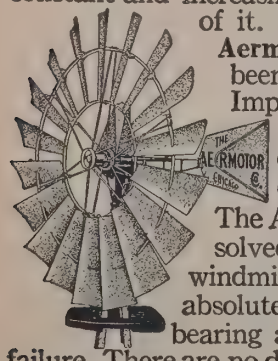
No matter if the engine lies idle for days. There'll be no ignition troubles. For as soon as you turn it over, the Eveready Columbias will start shooting sparks across the spark gap hot enough to fire the coldest mixture. These batteries are always on the job.

NATIONAL CARBON CO., INC., New York, San Francisco
Unit of Union Carbide and Carbon Corporation

EVEREADY COLUMBIA Dry Batteries
–they last longer

A WONDERFUL SUCCESS

"Nothing succeeds like success," they say, but where success is constant and increasing there must be some unusual merit back of it. The continued success of the **Auto-Oiled Aermotor** is based entirely on merit. It has been made better and better year after year. Improvements have been added as experience has shown the way. The **Auto-Oiled Aermotor** of today is a wonderfully durable and efficient windmill.



The Aermotor Company, more than 12 years ago, solved the problem of complete self-oiling for windmills in such a way as to make the system absolutely reliable. The oil circulates to every bearing and returns to the reservoir with never a failure. There are no delicate parts to get out of order. The double gears run in oil in a tightly enclosed gear case.

CHICAGO KANSAS CITY **AERMOTOR CO.** DES MOINES OAKLAND DALLAS MINNEAPOLIS

HOLDEN Lime and Fertilizer Spreader

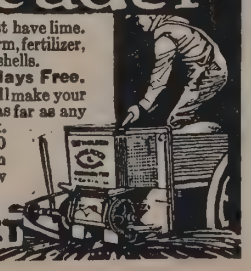
Sour soil means poor crops. Experts agree fertilizer is useless on sour soil—it must have lime. The "Holden" Spreader makes bigger crops. Guaranteed to handle lime in any form, fertilizer, phosphate, gypsum, wood ashes or crushed shells.

Soil Tested-*free*

What about your soil?—your crops? Are they as big and sturdy as they should be? Find out today with our free Litmus Test Papers—positive sour soil test recommended by all soil experts. Write for them now.

Cannot Clog. Try Spreader 10 days Free.

The Holden Lime and Fertilizer Spreader will make your soil healthy and productive. Spreads twice as far as any other; 20 ft. Attaches to any wagon or truck. No holes to bore. Spreads evenly 100 to 10,000 lbs. per acre Handle material only once, from car to field. Get literature and low prices now and ask about 10 Day Free Trial.

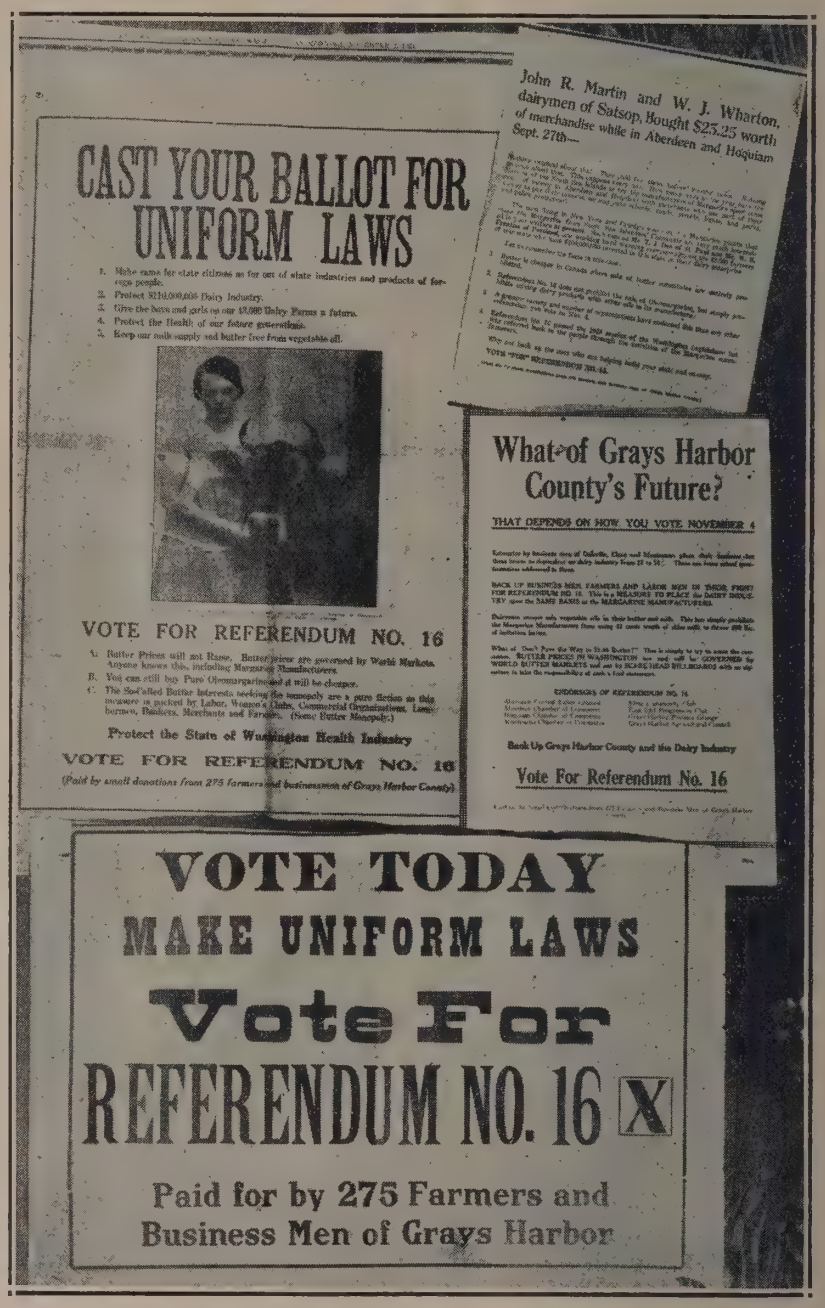


THE HOLDEN CO., Inc.
Dept. 507 Peoria Illinois

Butter Substitute Referendums

A. WENDELL BRACKETT, WASHINGTON

WILL the general public ever approve of a bill prohibiting or taxing the sale of butter substitutes? Can the public ever be convinced that the dairy industry is worth protecting? These are the questions many dairymen are asking themselves since the failure of referendum bills in regard to the sale of butter substitutes in California last November and in Washington and Oregon in 1924.



Some of the advertisements used by the Grays Harbor dairymen to create favorable sentiment for the butter bill. They sought to tie up the interest of the city with the interest of the farmer.

The real question dairymen should ask themselves is, "When will we, the dairymen, wake up to our problem and actually get to work to sell the dairy idea to the public?" Why blame the public, when we have never properly presented our side to them?

There is plenty of evidence that such bills can be carried when dairymen actually get down to work. The public is generally fair when it has all the facts. Those communities which properly presented the facts made a remarkable showing. The story of one county in Washington in 1924 should be of general interest to all dairymen.

According to the 1920 census, Grays Harbor County in the state of Washington had 5,447 cows and 44,745 people, or about one cow to 7.8 people. The rate for the state in the 1920 census is one cow to 5.7 people. In the "cow counties" it is one cow to 3.3 400 to 4,000. These towns had 78% of all the votes in the county.

On the final vote 57.2% of the total of 13,075 votes were cast for Referendum No. 16 Pure Butter Bill, while for the state only 45.5 per cent of the 372,063 votes were cast for Referendum No. 16. One dairy county with more than two times as many cows and 11,940 less people lost the referendum by 820 votes. The referendum was carried in the city of Aberdeen by a vote of 2,454 for and 2,173 against. The total for the county was 7,475 for with 5,600 against, a margin of 1,875 on the "for" side.

Six cow counties with less than half as many people per cow did not give this percentage of votes. Here is ample proof that if dairymen in other counties had worked as hard as did the dairymen in Grays Harbor County the bill would have carried. Grays Harbor dairymen realized that they had a fight that they could not expect the Central State Committee to win for them, so they set about to win for

themselves. How did they do it? Here are the steps briefly:

First: The dairy association contributed their share to the state campaign fund. For the local campaign the county agricultural council appointed a general committee, a finance committee, and a publicity committee.

Second: Finances were raised by farm to farm visits by dairymen, 50c per cow, two solicitors to each district.

Third: Two men to the district saw that all rural voters were registered.

Fourth: One month before election, quarter page advertisements were started in the weekly papers. Stories were sent with each advertisement. Two weeks before election, quarter page advertisements were started in the daily papers with news articles on the campaign. These advertisements were increased in size and number until full page advertisements were run in the daily papers three days before election. At the bottom of each advertisement was run this statement: This advertisement paid for by 275 farmers and business men of Grays Harbor County." Advertisements were also run in motion picture theaters.

Fifth: Local farmers went before each Chamber of Commerce, Kiwanis, Rotary, and active clubs to explain the bill. A delegation of farmers visited bankers and leading business men, loggers, and lumbermen, asking them to sign a petition urging the Tacoma Chamber of Commerce to ask the Seattle Chamber of Commerce to endorse the bill. Only one man refused to sign this petition. Granges devoted one whole program to the bill.

Sixth: Posters were placed on cars, in stores and banks. Farmers and business men wore buttons with "Vote for Ref. No. 16." A parade was staged at the county fair.

Seventh: At the final windup each community provided a certain number of farmers to stand at each voting place and pass out slips reminding the voter of his duty. Over sixty of these farm men and women stood in the heavy rains and passed out these slips until relieved at four o'clock by boys hired for the purpose.

The money was budgeted. Over 80 per cent was contributed by farmers. Every debt was paid promptly with a balance in the treasury at the end of the campaign.

The general chairman was a poultryman, Clarence Glenn. To show their appreciation of his services, the dairymen gave him a gold watch and chain after the campaign. Every dairyman put his shoulder to the wheel. Not a single dairyman refused to work when asked.

After all, Washington as a whole made a good fight, carrying 29 out of 39 counties. The final vote was 169,047 "for" and 203,016 "against." Thus the referendum was lost by 33,969 votes. Had 17,000 of these voters been won over to the "for" side, the bill would have carried. The results in this one county and a few others, notably Skagit and Whatcom, showed this could have been done.

If such counties as Grays Harbor, with heavier odds against them than either the whole state of Washington, the whole state of Oregon, or the whole state of California, can win by such a large margin, why cannot all counties in these states do the same? They can when dairymen properly appraise the task before them and actually get down to brass tacks to win.

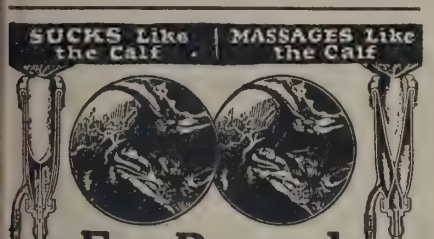
Christened With Milk

While a shivering throng looked on, the giant steel carferry, Madison, the first ship ever christened with milk, was launched at the Manitowoc Shipbuilding corporation's yards on January 19. The vessel, one of the largest of its kind on the great lakes, will be put into service by the Grand Trunk Railway, owned by the Canadian government, on its Milwaukee—Grand Haven route.

When the Milwaukee Association of Commerce heard that a sister ship to the recently launched Grand Rapids was to be built at Manitowoc, it prevailed upon officials of the shipyards and the Grand Trunk to consent to baptizing the boat with the state's premier product. Moreover, the ship was named in honor of the state's capital city.

Following the launching, a luncheon was held at the Manitowoc Elks' club. John LeFeber, president of the Gridley Dairy Company, announced that the fluid used to christen the ship was representative of the state's entire dairy industry, having been composed of milk taken from five breeds of cows.

The "Madison" will carry thirty of the largest type of freight cars and is also suitably arranged to carry first class passengers and automobiles. There are private staterooms and suites, a private dining room for passengers, and a large observation room with lounging chairs and writing desks. The staterooms, main saloon, dining saloon, and crew's quarters are finished throughout with the latest design of hardwood finish. The floors in the saloon and staterooms are in hard block rubber to match up with the interior finish.—Milwaukee Sentinel.

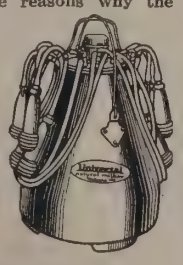


Far Beyond Experiment

The purchase of a Universal Milking Machine is an investment in a highly perfected and practical milker. The fact that over 30,000 are now in use and giving genuine satisfaction is ample proof of that.

For the owner of a herd of 10 or more cows, a Universal Milking Machine is a necessity. More and cleaner milk results from its use. Farm hands are more contented and more interested in their work. Labor costs are reduced—milk production is increased.

Such features as *low vacuum* (12 inches), *perfect teat cup, sanitary check valve, conical inflation* and *alternating action* are reasons why the Universal Milking Machine is preferred over all others.

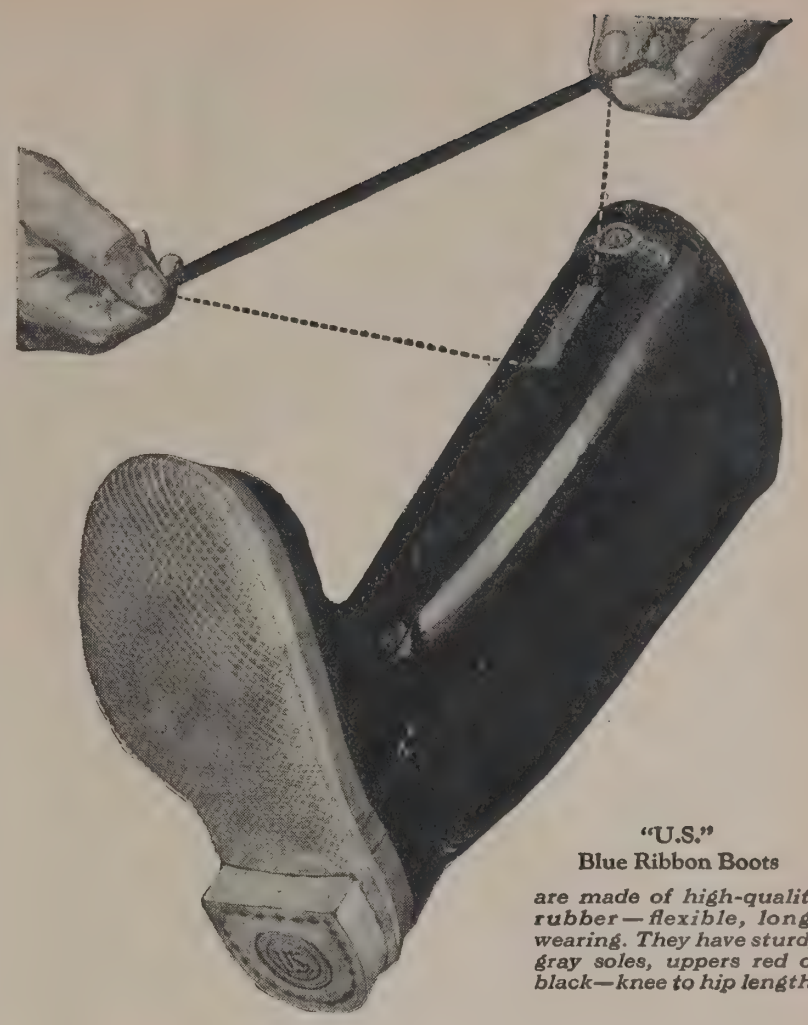


Write for descriptive catalog, one of the most complete and educational books ever published on milking machines.

The Universal Milking Machine Co.
Dept. H. Waukesha, Wis., Syracuse, N. Y.

Universal natural milker

THE UNIVERSAL MILKING MACHINE CO.
Dept. H Waukesha, Wisconsin
I milk ..... cows. Tell me more about your milking outfit.
Name .....
Address .....
.....



"U.S."
Blue Ribbon Boots
are made of high-quality rubber—flexible, long-wearing. They have sturdy gray soles, uppers red or black—knee to hip lengths

This test proves

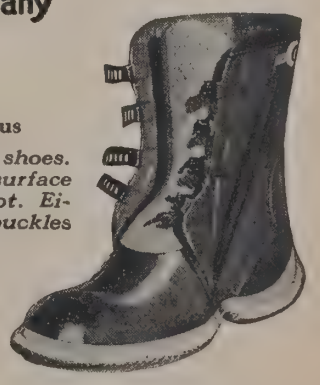
the quality of these "U.S." Blue Ribbon Boots

TO stand the strains of hard wear—boot rubber must be flexible! You can stretch a strip cut from any "U.S." Blue Ribbon upper more than five times its own length!

And this rubber is backed up! At every vital point where wear comes hardest, are anchored from 4 to 11 separate layers of tough rubber and fabric reinforcements. And you won't break through that thick gray sole—it's oversize and tough as a tire tread.

"U.S." Blue Ribbon boots and overshoes fit right, look right, wear right. Get a pair—and notice the difference.

United States Rubber Company



The "U.S."
Blue Ribbon Walrus
slips on right over your shoes. Its smooth rubber surface washes clean like a boot. Either red or black, 4 or 5 buckles

Trade Mark

"U.S." BLUE RIBBON
Boots Walrus
Arctics Rubbers



Spring thaws are coming

THIS is the season of the year that you must be extra careful about your foot protection.

It certainly pays to buy the best—rubber footwear is a product that must be made right to give lasting satisfaction. Insist on the genuine



Goodrich HI-PRESS

Millions wear it for its better service, its snug, sure protection, its comfort and good looks. And it costs no more than other kinds certainly not nearly so good.



THE B. F. GOODRICH RUBBER COMPANY
Established 1870 Akron, Ohio

In Canada:
Canadian Goodrich Company, Ltd.
Kitchener, Ont.

Milk an Antidote for Lead Poisoning

TAKE on nobody for work in this factory who is over 45 years old." Think of the pathos, think of the tragedy, in that statement. All through at forty-five! Impossible, you say; why, a fellow is still young at forty-five.

And yet, it's only too true. That order, or one similar to it, is issued in a number of factories in the experience of Dr. C. P. McCord, Cincinnati industrial physician, who recently made some far reaching revelations in his talk before the National Dairy Council at their annual meeting.

"We ordinarily think of the American workman as being sturdy, well-muscled, and ruddy," says the doctor. "To the contrary, many times he is a very low physical specimen, a poor human machine illy adapted to his work." Bang! Right off he knocks an established idea into a cocked hat.

He continues: "Here's a thing I see fairly frequently—a room where 20 workmen are employed, mostly Kentucky hill men. They handle molten metal, galvanizing. On one side of the room are acid vats from which steam is rising. Over here is a row of vats containing molten metal giving off fumes.

"Go into the room. What do you see? The men look as though they are hardly able to work. Most of them are under weight, most of them show signs of fatigue. They look sick. They have their whole bodies bathed in an acid atmosphere. While their skin is not hurt so much, their teeth are eroded, gums inflamed, and they develop bad mouth conditions. Gastritis follows, and in some instances, ulcers. They can eat only two or three foods.

"I went down to the home of one of these men. I wanted to see what he would have for dinner. He did not know I was coming. The situation was pathetic. The home was pathetic. For his night meal he had nothing but blackberry jam and cornbread. He told me that during the blackberry season he could get along fairly comfortably on these."

Lead poisoning—what does it look like, how does it act? Dr. McCord describes a typical case: "A man comes in telling me he is a lead worker and cannot eat. It usually starts with inability to eat breakfast. Shortly he will tell me he has a queer taste as though he had a penny in his mouth. Then comes a headache, and constipation becomes very severe.

"He begins to get weak in the muscles he uses most, usually the right hand. When he goes to shake hands he has no grip. He can no longer work because he can't pick up the tools. He is pale, anaemic, his blood is being destroyed. These are minor symptoms.

"Then comes the severe pain. Lead colic is about as severe a pain as I know anything about. Many times a man loses from work one month, six weeks, two months, or even three months because of lead poisoning."

There are more than 200 industries in which this lead hazard occurs. Linotype operators, electrotypers, artificial flower makers, battery manufacturers, white lead manufacturers are but a few examples. About three-quarters of a million of our industrial workers are exposed to lead poisoning, according to Dr. McCord. He reports one man who had lead poisoning seven times in a year and a half.

Is there a remedy? Isn't there something that can be given these factory workers to prevent this suffering? What is the antidote?

Dr. McCord gives the answer to all these vital questions with one word—milk.

"For a long time a few people have kept telling us doctors that if you drink a little sweet milk when you work with lead you won't have lead poisoning. I have pooh-poohed that, and now I am apologizing. We have found very acceptable evidences that lead poisoning is controlled by milk.

"I have had a small group under observation now for three years. The first year lead poisoning was very high. Then it was arranged that the management made available every day a quart of milk for every person who wanted it, and they were encouraged to drink it. For a period of about two years we had practically no lead poisoning.

"Why is milk valuable? Why am I anxious that all lead workers be given milk? Because milk contains a considerable quantity of calcium which helps in throwing the lead out of the blood—where it is most troublesome—and depositing it in the bones of the body."

"Every other form of protection in the way of wet processes for keeping down dust and of promoting general cleanliness to keep lead out of the body is essential. But if, in addition to those things, *milk* is given, at least 75 per cent of lead poisoning will disappear.

"Every morning a milk wagon drives up to my house and leaves an adequate supply of milk. I know that same thing is going on at my neighbors'. Later in the day a milk

Get More Trips from your Milk Bottles

Use the Milk Bottle Scientifically Constructed to Resist Breakage

That's the Thatcher Superior Quality Milk Bottle. Thatcher Bottles always have been the best made. Now they are better than ever. Recent improvements in our methods of manufacture and the addition of new equipment enable us to put out a bottle scientifically designed and constructed to outwear any milk bottle ever made.

Made only of the purest flint glass, perfectly tempered in lehrs used by Thatcher exclusively, Thatcher Bottles are stronger, tougher and more uniform in quality than any other milk bottle made. Thatcher Bottles give "more trips per bottle." Actual experience of dairymen and exhaustive laboratory tests have definitely proved that Thatcher Superior Quality Milk Bottles actually wear longer and are harder to break than any milk bottle on the market. Our Trade Mark is blown on every Thatcher Bottle for your guarantee and protection.

Posters for tying up with Thatcher's National Advertising are supplied free to users of Thatcher Bottles. Several Thatcher factories assure prompt deliveries. Write today for samples and prices of Thatcher Bottles.

Thatcher Manufacturing Company
Elmira, N. Y.

THATCHER
Superior Quality Milk Bottles

wagon drives up to the schoolhouse in my community and leaves a supply of milk.

"I do not, however, know of or see this milk wagon or any other milk wagon drive up to the receiving department of factories and leave there an adequate supply of milk for the workers. This is true, notwithstanding the fact that nutritional problems are very prevalent in industries, that death rates are very much higher among industrial workers, and notwithstanding the fact that ten or fifteen years ago the federal bureaus recommended that milk be used in industry to combat certain diseases."

It is the contention of Dr. McCord that there is, in all probability, a very definite relation between *improper feeding* and factory production, the occurrence of accidents, absence from work, general plant morale, industrial fatigue, tiredness, labor turnover, length of life of the workers, and a number of other big problems directly concerned with the welfare of upwards of 27 million people engaged in the industries of the United States. He cites the control of lead poisoning as but a single example in which the use of milk has been very valuable.

An Alfalfa Campaign

HOARD'S DAIRYMAN:—The banks of King County, Washington, are backing an alfalfa campaign which is arousing much interest among the dairymen who produce milk and cream for the Seattle market. Fifteen banks in eleven communities have offered prizes to the farmers in their own districts, while three of the Seattle banks have contributed a total of $150 to be given in three prizes for the three best plantings of alfalfa in the entire county. The total prize money makes an aggregate sum of $785.

The contest is a repetition of one held in the Snoqualmie Valley last year which resulted in many new seedings of alfalfa. It is being sponsored by the extension service under the direction of Will W. Henry, the county agent. This year's contest was made a county wide affair because of the interest it caused last year and the opportunity given the banks to encourage better farming in their own community.

Most of the banks have offered three prizes for contestants in their section. The first prize winners in each community are to be automatically listed for the county-wide contest which offers $85, $40, and $25 for first, second, and third prizes respectively.

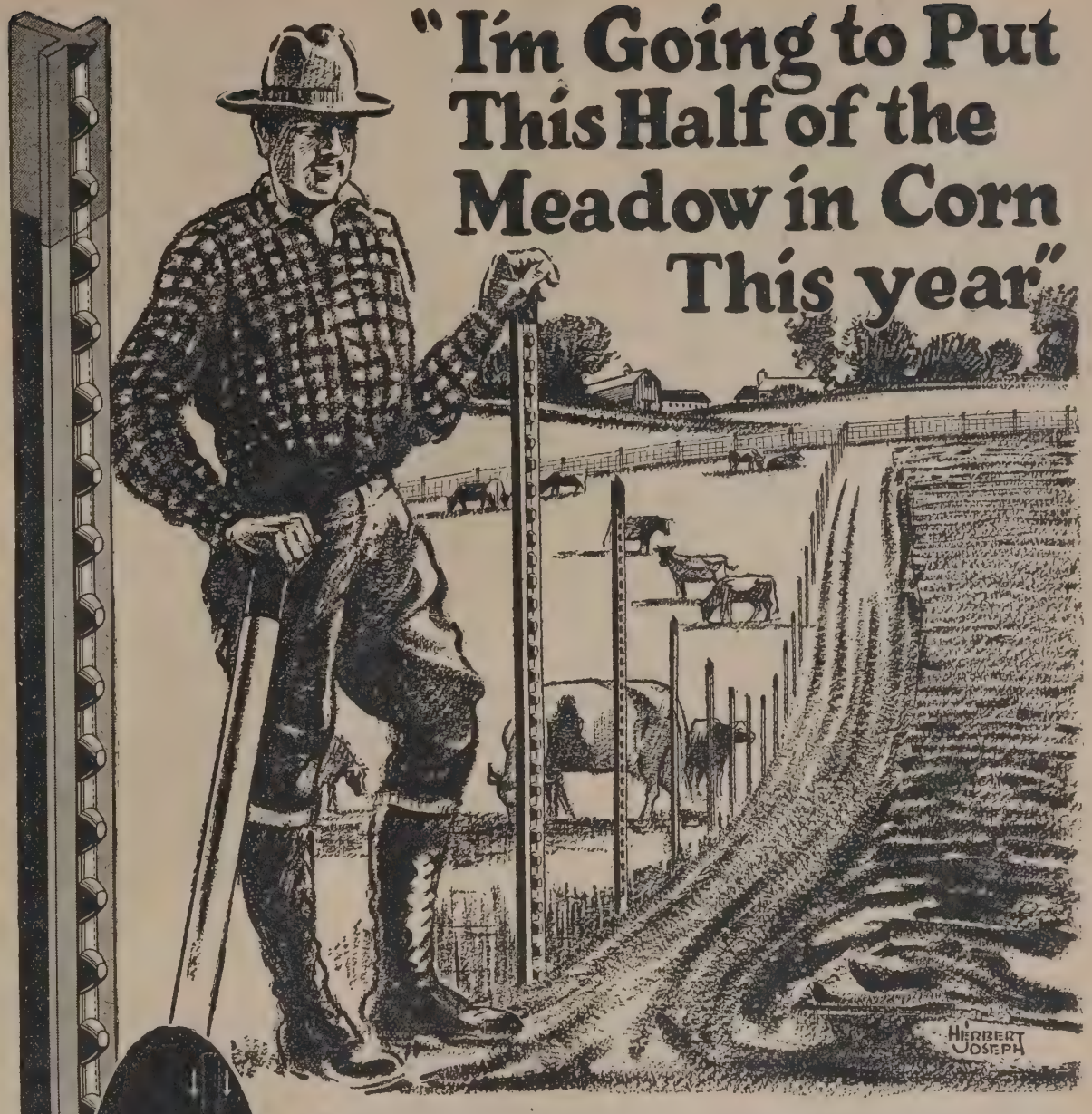
It is estimated that at least $250,000 worth of alfalfa is brought into King County annually from Eastern Washington. Demonstrations carried on under the direction of Mr. Henry have proven that alfalfa can be grown profitably in King County. A few suggestions for growing alfalfa under Western Washington conditions have been offered farmers who care to try out this crop and enter for the contest. Mr. Henry expects to see many new plantings of alfalfa made in the county this spring as a result of the contest.

The score card used in judging the plantings to award the prizes will be as follows:

	%
Selection of soil, kind, and drainage	20
Preparation of soil	25
Condition and uniformity of stand	20
Vigor and color of plants	10
Freedom from weeds	20
General field appearance	5
Total	100

Washington. RALPH ERSKINE.

It is better to be silent and thought dumb than to speak and remove all doubt.





With the RED TOP Post Driver one man can drive 200 to 300 posts a day

WITH good fences sturdily and permanently supported by RED TOP Steel Posts, approved rotation of crops and pasturage is practical and profitable. This year's meadow gives next year's bumper crop to be followed by crop rotation—according to your plan. No matter how large or small the farm, good fences provide for intensive profitable farming. Good fences depend on good fence posts. It is a foolish waste to put up good fences on poor posts. If erected at first on RED TOP Steel Fence Posts they give the most years of service. No repairs, no restapling, no expensive post replacements, for RED TOPS outlast 4 or 5 ordinary wood posts. And, better still, you can install RED TOPS at *any time of the year*. No need to wait on fence work after planting. Do it NOW—for RED TOPS drive easily regardless of the condition of the soil. One man with the RED TOP driver can drive 200 to 300 posts a day—a great saving in time and cost of labor. Once in, RED TOPS hold their alignment, are never "thrown out" by frost—need no "going over" in the Spring, hold the fence upright and secure for many years—as long as the fence lasts.

Red Top
GUARANTEED
Steel Fence Posts

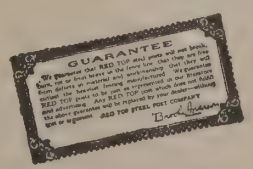
RED TOP Steel Drive Fence Posts mean only *one* job of fencing. They last for years but—if you want to change a fence line—are easily withdrawn and re-driven in a new location so quickly that there is little work involved in changing a fence.

And don't overlook the value of RED TOPS for post replacement. Wherever a wood post has failed, drive in a RED TOP. Fasten the fence to it with the RED TOP handy fastener. In a few years you will have replaced all the rotting wood posts, your fence will be permanent and all your fence post work will be *done* for many years to come.

RED TOPS give the farm that "well kept" look. They permit closer cultivation. They harbor no destructive insects, promote no fungus growths. Prevent losses from lightning by grounding the flash without damage. In short, the farmer who neglects to go at once to the RED TOP dealer and find out all about their convenience and economy is overlooking many dollars in savings and profits.

Find out how easy RED TOPS are to drive; how many costly hours of labor they save over a period of years; how sturdy and permanent they make the fence, and hold it in perfect condition. Every RED TOP is guaranteed.

Try and figure out how you can possibly afford to go on building fences with ordinary wood posts when you can save and make so much more from your farm by using RED TOP Steel Drive Fence Posts.



RED TOP Steel Fence Posts Are Guaranteed

RED TOP STEEL POST COMPANY
38-R South Dearborn Street, Chicago, Illinois



Boots for Wet Work & Dry Feet

Thawing ground, melting snow and ice and cold, drizzling rain make your outdoor work unpleasant at this time of the year unless you keep your feet well protected. In Firestones you will find boots that you can wear in the roughest kind of weather and yet be comfortable. They wear like iron. Let a pair of Firestone Boots keep your feet warm and dry and make your work-day shorter!

Firestone Footwear Company

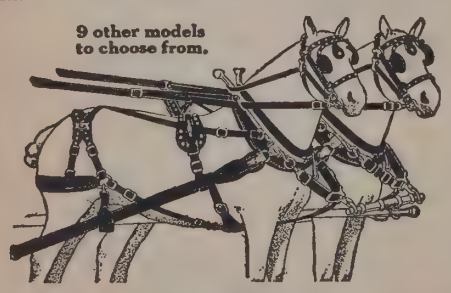
Boston HUDSON, MASS. Chicago

The Mark of Quality

Firestone

AMERICANS SHOULD PRODUCE THEIR OWN RUBBER Harvey S. Firestone

9 other models to choose from.



NEW Old Tan Harness Models

New Low Prices!

Write today for our catalog showing new models at new low prices. Olde Tan is the famous harness with the "Buckleless Buckle" and Metal-to-Metal wherever there is wear and strain—making it the strongest, longest-lived, most economical harness to be had!

Don't Pay for 4 Months

We will send you any model of Olde Tan Harness and you don't pay us one cent for four months! We also give 30 days' FREE TRIAL.

Write! Send for free book, together with our special "Don't Pay for 4 Months" offer. Don't wait until your old harness breaks down! Write.

BABSON BROS., 2843 West 19th Street, Dept. 28-52, CHICAGO

One Lever Locks 2 to 50 Cows



THE greatest time-saving convenience ever invented in barn equipment is the West Bend Automatic Stanchion with locking, releasing lever—**the original, lever-operated, swinging stanchion.** Costs no more than ordinary stanchions that must be closed and opened singly by hand. It also assures safety in locking up or releasing cows. One throw of the lever locks or releases the entire row of cows, controls from 2 to 50 stanchions. **Cow stops are operated at the same time,** guiding the cows into the stanchions. Enthusiastic owners everywhere. **Write today** for big free catalog showing complete line of West Bend Barn Equipment.

West Bend BARN EQUIPMENT

WEST BEND EQUIPMENT CORP.
West Bend, Wis. Syracuse, N. Y.
Write nearest office, Dept. A

Honor Wisconsin Agricultural Leaders

FOR eighteen years the College of Agriculture of the University of Wisconsin has followed a unique and original custom of conferring each year honorary recognition upon a small group of people who have rendered signal service to agriculture in this state and nation. This University was the first to confer engraved testimonials upon practical farm folks in recognition of their services, regardless of how limited their early training may have been.

The testimonials of Honorary Recognition were conferred this year upon the following men during the annual Farmers' Course at the Wisconsin College of Agriculture:

William Henry Hanchett

William Henry Hanchett was born on a partly improved 40-acre timber farm in Monroe County, Wisconsin, March 24, 1867. He received most of his education in the district school, attending school only winters after he was twelve years of age. At 14 years of age, he became the farmer of the family and was confronted with the problem of getting an income, sufficient to provide for a family of eight, from a small piece of land. With this in mind, he commenced experimenting with small fruits. He thus became a pioneer in a movement which has since made Monroe County well known as the great small fruit center of the state.



W. H. HANCHETT

The matter of maintaining soil fertility soon became a serious one on the Monroe County farm; and after some study he decided to add a dairy herd as an adjunct to his small fruit business. He started to grade up his herd, and shortly thereafter assisted in the organization of the Sparta Co-operative Creamery, serving as president for 12 years. In 1908 he assisted in the formation of a county Guernsey breeders' association, one of the first accomplishments of which under his presidency was the distribution of 50 pure-bred bulls within his county. He joined the first cow testing association in his county and assisted in the organization of the local American Society of Equity that acts as a live stock shipping association.

Rodman B. Melvin

Rodman B. Melvin was born on a farm in Sheboygan County, Wisconsin, November 12, 1860. He has made his home continuously in the county, the greater part on the farm on which he was born, and one which he later purchased, now operated by his son, Homer. For over fifty years the milk from Mr. Melvin's farm has gone to the same cheese factory, the Greenbush factory, one of the first to join the Wisconsin Cheese Producers' Federation, an organization of which he has served as secretary and treasurer since the first group of officers was elected in 1913.



R. B. MELVIN

For a great many years Mr. Melvin has been a breeder of pure-bred Holstein cattle. In fact, he was one of the pioneer breeders in Sheboygan County. When for purpose of mutual advancement the breeders of the county organized the Sheboygan County Holstein Breeders' Association in 1909, Mr. Melvin was elected president, and served in that capacity up to 1914.

Jens Jenson

An emigrant lad is Jens Jenson. He was born in Denmark, November 26, 1868, and came to the United States with his parents in the spring of 1873, locating on a farm near Bone Lake, Polk County—the same farm now owned by Mr. Jenson. It was always his ambition to get the best farm in the town, and notwithstanding all the time he has spent away from the farm in trying to improve his own and his neighbors' conditions, he has never neglected the farm, and now has a place with all the modern improvements both in the dwelling and the barn and outbuildings.



JENS JENSON

Up to 1921, practically all the butter manufactured by Polk County creameries was shipped by local freight. As secretary of his home creamery, Mr. Jenson saw that a saving could be made if all the creameries shipping on the same railway pooled their products and sent carload lots only to the eastern market. It took a lot of hard talking to convince all the creamery managers, but in 1921 the first carload of butter went out of Polk County. He soon learned that if the creameries of Polk County could send butter to the market of the same grade, a much better price could be obtained, and as a result of his work, a field man was engaged the same year. He is a member of the executive committee of the Land O' Lakes Creameries Association.

Stoughton Willis Faville

Twelve children were in the families of both the great grandfather and the grandfather of Stoughton Willis Faville. They lived in Herkimer County, New York. The father of the man who is now receiving the highest tribute that Wisconsin can give its men of the field and furrow, came to Wisconsin in 1843, settling near Lake Mills.



S. W. FAVILLE

In 1844 Alpheus, the father of Stoughton, bought three forties of government land. This land is now a part of Faville Homestead. On this farm Stoughton Willis Faville was born, February 12, 1852, and on this same farm he was reared and for nearly half a century has been its owner and manager.

In 1882 a pure-bred Holstein-Friesian sire was bought for this farm, the first registered Holstein to come to Jefferson County. From this beginning Mr. Faville has grown a pure-bred Holstein-Friesian herd of about ninety animals, including from fifty to sixty cows. His farm of 400 acres, a mixture of upland and grass land, has been almost entirely cultivated for the forwarding of the dairy interests of the state, and Mr. Faville has been for years a wise leader and a safe counselor in this industry. He has also been a leader in demonstrat-

ing that hard work with conservative, intelligent, and patient methods win in dairying.

Edward L. Divan

Edward L. Divan, Wisconsin, was born in Green County, Wisconsin, March 16, 1867, on the farm now owned by him. He owned his first registered hogs in 1896, and has been a breeder now for thirty years. He began the breeding of registered Shorthorn cattle in 1898, and exhibited at the Wisconsin State Fair and many of the leading county fairs for ten years. In 1904 he exhibited at the World's Fair in St. Louis. Six years later he dispersed his Shorthorn herd and in 1914 commenced the breeding of registered Holstein-Friesians. He did his first stock judging at county fairs in 1909; since that time he has acted in that capacity 102 times at 27 different fairs in Wisconsin and Illinois.



E. L. DIVAN

Mr. Divan helped organize and was president of what was known as the Cadiz Horse Company in 1910, bringing into his locality some of the best Percheron and Shire stallions for the purpose of promoting the breeding of better horses.

It is said that no man in Green County has given more free service in church, school, and community socials in the way of music, home talent plays, and other entertainment than Mr. Divan. His friends claim that he gives one-half of his time to the community and state.—A. W. HOPKINS.

Tillamook Sells Cream

HOARD'S DAIRYMAN:—The Portland market offering 54 cents, with four cents premium for Tillamook sweet cream, the Tillamook County (Oregon) Creamery Association decided in December to discontinue making cheese at four of its largest factories. It will separate about half of its milk and dispose of it in the form of cream; at the same time concentrating at its other factories on the production of loaf cheese, for which there is fair demand as against almost none for triplets. Thereby it will convert into butterfat the milk which produces the cheese of least value, and through lowered production of cheese it will be able sooner to dispose of storage stocks, and probably at high prices. If there is material difference between the returns from butterfat and those from cheese, it will adjust these differences between the several factories through the storage fund.

While there may not be as much money in butterfat as in cheese at present asking prices, it is conceded that present asking prices may not be realized; and since one cent per pound in May or June means considerably more to the dairyman than five cents in December, January, or February, Manager Carl Haberlach holds it desirable to dispose of storage stocks before new cheese comes on in the spring. He points out that 1925 was a year of low production for the association, that it sold 10,000 boxes of cheese to the processers, and that a year ago it had no cheese in storage. In 1926 the association produced 10,000 pounds more than last year, sold none for processing, and had in storage at the end of the year more even than two years ago.

Rather large storage stocks all over the Pacific coast bring the possibility of lower prices. The answer was to sell sweet cream on a favorable market rather than to continue producing cheese. The move presents another illustration of how organized dairymen may suit their production to market conditions, as non-co-operating dairymen may not. It is merely orderly marketing in another form.

Oregon. G. N. ANGELL.

Then I Want to be at Home

When the grilling day is over and the sun is going down; when the shades of night are falling on the country and the town; when the whippoorwill is calling and the wolf begins to roam; when the mocking bird is dozing—then I want to be at home!

When the storm clouds in the offing and the mighty thunder rolls; when the lightning cleaves the heavens and the squirrel hunts his hole; when a sickening, inky blackness hides the azure dome; when the storm breaks in its fury—then I want to be at home!

When the pink rosebuds are swinging so gently in the breeze and the glorious sun is shining on the warblers in the trees; when the air is perfume-laden and the summer days have come; when all nature seems a-blooming—then I want to be at home!

When the winter snows are drifting in the icy, cutting gale; when the winter wind is moaning a lonesome forlorn wail; with icicles on the barn roof like teeth in a mammoth comb; when the sparrows beg their breakfast—then I want to be at home!

When life is nearly over, when I face the great divide, listening to the voices calling to me from the other side; when the last great call is sounded and my final day has come, there's one prayer that I would offer —then I want to be at home!—Author Unknown.



BELLA VEEMAN SEGIS MATADOR

One of the good daughters of Matador Segis Walker owned by the Carnation Milk Farms. She produced 32,217.6 lbs. milk, 998.4 lbs. butterfat (1,248 lbs. butter) in a year; has one 45-lb. 7-day record, and recently finished another above 36 lbs. butter in 7 days.



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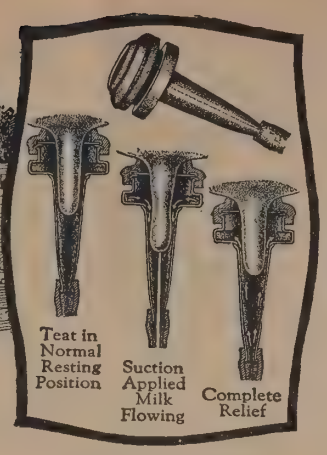
Beacon Falls Connecticut

TOP NOTCH

A GUARANTEE TOP NOTCH OF MILEAGE



A scene sketched from a photograph taken on the farm of Jake Lahr, Eden Valley, Minn.

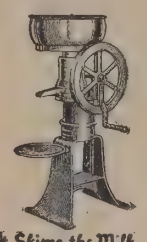


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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative. destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

Favors Export Bounty

HOARD'S DAIRYMAN:—During the past two years we have watched Congress labor over various farm relief bills. Some of them I thought were good, some not so good, and some were very bad indeed.

The great city papers steadily contend that nothing can be done by legislation to help the farmer, apparently forgetting that the McKinley tariff made U. S. steel what it is; that the Adamson law has benefited railroad employees by millions of dollars; that the Esch—Cummins law is beginning to make railroads feel comfortable.

The National Grange recently endorsed a bill that seems to me to eliminate about every objection that has been raised against other bills that have been considered in previous years. Perhaps, on that account, it might have a fair chance to pass. This is known as the Debenture Bill. As explained to me it is simplicity in itself; perhaps that is its greatest asset.

Suppose that the tariff on wheat was 35 cents per bushel. If this bill passed, an exporter would receive from the government a debenture for 35 cents on each bushel that he sent abroad. This debenture is not a demand upon the U. S. Treasury nor is it money, but it is negotiable and it can be used as payment of duty on incoming goods of any kind. Thus, if your exporter were also an importer he would use the debentures the same as money in paying duty on imports. If he were not an importer he would go across the street to a man who was, and sell them.

The effect would be that your exporter, knowing that he could realize 35 cents on his debentures, would at once bid nearly or quite 35 cents more for the wheat to send abroad. If he didn't his competitor would, and competition would compel about this much change in prices. Thus, our farmers would actually receive the full benefit of the tariff, as they should. Of course not all of the wheat would be exported, but enough would certainly go so that the remainder would be worth as much here at home as it would bring if sent abroad. This principle would be applied to the other grains as well as to wheat, to cotton, pork, and most of our important products.

The plan calls for no large amount of government financing, for no money changes hands unless the exporter sells debentures to an importer. The only cost to the government would be a slight one for clerk hire to look after the matter.

The most important objection that has been made to the farm relief measures is that they might increase production. I have given this matter a lot of thought and believe the objection not well founded. So far as most of us are concerned, we are doing as much work and producing as much now as we are capable of. It is said that acres of poor land, particularly in New England States, would be reclaimed from abandonment and thus add to the production. Suppose that this argument were true, it is equally true that the tide is still running strong towards the city; that few of our sons even consider farming because they can make many times as much money in the city as they can here; and it will take more than a little improvement to change this situation. I believe that it would more than offset the rehabilitation of poor farm land in all the states.

I talked the plan over with a friend in the city. After pondering awhile he said, "Apparently it costs nobody anything. Actually of course it does cost, it reduces the government's income from the tariff. At present I am told about 13 per cent of its income is from tariff and part of that would be stopped. I guess the administration would have to depend more on the income tax and stop talking about part refunding them. For my part, I am for your Debenture Bill. It makes me mad clear through to have the government talk about refunding part of the income tax. I don't want mine back. I'd only get a little and if we had real farm relief I'd get four times as much in increased business. I have talked to other city men, especially manufacturers, and they say the same thing."

It seems to me that his argument is well founded, because if all of us were making a little money we would spend part of it on things that the cities have to sell us.

Ohio. CHAS. B. WING.

The Sabbath

HOARD'S DAIRYMAN:—We note a number of articles in these columns concerning the Sabbath. Some are amusing. One gave a more hearty laugh than the comics. I am a free reader of the Bible and no denomination holds me in its claws. In fact,

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denominationalism is sin because it divides. Not until we forget "our denomination" and take the Word for what it says, will we become free.

To the greater part of these writers I would like to say, "How readest thou?" If we are to keep the Sabbath Day holy because it is so commanded in the law of Moses, then we must also put in six days at work. Yes, and Mr. Ford is wrong in advocating the 5-day week for work. And remember, that if we are still under this law given to Moses, we must also keep holy every new moon; never kindle a fire on the Sabbath; not cultivate the land on the seventh or sabbath year, and at once put to death every man who violates the law of the Sabbath or for that matter any of the Ten Commandments, etc. Who does this or even advocates it? This and more is all under the law given to Moses for Israel, and if the old Mosaic law is now in force we must keep all of it.

But when will we learn that all this has been done away in Christ? There is no Sabbath now in the sense once understood. Neither is it correct to call Sunday the Sabbath. It never was and never can be. We are now under the Gospel dispensation, and if we use New Testament terms it will save a world of confusion. The old prophet, Jeremiah, said a new covenant would be made (Jer. 31:31-32) and Paul says it has been made and that the old is done away (Heb. 8:8-30).

Let us not swallow down what some preacher may have said until we do as the disciples did in the days of the apostles (Acts 17:11). Do not hold to what we heard our great uncle say, but cut loose and see what the Book says.

New York. E. J. WATERSTRIPE.

Observing a Day of Rest

HOARD'S DAIRYMAN:—The people who think everyone should observe the seventh day of the week have been doing a lot of writing. If they wish to keep the seventh day as Sabbath I am sure no one will object, but I despise to have them try to force their opinion on Gentiles who do not agree with them.

In the first place, it is impossible to observe any day of rest if one is a farmer. I have not had a day of rest when at home for 12 years, yet we always attend church, but work several hours before going and after returning. Live stock must be cared for and it is just as bad to hire some one to do my share of work on Sunday as to do it myself.

In the second place, the Sabbath was for Jews only, and Gentiles were not allowed to observe it under penalty of death. Read Deut. 5-15 and Exod. 31-17. The latter prophets allowed strangers, i. e., Gentiles, to keep the Sabbath with Jewish friends, but it was optional, not commanded.

In no place in either the Old or New Testaments are the Gentiles ordered to keep any day of the week as Sabbath. The early church fathers observed the first day as a memorial of our Lord's resurrection, while Jews were commanded to keep the Sabbath as a memorial of their deliverance from Egyptian bondage.

However, deliver me from being a quibbler over non-essentials. All who accept Jesus as the Son of God, confess their sins, and acknowledge Christ before men will be saved, no matter if they work 7 days a week as thousands of men must work to sustain our modern civilization. Jesus gave us two commands: to love God and to love one another. The first command He explained as believing on Him (Jesus) whom God sent; the second is to love our neighbor as we love ourselves.

Illinois. ZENAS SPIGER.

The Corn Borer

HOARD'S DAIRYMAN:—Much has been said of the corn borer, but from appearances about all that's been done is talk. The quarantine is far from being sufficient. A few men are stationed on highways. They stop cars, "Have you any green corn in your car?" "No." "All right, proceed." Fact is these cars may and do have sacks or bushels of green corn. The law does not search the cars.

Much stress is laid on the fields of corn belonging to farmers. Nothing is said about the plots and lots of ground planted by suburbanites, every hill of which is a possible breeding place for the corn borer. What is the use of a few doing everything in their power to stamp out this pest, when a great many, yes, farmers, also, do nothing about it. If strict measures are not adopted very soon, the great corn belt of the United States will be infected.

Severe penalties should be inflicted on all those not obeying the law to the letter. What are we going to do about it?

(MRS.) G. W. CAMPBELL.

Wisconsin.

Think More

HOARD'S DAIRYMAN:—In answer to Sam B. Wood, in regard to the observance of Sabbath, would say that he is like all others of the same type; he quotes only those passages out of the Bible that "water on his mill." In Mark ii 27 we find: "And He said unto them—meaning Jesus—'The Sabbath was made for man, and not man for the Sabbath.'" In Romans XIV—5 we find: "One man esteemeth one day above another; another esteemeth every day alike. Let every man be fully persuaded in his own mind."

If nobody were allowed to work on Sunday, who would heat the churches, no street cars, how could people get to church? Think of the fire department, the doctors, and please *think! think! think!*

Wisconsin. HENRY A. OCHSNER.

Common Sense Suggestions

HOARD'S DAIRYMAN:—Counter suggestion to suggestion by Wm. H. Skinner in December 25th issue, permit me to ask, if Mr. Skinner realizes that he is receiving the paper for three years for one dollar, hardly the postage on it, less than 2c per copy, while the Literary Digest would in the same time cost $12. I am willing to turn pages for my part and would suggest that Hoard's Dairyman place their articles in any way that will pay them the best. The readers get the benefit of one of the best papers there is, and yet so cheap that I for one will not object, but rather defend or boost.

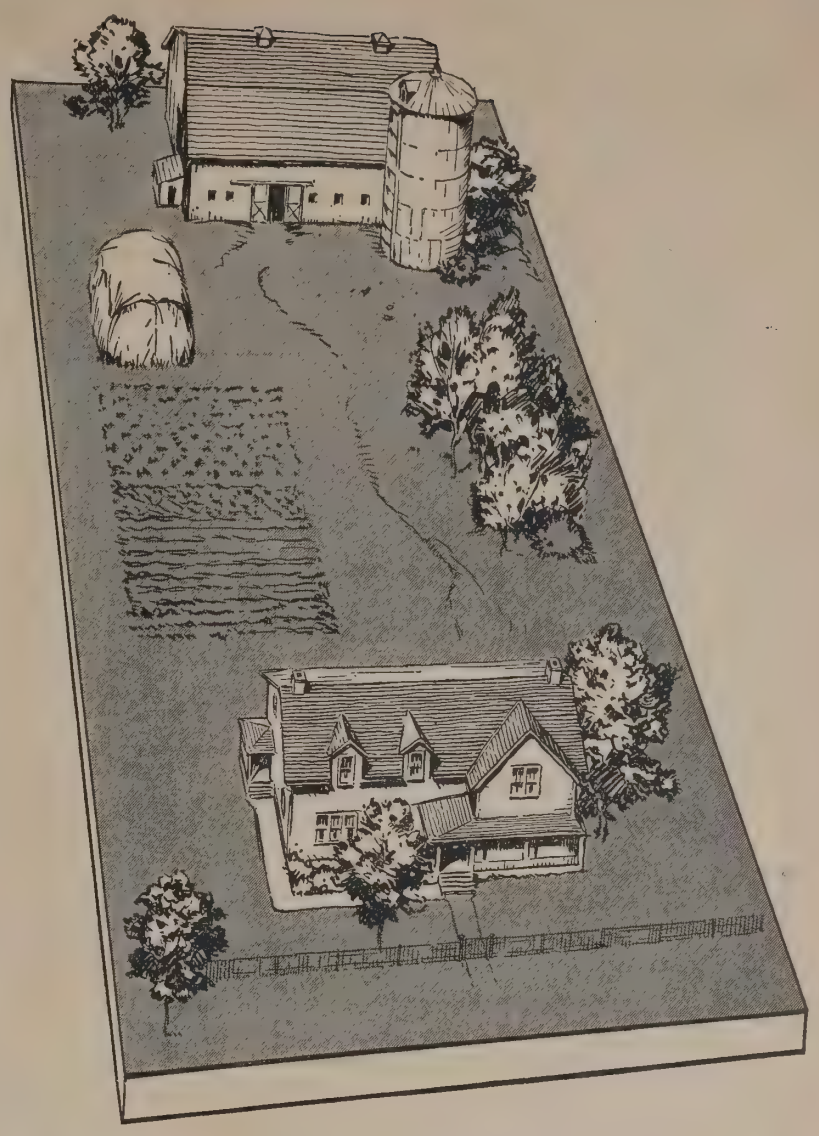
Why holler that a Ford has not as much convenience as the Lincoln, if a Ford is all you pay for and hardly that? Why line up as argument or criticism something which costs, as this paper deal, 1200% more. Me for Hoard's Dairyman as she is. "The Feeding of Dairy Cows" taken by correspondence or at school would maybe cost $25.00 and then some.

North Dakota. HELMER TWITO.

Gets His Goat

HOARD'S DAIRYMAN:—I think your paper is the best all-around farm paper there is but I can't keep from putting my approval on the article of Wm. H. Skinner, on hiding the tail end of an article in among the advertisements. It certainly does get my goat to have to turn to the back end of a paper to finish any article I am reading.

Montana. C. C. BOYD.



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Fort Atkinson, Wisconsin

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Entered at Fort Atkinson, Wis., as second class matter.

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Young Lawyer: "Sweetheart, I must tell you something—I cannot marry you. The court has sent me to Sing Sing."

Sweetheart: "That's all right, dear. I just adore to live in China."

---

is easier than fault-finding, no self-denial, no are required to set usiness.—JAMES

Pennsylvania Dairymen Meet

HOARD'S DAIRYMAN:—Dairy interests ran high during the Eleventh Annual Pennsylvania State Farm Products Show at Harrisburg, January 17 to 21. With the recent advance of one cent a quart received by members of the Inter-state Milk Producers' Association, dairymen were in good spirits and took an active part in many of the 27 farm organization meetings which met during the week.

All day Wednesday was devoted to a meeting of the State Dairymen's Association. Several speakers of national note made addresses. At the election of officers for the coming year E. B. Fitts, State College, received the presidency and Robt. F. Brinton was retained as secretary.

There were 146 entries in the milk contest. This is eleven more than were in the running last year. The highest score made was 99 and fifty-nine per cent of all entries scored 96 or better. Thomas & Howell won first for raw market milk from T. B. free cows; B. D. Carter was first for raw market milk; first for certified went to Lenker Farm Dairy; and Abbotts Alderny Dairy carried away the gold medal for pasteurized.

The annual dairymen's banquet held Wednesday evening was the largest ever at these midwinter meetings. It was the first official appearance of the new state secretary of agriculture, Dr. Charles G. Jordan, before a body of dairymen and he gave them his assurance that he was strong for the general clean-up T. B. work which is going on throughout the state.

The guest speaker from outside of the state at the banquet was A. J. Glover, Editor of Hoard's Dairyman. He presented in a convincing way the nation wide problem of the boarder cow and interspersed with many clever stories told what could and has been done to overcome the great loss she makes.

The dairy cattle exhibits every year at the show are cut to the minimum because of the lack of suitable quarters. The feature this year was eleven bulls from the association rings in McKean County. This is the only county in the United States which has bull associations of the four major dairy breeds, Jerseys, Holsteins, Guernseys, and Ayrshires, and each of them were represented in Harrisburg by three or more individual animals.

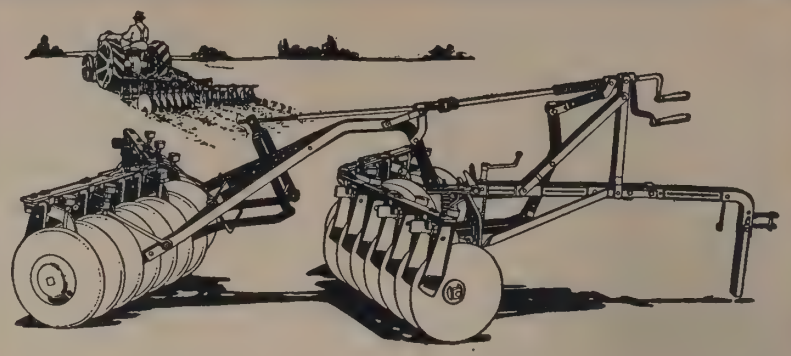
The Ayrshire breeders attracted attention by a guessing contest. George F. Taylor donated a pure-bred calf for the person who could come nearest the average yearly production of 270 cows which were kept last year under the Ayrshire test plan.

The Pennsylvania Federation of Holstein-Friesian Clubs at its annual meeting passed a resolution looking to correct the recent difficulties encountered in paying indemnities for condemned animals. It would have the state legislature amend the law so that only animals registered in an association organized before the law went into effect would be entitled to the increased payments for indemnity.

Pennsylvania. T. H. WITTKORN.

Another 1,000-lb. Holstein

One hundred nine Holstein cows have produced over 1,000 lbs. of butterfat in a year, according to a recent announcement made by Supt. Gardner of the Holstein Advanced Registry Dept. The latest entry into the ranks of 1,000-lb. producers is N. P. Segis Gerben Re-Becky, owned by the University of Nebraska Substation. She produced 27,110.2 lbs. milk, 1,006.64 lbs. butterfat (1258.3 lbs. butter) in a year as a 6-year-old.



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Hand Pick Pea Seed

HOARD'S DAIRYMAN:—A warning is being broadcasted to all growers of peas—especially to those who expect to plant peas for the production of dried peas next spring—to be very careful in the selection of their seed and under no circumstances to plant pea seed that has not been carefully hand picked.

Dealers are having difficulty in selling dried peas for food that contain a mixture of types such as many farmers have been marketing during the past few years. If Scotch peas are sold they must contain no white or green peas. The same is true of other varieties. They must be pure Scotch, or pure Green, or pure White Field—or whatever the variety may be. Even a slight mixture will make them less desirable, and a price reduction will result.

This is the time of the year for growers to prepare for the spring seeding. The time spent in hand picking the pea seed wll be amply repaid not only in securing a good price for the crop—but also in maintaining a market which we stand in great danger of losing altogether because of inferior quality.

The labor for cultivating the soil and for planting and harvesting is identical whether good or poor seed is planted. There is plenty of risk run by the farmer even when the best seed is planted. Weather conditions can make or mar the crop, but with poor seed it is an absolute certainty that an inferior crop will result with its inevitable sequence of difficulty in selling, loss in cleaning, and reduction in price.

Wisconsin. WM. N. KNAUF.

Feeding Value of Soy Beans

What is the feeding value of ground soy beans compared with linseed meal? With silage and clover hay as roughage, what proportion of ground soy beans should be put with ground corn to balance the ration? Should any other concentrate be added?

Dallas Center, Iowa. H. W. K.

Ground soy beans are very similar to linseed meal in protein content, but higher in total digestible nutrients due to the greater content of fat, there being 16.1 per cent fat in the beans and only 6.7 per cent fat in the linseed meal. In feeding trials the soy beans have proved to be the equal of linseed meal. They should not be fed in excessive quantities else a soft butterfat is produced. They should not constitute more than one-fourth of the concentrates mixture, neither should they be the only high protein feed used in the mixture.

For silage and clover hay we suggest a mixture of 500 lbs. of ground corn, 200 lbs. of bran, and 100 lbs. each of ground soy beans and either linseed meal or cottonseed meal. This mixture contains about 14 per cent of digestible protein. The bran is included to lighten the heavier feeds and to add bulk. The linseed meal or cottonseed meal is added to give greater variety of sources of protein.

If one had oats to add to the mixture, we suggest a mixture of 400 lbs. of ground corn, 200 lbs. of ground oats, 200 lbs. of bran, and 100 lbs. each of ground soy beans and either linseed meal or cottonseed meal.

Feeding Dry Cows

I give my Holstein cows mixed timothy and clover hay about all they care for. They also have the run of a cornstalk field when the weather is nice. They are warmly housed at night. In addition to this, I feed my cows in milk 2 bundles of sheaf oats in the evening and about 4 lbs. ground corn and 1 lb. linseed meal mornings and evenings. What do you think of this ration?

Wall Lake, Iowa. F. B.

Mixed timothy and clover hay plus cornstalks are not enough to build dry cows up to a desired condition for calving, particularly if these cows were in medium to thin condition when they finished their lactations. If no other roughage is to be obtained these dry cows should have enough grain to build them up to reasonably good flesh for their next calving. A mixture composed of 400 lbs. ground corn, 200 lbs. ground oats, 100 lbs. bran, and 100 lbs. linseed meal is suggested. It should be fed according to the condition of each individual cow. We suggest in addition to this that these dry cows be given access to a mineral mixture composed of equal parts by weight of salt, bone meal, and finely ground limestone. We would not expect the cows to get much from the cornstalks.

For the cows in milk, the ration does not contain enough protein. We suggest a mixture composed of 600 lbs. ground corn, 300 lbs. bran, 150 lbs. linseed meal, and 100 lbs. cottonseed meal. If legume hay, alfalfa, red clover, or soy bean hay were substituted for the mixed hay and the sheaf oats continued, a mixture composed of 400 lbs. ground corn, 200 lbs. bran, and 50 lbs. each of linseed meal and cottonseed meal would be satisfactory.

A pompous man missed his silk handkerchief, and accused an Irishman of stealing it. After some confusion the man found the handkerchief in his pocket, and apologized for having accused the Irishman of stealing.

"Never mind at all," said the latter. "Ye thought I was a thafe, and I thought you was a gentleman, an' we were both mistaken."—Exc.

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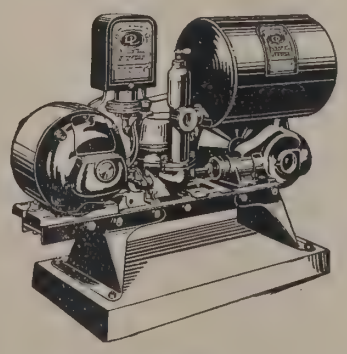
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EDITORIAL COMMENT



THE main thing in all properly conducted dairies should be the proper treatment of cows. They should never be spoken to harshly, much less beaten, and never hurried. Let every cow feel that you are her friend. Discharge a hired man without ceremony who kicks or strikes a cow. The cow should be the queen of the farm.

CHRISTENED WITH MILK

The giant steel carferry, Madison, was recently launched from the Manitowoc ship-building yards, and it was christened with Wisconsin's greatest product—milk. The vessel is one of the largest of its kind on the Great Lakes, and will be put in service by the Grand Trunk Railway.

When Marion Dixon, daughter of a director of the road, smashed a bottle of milk on the hull of the big carferry, she also smashed a precedent of many years' standing. It has been the custom of years to christen newly built ships with champagne, but in this case the desire was to pay tribute to Wisconsin's largest source of wealth, the dairy cow.

This innovation was due to the activities of the Milwaukee Association of Commerce in requesting that this be done, and in complying with this request the Grand Trunk Railway has evidenced its desire to do honor to the dairy cow and to aid in advertising her product. As an innovation, this milk christening was news and was flashed over the telegraph wires to every paper in the United States.

This is a good omen, and we trust it may spread out in ever widening circles as the wavelets spread from a pebble dropped in a pool of water. Larger co-operation between business men of the city and business men of the farm will create confidence and esteem between these two groups that are so essential to each other but are too often separated by small antagonisms and misunderstandings.

We salute thee, Madison, first vessel to be christened with milk. May you ever succeed in your service to man, and may you wax strong and valiant as the child that consumes much of the precious liquid with which you were baptized.

SCIENCE A FRIEND

Science is a wonderful servant of mankind. Not infrequently do people become concerned over the lack of some product which is essential to our welfare and wonder what the world will do when the supply of that product becomes exhausted.

Some persons are already wondering what the automobile will do when the gas supply is exhausted. Concern is expressed over the supply of certain materials for keeping the soils fertile. More than a third of a century ago we heard men express alarm over what the nation would do for building material, for at that time good timber was becoming more difficult to obtain.

Time has shown that we need be little concerned over the shortage of materials for the future. Something will be invented or discovered to take the place of gas when the oil supply of the earth has been exhausted. We already have several materials which take the place of lumber for many purposes. We are now informed that an important element of soil fertility can be obtained from coal.

Coal carries as high as 2 per cent of nitrogen. When it is distilled in a by-product coke oven or used in the manufacture of gas, the nitrogen combines with hydrogen, forming ammonia, a product that is exuded from horse manure. Every farm person has observed, when cleaning a horse stable, the strong odor which arises and at times brings tears to the eye. This is ammonia gas and carries nitrogen, an important element of fertility.

We have been laying plans in this country to take nitrogen direct from the air, for we have not considered it a sound business to depend upon Chile to supply us with nitrate, a product rich in nitrogen.

We now read that the next large development in the heating of homes in the cities will be to provide ways and means to use gas. Gas is made from coal and in the manufacture of gas, ammonia is created. We apprehend that the supply from this source will not be large in the immediate future. It does show, however, how science unfolds new things and makes it possible for us to go forward and develop new things to take the place of those that have become exhausted. Science is not only a good servant of humanity but a very friendly one and through it we have brought about our improved methods of living.

SNOW, BEAUTIFUL SNOW!

Shoveling water—how foolish! Yet that's just what we were doing, for every shovelful of snow that we threw up was just so much crystallized water.

"This is one job the farmer gets out of," said we to ourselves as we shoveled the sidewalk toward the end of a beautiful January snowstorm. The words had scarcely been uttered when we thought back a few years to one winter's day on the farm. Drifts were piled man high between the house and the chicken coop. It was our job to shovel a path so mother could feed her flock. We tried to pick a spot where there would be the least shoveling. At that, it was a long struggle.

From that scene our thoughts jumped to the present. Only two days before, while driving in the country to visit a farmer, we were shoveled out three times, thanks to shovels and some brawn supplied by nearby farmers.

The farmer doesn't have to shovel snow? We laughed as we continued our little job. And every shovelful of snow seemed to tell us how much good it was doing the world. "Why," it said, "we make a soft, warm blanket for Mother Earth. If it weren't for us the grass, the alfalfa, and the rye and winter wheat might get badly frozen out. What a shame that would be!

"And don't forget that we snowflakes are made of water. When we melt we sink down in Mother Earth, at least many of us do, there to help in the sprouting of seeds and the building of crops. Besides, don't you think we are very pretty to look at?"

We remember when we were in college a certain professor had a famous lantern slide lecture that he repeated once or twice a year to big crowds. His lecture was on "Snowflakes." Funny thing, this professor's name was Snow, too. More marvelous designs than were shown in every picture of a flake we never expect to see anywhere. Intricate, delicate—beyond description. Each snowflake alike, hexagonal or having six sides, yet every one different in design. Lacy in structure, perfect in form. Some time examine a few snowflakes as they fall on your sleeve. We may get tired of shoveling snow, but we are thankful for its beauty and we know that it is useful, too.

COD LIVER OIL AND SUNLIGHT

In the past few years scientists have discovered new information about feeding farm animals. They have also given reasons why we follow certain practices in the care and feeding of live stock. At present a number of investigations are being made to determine the importance of sunlight and its effect upon poultry. Comparisons are being made to determine the relative efficiency of sunlight and cod liver oil. It has been found that vitamin D is essential in keeping a flock in good health. The ultra-violet ray of the sun affects the growth and health of poultry, but it will not pass through window glass. A number of materials on the market permit light to pass through them and do not eliminate the violet ray as does ordinary window glass.

Some hold that if cod liver oil is fed, it is not necessary to permit chickens to bask in direct sunlight or to use materials which permit the ultra-violet rays of the sun to pass through them. There is much difference of opinion in reference to this and it is our belief, in view of our present knowledge, that it would be unwise to keep chickens away from sunlight, even though cod liver oil is fed. It is safer to expose poultry to as much direct sunlight as possible or to light coming through material which permits the ultra-violet ray to pass through, even though it is fed cod liver oil.

It should be remembered that not all cod liver oil contains vitamin D in sufficient quantity to prevent rickets, leg weakness, etc. Vitamin D is not the most stable product in the world and may be lost through oxidation. Care should be exercised in the purchase of cod liver oil. The safest and best way is to purchase it from a reliable company, one that has made laboratory tests of it and guarantees it to contain vitamin D.

While cod liver oil and ultra-violet rays are most important to healthy poultry, yet we should not make a mistake by assuming that these are the all important factors in providing feed and care for the flock. There still needs to be fed a good balanced ration, that is, feeds which supply them the necessary nutrients for growth and egg production. This requires a good mixture of grain and a good mash.

A CHALLENGE TO PURE-BREDS

Some comparisons of the production of grade and pure-bred cows presented in our January 25 issue by E. Parmalee Prentice of Massachusetts should cause breeders of pure-bred dairy cattle to ask themselves the question, "Whither are we bound?"

Mr. Prentice quoted tabulations by the U. S. Department of Agriculture of the cow testing association records of 12,830 pure-bred dairy cows and 34,031 grade cows representing all dairy breeds. The average yearly production of the pure-bred cows was 7,667 lbs. of milk containing 296 lbs. of fat, and for the grade cows it was 6,999 lbs. of milk containing 281 lbs. of fat.

In a similar way comparisons from the records of cows in Wisconsin's cow testing associations, covering the period 1921 to 1926, showed that 7,285 pure-bred cows averaged 7,677 lbs. of milk containing 291 lbs. of fat, and 26,669 grade cows averaged 7,004 lbs. of milk containing 290 lbs. of fat.

In a way this may not be entirely a fair comparison. We know the production of these grade cows is considerably above the average of all grade cows. We would like to assume that the production of the pure-bred cows is considerably below the average of all pure-breds. We have some reason to believe that the grades represent the best of grade herds but we have no assurance that the pure-bred herds represent the poorest of the pure-breds.

The figures presented are representative of the grade and pure-bred herds, the owners of which were persuaded and did adopt the cow testing association method of herd improvement. In this respect we are assured that the same influences that improved the production of grade herds likewise and to the same extent improved the pure-bred herds. By comparing the grades and pure-breds in this way we are able to arrive at the net benefits secured through the pure-breds by what is assumed to be their superior breeding. By so doing we find the utility difference to be surprisingly small, all of which prompts us to raise two questions as follows: Why is the difference so small between grade and pure-bred cattle? What are the breeders of pure-breds going to do about it?

The answer to the first question we believe is found in the fact that the owners of the good grade cattle have been improving their herds from both ends of their extremes in production. With the milk scales and the Babcock test they have been removing the scrub cows and also finding the ones that turn feeds into profit. These better cows have been mated to pure-bred bulls with the result that the herd average in many grade herds is closely approaching that of pure-bred herds. As compared with this method of herd improvement the owners of pure-breds have been working from only one end of the production extremes. They have used pure-bred bulls as they must to have their animals recorded; they have done some testing but

usually with a limited number of cows of the greatest promise. They have not sent many scrub pure-breds to the butcher.

The answer to the second question is to be found in some method of selective registration based in part at least on performance at the pail. The Holstein-Friesian Association of America is already working on this very thing and it unquestionably is but a matter of time before some form of selective registration will be adopted by all dairy cattle registry associations.

The handwriting is on the wall—it has been there for some time. The challenge made by these improved grade herds must be met. It will be met effectively when owners of pure-bred cattle put the yardstick of production on all the cows in their herds and refuse to record in the registry books such of these as have no possible chance of contributing more than a record of ancestral names to the future upbuilding of their respective breeds.

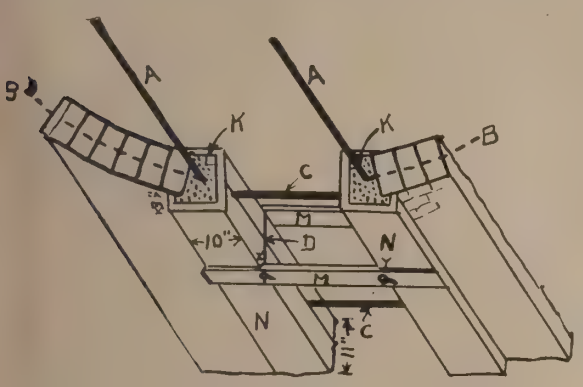
Building A Brick Silo

Please give me information as to how to build a brick silo.

Lindsay, La. M. D.

The reinforcement for the lower half of a brick silo 12 feet in diameter and 30 feet high is No. 9 wire for every two out of three mortar joints. For the upper half of the silo a number 9 wire for every third mortar joint will be sufficient. For a 12-feet diameter silo higher than 30 feet use a number 9 wire for each mortar joint below a point 30 feet from the top of the silo. The upper part of the wall may be reinforced as suggested above.

The reinforcement required for a 14-feet or 16-feet diameter silo is a number 9 wire in every third course for parts of the wall less than 12 feet from the top of the silo. For distances more than 14 feet and less than 22 feet from the top of the wall, use a No. 9 wire in every two courses out of



DETAIL OF CONCRETE DOOR FRAME FOR A BRICK SILO

three. For distances of more than 22 feet from the top of the wall use a No. 9 wire in every course.

The accompanying illustration shows the use of a form for the construction of concrete door jambs for a continuous door for a brick silo. N is built of boards and M of 2"x4" material. The form may be built about 8 feet long. M is notched so that the distance from X to Y will be 22½". These notches insure a uniform width of 24" between the finished jambs. Two or three pieces M will be required on both the inside and outside wall of the form. The holes for the ½" rod are bored at X and Y so as to prevent N from bulging. Three-fourths-inch holes are required in the forms to allow the ¾" ladder rod C to pass through and hook around the ⅝" rod A. The reinforcement 3 (number 9 wire) is also fastened to rod A. The form is ripped through the center of the holes, through which rods C pass, to allow it to be removed. A wooden strip at K forms the recess for the door.

When starting, the construction of the door jamb supports the rods A in their proper position. Place rods C through the form and hook them to rod A. Take up the slack in rods D and shift the form so that the lowest ladder rod (C) is level and about 1 foot from the bottom of the door opening. Tighten rods D and the form is ready to fill. To raise the form remove rods D which allows the form to be taken apart, cleaned, oiled, and assembled in its new position.

The silo door is quite generally built of two layers of 4-inch flooring with building paper between. There are inch projections at the sides of these doors so as to make the doors interlocking and allow a tight joint. A door fastener to hold the door to the ladder rods might be added although this is not absolutely necessary.

The interior is coated with cement mortar in order to make a satisfactory job. To make assurance doubly sure that the silo is air tight, whitewash the interior with cement and water mixed to a creamy consistency.

More complete information on the building of brick silos will be found in a bulletin issued by the Common Brick Manufacturers' Association of America.

Ropy Milk

We are having trouble with slime or ropy effect in our milk after it has aged a little. This occurs before the milk has clabbered. Last year about this time we had the same trouble and it lasted until April, at which time the slime disappeared and there came an awfully strong odor to the milk. The odor was similar to that of cow's urine in the early morning and the milk also had a similar flavor after it was milked and let it set for eight to ten hours. This could not be detected in the milk while it was fresh. The cream when separated from the milk was delicious while fresh, but after it set for eight to ten hours the odor would come to the cream and it also had the same flavor and made the cream almost unfit for whipping as it would flavor the desserts on which it was used until a person could hardly eat it. When the cream was churned into butter, the odor and flavor disappeared and there was no trace of either.

Georgia. W. B. B.

From the description given we are inclined to believe that the milk is infected with the bacteria that cause ropy milk. This is caused by a number of different kinds of bacteria and is frequently what is termed a mixed infection. It may not only cause ropiness, but also the bad odors in the milk.

This infection may come from the water in which the cans or milk utensils are washed; sometimes from the water in the cooling tank and sometimes from the bacteria which the cattle may pick up on their udders and bodies by wading through marshy ground or other wet places. Sometimes it may come from a stable infection, but this would be very unusual. About the only method to pursue is to exercise particular care that all milk utensils are thoroughly sterilized with boiling water and are then allowed to dry out thoroughly, either with artificial heat or by standing in the sun.

If this does not overcome the trouble, the next point of attack would be to see that the cooling tank is thoroughly cleaned out and preferably disinfected with a 12-ounce can of chloride of lime, or bleaching powder, to 100 gallons of water. As an additional precaution, all milk utensils might well be immersed in this solution. If neither of these treatments removes the trouble, then recourse should be had to keep all possible contamination away from the cows and out of the milk.

It may be possible that the water tank is the source of the infection, in which case it would be necessary to clean and disinfect this. The infection may come through the cows wading through wet places in the pasture, and the only proper procedure then is to restrict the cows from such areas. In addition, it would be well to see that the cows are thoroughly brushed off and possibly the udder and flanks washed in a disinfecting solution somewhat similar to that used for the milk cans. In all cases where the disinfecting solution is used, care will have to be exercised that it be properly rinsed off or time permitted for the odor to evaporate; otherwise, the milk will take up this odor.

It should be understood that the exposure to heat or to disinfectants leaves nothing on utensils which will prevent the growth of ropy milk organisms if they find their way to the utensils after such treatment. In actually carrying out such a disinfecting campaign at the farm, it occasionally happens that some pail, dipper, or other object which has been in contact with the ropy milk is overlooked. If, in connection with the handling of the milk, the germs on this one utensil spread to the others, the result of the disinfection is lost and the trouble will reappear in the milk. Fortunately, in handling actual outbreaks, the trouble rarely reappears where the work has been carefully done.

In locating where this trouble may originate, it might be well to take samples in bottles that have been thoroughly sterilized in boiling water, these samples to be taken at various stages in the handling process and allowing them to stand at the usual temperature. Hold the milk at the same temperature and under conditions similar to those under which the milk is now being handled, as changes which take place at one temperature may not occur at another. One sample should be taken directly from the udder, another from the pail as soon as milking is completed; another from the filled cans, and so on through each process in the handling of the milk. If the first sample does not develop ropiness while the second does, the pail should at once be suspected. If thorough sterilization of the pail does not overcome the trouble, then it may be possible that the infection comes from the air. Air contamination can generally be proven by boiling a sample of the milk and then exposing it to the stable air and holding it according to the accustomed conditions to see whether or not ropiness develops. If the surroundings are the cause of the ropiness, the stable must be cleaned up and properly disinfected.

Mineral Supplements

Give me some information on feeding minerals to milk cows and growing heifers. I am feeding all the corn silage the stock will clean up in addition to which they are allowed to pick over soy bean straw that does not contain any leaves.

Reynolds, Ind. G. H. D.

The mineral requirements of dairy cattle are not fully understood. This applies particularly to the factors that influence the assimilation of mineral substance from the feed as it is converted into body and production uses. What mineral substances, how much of these, and how best to feed them, are questions that cannot be fully answered. They may be partially answered, however, so far as the needs of the average dairy herd are concerned.

The time of greatest need for mineral substance in the life of an animal is in the growing heifer and when cows are at peak production in their lactations.

Heifers will make normal growth if fed liberally of skimmilk together with legume hay and grain up to 6 to 9 months of age and thereafter fed legume hay, grain, and pasture.

The need for supplementing the rations of cows in milk with minerals depends on their capacities to produce milk, and on how they are fed and handled. It is thought that cows capable of producing up to about 300 lbs. of fat a year will be kept in normal condition under the following system of feeding and management: (1) They must be in good condition when they freshen; (2) The roughage of their rations must include liberal quantities of legume hay; (3) They must be fed according to production; (4) They must be given a rest or dry period of 6 to 8 weeks during which time they must be so fed as to bring them up to good condition again for the succeeding lactation.

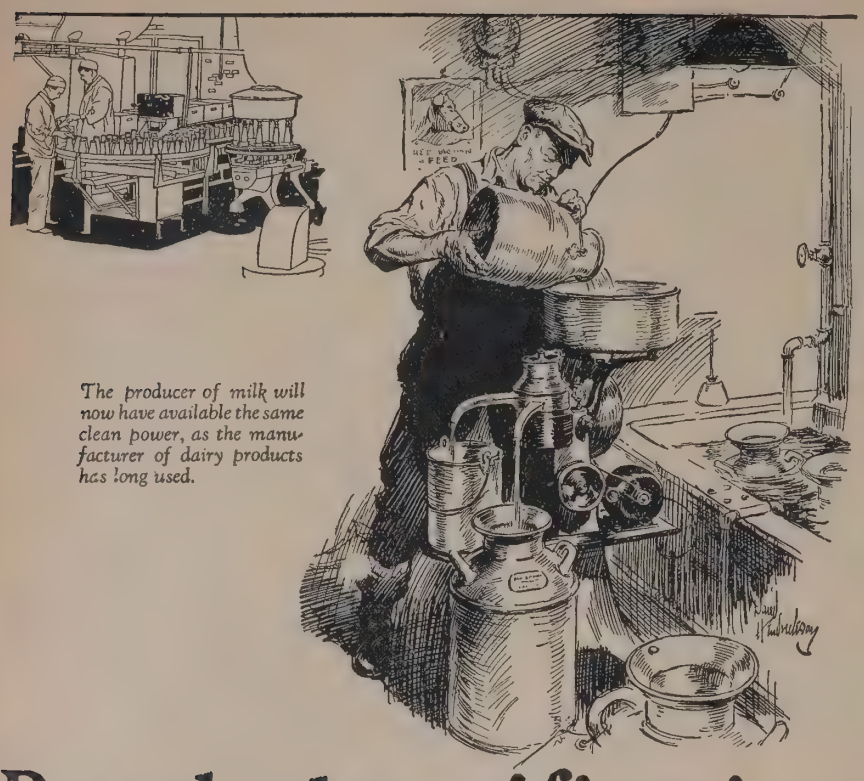
The important things in this system of management are in the legume hay and the rest period. The former supplies liberal amounts of calcium during the production and the latter gives opportunity for the cow to regain any mineral depletion that may have occurred during production.

With higher producing cows the same system of feeding and management is advised in addition to which mineral supplement is included in the feeding. No one has been able to say definitely what is the best supplement to use and how it should be fed. It is known that mineral assimilation goes on at a greater degree with the aid of the vitamins found in green pasture grass and with direct sunshine than with dry rations in the absence of sunshine. In other words, there are conditions under which a cow is able to make greater retention of mineral supplements than under other conditions. In view of this fact it is important that minerals be supplied when they can be used to greatest advantage. In the light of present knowledge that time seems to be when cows are on green pasture in direct sunshine. Normally, in the dairy sections where the majority of cows freshen in the fall, this time occurs toward the close of their lactations and when they are dry. Being relieved of the need of minerals for milk production they are better enabled to rebuild the depletions of their bodies.

A safe practice, therefore, with the higher producing cows is to allow them free access to a simple mineral mixture the year around. Such a mixture could be made from equal parts of weight of salt, bone meal, and finely ground limestone.

In certain sections it is advisable to feed iodine to pregnant cows to prevent goiter in their calves. This may be accomplished by sprinkling on the feed each day one tablespoonful of a solution of one ounce potassium iodide to one gallon of water.

Corn silage and soy bean straw are poor feeds so far as their mineral content is concerned. In addition to the grain supplement the ration should be supplemented with the mineral mixture given above.



The producer of milk will now have available the same clean power, as the manufacturer of dairy products has long used.

Rural electrification
—a matter of business cooperation

ALL FARMERS want to enjoy the comforts and convenience of electricity. How to get it is the question still to be answered by most of them. Yet rural electrification is merely a problem of business cooperation.

Electric service cannot be sold to isolated or occasional customers, as merchandise can. For electricity — like milk — cannot be stored to any practical degree; it must be consumed as produced.

Thus the cost of building transmission and distribution lines, and of keeping a supply of power ready for instant use, can only be met by having on every mile of line a sufficient number of consumers whose needs for electricity are many and varied.

That is the principal condition which governs complete rural electrification.

Lines can be built where groups of farmers will use enough power to make the extension of service a practical business undertaking, just as maintaining a milk route requires customers, not widely scattered, who use a steady supply.

So, to get electricity for your farm, get together with your neighbors and make your light and power company a cooperative business proposition. Ask your power company for information and cooperation.

The Committee on Relation of Electricity to Agriculture is composed of economists and engineers representing the U. S. Depts. of Agriculture, Commerce and the Interior, Amer. Farm Bureau Federation, National Grange, Amer. Society of Agricultural Engineers, Individual Plant Manufacturers, General Federation of Women's Clubs, American Home Economics Ass'n., National Ass'n. of Farm Equipment Manufacturers, and the National Electric Light Association.

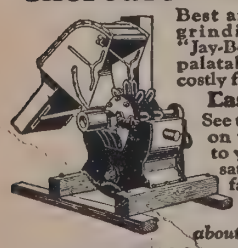
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If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman — Ask Him Why!

New York Milk Committee

H. H. LYON, NEW YORK

THE committee of milk producers that is striving to propose an organization for the entire milk shed of the New York territory was again at work in late January. The Department of Farms and Markets has a mass of statistical information of great value. Commissioner Pyrke's paper was presented and much of value added by a discussion by Mr. Gillett in charge of statistics. Evenness of production was stressed a good bit.

The manager of the Connecticut Milk Producers' Association, C. E. Hough, was one of the most interesting witnesses that have appeared. He has the details of his work right at hand. The association is especially successful, yet Mr. Hough appreciates fully the great difference between the conditions in his territory and ours in New York. There is a certain surplus of milk in Connecticut but it has no comparison with that of New York. They are not required to own plants nor to do any manufacturing. Nearly all of the Connecticut dairymen are members and they are not embarrassed by political influences or by newspaper propaganda. They have a classified selling plan and a separate pool for the various dealers. One pool he thinks is right but he carries out the plan voted by the members. Much has been done in Connecticut to stabilize production by exacting a penalty for production either above or below the estimate set by the producer, and such penalties revert to all producers.

The entire day was taken up with rather unusual information that, when ready for the public reading, will be worth study. Dr. Meyers, professor of marketing at Cornell, discussed different forms of co-operation and presented balance sheets from several of the better ones. The form of organization best to use depends upon several factors, one of which is the commodity. For New York, after some hesitation to consider his answer, he pronounced for a non-stock, non-profit association but thinks with a subsidiary having capital. The centralized plan is best for this territory, one reason being the unity of dealers to whom sales must be made. He, too, emphasized the formation of one sales or marketing organization for this territory. Not much can be done to improve the dairymen's economic condition until this is accomplished.

It remained for Mr. Van Cise of the Dairymen's League to present figures to show the trend of market demands. There is almost certain to be an increase in consumption of six thousand cans a day year by year, five thousand of this for the New York City market. There are about 101,500 dairies in the present New York milk shed. About half of these are inspected and approved for the New York city market. We are short of milk now along in November and for a little time. This shortage may be taken care of by inspecting some more dairies or by increasing our production about seven pounds per dairy for a short time, or it may be done by going outside our territory.

Mr. Van Cise went well into details respecting the duplication of plants, the high cost of handling caused thereby, and the difficulty of operating tank cars in this territory because of the small amount of milk handled in each plant. Twenty years ago we had plants handling over a hundred thousand pounds of milk a day. Now it is a pretty good one that has a quarter of that amount It is caused by the excess in the number of plants now operated. All of the extra cost comes out of the farmer.

Mr. Garlock of the Eastern States Association is still emphatic in his opinion that no one organization can be formed into which a majority of the producers will come. He therefore advocates smaller organizations and a conference board where representatives of these may meet for discussion and a better understanding. He thinks that this plan is the only one by which any organization may some time be formed.

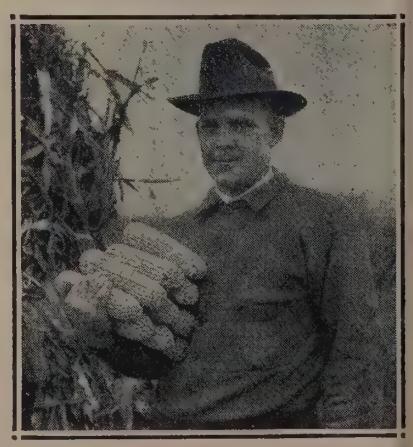
Mr. Spooner, a former director in the Dairymen's League, would modify the plan proposed by Mr. Johnson. There are several changes, one being to limit operations to New York City alone rather than to include up-state cities. He would limit deductions still further, and would require buyers to pay direct to their producers after the pool price had been determined by the central organization. All of which goes to show that New York dairymen are not yet of one mind.

The calm, deliberate, concise statement of J. D. Miller before the committee proved most interesting and valuable. Only a centralized association is applicable to the New York milk shed for selling milk. A contract is necessary, not so much to keep the member in as to define rights and obligations. There should be a way provided for the member to withdraw. A conference board might have some value if there is to continue many small groups. He guardedly estimated the possible cost of financing a one-organization association for plants, etc. at between thirty and forty million dollars.

Mr. Fox, president of the Borden Company, added considerable information, giving without reserve to the committee statistics in detail relative to the cost of milk distribution. He believes evidently in farmer organizations but not with any idea of controlling prices for a high income. Such an organization, he thinks, can make many economies, especially in relation to plants and their operation.

From what I could learn, many of the milk dealers can be depended upon to help in developing a large farmer organization if it is gone about rightly. Perhaps there are others whose position might be the reverse.

This hearing has hardly established the likelihood of an early oganization of all dairymen in our association, but it has brought a vast fund of information together and formed a basis for future work that must be done.



Wm. G. Neukam of Indiana, who grew 129 bushels of corn per acre in the Indiana five-acre corn club which was the highest record in the state for the 1926 season. Mr. Neukam was crowned corn king at the meeting of the Indiana Corn Growers' Association at Purdue University.

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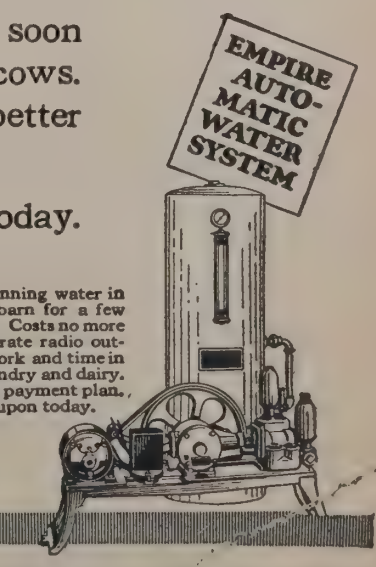
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Goodyear now announces a *new-type tread* for the balloon tire

Here you see displayed Goodyear's latest contribution to the American motorist—an improved new-type tread for the balloon tire.

As is apparent, it is a development of that most famous of all treads, the Goodyear All-Weather, now re-designed in the light of new balloon tire knowledge.

The first advantage to you of this new Goodyear tread is greater traction and non-skid efficiency.

This is achieved not only by placing the diamond-shaped All-Weather blocks in the tread's center, but also by flattening the profile of the tire to insure broader road contact.

The second advantage to you is improved tread-wear, accomplished by the flat design, and by placing two circumferential ribs in the tread at the points of greatest wear.

The new All-Weather balloon tread wears evenly and smoothly without wavy spots or "pot holes," and at any given mileage shows less wear and less obliteration of the non-skid design than is the case with earlier types.

In addition to these important benefits, the new Goodyear tread makes for longer total tire mileage, for quiet and smooth running, and for an even better looking tire.

You will want this new tire for the same sensible reasons that for years have made "*more people ride on Goodyear Tires than on any other kind.*"

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GOODYEAR

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Marketing Methods of a Creamery

JAMES V. MURRAY, CALIFORNIA

ALTHOUGH marketing butter under its own brands, the Challenge Butter and Cream Association, a co-operative enterprise which sells the production of twelve California creameries and five creameries located in other western states, is extending its service to retailers so as to assist them in the marketing of the association butter under the retailers' own labels.

Keeping its policies elastic, as far as tie-up with grocers and other butter dealers is concerned, this company, which broke into the San Francisco field with great success in September, 1925, and has been going strong in the city and surrounding communities ever since, does not insist upon dealers laying down under sets of rules devised by the association.

"Where possible," said O. J. Kennedy, manager of the San Francisco sales depot, "we like our products to be marketed under the Challenge or Modesto brands. But we recognize that many grocers, some of them large chain store operators, have a prestige of their own to keep up in business. And with bottlers, canners, and coffee roasters willing to market goods under private labels, we see no reason why we should not do likewise.

"In fact, we are giving dealers who want this arrangement a special service which enables them to obtain their cartons at a greatly reduced figure over that obtainable by themselves. Our own print of lithographed packs goes to twenty million at each printing, and if the dealers are willing to accept our basic colors, a green, red, and white carton, or the blue and gold design, with their own advertising and brand name as the changeable features, we are able to increase our print to such an extent that the cost of printing will be very small indeed.

"With most of the chain stores buying our butter, all throughout their territories of operation, we are getting a large number of printing orders from them alone, besides which other calls are coming in, from all the cities, from operators of the large single grocery stores.

"We give free window trimming to all who desire it, and do not hire amateur talent but put on the road experts from a professional window-display company. These make a thorough canvass of the field, putting in window and wall displays wherever desired. And not only do we give this service on our own brands, Challenge and Modesto, but we give it to those who market our butter under their own brand names.

"With many meat markets giving free toy balloons to customers for the sake of the children, we are assisting our grocers and other dealers by giving them toy balloons free for a period of 30 days. One balloon goes out with every pound of butter, and as most of the orders are for 60 pounds at least, we have the balloons packed in lots of 60 in pasteboard cartons for their protection.

"Dealers operating small delicatessens and groceries are often short of a pencil when our route man calls on them, delivers butter, and wants his receipt signed. They have mislaid their pencils, perhaps, but instead of having to hunt around for one, our route man gives them a Challenge pencil, he being supplied with a quantity of them for this purpose. And, in addition, our pencils are systematically distributed by our salesmen as a help in sales promotion.

"On service to dealers, in addition to the activities of our route men, we



RED ECHO JESSICA, VERMONT'S NEW WORLD'S CHAMPION IN CLASS BBB

ONE of the most remarkable series of Advanced Register records in the Guernsey breed has just been completed on Red Echo Jessica by Charles D. Macdonald of Vermont, her breeder and owner. Jessica is one of ten cows in the breed to make three Class Leader records, and the only one of the ten to occupy one of the highest places in three different classes at ages below five years. Her latest achievement is the winning of the world's championship in Class BBB, with a record of 10,355.9 pounds milk containing 579.9 pounds fat, milked twice daily for a period of ten months, during which time she carried a calf for 274 days. She holds sixth place in FF with 685.4 pounds fat and eighth place in DDD with 453.9 lbs. fat.

Her last two records were made on twice-a-day milking. Naturally, the time she was on test does not tell the whole story of her production, as she milked after the records were completed. The actual production was 1900 pounds fat in 37½ months, all immature, and she has had four good calves.—The American Guernsey Cattle Club.

have a route captain for each four trucks of our fleet. He supervises collections, the building up of the territory, sees that our route men call regularly and give the proper service, and acts as substitute for any driver who is off the job for any reason. In addition, the route captain is directly responsible for the condition and appearance of the automotive equipment under his charge. He heads in anywhere, and helps in any way possible to increase the efficiency of the route service to dealers.

"Where some butter concerns allow their truck men to deliver butter about as a coal dealer delivers a load of coal—dump it on the floor of the store and walk away without trying to help the dealer handle it—our route men have instructions to open the box in the store, go to the ice box, and load the butter into any vacant compartment. Dealers appreciate this to the extent that finally they leave the top shelf available for our butter.

"As an example of how this works out, one of our route men, opening up an ice box in the store of a new customer, found a place for the butter on the lower shelf in the refrigerator. He worked around on the proposition until, finally, he got the top shelf. And he is selling three times as much from this advantageous position in the ice box as was turned over when our butter was stored below, out of sight.

"To illustrate how we are getting along with the chain stores, of which we now have nine-tenths sewed up, all done in a period of seven months, here is a single order for 3,420 pounds, from one of the largest of them.

"We can attribute our great popularity, in this highly competitive field in San Francisco and the Bay cities, to standardized quality of our products, to elasticity of policy toward dealers, to helps given them to turn over their butter rapidly at a good profit, and to getting behind our retailers with extensive advertising of the right sort—the kind that appeals to the consumer.

"Altogether we feel that the future of Challenge and Modesto butters, whether sold under our labels or those of our customer friends, is particularly bright, and we owe the dealers in this section of the country a vote of thanks for giving us the opportunity to prove up to them."

Austrian Field Pea in the South

HOARD'S DAIRYMAN:—In the lower half of the cotton belt the Austrian field pea, sometimes called Canadian field pea, is sown in the fall and makes an excellent winter cover crop, an early pasture or early hay crop, or early manure crop.

The Coastal Plain Experiment Station, located at Tifton, Ga., has tried the Austrian field pea alongside of vetch and various clovers. The result is that the Austrian field pea is found to make more early growth than any of the other winter legumes and, consequently, gives larger returns as a green manure crop turned under in the spring.

In early 1924 the South was visited by an unusually severe cold spell. Under this test the Austrian field pea suffered severely, but it compared favorably with clovers and rye. It, however, did not equal hairy vetch for winter hardiness, though it did as well as some other vetches.

Pecan orchardists of South Georgia have seized upon the Austrian field pea as a means for legume green manuring without incurring insect damage to pecan nuts that accompanies the use of summer legumes like cowpeas.

Dairymen are looking upon the Austrian field pea with favor. A combination of oats and the Austrian field pea has given considerable spring grazing at the Tifton station. The peas stood grazing well, being able to renew growth rapidly and give a large amount of pasturage. The amount of grazing afforded by the pea exceeds any other crop for early spring. It enables the dairyman to begin heavy grazing earlier in the season than the pasture grasses permit.

As an early hay crop, it surpasses in yield any of the vetches, clovers, or cereals. Combined with oats or rye, the yield of hay is probably increased slightly.

As a green cover crop to be followed by a summer crop like cotton or corn, the Austrian field pea is excellent as a conditioner of the soil and as a source of nitrogen. Tests, however, show that neither Austrian field peas nor any of the legumes turned under in the spring are equal to supplying the summer crops with all the nitrogen they can use to advantage. There is always a serious trouble with cutworms to be confronted by cotton, corn, or other summer crops following the Austrian field pea or any other winter cover crop.

From the standpoint of the dairyman or farmer who is handling a few cows, the Austrian field pea appears to have its greatest value in early pasture or for early hay. For actual milk production the pasture will doubtless pay better than hay.

Georgia. C. A. WHITTLE.

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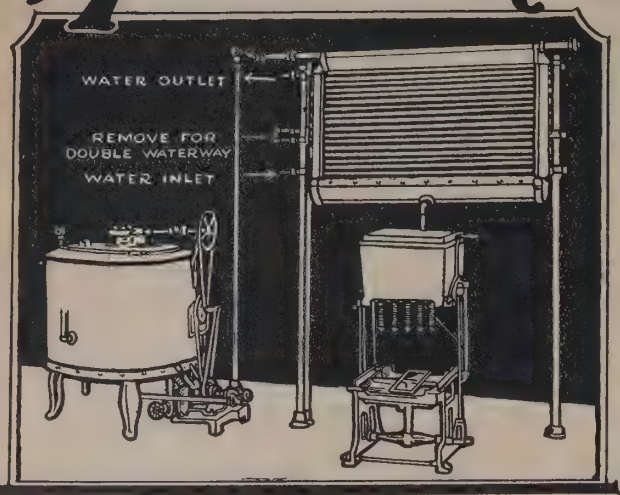
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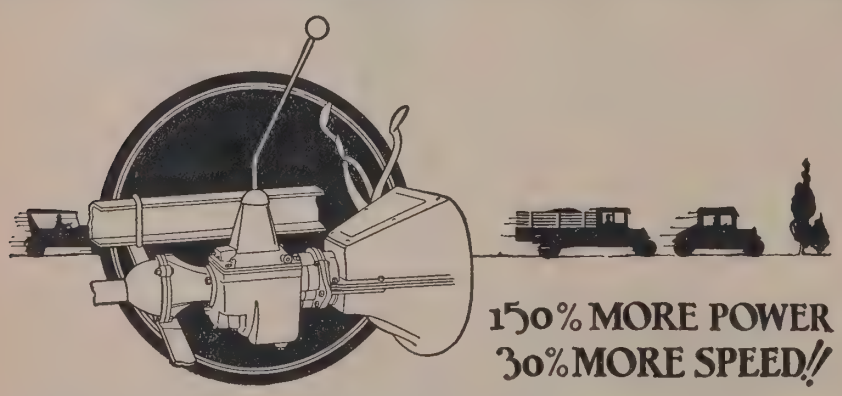
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The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

With a Victor Outfit the small dairyman can produce good, wholesome pasteurized milk just as cheaply and efficiently as the big city dealer. Pasteurization provides safe milk and will increase your business. The Victor is a business builder. Write for full information and prices.

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Jerseys and Corn Bring Success

H. H. BIGGAR, NEBRASKA

WHENEVER I hear a tribute to a man expressed by his son, I know at once that there has been cordial cooperation in the family and that the father's judgment and his efforts have been appreciated. For that reason it was with more than ordinary interest that I heard a farm boy say: "We've all been brought up on an 80-acre farm. A small farm most folks would call it, but all five of us children have been sent through high school. I think that dad has done mighty well."

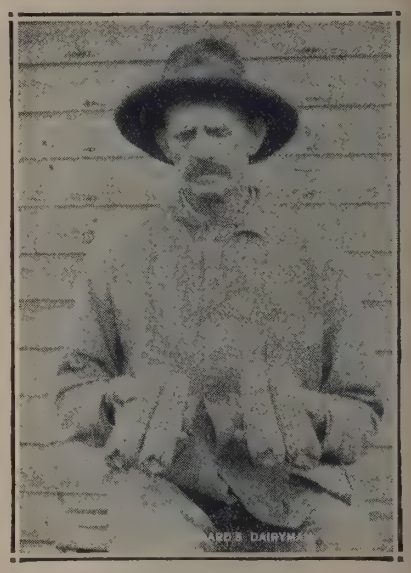
The father of the son was Charles Grau of Douglas County, Nebraska. If you should ask folks in Nebraska if they know Charles Grau, the reply likely would be, "Oh, yes, he's that corn breeder." Others would add that he was a Jersey breeder. The fact is that Mr. Grau combines dairying with corn improvement and the two bring him the most of the revenue on the 80-acre farm. The breed selected has been the Jerseys as far as the dairy part is concerned, while Reid's Yellow Dent has been the corn variety with which Mr. Grau has been working.

It was eight years ago that Mr. Grau started with the Jerseys. He purchased ten at a public sale. When the first cow testing association was organized in his county, Mr. Grau joined and at the end of the first year it was discovered that some of the cows were not paying for their board. These were sold and the result of two years of membership in the association has fully convinced him of the value of getting the record of the cows via the Babcock test and milk scales route.

In handling the calves on the Grau farm the plan is to allow the bull calves to suckle the dams until they are two months old. Then they are sold for veal. The heifers are allowed to have one-half of their mother's milk at first, the amount being gradually decreased up to two months. By that time Mr. Grau has them on a full grain ration composed of equal parts of ground corn and oats. They also get a little oil meal and have access to salt at all times. The milking herd is fed ground corn and cob meal and wheat bran, equal parts by measure, and a half pound of oil meal daily per head.

The pasture for the Jerseys has been mainly sweet clover in recent years. There has not been such a thing as a permanent pasture on the farm for several years, frequent changes being made to keep up soil fertility. The fact that the Jerseys are lighter in weight than other dairy cattle is a point in their favor, says Mr. Grau, since they do not injure the pasture as much by tramping, especially in wet weather.

No man in the state has kept a closer tab on the latest work along corn improvement lines and endeavored to put the ideas learned into practice, than has Mr. Grau. Each winter at the state corn show held in connection with Farmers' Week at Lincoln, the corn is judged by Mr. Grau. He takes the task seriously and exhibitors know that when he makes a placing that he is ready to explain why he



FOUR GOOD EARS OF MR. GRAU'S SELECTION

does it. The corn judging room has afforded many helpful roundtable discussions in which Mr. Grau is always willing to give the benefit of his years of experience along corn growing and corn breeding lines. On the State Board of Agriculture he has charge of all farm crop exhibits and due to his consistent efforts, over a score of counties at the 1926 Nebraska State Fair had creditable collective exhibits.

Reid's Yellow Dent has been Mr. Grau's favorite variety. He has been growing strains of this variety for years. On his farm he has carried on experiments to determine the comparative yielding ability of smooth and rough ear types. In the first test of this kind, the smooth type made a yield of 86 bushels per acre and the rough type 71 bushels per acre.

But smooth corn to Mr. Grau does not mean corn that is excessively smooth. He prefers a medium smooth type to any other. There is danger, he believes, in striving for too much of smoothness for the reason that a flintiness tendency may develop. One of the things he has noted with regard to the smooth type of corn is that it has a larger percentage of marketable ears and a minimum of ears



CHAS. GRAU AND HIS JERSEYS

which are affected with dry rot and fungus diseases.

Careful selection of seed corn from the standing stalks before frost, is a yearly practice on the Grau farm. Further culling of undesirable ears before planting next spring is always followed out. From time to time trial plots of corn are grown with seed secured from other states or from other localities within Nebraska. Along this line, Mr. Grau's experience has been that his own corn usually is best the first year. However, yields and quality of other corn varieties from outside are improved by growing them for several years. Indiana and Eastern Iowa corn make a very poor showing the first year they are introduced but tend to show an adaptation if the seed is kept of each year's crop and planted.

"Keep up your soil fertility while you are improving your corn," is Mr. Grau's motto, for fertile soils are needed for corn culture. Alfalfa, sweet clover, and red clover are a legume trio that have been used with success and Mr. Grau feels that his soil is as fertile today as it was 43 years ago when he broke the first furrows.

Small Meetings Drive It Home

HOARD'S DAIRYMAN:—"Give every cow in the county a better chance by feeding a balanced ration," and "scrap the ones that fail to show a reasonable profit when they are properly fed," were the two messages driven home to the dairymen in Green Lake County, Wisconsin, in a three-day series of meetings held in every township in the county on December 8—10. And the messages were driven home for keeps. Every fourth man on Green Lake County farms got the story first hand, and it's a safe wager that the greater portion of the other three-fourths of the county's dairymen got the news later.

Three hundred fifty of the county's 1500 dairymen turned out at the 24 daytime sessions, and a total of 500 farmers attended the two dozen day meetings and the three evening programs. And, best of all, every man present took an active interest in the discussions.

The meetings were unusual, not only from the standpoint of number, but were rather unique in location and in the informal manner in which they were conducted. Practically all of the two dozen day meetings were held on farms, generally in a dairy barn. Two or three of these get-togethers were held in every township. They were roundtable affairs, informal in every particular, and if any dairymen went away without getting the information that they desired it was because they were too bashful to ask questions in the presence of a few neighbors and friends.

Just prior to the meetings Professors Morrison and Humphrey, of the Wisconsin College of Agriculture, had prepared a list of dairy rations, consisting of farm grown feeds and the necessary protein supplements, and these rations were presented and discussed at every session. The costs of the feeds had been determined for purposes of comparison, and the necessity of having sufficient protein in the ration was thoroughly emphasized.

Ridding the herd of the non-profitable producers was advocated through cow testing association work, cow culling clubs, and for the pure-bred breeders through the adoption of the new Herd Improvement Plan. The names of prospective members of each of these plans were secured at all meetings, and follow-up work is now being done in the organization of this membership.

Eight men, L. L. Oldham, secretary of Wisconsin Holstein Ass'n.; A. O. Collentine, dairy cattle specialist from the Wisconsin College of Agriculture; J. L. Tormey from the American Shorthorn Breeders' Ass'n.; J. P. Riordan, in charge of the Farm Bureau Department of the Wisconsin Manufacturers' Ass'n.; R. T. Harris, in charge of Official Testing Work in Wisconsin; W. W. Clark, county agent supervisor; and A. J. Cramer and H. C. Searles of the Wisconsin Dairymen's Ass'n. composed the teams that conducted these feeding and testing schools. Two men, one live stock man and one on feeds and feeding, had charge of each meeting. Each team held two meetings per day. The average attendance was fifteen.

Results are coming. The Green Lake Cow Testing Association has reorganized for the third successive season. The Markesan Association will undoubtedly be operating again by February 1. Twelve men have signed for cow culling clubs. Pure-bred breeders are requesting Herd Improvement work. Feed dealers report a brisk demand for the protein supplement feeds. Requests are coming in continually for the ration sheets, and more dairymen are thinking, feeding, and testing than have ever done so before. Results are proving the success of the small, informal, specific farm meeting.

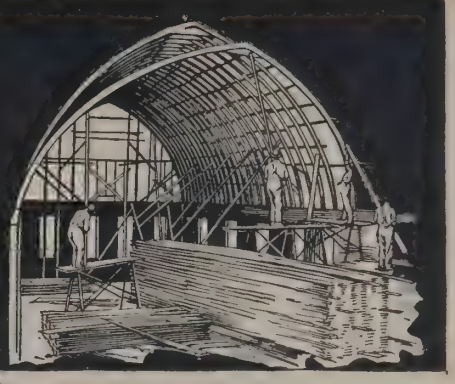
Wisconsin. JAMES LACEY.

A Good New York Guernsey Record

Elbert H. Gary of New York has recently completed a record on the Guernsey cow, Imp. Fleurie of the Glen, that makes her the world's champion in class CCC. Freshening as a junior four-year-old, she produced 11,377.1 pounds milk and 614.5 pounds fat in ten months, during which time she carried a calf for 225 days. Persistency has marked her production throughout the year, as she dropped only two pounds daily in milk yield during the first seven months.—The American Guernsey Cattle Club.

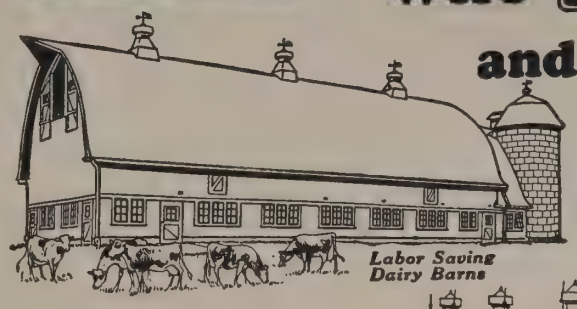


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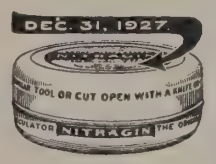
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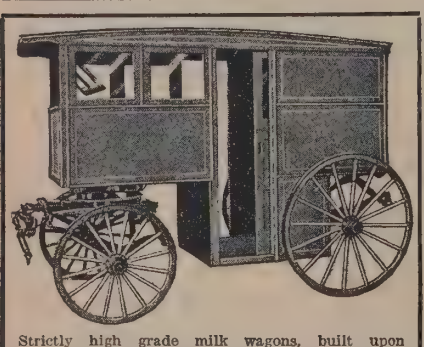
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Wayside Musings The Unseen Forces

JOSEPH S. MORRIS, WISCONSIN

THE unseen forces are the spiritual forces and it is these that bring us faith, hope, optimism. Some one has said that "youth is a blunder, manhood a struggle, and age a despair," but that was an exceedingly melancholy estimate.

There is a beautiful story in the Old Testament of the Bible. Elisha, the great prophet, is in a certain city and during the night his enemies, and the enemies of his people, surround the city. In the morning Elisha's attendant, a young man, goes out and views the army surrounding the city and it throws him into a state of despair. He cries out to Elisha, "Alas, my master! How shall we do?"

The young man had not had the experience of his master. He had not been through trial after trial; he had not been in difficult places again and again as had Elisha; he did not, seemingly, for a single moment believe that there were spiritual forces on his side. All he saw was an apparently overwhelming host over which he and his master had no chance of victory.

Elisha, the old prophet, prayed for this young man who could see only the difficulties and not the possibilities. What a prayer was that prayer of the prophet: "Lord, I pray thee, open his eyes, that he may see." And isn't that prayer just the prayer that needs to be offered for many of us?

How has it been in these recent years as problems have multiplied, and as, for many of us, it seemed as if we had reached the end of our resources. Panicky, we turned first in this and then in that direction looking for help. There were many loud voices shouting to us, telling us that they knew that we had been grievously misused, telling us to trust them and they would make everything right—by laws.

All the while there were careful men, men of experience, men of the type of mind that make painstaking investigation before advocating remedies, men who knew that to all of us there come times of difficulty, times of struggle, times of hard things. But we had no time for them. Their voices did not meet with a response from us. All they could do was to continue steadily on their course, knowing that ultimately sound sense and sound methods must prevail. These men have not and may never receive the commendation they deserve. They have, however, the satisfaction that comes to men who hold true to the saner and wiser ways.

One would imagine that people generally would be heart and soul with the men of balance and careful judgment. The fact is, that such men very often have to stand alone or at best with a respectable minority. In such a time of strain, and stress, and readjustment as that through which we have just passed, even those who know better often go with the crowd as a matter of self-preservation.

Happily, men and journals and leaders of sound judgment have, in most instances, weathered the storm and they stand today firmer, truer, wiser than ever. Their only support in days of trial was in the fact that, like Elisha of old, they could see the unseen forces of sound sense, sound economics, personal responsibility, and hard work, and while the younger men were either despairing or flying to false panaceas, they held true to their course, knowing that they and countless others before them had gone through such times of stress and strain, and that eventually sound methods and sound thinking must prevail.

Yes, "Open our eyes that we may see." And more than that pray for us that we may keep our eyes open take stock of our experiences, be more careful in our estimates and in our judgments.

There seems to be a false philosophy of life abroad that teaches that the thing to be greatly desired by all is that we may have more things to enjoy with ever less and less effort expended to obtain them. Those who are preaching this philosophy of life think that life will be happier, more complete, when we have removed every last necessity of struggling to obtain things.

Do we want every last bit of care and concern removed? Do we want every obstacle taken out of our path? Do we want the continuous sunshine of abundance with never a shadow to make us thoughtful? We certainly do not if we appreciate what it is that makes us strong men and women, men and women of character.

It seems to me that in all the discussions about the farmer's problem we have lost sight of one important consideration: Life in the open is the life that God ordained for man. Granted that there is physical health to begin with as an inheritance, hard work only serves to keep all the powers of mind and body and soul keen and healthy. Why envy the city man his white collar, his soft hands, his well dressed appearance?

Tremendous sums are being spent by people for this, that, and the other remedy or method by which they hope to obtain that which they realize they have lost—sound, vigorous health. There is only one way of having and keeping normally healthful life and that is by living much in the open.

If there is sound health, a good mind in a good body, and access to spiritual, inspirational, and pleasurable things, are we, after all, as poor as some would have us believe?

There isn't any reason in the world why the farm families of this nation shouldn't consider themselves as well off as any other class in the world. They will so consider themselves if they keep their minds on the real values. The world is not a place of chaos except as men's erratic thinking makes it so. There are certain eternal principles that prevail. There are unseen spiritual forces that are on the side of all wholesome-living, right-thinking, right-living people. Trouble comes when we begin to know more than the Almighty.



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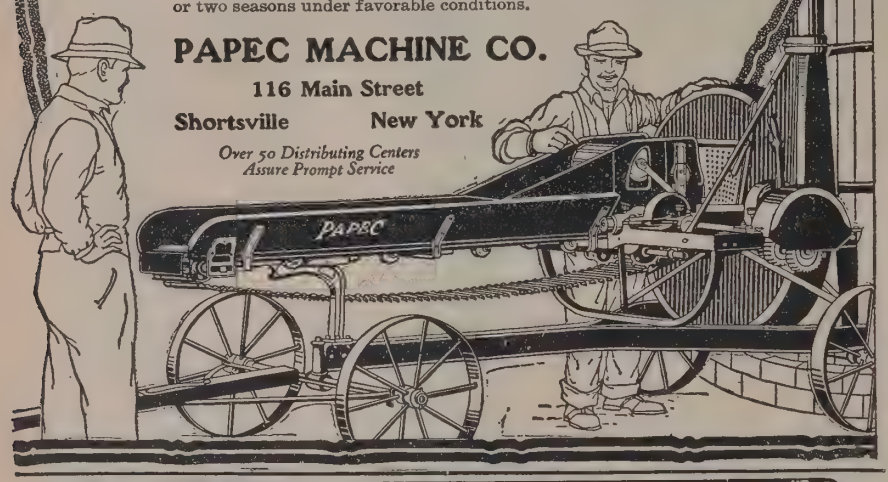
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When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

Getting the C. T. A. Idea Across

EARL N. SHULTZ, IOWA

DID you see our cow tester's exhibit at the fair?" Many farmers made this remark during the past fair season. Twenty-one exhibits were set up by Iowa cow testers in charge of cow testing associations. These exhibits were shown at the various local and county fairs throughout the state. Local material was featured in the exhibits.

A dirty, unsanitary calf pen, a replica of the type found on many Iowa farms, was exhibited at the Clayton County Fair. In this pen was a thin, undersized, warty calf and a runty pig—partners sharing a wooden feed trough. Adjoining this pen was a well built, painted, clean pen in which was a growthy Jersey calf. The feeding vessel was a clean ten-quart pail setting in a manger in front of an inexpensive and practical calf stanchion. Over this exhibit were the signs: "The calves today, the cows tomorrow," "Good feeding, breeding, and management make the difference."

Cutting the cost of the feed bill by use of alfalfa as a roughage was shown in the Winnebago County exhibit. A cloth chart gave the requirements of a 1200-pound dairy cow producing 30 pounds of 3.5% milk per day. On each side of this chart was exhibited the exact amount of each feed in a ration filling the requirements. The only difference in the ration was that in one timothy was used as a roughage and in the other alfalfa was used. From this it was found that in the ration where timothy was used it required 3 pounds more of grain per day than in the ration where alfalfa was used.

The production of "Jersey" and "Goldie" was compared in an exhibit in Sac County. These two cows were from the same herd and were of similar type. A pyramid of butter tubs behind each cow represented the yearly butterfat production of each. "Jersey" produced 456.6 pounds and for "Goldie" 248.5 pounds.

Guessing contests were popular at several fairs. Two cows of similar type but with widely varying production records were used. Visitors were asked to write on cards their "guesses" as to the butterfat production of the two cows. A milk can, a cash prize, or other suitable prize was given to the winner. "I thought I could tell a milk cow but I guess I am all wrong," one farmer was heard to remark. These contests stimulated a great deal of interest and were highly educational.

Testers were on hand to answer any questions in regard to cow testing association work. The equipment, forms, and herd books used were available for inspection.

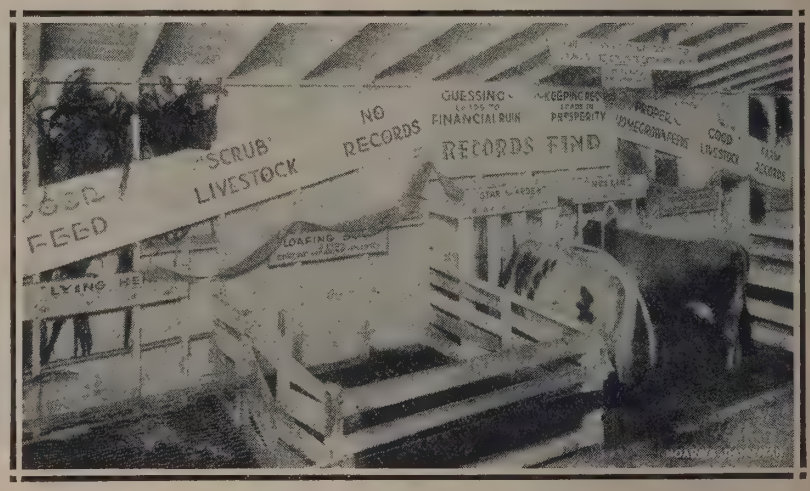
Two sets of panels were sent out by the Dairy Husbandry Extension Service of Iowa State College to supplement these exhibits. Each set consisted of six panels, four by four feet in size, on which was material especially related to cow testing association work. Each set was routed from fair to fair and kept in continuous use. Besides this educational value the panels added a touch of color and variety to the exhibit.

The Iowa cow testers and Dairy Husbandry Extension Service united in preparing a cow—sow—hen exhibit at the Dairy Cattle Congress held at Waterloo. This exhibit featured the value of a diversified live stock program and the value of farm records.

The value of cow testing association records was brought out by the comparison of two cows, "Nellie" and "Star Boarder." Nellie in the past three consecutive years produced a total of 26,622 pounds of milk and 1,508.2 pounds of butterfat, returning to her owner an income above feed cost of $468.84. "Star Boarder," on the other hand, represented the average Iowa cow with an annual production of 3,418 lbs. milk and 132.2 pounds of butterfat and an income above feed cost of $12.15.

That profitable pork production depends largely upon the number of pigs raised per litter was illustrated by two sows. One was raising a litter of nine, the other a litter of two. Figures showed that the average cost per pig in the first litter was about $2.22, while in the other litter the cost per pig was about $6.66.

Two pens of hens were shown comparing the production of 58 eggs by the average Iowa hen and the production of a record poultry flock. The latter flock in 10 months produced 16 eggs per hen, with an income above feed cost of $2.94 per hen.



IOWA COW TESTING ASSOCIATION EXHIBIT AT THE 1926 DAIRY CATTLE CONGRESS

Butter Consumption in Canada

The Canadian Department of Trade and Commerce reports that in 1925 the per capita consumption of butter of the 9,000,000 people in Canada was 27.36 lbs. This is based on a production of 169,000,000 lbs. of creamery butter and 100,000,000 lbs. of home-made butter, which was reduced to a total net consumption of 256,000,000 lbs. through the effect of international trade and storages.

Says Sam: Laughter, in one form or another, is the sauce that makes the food of life palatable.

Cows Vs. Cars

HOARD'S DAIRYMAN:—A registered Jersey heifer was won by William Shermully, a farmer's son, in a merchants' drawing contest at Marceline, Missouri. This is the first of a number of such prizes which will end with a grand prize of a Jersey bull to be presented to the farmers of the community at the final drawing staged by the Marceline merchants.



WM. SHERMULLY AND HIS HEIFER WON AT A MERCHANTS' DRAWING CONTEST

These merchants are to be congratulated upon their deviation from the established custom of giving automobiles in such contests. While the automobiles may bring some business to the filling stations or garages, the Jersey cow will bring business to every merchant, business man, railroad, and even the churches and schools of the town. This will encourage the development of the dairy business in the vicinity of Marceline with its exceptionally good pasture land and excellent shipping facilities as a division point on the Santa Fe Railroad.

Missouri. J. R. HALL.

Barley Versus Corn

HOARD'S DAIRYMAN:—I find that barley pays better than corn, even though I live in that great corn state of Iowa. However, to get these values I believe in sowing sweet clover with the barley. In this way I get a crop of barley, a legume pasture for hogs and cattle, and finally a cutting of clover hay. All this is secured from one planting with less labor and less expense.

Last summer barley was selling side by side in price with corn and there are prospects of a greater demand next year. Barley is an excellent feed for cattle but, on account of its higher protein content, it is better for growing young hogs than corn. When fed with skimmilk, it makes an ideal ration for producing a high priced bacon hog.

Barley is a common feed for dairy cows in Northern Europe. The Danes sow barley and oats together. After harvest they grind these grains and claim it makes the best feed for cows and other stock. I find in bulletins published by the U. S. Department of Agriculture that barley fed with legume hay gives accordingly as good returns as corn in fattening steers and lambs.

I should like to have others give their opinion and experience on this question.

Iowa. HAWKEYE.

New England Holstein Meeting

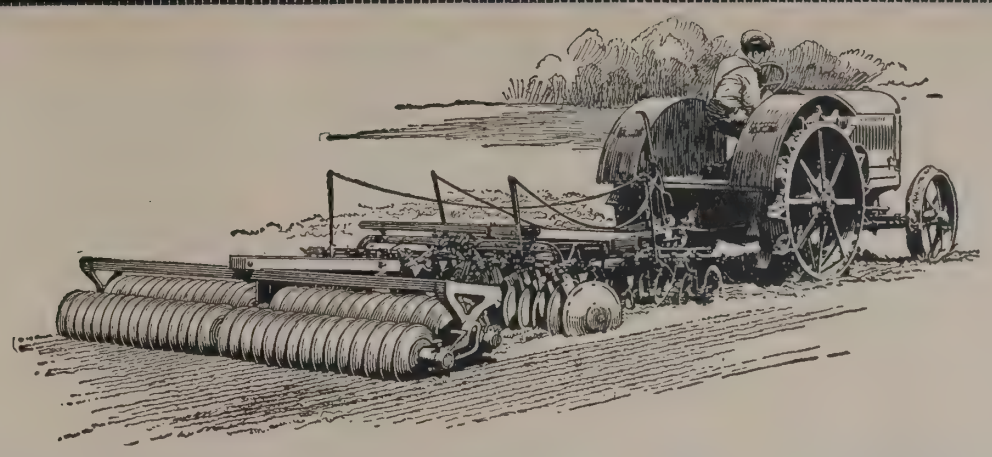
The annual meeting of the New England Holstein-Friesian Association, held at Springfield, Mass., Dec. 21, was one of the best meetings ever held by the association. A large crowd of real Holstein enthusiasts was in attendance.

Plans were made for the entertainment of the National Association delegates that will be at the National meeting to be held in Springfield next June, and the committee in charge of the national sale reported that their work is well under way.

Hereafter the annual meeting of the New England Association will be held during the first half of November instead of the latter part of December. Professor Franklin N. Strickland of Rhode Island was elected secretary to succeed M. C. Peabody, resigned; Professor T. E. Elder, Massachusetts, was re-elected president; and Angus P. Thorne, Connecticut, treasurer. New England breeders are interested in an increase in official testing and with that end in view adopted the following resolution: Resolved, that since there is a real need to increase the number of A. R. O. cows throughout New England and the United States, the chair shall appoint a committee of at least five to study whether or not cow testing association records could be accepted as official and report ways and means of bringing this about.

Professor J. H. Frandsen of the Massachusetts Agricultural College and Allen N. Crissey, eastern representative of the Holstein-Friesian Association of America, spoke at the afternoon session.

RUTH WATSON, Recording Sec.



The NEW HEAT-TREATED DISKS *on* McCormick-Deering Disk Harrows *hold their edge in any soil*

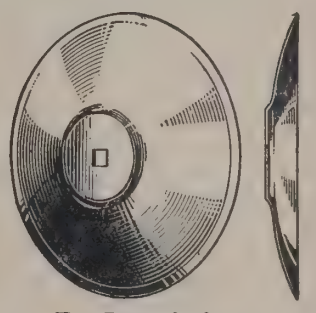
THE Harvester Company has always put especially durable saw steel into McCormick-Deering disks and every user has benefited accordingly. Now, through careful experimentation the builders have learned to increase the efficiency of the disks *by a heat-treating process which toughens and tempers the steel.*

The new McCormick-Deering disks—heat-treated, crimped-center—are better able to stand the strains encountered in the faster tillage operations made possible by tractor power. They show special ability to hold a cutting edge, even when cutting and cultivating the hardest, rockiest soil.

The *disks* in the harrow take hard punishment! Glance at disk shown at the right. Note the *crimped center*—that means McCormick-Deering. The heat-treated, crimped-center disk in your harrow will mean fewer sharpenings, longer life, better work with less power.

Improve your tillage, lengthen the life of your equipment, put your 1927 crops into better seed beds at the right time—by relying on the thoroughly up-to-date and complete line of McCormick-Deering Tillage Implements. The line includes horse and tractor disk harrows, peg and spring tooth harrows, field and orchard cultivators, rotary hoes and the Dunham Culti-Packer. All sold by McCormick-Deering dealers.

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***Be Sure it is a* Heat-Treated Crimped-Center Disk**

Look for the *Crimped-Center*—an *exclusive feature* on *McCormick-Deering Disks.* Over and above the toughening that is now given the disks by heat-treatment, the crimped center adds great durability. It adds 50 to 100 per cent to the strength at the center, and *you can get it only on McCormick-Deering Disk Harrows.*

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You can take one of these new McCormick-Deering heat-treated disks and hurl it edgewise against a hard concrete floor without hurting the edge. You can put it in a vise and spring it out of shape with a large wrench—it will spring back into normal shape at once. *The disk that stands such treatment will stand abuse in the field.*

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"The Board of Health Inspector said my Ottawa was the first milker that he had ever run across that could be kept clean. I cannot say too much for the Ottawa." D. C. Cook, Route 4, Canovia, New York.

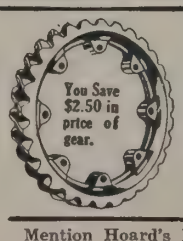
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Aunt Mollie Makes Cheese and Pin Money

GRACE LANGDON, WISCONSIN

"WHAT are you going to do with that funny thermometer and the little rake?" I asked Aunt Mollie wonderingly one afternoon as we were washing the dinner dishes.

"Oh, there's more to come," she said, as she lifted down from the cupboard several dozen little paraffined paper tubs and a package of gummed labels. "These are what I use in making my cottage cheese pin money.

"I just found out a new, quick way to make cottage cheese from the Agricultural College at Madison, so now I'm making it regularly every Friday and then have it ready to sell at Parker's store on Saturday. He sells a lot of it for me but I have to keep some over for your uncle and the boys because they like it so well, too.

"I'm paying for our new radio, you know, and this cottage cheese helps the hen money increase a lot faster. Your cousin, George, was at the Agricultural College last year and when he came home he said he could show me a faster and better way to make cottage cheese. He told me how and then went over to the creamery and bought me that thermometer and the other things."

In the morning Aunt Mollie had filled two large granite-wear kettles with fresh skimmilk—about four gallons in all. Then she had added nearly three quarts of what she called "starter," or recently soured milk from the pantry. Next she put in the floating thermometer, which George had brought from the creamery, heated the mixture to 100 degrees Fahrenheit, and kept it at about that temperature while getting sour.

When we had put away the dinner dishes, Aunt Mollie looked at the milk and saw that it was thick.

"I used to let the milk stand over night to thicken, and sometimes longer, before I made my cheese," she said, "but it didn't taste as good as it does when I make it all in one day, and it wouldn't stay fresh as long either."

Then she pushed the kettles of curdled milk forward on the stove and began to cut and stir the curd very gently with the little wooden rake. The temperature of the milk was about 100 degrees Fahrenheit now as she tested it with the thermometer again. Then after she had finished the cutting of the curd she put in her thermometer again and pushed the kettles over where the stove was hottest.

"I have to keep the heat just right now," she explained, "so that the curd won't heat any more than about one degree a minute." She kept on stirring the mixture gently and watching her thermometer closely. At the end of half an hour her thermometer read about 120 degrees. She kept it at this temperature until the curd pieces were firm enough to suit her.

She let the curd settle for a minute, after she took the kettles off the stove, and then tipped them over the sink to let as much whey drain off as she could. Then she poured in fresh cold water, stirred it in and drained it off. She did this several times and then took the temperature. It was 70 degrees or below when she finally dumped the cheese on a clean cloth to drain for about five minutes.

"I like to get it salted just right," she remarked, "because it spoils your cheese if you get too much or not enough. I've found that we like it best when I use around two and a half tablespoons of salt for twelve pounds of cheese."

When she had salted it to her satisfaction, Aunt Mollie packed her cheese firmly in the tub-shaped paraffin containers such as are used for cheese in many grocery stores.

"I bought 200 of these the last time I was in town," said Aunt Mollie, "and they cost me only three cents apiece. The gummed stickers I paste on were some we had left over from our honey jars."

The stickers were white with a prim little tree in the middle and quaint lettering, "The Pine Tree Farm," down the side.

Aunt Mollie then arranged her jars in neat rows in the storeroom ready to go to market early in the morning when Uncle George made his trip to the creamery.

A large bowl of cheese had been saved out for the family and Aunt Mollie promised to have some for supper.

"During the war we got to using a lot of cottage cheese," she explained, "and I used to see just how many ways I could fix it. We got some recipes from Washington in a little book and I liked some of those, too. I keep all my pet recipes in envelopes here in this drawer so if you want to look at some of them, you may."

I rummaged through my aunt's large envelope marked "cheese" and found all sorts of clippings and recipes written in her neat hand. Some of them were marked "good," so I knew she had tested them on her family, and others had changes made in quantities, indicating that she had adjusted them to suit the family tastes.

I copied a few that sounded especially good to me, in addition to the one for the delicious hashed brown potatoes that we had for supper that night. This is the way she prepared them:

Chop cold boiled potatoes fine and season well with salt, pepper, and onion juice. Put them on a hot frying pan greased with fat and cook the potatoes slowly without stirring until they are browned next the pan.

(Continued on next page)



AUNT MOLLIE TESTS THE CURD

STILL SELLING! ! !

The articles to embroider that we advertised for sale on the color page in our December 10th issue are still selling. These articles are very popular because every home really needs them. In buying them one saves both time and money as the material comes stamped and ready to embroider.

Some of the articles that will undoubtedly interest you are: Laundry bags (all ready to use and embroider) 59 cents each; tablespoon and teaspoon cases (ready for use and can be embroidered any time) 50 cents each; towels that add beauty to your kitchen and are also useful, 23 cents each.

We also have Misses aprons 50 cents each; aprons, 12-year-old size, all cut and made up, 75 cents each; luncheon sets 75 cents each; runners, 59 cents each.

We will fill your order promptly as we have these articles on hand and ready to mail.—Hoard's Dairyman Fashion Department, Fort Atkinson, Wisconsin.

Miscellaneous Fashions



No. 2949—Extremely Becoming Lines. The pattern cuts in sizes 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3½ yards of 40-inch material with ⅜ yard of 32-inch contrasting.

No. 2961—Tailored Lines. The pattern cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅞ yards of 40-inch material.

No. 2805—Smart for Many Occasions. The pattern cuts in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 2¾ yards of 40-inch material with ⅝ yard of 40-inch contrasting.

No. 2337—Child's Rompers. The pattern cuts in sizes ½, 1, 2, 3, 4, 5, and 6 years. Size 4 requires 2⅛ yards of 36-inch material with ⅜ yard of 36-inch contrasting.

No. 2636—Cunning Junior Frock. The pattern cuts in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2⅛ yards of 40-inch material. Emb. pattern No. 718 (blue or yellow) is 15c extra.

No. 2010—Boys' Blouse. The pattern cuts in sizes 4, 6, 8, 10, and 12 years. Size 8 requires 1¾ yards of 36-inch material.

No. 2761—One-Piece Apron. The pattern cuts in one size only and requires 2⅜ yards of 27-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Hoard's Dairyman patterns cost only 10 cents each. If you are buying any patterns it will save you money to buy from us. Fashion Magazine also only 10 cents.

Then soften cottage cheese with cream, mix it with a little chopped ham, and spread it over the potatoes. When the cheese is warm, fold over the potatoes like an omelet and serve on a hot platter.

A salad that Aunt Mollie made frequently in the winter was a mixture of cottage cheese and pickled beets. She cut the beets in cubes and used one cup of beets to two cups of cottage cheese. Mixed with salad dressing and served on a lettuce leaf, the family were always glad to see it coming.

One time when my aunt entertained the sewing circle she served cottage cheese club sandwiches and coffee. To make these she used three slices of toasted bread for each. The bottom part of the sandwich was filled with well seasoned cottage cheese and the top part was filled with crisp bacon, lettuce, and mayonnaise.

One Sunday morning for breakfast we had fried bread with cottage cheese. This was made by mixing cottage cheese with marmalade or jelly and then spreading it thickly on slices of stale bread. This was dipped in a mixture of egg and milk and fried quickly in butter.

Then, of course, when my aunt packed lunch boxes for the children she often gave them sandwiches of cottage cheese mixed with chopped nuts, celery, and raisins. Graham bread is especially good for these.

She made several delicious desserts, too, from cottage cheese. In addition to cheese cake she made a pudding that we always liked.

Cut 2 slices of stale bread in small pieces and put in a greased baking dish. Beat the yolks and whites of 2 eggs separately. Mix with the yolks 1 cup milk, 1 cup cottage cheese, ¼ teaspoon soda, ½ cup sugar, and ½ teaspoon salt. Add ½ teaspoon allspice and ¼ teaspoon mace and ¾ cup chopped raisins. Last of all, fold in the stiffly beaten whites of the eggs. Pour this mixture over the bread and bake in a moderate oven.



Style is not a matter of money. The woman who spends the most money on dress is not necessarily the best dressed. Very often her neighbor, with much less money to spend, will be more smartly clothed. It's largely a matter of taste.

In our Spring Fashion Magazine, we present a wide range of styles that are new, smart, and in good taste. For each one a pattern is offered and the designing is so clever that the styles are easily made.

In addition to afternoon and evening frocks, there are styles for wear around the house, also lingerie, children's clothes, embroidery, and some picture dressmaking lessons that are of interest to anyone who sews and of real help to the beginner.

Send 10 cents today for your copy of this book. Its style value is much greater than the price you pay and will be saved many times over on patterns. Address Fashion Dept., Hoard's Dairyman, Fort Atkinson, Wis.

Our Limited Sphere

"Oh, Helen, I wish I could do as much good as you do," I heard a farm woman say to a friend who lived in town. The friend had a car and was very generous in sharing it with others. One especially kind treat she had given to some one led to the remark which I heard. The farm woman could not drive a car and had but little time to give, although she did not realize that she did many other helpful things as worthy of praise as did her friend.

A short time ago I helped plan the report of our club on "Community Work." In compiling this report I thought, is the farm woman's sphere of usefulness limited, is she hindered in her desire to be of service to her fellowmen by being tied by the multitude of duties and cares that are her dowery?

Years ago I was admiring a beautiful piece of handwork at a county fair; it was a crocheted portiere. I exclaimed, "How exquisite, and think of the time and patience required in the making!" Some one near me said, "Yes, but I don't suppose whoever made that had anything else to do." The attendant in the booth said quickly, "You are entirely mistaken, the lady who made that is a very busy one," and she added as an afterthought, "You will find that it is the busy folks that usually do things." I have never forgotten that statement and twice within the past few weeks I have heard it again.

The Community Work report, when finished, read something like this: 14 garments made for the crippled children's hospital; 1 comforter made and also a case of canned fruits and vegetables; 7 days' labor given to Better Homes work; $6 worth of cakes and the time of two women donated for a district committee sale; $20 worth of home-made ice cream and cakes donated to church sales; several chickens given for charity; 35 calls on the sick, food and supplies being



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Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless, and meets all State and National food laws. Used for years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores. **Write for FREE SAMPLE BOTTLE.** Wells & Richardson Co., Inc., Burlington, Vt.

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The Spring and Summer
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Order yours now. It is big, beautiful and well illustrated. Many helpful suggestions.

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Hoard's Dairyman Fashion Dept.

NOTICE—Our patterns also sell for ten cents each. They are accurate and satisfactory.

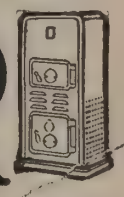
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AMERICAN RADIATOR COMPANY 816 S. Michigan Chicago, Illinois

Ideal Vecto HEATER



taken as needed. These were some of the things done by the seven members as a club.

The list of individual members could have been as long or longer. For instance, one day one woman called her neighbor and said, "Say, do you know that Baldwins are having a sale on small sized shoes. One table is priced at ten cents, another at twenty-five. I thought you might be able to use them. She could and did buy two good pairs of shoes for 35 cents that would have ordinarily cost her $5—a good turn, don't you think?

Often we are told, "Come, get some tomatoes, or apples, or bulbs, or slips, or patterns, or books" from various of our farm neighbors. Isn't all that helping our fellowmen?

One shut-in farm woman does more good from her home than any town woman whom I know. One year a new neighbor of hers, whom she had never seen, was surprised on Thanksgiving morning with a great big basket holding a complete dinner and with a friendly note tucked in. The dinner was appreciated by the busy mother but the note and the friendliness of the act warmed her heart and has never been forgotten. This same lady has a wonderful old fashioned flower garden, her delight and the delight of the many people who receive her bouquets, seeds, bulbs, and slips, for she seems to have it and tend it only to share it with others. She is only doing her bit and though frail as she is it is a mighty big bit.

In thinking on this subject two other farm women come to my mind, both childless, each with a car of her own, but they never have time to take part in any community work at all. So it seems to me it all comes down to this, the limit of our sphere of usefulness lies in our own hearts. If we have the love in our hearts we will find ways of showing it. We will give and share that which we have cheerfully and willingly. You know it is far easier to say we would love to give a thousand dollars to some one than to keep their babies for a day or two or to go without that new hat to send them a bag of flour. The opportunity is not given to many of us to make great gifts, but none of us are deprived of the privilege of writing a cheery letter or passing on our magazines, loaning our books, or encouraging our neighbor by saying, "I admire your grit; stick to your job you will win out."

No, we are not limited because we are farm women, but because we fail to realize the importance of the little deeds and let opportunity slip away from us while waiting for the big chance that rarely ever comes.—GRACE GORDON.



2924—Exceedingly Smart. Cuts in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 4⅜ yards 40-inch material.

2937—Slenderizing Lines. Cuts in sizes 16 and 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 2¾ yards of 40-inch material with ⅜ yard of 27-inch material contrasting.

2932—Youthful Apron Design. Cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅝ yards of 40-inch material with 7 yards of binding.

2927—Tailored Simplicity. Cuts in sizes 16 and 18 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅛ yards of 40-inch material with ⅜ yard of 27-inch material contrasting.

2921—Sports Model. Cuts in sizes 16 and 18 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3⅜ yards of 40-inch material.

2611—Tailored Styling. Cuts in sizes 36, 38, 40, 24, 44, and 46 inches bust measure. Size 36 requires 3⅝ yards of 40-inch material with ¼ yard of 22-inch contrasting material.

2848—Slender Lines. Cuts in sizes 18 years 36, 38, 40, 42, 44, and 46 inches. Size 36 requires 3⅝ yards of 40-inch material.

2315—Costume Slip. Cuts in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 2⅛ yards of 40-inch material.

2929—Dress of Plaid Woolen. Cuts in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1½ yards of 40-inch material with ⅜ yards of 27- and 1½ yards of binding.

2855—School Dress. Cuts in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1¾ yards of 40-inch material with ⅛ yard 40-inch contrasting yards of binding.

2798—Child's Frock. Cuts in sizes 2, 4, 6, 8, and 10 years. Size 8 requires 3½ yards of 36-inch material.

All patterns 10 cents each in stamps or coin. Send to Pattern Department, Hoard's Dairyman, Ft. Atkinson, Wis.

Mending Wooden Tub—Drop Cookies

To mend a wooden tub so that i will not leak around the seam, I ap plied a coat of parawax, then a coa of melted soap, and allowed it to dry The tub has not leaked since. I wa anxious to mend it as I used a littl Busy Bee washer in it and without th tub I could not use the washer.

Why roll out cookies when th dropped ones are just as good, if no better. It takes less flour and les labor. Put flour enough into any goo cookie receipt to have them form nic shaped cookies when dropped fro spoon.

When making oatmeal cookies fro the various receipts that are to b had, grind oatmeal and raisin through food grinder and note th difference.—(MRS.) EDNA BALFOUR.

Making the School Ground Attractive

I recently heard an address on th subject of making the school groun attractive and I thought it very fittin for rural communities.

A child surrounded by pleasan things is happy. How can unpleasan things be remedied? Get trees whic furnish windbreaks and shade. Clea up the yard and cut the weeds. Ge shrubs from your native woods. Jus a word of caution here. Do not g into the interior of the woods afte them as they will be too delicate.

Be sure to plant fruit and nut tree with your shade trees as the childre will enjoy the fruit and nut meat later. Hollyhocks, golden glow, an iris are very hardy after once started also wild roses. Twin sisters, othe wise known as honeysuckles, may b gotten along the roadside. A thor apple and wild crab form a beautifu snow of blossoms in the spring. Po lars will be very ornamental an sumac and elder bush very appropri ate for late summer and early fall.

The pleasing part of this is, that n money is required to put it across Nothing but time and that will be pleasure.—MAYBELLE FRUIT.

Wants Hand Lotion

I would be very glad if some or who knows of a lotion to soften roug hands would have it published.—(MRS.) J. T. CUMMINGS.

Husband: Have you much shoppin to do to-day?

Wife: I don't know. How muc money have you got?—Good Hard ware.



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answers the question

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and Plants and Pkt. Giant Pansy Sent **FREE.** Best New Seeds sure to grow, at low prices. Gardeners ask for Wholesale List.

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MILK STOOL PHILOSOPHY

J. J. SPRENGER, MINNESOTA

IT is not at all likely that a common farmer, spending a large part of his time working with cows and doing some good hard thinking on his milk stool, will ever make a great speech, but it is a common occurrence for him to have a feeling akin to eloquence come over him when he is thus thinking and in spite of his inability to express himself, his soul is quickened and his outlook on life is improved. It is at such times that we like to meditate upon some striking expression.

It is one of these expressions that has been uppermost in my mind during the last few milking periods: "Business is business." The reason this theme suggested itself to me is because a farmer friend of mine took issue with me when I told him that I believe that our real satisfaction from farming should come from the knowledge that we have honestly done our bit to increase the world's goods that minister to life and happiness and that the money we receive for our work should be secondary. To this idea he replied very emphatically that business is business on the farm as well as in town and if by growing less we can make them pay us more for our goods that that would be good business. He went on to say that if he could only convince the farmers to grow less and they would really do that, he then could grow a bumper crop and make some real money. And then he looked me square in the eye and said, "There are some things which are idealistic and some things that are business, but it's business that pays!"

Well, that was too deep for me. I could not help but think of another friend with whom I had been talking. He is a doctor and he had been telling me of the progress in his profession, "Why," he said, "when I began to practice thirty-five years ago, typhoid fever, diphtheria, scarlet fever, and other contagious diseases caused death after death but now they are made comparatively harmless." And as he spoke his kindly eyes shone with joy at the thought!

But I was thinking of my farmer friend so I asked him if he did not think it was poor business to work himself out of a job in that way, helping people to remain well. I said, "If everybody else thinks it good business to make his job last, wouldn't it be better for you to let a few cases of contagion spread a little so as to make your job last, too; because, you see, business is business?"

My doctor friend would have no more of this. He couldn't stand this kind of logic any longer and ended the discussion with this remark: "Business is not business in the sense you are now using the term, but real business is service."

That was the best pill I have ever taken and when it got to working I came to realize fully that one of the greatest changes during my lifetime affecting our relations with each other is the change we see in business as we have come up from the time when we believed in the principle of "let the purchaser beware" to the point where we believe that business is service. This is one of the changes for better that did not originate in the country but rather in the professions, followed by organized business until it has permeated our entire national life, realizing we are not here because this world owes us a living but because we owe this world a life.

This is a wonderful world to live in;
To lend and to spend and to give in;
But to borrow and beg and to get a man's own
Makes it the very worst world that ever was known.

Cost of Distributing Milk

During the year 1924 the New York College of Agriculture made a survey of the costs of delivering milk in Binghamton by 32 milk dealers in that city. Seventeen of these dealers delivered raw milk and 15 delivered pasteurized milk. The differences in costs per quart milk are shown in the following table:

Item	Ave. cost per quart, cents Raw	Pasteurized
Number of dealers	17	15
Plant labor	1.13	1.14
Delivery labor	1.64	1.34
Office & management		.15
Repairs on delivery equipment	.28	.12
Depreciation on delivery equipment	.50	.15
Repairs on plant equipment	.01	.08
Depreciation on plant equipment	.06	.20
Bottles, cases, etc.	.28	.45
Coal	.07	.14
Ice	.10	.12
Gas, oil, and tires	.52	.28
Feed	.01	.09
Miscellaneous supplies	.04	.11
Taxes on land & buildings	.03	.05
Advertising	.01	.09
Loss from bad debts	.13	.22
Truck insurance	.06	.03
Bottle exchange	.02	.05
Rent of land and buildings	.03	.08
Depreciation on land and buildings	.04	.07
Interest on capital	.22	.26
Miscellaneous expense	.06	.33
Total	5.24	5.55

The average cost per quart indicates that there is little difference between dealers selling raw milk and those selling pasteurized milk because the latter handle a much larger volume of milk. It is noticeable that the dealers of pasteurized milk have a smaller cost in the item of delivery, but this is offset by the greater cost of office and management, repairs, etc.

A study was also made as to the relative costs when divided upon the basis of the annual amount of business done by each dealer. For 11 dealers that handle less than 100,000 quarts yearly, the average cost per quart was 7.03 cents. For 16 dealers handling 100,000 to 600,000 quarts, the average cost was 4.40 cents. For the five dealers handling over 600,000 quarts, the average cost was 5.08 cents per quart.

By reference to the table, it will be noted that these are costs of delivery and handling, and do not include the cost of the milk itself.

C. L. A. Whitney of New York is the breeder and owner of Wyebrook Supreme Sunshine, that becomes the fourth highest producing Guernsey in class G (junior two-year-old), with a record of 15,151.7 pounds milk containing 797.8 pounds fat. She is the fifth daughter of her sire, Weyebrook Supreme 158407, to qualify for the Advanced Register.—The American Guernsey Cattle Club.

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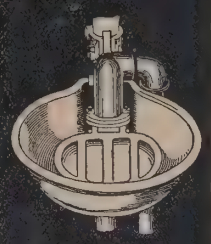
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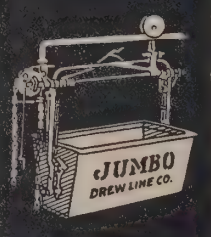
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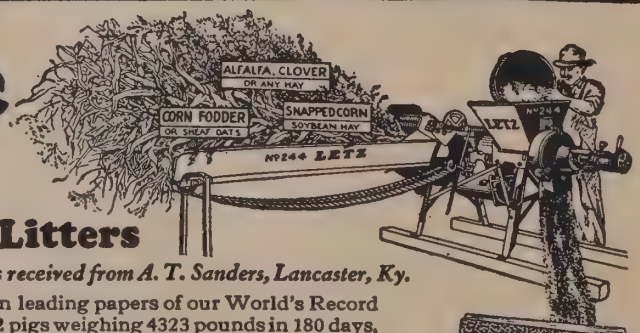
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Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Minn.	Watonwan Co.*	Dec.	391	577	22.8	H.	12	1001	36.1	Shellum Bros.
"	Howard Lake*	"	397	697	29.4	G. G.	16	1025	54.1	A. Mellin
"	Montrose*	"	383	679	27.2	H.	14	1463	51.2	A. P. Anderson
"	Moose Lake*	"	343	494	21.8	G. H.	5	1083	47.9	A. Anderson
"	Blooming Prairie*	"	376	603	24.9	H.	18	1212	39.2	C. Ditlevsen
"	Nelson*	"	362	586	24.1	H.	9	1017	34.8	H. A. Chapman & Son
"	Pope Co.	"	243	457	19.1	G. G.	18	667	33.1	C. J. Le Count
"	Morrison Co.*	"	350	596	24.0	G. G.	19	807	36.1	B. B. Bates
"	Kandiyohi*	"	326	659	24.5	R. H.	24	1068	36.6	D. Swenson
Colo.	Mesa Co.	"	317	597	26.2	R. H.	20	1124	42.0	F. C. Clymer
S. D.	Day Co.*	"	368	499	20.0	H.	18	941	35.0	M. W. Siglin
Mont.	Lake Co.*	"	351	531	22.6	G. J.	9	809	48.9	C. H. Gordon
Utah	Rich.-Lewiston	"	502	785	26.7	G. H.	6	1103	46.0	D. Hendricks
"	Wells.-Coll. Ward*	"	587	595	22.6	R. H.	7	1268	37.2	A. Nelson
Kans.	Reno	"	331	520	20.7	R. H.	9	987	34.4	A. M. Davis
"	Dickinson*	"	313	642	25.4	R. H.	11	1289	45.2	J. A. Engle
"	Shawnee Co.	"	460	717	26.7	H.	27	957	36.7	W. R. Quail
Nebr.	Tri Co.*	"	296	664	27.3	R. H.	5	1278	40.6	R. Witt
Ohio	Columbiana	"	393	571	22.0	J.	13	644	34.8	Read & Miesner
"	Wayne Co.*	"	306	780	32.5	R. H.	9	1410	49.5	L. W. Hostetler
"	N. E. Ohio	"	315			R. H.	9	1139	37.9	J. A. Paden
"	Licking Co.	"	309	516	24.6	G. J.	11	814	45.2	H. Clark
Ida.	Gooding-Jerome	"	503	562	22.4	G. H.	15	1071	41.8	G. F. Faulkner
"	Weiser-Payette Gem Co.*	"	1085	514	23.8	J.	15	721	39.2	S. W. High
Penn.	Wayne Co.	"	466	652	30.0	G. J.	15	836	42.7	G. W. Hauenstein
Wash.	Lewis Co.*	"	351	833	35.1	R. H.	14	1358	49.0	H. Bouchard
Va.	Loudoun 2	"	652	488	22.6	H.-G.	26	808	36.6	W. S. Frances
Colo.	Johnstown	"	315	676	27.2	H.	17	1098	43.7	A. Cross
N. D.	Burleigh Co.*	"	387	614	23.0	H.	6	1034	39.5	M. Colton
Iowa	Sac Co.	"	358	604	24.4	R. H.	10	1171	40.4	J. H. Samuelson
Ind.	Wayne*	"	419	528	24.7	R. J.	22	614	36.0	L. White
"	Elkhart Co.	"	316	462	20.7	H.	15	1043	37.6	J. Loucks & Son
"	Spencer—Perry Co.*	"		710	28.2	H.	5	1259	41.9	G. Hofele
Ida.	Pioneer	"	470	546	24.8	J.	7	880	47.1	C. Flowerdew
Penn.	Indiana Co.	"	329	536	23.9	H.-G.	15	635	30.0	J. R. Campbell
Wis.	West Bend	"	387	586	22.9	G. H.	17	1146	39.3	A. Heindl
"	Wau.-Montana*	"	467	468	19.1	M.	7	845	35.5	L. F. Kurth
"	Richland	"	507		20.8	G.		886	39.6	W. C. Taylor
"	Poynette-Col. City*	"	443	768	27.4	H.	15	1068	38.1	E. Hall
"	Denmark*	"	462	420	15.8	R. H.	19	675	25.4	L. J. Larson
"	Ced.-Grafton	"	304	588	22.0	H.	11	1186	40.8	E. Weymann
"	Westby*	"	322	500	24.6	J.-G.	5	911	47.8	J. B. Wemmer
"	Cleg.-Eleva	"	398	356	15.2	G. G.	9	625	30.2	O. Hatch
"	Glenwood	"				H.	15	892	32.5	W. J. Dougherty
"	Merton-Lisbon	"	478	778	26.7	H.	29	1135	38.8	N. Christopherson
"	Prairie du Sac	"	610			R. H.	28	1220	45.5	J. H. Accola
"	Endeavor	"	422	588	22.0	G. H.	8	1155	40.5	A. Parrott
"	Ark. -Necedah*	"	304	451	19.0	H.-D.	11	798	31.8	G. Martinson
Mich.	Branch Co.	"	261	435	19.2				44.4	W. Williams
"	Macomb 1*	"	337	679	25.1	R. H.	6	1128	42.1	H. J. Sewell
"	Chippewa*	"	265	523	20.2	H.	5	904	34.6	Curtis & Caldwell
"	Hillsdale 2*	"	128	586	27.8	R. J.	6	654	39.1	G. S. Bailey & Sons
"	Gogebic-Iron	"	312	568	22.8	H.	5	1248	44.6	V. Ganin
"	Elsie-Ovid*	"	235	631	22.3	H.	8	1522	47.9	J. Coleman
"	Missaukee-Fal.*	"	210	508	19.4	G. G.	5	939	41.9	P. Dick
"	Genesee 2*	Nov.	175	482	19.5	G. G.	8	758	35.1	J. Stehl
"	Genesee 2*	Dec.	183	579	22.6	G. G.	8	757	35.2	J. Stehl
"	Macomb 3	"	287	521	20.8	H.-J.	12	1090	39.9	A. Fistler
"	No. Wexford	"	185	361	17.5	M.	12	949	35.9	F. Bridahl
"	Lenawee 2*	"	276	598	21.6	H.	4	1258	49.6	W. Kindschy
"	Cass*	"	184	504	23.8	H.	8	1173	44.6	T. B. Moore
"	Oceana East*	"	262	450	22.4	J.	6	901	42.4	F. Bunnell
"	Alto-Kent	"	191	631	29.2	R. J.	7	939	49.9	D. J. Dinsen
"	Os.-Reed City*	"	227	467	21.0	M.	8	802	36.0	F. G. Lendell
"	Cheboygan*	"	228	360	15.1	H.	10	814	29.8	J. Weiss
"	Missaukee Co.*	"	268	458	20.4	G. G.	8	812	43.6	D. Duddles
"	No. Berrien*	"	203	588	26.9	R. G.	4	827	43.7	Knapp & Woodvorth
"	Ott.-Allendale*	"	235	616	23.0	R. H.	13	1441	47.9	R. B. Knaaiknizen

*Retest rules followed.

Does It Pay to Feed

HOARD'S DAIRYMAN:—"It doesn't pay to feed cows when feed is scarce and prices are high." "It doesn't pay to keep cows when alfalfa hay is $24 a ton—no cow in the world will pay for it." These statements have all come to my ears during the past few days and prompted me to look into the records of some of our good feeders. As a result, the question in my mind is, "Does it pay to keep cows and feed only enough for existence? Why doesn't it pay to feed more than a maintenance ration? Give the cows a chance and then if they fail to pay their way buy them a ticket to the nearest market. With butterfat over 60c a pound, a cow certainly should pay her board.

As an illustration of what feeding does I would call attention to a record in the Long Prairie Association of Minnesota. This cow had been tested three years. Her best record made in 212 days was 196 lbs. fat with a profit above feed cost of $55.62 at a time when feed prices were low. She has been fed a balanced ration since freshening last time and in 72 days she has produced 155 lbs. fat and shows a profit above feed cost of $63.50, despite high priced feed and alfalfa hay at $24 a ton.

A balanced ration transferred this cow to a producer and she has made a greater profit in 72 days than she did in 212 days when underfed. She will undoubtedly be one of the high cows in the association for 1927. Her response to a balanced ration is an answer to skeptics of scientific feeding and answers the question, "Does it pay to feed when feed is high."

B. J. ROSENQUIST, Tester.

A Couple of Reminders

HOARD'S DAIRYMAN:—To have hot water night and morning is easy if you have a gas engine that gets warm while operating. A member of the

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	Reporting	No. of cows*	Ave. fat per cow* All cows	High ass'n.	High herd	High cow fat	No. of separators Tested	Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
Vermont	Nov.	19	14	6,699	19.2	27.6	38.6	81.4			
Michigan	"	109	77	19,729	20.3	33.7	†55.7	98.3			217
Idaho	"	9	8	3,636	25.2	27.3	74.8		164	14	15
Indiana	"	31	24	8,071	18.6	23.3	42.5	81.9			
Iowa	Dec.	73	71	24,827		27.6	56.7				424
South Dakota	"	10	10	3,035	19.4	23.9	38.3	†94.6		13	52
Utah	"	5	5	2,601	25.7	27.7	48.7	89.8			12
Wisconsin	"	161	142	54,819	20.6	30.8	†64.0	†97.4	1189	149	898

†Retest rules followed. *Includes dry cows.

Poynette Association of Wisconsin uses water for cooling his engine and when needed it is always boiling hot. This is fine for rinsing the milking machine, pails, etc. A cold water faucet is set right over the engine for refilling tank.

When one man is cranking the separator it is inconvenient to stop and empty more milk into supply tank. A member has a simple way of doing this without having to drop the separator handle. He hangs a chain or hook about 6 inches above tank. On this he hangs his shotgun can or pail containing new milk. It is a simple matter to tilt this can into the tank with the left hand, and replace another full one with the same hand. Cans can be lined up within easy reach. W. E. CONSTABLE, Tester.



Indiana cow testers from all over the state in annual convention at Purdue University during the Agricultural conference to discuss accomplishments of the past year and work out plans for future developments.

High Protein Ration

HOARD'S DAIRYMAN:—One member of the Denmark Association of Wisconsin was feeding a grain ration containing 12.5 per cent digestible protein with corn silage and good alfalfa and clover hay. He changed the grain ration so that it contained 14.3 per cent protein. One cow had been milking 53 to 54 lbs. of milk daily. After raising the protein content of the grain ration this cow gained on the average six pounds of milk daily. The remaining fresh cows, producing between 38 and 45 lbs. of milk daily, gained from 2 to 4 lbs.

This year cottonseed meal is very low in price compared with other protein rich feeds, but was never before available to members for balancing their rations. Being interested in securing the most economical production for each member, I urged the local feed dealer to get a carload of this feed. This was done and as a result each member will save from ten to thirty-five dollars on purchased feeds. M. H. NELSON, Tester.

Low Protein Ration

HOARD'S DAIRYMAN:—For maintaining high production it is not necessary to feed excessive amounts of high protein feed. The man who had high cow for the last two months in the Washington Association of Michigan fed a ration that contains only 10.8 per cent digestible protein. This cow gave 70 lbs. fat last month and 72 lbs. this month. The owner is quite punctual in his milking and feeding, and this counts more than "high pressure" feeding.

Another man had an experience that proves that it pays to produce a better quality of milk than just good enough to get by. He sells grade A milk to a hospital and recently received a letter from the doctor in charge stating that in 22 years he had never received better milk and asking for more milk.

C. M. WAGNER, Tester.

Tank Heaters Installed

HOARD'S DAIRYMAN:—Five members of the Lawrence County Association of Missouri installed tank heaters during the month of December. The chief advantage of warming the water in an outside tank is to insure that the cow will drink a sufficient amount. A heavy producing cow requires from 70 to 150 lbs. of water daily and will not consume a sufficient amount if near freezing point.

A cow producing 40 lbs. of milk daily and watered twice a day means she would have to take about 60 lbs. of ice water into her stomach each time. This amount of ice water is bound to be detrimental to digestion and the secretion of milk.

These members report they are getting results from using tank heaters.

GUY E. KENNEDY, Tester.

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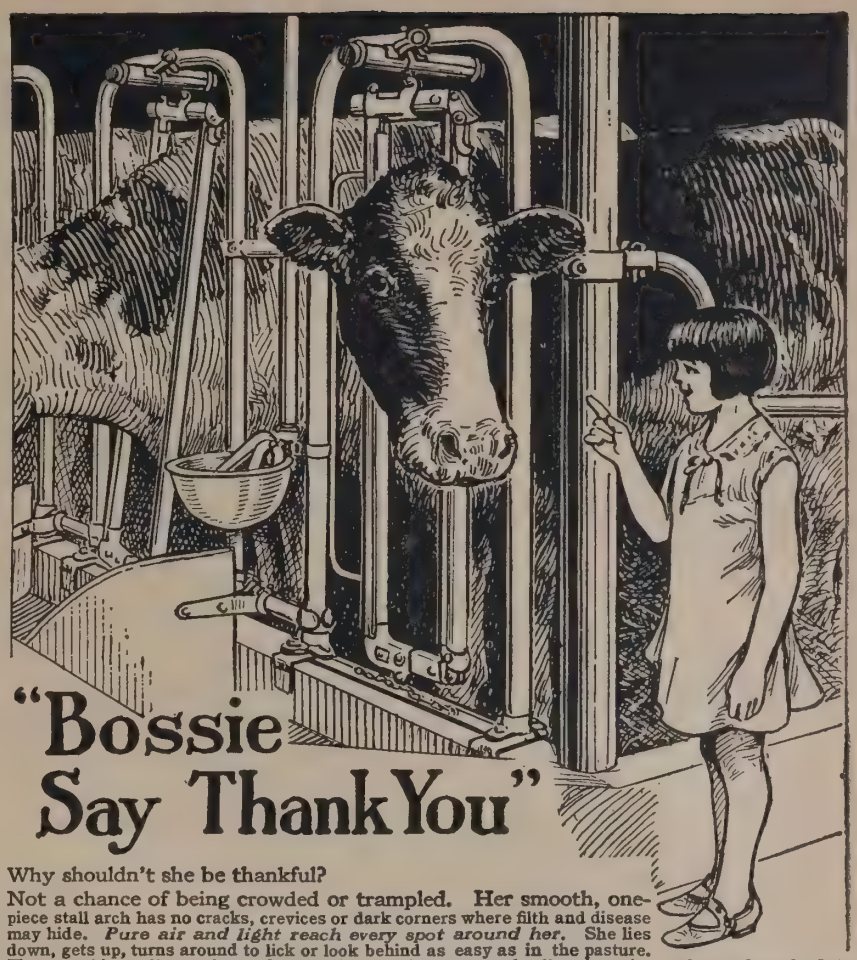
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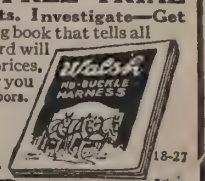
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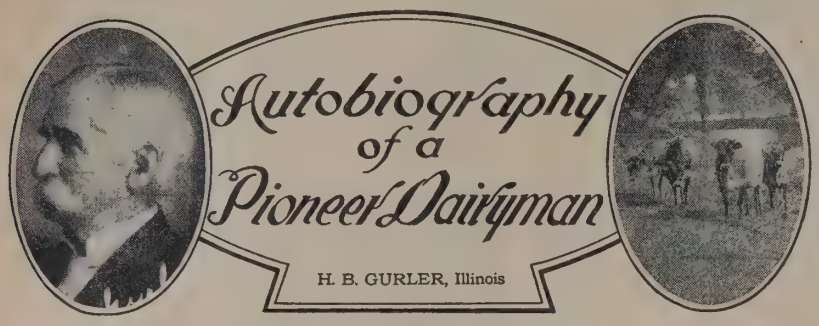
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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS



A Big Black Bear

(Continued)

I once accepted an invitation to visit a relative in Northern Michigan. After visiting a time, he sent me to a lumber company farm seventy-five miles back in the woods from Green Bay, where they pastured their horses and oxen in summer that they used in their logging work, and also grew vegetables to supply their winter camps. There were plenty of deer and some black bears as well and occasionally a Canada lynx. I was educated to fear the wolves and bears, supposing that in case I met a bear it must be a fight whether I wanted to or not.

In my deer hunting I got track of a bear that was coming to the lumber camp. I found that a black bear was feeding at the slop hole where all the refuse from the kitchen had been thrown the previous winter. The camp was deserted when the spring freshet came, and everybody went down the river with the log drive.

The lumbermen were acquainted with the bears and their habits and removed the windows, apparently to give the bears free access to the camp. In this case, the bear was having a jolly good time. It was very interesting for me to study what that bear was doing. I found a trail of grease from the slop hole into the kitchen, where he wiped his dirty feet on everything.

This camp was located on the opposite side of the river from the supply road of the company. I had this river to ford every time I visited the cabin, but could wade the river at that point, so it was simply the time it required to disrobe, wade, and dress. I killed a deer near this camp and used the front quarters as bait for the bear, taking the hind quarters back to the farm to apply on my board bill. The seven-mile carry caused me to relish the venison.

The front quarters of the deer I took to the cabin and put one piece in the slop hole with a butter tub over it and the end of a small log on the tub to keep the skunks from getting the bait. Then I went into the kitchen and hung a piece of the venison to a strap that was hanging over the table. The balance I put into a cracker box that was nailed to the wall of the cabin at a height that I could just reach. I thought I might want something to bait with again.

The next trip to the cabin, I found the bait in the slop hole gone and everything rooted around. Then I went into the kitchen, and the piece I had hung up over the table was missing. I got up on the table and walked up where I could reach into the cracker box and found it empty. Well, I did some thinking. He must be a monster if he consumed a half deer at one smell. I noticed there were no bones around, so I thought he must have carried it away.

I now had sufficient proof that there was a bear around, and I knew very well that I was afraid of him. I remember I wrote my brother that I had located a bear, and if I had some one to help me, I would try to get him. I did not have the courage to go seven miles in the woods and watch at night, as I probably would need to do to get a shot. I had not learned at that time that a black bear is a coward.

I learned that the lumber company had a bear trap, so I borrowed it and set it for the bear. I knew I must not make the trap solid fast or he would tear himself loose. I also knew it would not be safe for me to fasten the trap to a log that would make a trail that I could follow, as I would probably get lost and be unable to work my way out.

There were several log chains in the cabin which the lumbermen had left. I fastened them together, making one end fast to a bench that was used as a seat at the table, and put the other end of the chain up through the stove pipe hole in the roof, fastening it to the trap set in the slop hole. I had now exhausted my resources and went back to the farm.

The next morning I went to look at my trap. The first look from the cabin door showed there had been something going on since the day before. The bench to which the chain was fastened was hanging half way up to the roof, and everything within reach was in disorder. But I could not see the bear from the cabin.

Not feeling sure the bear would not jump on me at sight, I climbed up on the cabin roof and looked around, and saw him partially hidden under some brush. He was lying as still as he could, so I shot him in the top of his head, killing him so that he did not even kick. I never quite understood how this shot was so fatal, as I shot a bear a few years later with a double barrel shot gun at short range and broke his neck in several pieces, but he kicked and threw his head about like a stuck hog.

The next operation was to skin the bear. I was surprised to find that a bear is skinned just like a hog, i. e., the layer of fat adhered to the skin so that I had to cut the whole surface. If I pulled the skin as I would a deer, I took all the fat off with the skin. I knew I was to have a load, packing the skin minus the fat, back seven miles to the farm. I put the skin in a two-bushel sack. It made the bag two-thirds full. I got back to the farm about two o'clock. After getting some dinner, I took a rest on the bed, as that bear skin became a burden before I got home. I have skipped an incident that I have always thought was connected with this bear.

One day I was walking along a supply road on a maple ridge. I noticed a black stump, about six feet high, close to the side of the road and about forty rods away. This stump was in a bunch of small maple trees about three feet high. I was walking slowly, as I had a pack of something. As I remember, it was a part of a deer carcass. To my surprise, that stump dropped from my sight in the bushes, and I saw no more, only a glimpse as he passed an opening in the bushes. With my load and surprise, I did not get a shot. I have always thought this was the bear I caught in the trap, as he was a big fellow and nearly as tall as I was as he sat in the bushes.

(The End)



MR. GURLER ON ONE OF HIS HUNTING EXPEDITIONS IN THE NORTH WOODS
Deer and a half grown bear are shown in this picture.



"This bear was over 7 feet tall when standing," says Mr. Gurler, "and weighed over 300 lbs. This rug is over 35 years old."

Little Talks for Juniors

Leadership. Ah, what would this world be without it? What would an army be without a general? What would the nation be without a president?

Can you imagine a ship without a rudder? It would soon be dashed to destruction on the rocks. And that's what would happen to this old world if there were no leadership.

First, came the Great Leader of Men. Through His teachings, He spread the Truth. And He gathered about Him twelve other men and did make of this band other leaders. Ever since that time the world has needed leaders. It needs them today even more.

Perhaps you've been in club work. Pass on the good work. Help others. And there's a secret of leadership—help others. Your own little community is the place to start. *Begin now! ! ! !*

Helen Makes Good Record

HOARD'S DAIRYMAN JUNIORS:—Helen Schweikl, Washington, is a 15-year-old member of the Enumclaw Jersey calf club. Last winter Helen paid $80 for her heifer calf, having to give her note for a part of this amount. She took especial care of her Jersey calf, and spent considerable time getting her ready for the local community fair and finally for the Western Washington Fair at Puyallup.

At the Western Washington Fair there were exhibited 59 Jerseys and in the senior calf open class there were 11 entries. Helen's calf was placed first, made junior champion, and finally made grand champion over all Jersey females at this show.

Before fair time Helen had paid off her note on the calf by picking blackberries for the cannery, so that when she took her calf to the district fair in Puyallup she went entirely free from debt.

This season she won $45 in prizes, in addition to the various ribbons. This is her first year in club work but undoubtedly we will hear more of Helen's achievements in dairy club work in the next few years. The leader of this club is Mr. F. F. Joubert. He is assisted by G. W. Kressin.

Washington. R. M. TURNER.



HELEN SCHWEIKL, WASHINGTON, AND HER CALF

Junior Letters

High School Days

Hoard's Dairyman Juniors:—I'm here again ith a letter. I haven't written for some me but I have always read Hoard's Dairyman nd the junior page.

I am going to high school now and I haven't ad much time to write. I like high school retty well, and I suppose I will like it better fter awhile.

I am only home week-ends and some of the olidays. We have no high school at Debs or inewood so I have to go to Clearbrook and at is about 20 miles from home.

We board ourselves, doing light houseeeping, and I like it very much. That's here the fun comes in. My chum and I oom together. We have two rooms. There re 108 pupils in the Clearbrook high school. take Ancient History, Algebra, General Scince, and English.

My address is care Wm. Iverson, Box 95, learbrook, Minn. I would like to hear from ome more of the Juniors.

Lillian Erickson.

Third Annual Community Fair

Hoard's Dairyman Juniors:—Our third anual commuity fair, which was held on Ocober 12, was a decided success. Much interst was shown in all the exhibits and there ere entertainments, too.

Our farm collection of food and feed prodcts, which consisted of forty items, won rand prize in the agricultural department. here were not many dairy cows exhibited, owever, as our county is not a dairying secion.

We were quite successful with our chickns this year. We raised about 250 pullets nd have about 200 old hens. The pullets, hich were hatched in March and April, have een laying nicely for some time. We feed em milk, corn, sunflowers and home-mixed dry mash, with different ingredients added or left out, according to season.

I like the "Autobiography of a Pioneer Dairyman" very much, as it is so interesting, and is told in a simple style. I always enjoy the juniors' letters too. "How Europe Farms" articles are also very interesting.

I will be glad to answer any of the juniors who may care to write to me. My address is Sealy, Texas. Esther Billig.

A Poem, "Life's Test"

Hoard's Dairyman Juniors:—I have just finished my studies and as I was sitting here I thought up a little poem, so here goes:

There's only one method of meeting life's test;
Jes' keep on a strivin' an' hope for the best;
Don't give up the ship and quit in dismay:
'Cause hammers are thrown when you'd like a bouquet;
This world would be tiresome, we'd all get the blues;
If all the folks in it just held the same views;
So finish your work, show the best of your skill,
Some folks won't like it, but other folks will.

My address is Box 155, Smyrna, N. Y.

A true blue junior,
Mary Elizabeth Boos.

Likes Horse Back Riding

Hoard's Dairyman Juniors:—Received your letter and was glad to hear from you.

My brother drove my sheep out the other day and they did not try to run away.

I am getting along just fine in school. I sure do like my teacher. I went horse back riding the other day. I sure like to ride a horse.

My address is Goldendale, Washington.

Glen Smith.

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

For further discussion of the following see the January 25th issue.

How old a crop is alfalfa? It is of ancient origin. It was upon alfalfa, doubtless, that the flocks of Abraham fed, and when David in his pastoral psalm referred to "green pastures" in which his flocks were made to lie down, in all probability he referred to the rich alfalfa so common to that eastern land. (See "A Fad That Became a Leading Crop.")

What are some of the important points in herd management? 1. The elimination of scrub cows. 2. Growing a succulent feed and legume hay. 3. Having cows in good condition when they freshen. 4. Regularity in feeding and milking. 5. Making cows comfortable. 6. Having barn and feeds conveniently arranged. 7. Controlling disease. (See page 58.)

Where did Ayrshire cattle originate? Two hundred years ago in the County of Ayr in Southeastern Scotland, a group of thrifty farmers pursued the breeding of a beautiful and useful breed of cattle which were named Ayrshires. (See page 59.)

When were Ayrshires first imported into the U. S.? The first importation is thought to have been made in 1822 by H. W. Hills of Connecticut.

How much do Ayrshires weigh? Calves weigh from 60 to 80 lbs. at birth. Mature bulls weigh from 1,600 to 2,200 lbs. and mature cows weigh from 1,000 to 1,600 lbs.

What cow holds the world's record for production in the Ayrshire breed? Nellie Osborne of Elm Shade, a Canadian cow, finished a year's production of 23,223 lbs. of milk containing 1,003 lbs. of butterfat. She was the first cow of the breed to cross the 1,000-lb. mark.

Is summer grain feeding profitable? A 12-year-old Guernsey cow in the Genesee—Eagle C. T. A., Wisconsin, produced 1,117 lbs. more milk for four summer months due to grain feeding. This means $19.75 more profit after paying for the additional feed. (See page 97.)

There are now 280 4-H clubs in Vermont, says a report recently issued by Mr. E. L. Ingalls, State Club Leader.

Fourteen former 4-H club members received their degree in June at the University of Vermont with the class of 1926.

Money Saved is Money Earned



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is the same good old reliable Square Deal Fence. Same full gauge and honest weight; same springy line wires; same picket-like stays; same can't-slip knot. The easy-to-erect, trim, strong fence.

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Agricultural Colleges, engineering authorities, railroad tests—all prove that "Galvannealed" far outlasts the ordinary galvanized wire. Those who entered "The Advantages of a Well Fenced Farm" contest gave us some mighty good ideas on "Hog Sanitation," "What it Costs to Fence a Farm" and "What 17,000 Farmers Say." Write for these 3 free booklets today. They show what an important part fence plays in increasing your farm profits.

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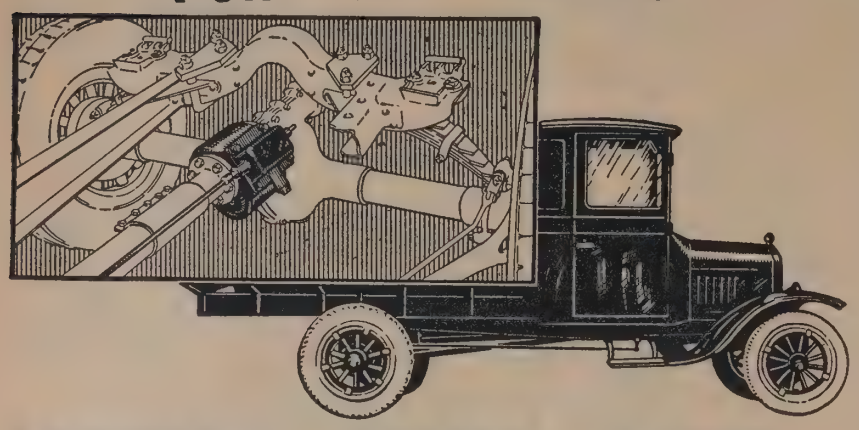
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Join the Juniors. No costs to you. If some member of your family is a subscriber to Hoard's Dairyman and you are under 20 years of age use the coupon.

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JUNIOR EDITOR
FORT ATKINSON, WIS., U. S. A.
Dear Sir:—
I hereby apply for membership in the HOARD'S DAIRYMAN JUNIORS' CLUB. I agree to read the Junior Department of Hoard's Dairyman regularly and do all I can to make the Juniors' Club a success. Please send me the badge.
Watch Fob [ ]
Necklace [ ] [mark (x) after your choice], the Button, and the Dairy Farm Boy's Creed.
My name is .....
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My address is .....
[R. F. D.] [City]
..... I am ..... years old.
[State]
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My father's name is .....
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If so, what kind? .....
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Over 50,000 in use in America. For testing, conditioning and protecting cattle.
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553 Third St., Milwaukee, Wis.

New National Club Paper

"The Boys' and Girls' 4-H Club Leader" is a new monthly publication issued by the U. S. Department of Agriculture, Washington, D. C., and being sent to all extension workers.

The first number dated January, 1927, contains messages from C. W. Warburton, director of extension, and C. B. Smith, chief, office of co-operative extension work, a story about the National 4-H Club Camp scheduled for June 16 to 22 at Washington, D C., a report of the fifth annual National Club Congress, and several other interesting news items and suggestions on club work.

Age to Breed Heifers

HOARD'S DAIRYMAN JUNIORS:—I am getting a heifer from Ohio now any time and would like to know at what age to get it bred. I read the Hoard's Dairyman and like it very much. I like the stories about dairying best.
Indiana. GLEN BONTRAGER.

The age at which to breed heifers depends upon the size and condition of the heifer. Good, growthy heifers may be bred at one and one-half years of age, perhaps a little younger or a little older. Good breeders generally figure that good, growthy heifers can be bred to freshen at between twenty-four and thirty months of age.

If the heifer is not large and thrifty, it would be better to breed her so that she will come in as a senior 2-year-old. In other words, breed her when she is about two years old.

Handy Nail and Tool Box

The nail and tool box shown in the drawing can easily be made of soft wood. Very often suitable lumber can be obtained from grocery boxes. It is a handy box to carry about the barn, sheds, or along fences when doing repair work. It has three compartments for nails, screws, staples, bolts, or any other fastening devices one might use and a long compartment for tools needed with which to do the work.

The following material is needed to make the box:
1 ⅝"x3⅜"x15½"—center
1 ⅜"x10"x16"—bottom
2 ⅜"x2⅛"x16"—sides
2 ⅜"x2⅛"x9¼"—ends
2 ⅜"x2⅛"x4 5-16"—partitions.
3d (3 penny) common wire nails; paint.

To strengthen the box, the center piece is set into the ends ⅛" deep. This is done by cutting a groove ⅛" deep and ⅝" wide across the end piece 4 5-6" from the end. This is called a dado joint.

When cutting the opening for the handle, first lay out the part to be cut out, then bore four holes with a one-inch auger through that part. The remainder can easily be chiseled out.

Be sure to have the ends of the pieces square with their edges so that the pieces will fit properly when assembling them.

After the box is assembled, apply two coats of paint. Paint beautifies and lengthens the life of the box.
Wisconsin. F. W. DEJMEK.

A Utah Champion

Afton Bingham is a Hoard's Dairyman Junior. In Uinta County Utah, where she lives, there is no railroad transportation. When Afton was ten years old, that was in 1923



AFTON BINGHAM AND HER CALF

she bought a Jersey calf and joined the calf club. Three successive years she has won the championship with her calf.

Afton's calf is now a cow. From January 5, 1925, to January 1, 1926 this cow produced 8,306 lbs. of milk containing 370 lbs. of butterfat. Afton sells the whole milk, and she received during that period $231.30.

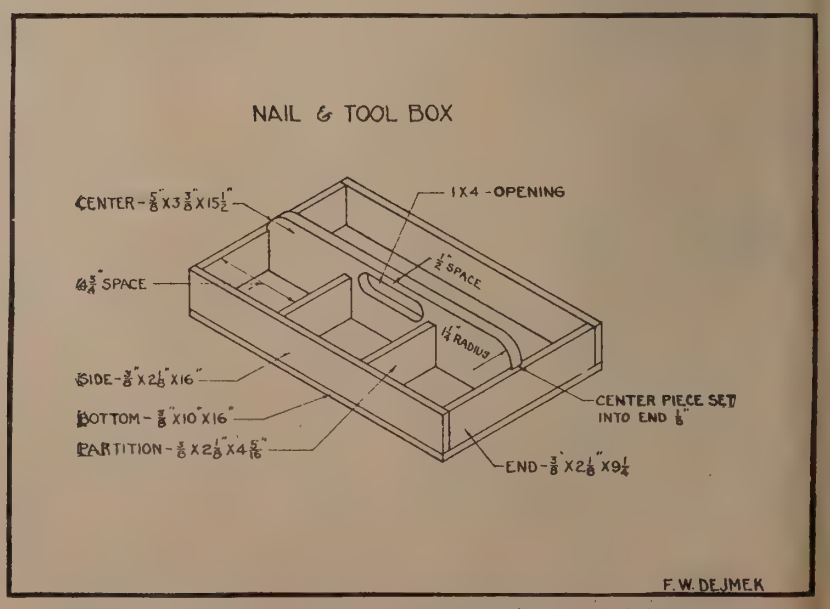
Besides winning trips to the International Live Stock Exposition for her excellence in calf club work, Afton has won honors in sewing, cooking, and canning club work and has been a real leader in her community.
Utah. O. A. FITZGERALD.

A 4-H Celery Club

In the spring of 1926, 19 boys and girls in Schuykill County organized the first celery club in Pennsylvania. The object of this club was to demonstrate the proper method of celery culture and to introduce a new self-blanching variety known as Golden Plume.

A celery club roundup was held November 5, and every member exhibited six stalks of excellent celery. The boys and girls are convinced that celery can be grown more economically by the level method of culture than by the trench method.

The adults are much interested in the production of celery, and it is probable that more celery will be grown in the community in the future and the results of this club demonstration adopted for culture practices.



HERE'S SOMETHING EASY AND PRACTICAL FOR YOU TO MAKE

LET COWS BE THE JUDGE

Marl Turned the Trick

GEO. M. BRIGGS, Wisconsin College of Agriculture

DURING the early part of 1926, Albert C. Johnson, Wisconsin, daily wondered why it was, upturning his cows out in the pasture, that they would invariably hike right over green looking spots of grass, tall enough to get a mouthful without any effort, to a strip of still greener grass but shorter and made by this daily visit. Extending northwest through his pasture, just like a road, this green strip of short cropped grass extended to the far side of the pasture. Not only were the cows contented to eat this strip, but reached through and loosened the grade at end of strip where it extended beyond the pasture. At each side of this roadlike green spot, grew red squirrel tail, sedges, vervain, and all other lowland weeds and grasses unnoticed and passed by by the cattle.

The season advanced, cattle kept frequenting this already short cropped strip across the field. Mr. Johnson in the adjoining field, fenced off from this pasture, had planted oats and sweet clover in 1926. Upon cutting the nurse crop off, he could observe little sweet clover excepting in a piece joining on the south end of the short pasture strip and here, extending way across the stubble, was the sweet clover sticking far up above the stubble and about hiding the stubble entirely. It made a continuous line from the end of the short cropped pasture strip.

Mr. Johnson scratched his head. Was it an old road? No, it couldn't be because there was an old road near by. Was there manure there? No, but a past experience flashed in his mind, that of two years previously, when he had hauled a load of marl across the field to just get rid of it. And there it was, the eye could see the increased growth of sweet clover; the cows could tell the quicker growing, more tender, more nutritious pasture grass. Later on, the county agent, Mr. Thompson, came along, and he was taken out to see the exacting demonstration; then came a tour of farmers, and finally the crop extension man. In the place of moss, weeds, old ripened up sedges and grasses, was green, succulent pastures, not a moss, just a solid sod of June grass.

Mr. Johnson little knew that he was demonstrating a use of marl that can be enlarged upon about as great for pasture purposes as can marl be used for alfalfa production. Pasture lands will yield to fertilizer application, barn manure, and commercial fertilizer without a doubt, but here lies a great opportunity to the dairymen living near lime deposits of mill waste, marl, or limestone. Our dairymen, it is true, can improve pasture conditions by a sweet clover crop, but what of those 1,000 acres of pastures that by a slight application of lime will become several times as valuable as heretofor. On some soil it may take more than some form of lime but there is every reason to believe that Wisconsin results should be comparable to Ohio's and other states where pasture improvement programs have been carried on; where an acre, when treated, pastures two to four times as many animals as it does in its rundown state.

Albert Johnson is probably only one of many Wisconsin farmers who could testify from their own experiences as to pasture improvement, but to my observation, his demonstration was the most convincing of what a simple application will do. On this same farm was staged the first successful alfalfa planting in Burnett County ten years ago and ever since this time Mr. Johnson has been an enthusiastic alfalfa grower. This year's experience demonstrates that he is interested in the use of marl in improving the carrying capacity of his pasture lands.

State Champion Holsteins

Two heifers in the herd at Milford Meadows Stock Farm, Wisconsin, recently finished year records that put them at the head of their respective classes in the state and ranked them high among producers of that age, the country over.

Milford Ormsby Oak Aaggie recently finished a Class B year record as an aged cow, with 19,409 lbs. milk, 739.74 lbs. butterfat (924.67 lbs. butter) after carrying a calf 236 days of her record period. This ranks her second among state producers and her production figures for 305 days entitle her to first place in that division.

Milford Ludwig Bess Burke, a 2½-year-old in the same herd, finished her year's production with 19,458.3 lbs. milk, 682.168 lbs. fat (852.71 lbs. butter). This gives her second place for her age among all black and whites and first in the state. She lacked but a few days of meeting the calving requirements for the 305-day division.

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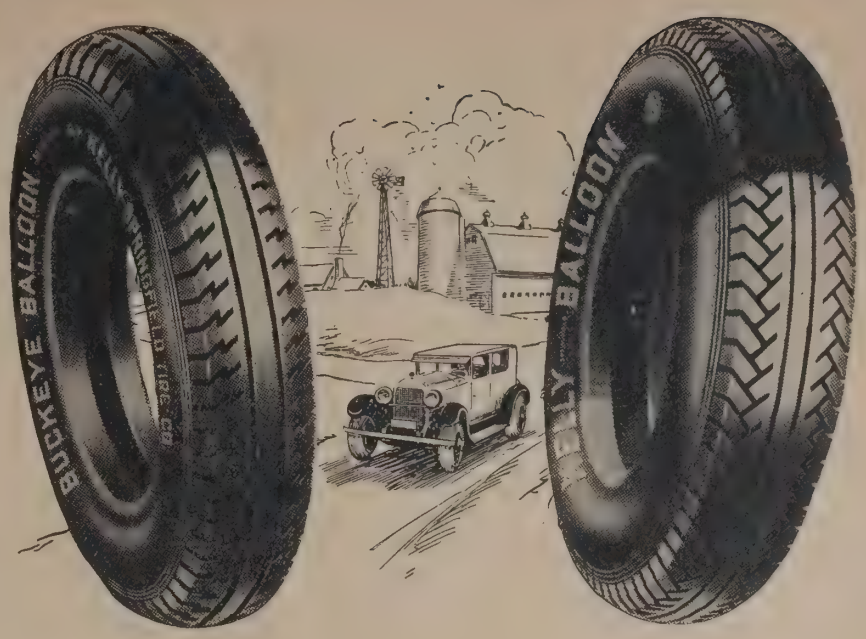
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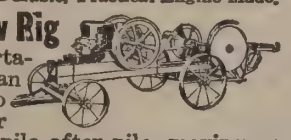
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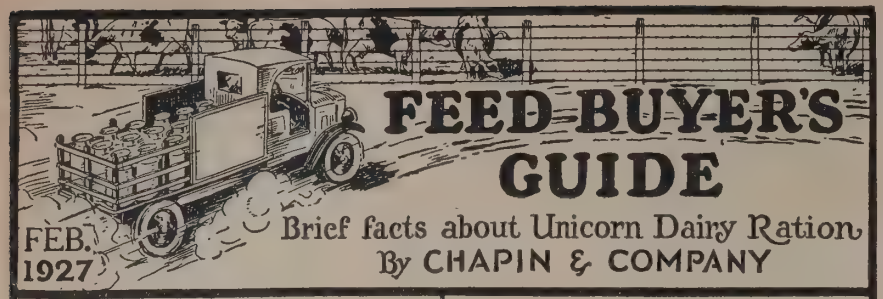


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Send now for our Free 1927 catalog showing milk cans, pails, strainers, coolers, scales, bottles, bottle caps, churns and all dairy supplies. Many new items. High quality, low prices, money-back guarantee.

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55 Main St., West Lebanon, N. H.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.



FEED-BUYER'S GUIDE

FEB. 1927

Brief facts about Unicorn Dairy Ration
By CHAPIN & COMPANY

Dip your measure into a sack of Unicorn and it comes out full more times than it will with any other 100-lb. sack of feed.	Unicorn is the "old-reliable" of mixed feeds. Made for the past 21 years by a company established in 1874.
Unicorn is light and bulky. Can be fed straight without harm to the cow. Prevents impaction.	Keeps cows in good condition. No stomach trouble at any time. No udder trouble when freshening.
One qt. (dry measure) of Unicorn, weighs 13.5 ozs.; 1 bushel weighs 27 lbs. Each 100-lb. sack contains 3⅔ bu.	No glass, nails or other refuse in Unicorn. Before sacking, it is run over a magnetic roll and given a final screening.
Unicorn is made of cottonseed meal, corn gluten meal, linseed meal, corn gluten feed, dried brewers grains, corn oil meal, wheat bran, hominy meal, bone charcoal, calcium carbonate, salt.	Unicorn is always the same. No change ever made in analysis or ingredients. This means that fed straight, or mixed with your own grain, you always get the same results.
The analysis of Unicorn is: 24% Protein, 5% Fat, 50% Carbohydrates and 10% Fiber.	Cows take to Unicorn quickly; they like it's taste. Every bit of every feeding is eaten up clean.
Unicorn can be fed with your own grains—corn, oats, barley, corn-and-cob meal. No need to use any other protein or wheat feed.	With Unicorn, you can count on cutting your present grain cost 20c to 50c on each 100 lbs. of milk your cows produce.
Unicorn contains the right amount of lime to insure against shortage of lime in poor roughage.	Ask your feed store man for Unicorn. If he can't supply you, write us at Chicago for name of nearest Unicorn store.



KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wisc.

DAIRY MARKET NEWS

Twin City December Milk

The Twin City Milk Producers' Association paid $2.52 a hundred for 3.5 per cent milk delivered in St. Paul during December. The Association handled 22,516,478 lbs. milk, of which 45 per cent was surplus.

Cream patrons were paid 59 cents a pound for butterfat in first grade cream during December. This is 4.3 cents above the average price of 92-score butter on the New York market.

Sheffield December Price

The cash price for December, 1926, paid Sheffield producers for three per cent Grade B milk in the 201—210-mile zone is $2.74 per hundred pounds with the usual freight and butterfat differentials. This is equivalent to $2.94 for 3.5 milk and is an increase of 7 cents over the November price and an increase of 10½ cents over the price for November, 1925.—C. W. HALLIDAY, Secretary.

January Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 105 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributors' country plant:

Table I—January Producers' Prices by Geographic Sections

Sections	Range of prices per cwt.	Comparison of average prices 1927 Jan.	1926 Dec.	1926 Jan.
New England	$2.77—3.82	$3.37	$3.47	$3.49
Middle Atlantic	2.55—3.15	2.85	2.85	2.75
E. No. Central	2.05—3.19	2.61	2.61	2.58
W. No. Central	1.75—3.10	2.35	2.35	2.31
So. Atlantic	2.80—5.81	3.90	3.91	3.95
E. So. Central	2.35—3.39	2.70	2.70	2.64
W. So. Central	1.93—3.04	2.73	2.71	2.87
Mountain	2.15—3.20	2.56	2.56	2.52
Pacific	2.00—3.13	2.72	2.67	2.87
United States	1.75—5.81	2.86	2.85	2.89

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at the producers' railway shipping points, as also price f. o. b. city, are given in Table II:

Table II—January Prices at Country Stations

	At country stations	Freight zones to which prices apply
New Haven	$3.70*	28c rate
Wash., D. C.	3.02*	35c 10-gal. can
Chicago	2.50	All
Baltimore	2.97*	35c rate
Boston	2.88*	181—200-mile zone
St. Louis	2.35—2.40	34c rate
Trenton	2.85*	41—50-mile zone
Buffalo	2.57*—2.62*	28c rate
New York	3.00*—3.05*	201—210-mile zone†
Cleveland	3.12—3.19	All
Philadelphia	2.91*—2.95*	51—60-mile zone
Pittsburgh	3.15*	All
Scranton	2.80	30c rate
Dallas	2.20	All

*Basic prices for fluid milk. †53c rate.

The following net prices were reported paid to members of producers' associations supplying the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and "Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade, and the latter applying to that portion classed as "Surplus," which is used manufacturing purposes:

Table III—Net Prices Paid Members of P ducers' Associations for 3.5% Milk

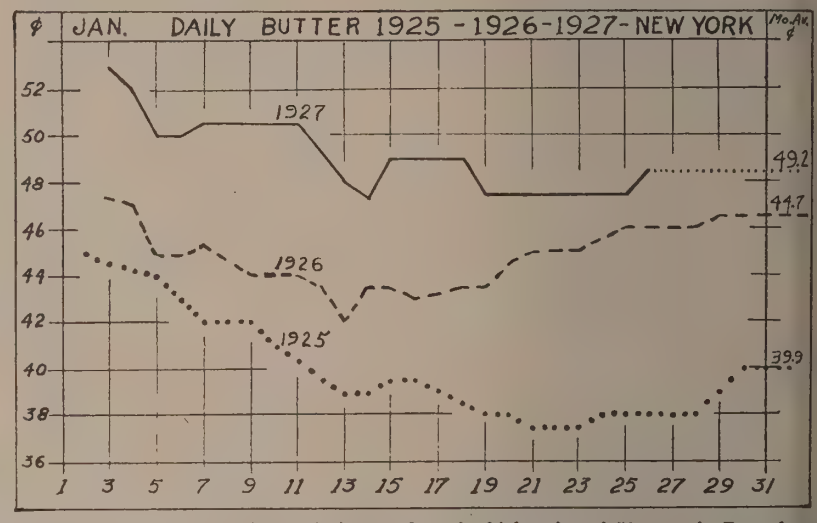
Cities	Paid*	Period	Previously announ prices for same per Basic	Surplus
Hartford	$3.94	Nov.	$4.22	Butter mark
Des Moines	2.56	Nov.	2.65	2.00
Baltimore	3.52	Nov.	3.55	Butter mark
Boston	2.75‡	Nov.	3.35	Butter mark
Detroit	2.95	Nov.	3.00	Butter mark
St. Paul	2.50	Nov.	2.60	All milk poo
New York	2.72†	Nov.	3.10	$2.58
Akron	3.07	Dec.	3.50	$2.20
Philadelphia	3.469	Dec.	3.49	Butter mark
Pittsburgh	3.52	Nov.	3.90	Butter mar
Milwaukee	2.73	Dec.	2.90	Butter mark
Duluth	2.55	Dec.	2.77	All milk poo

*F. O. B. city, unless otherwise indica for 3.5% milk.

‡181—200-mile zone. †201—210-mile z

January Butter and Chees

January butter in New York declined f 53 cents to 47.5 cents, then rising one cent the 26th and holding there the next day



January saw butter decline to 47.5 cents from its high point of 56 cents in December, the average for the first 26 days being 5.5 cents under the December average. As shown above, however, the present month's average of 49.2 cents is 4.5 cents above a year ago and over 9 cents above two years ago.

this report is written. The market ruled at this advance, with dealers holding for miums. The average for the month will about 49.2 cents, a drop of 5.5 cents from December average but 4.5 cents above Janu of a year ago and 9 cents above January, 1

Receipts of butter thus far in January 50 thousand tubs less than for the same pe a year ago and the storage holdings are million pounds less. Production reports s a decrease from last year. The January report of the government discusses the q tion as follows:

"Indications are that there is a possib of a shortage of fresh butter, not due to decrease in the make, but to the fact storage stocks have been quite closely pi over and users of storage are turning to f stock for their supplies. It will be an unu year if domestic production during Janu and February is sufficient to supply consu tive requirements."

Cheese at the Wisconsin Boards continue maintain a firm position during Janu prices advancing a half cent and averag 25.5 cents for the month. This is nearl cent higher than in December and over a higher than for January during the past years. Cheese receipts at the four large kets decreased two million pounds from year, with the storage holdings at these kets seven million pounds less than a year

The Feed Market Situati

(The Grain, Hay and Feed Market Service, Bureau of Agricultural Econom U. S. Department of Agriculture.)

The supplies of feed grains and by-pro feeds have been generally sufficient for fee requirements this season to date and p on the whole are about the same as a year or slightly lower. The combined tonnag feed grains available for the 1926—27 sea including corn, oats, barley, and grain ghums, is about 5 per cent smaller than a ago, but this decrease is partially offset further reduction in the number of ani on farms. Increased crops of feed grains forage in the South have reduced the den for feed from that region but smaller c in the western Corn Belt States and some western states are causing some movemen grain and hay in that section.

Prices of wheat feeds are now avera higher than a year ago. Heavy milling lower prices early in the season have counterbalanced by increased takings and

rings both from mills, and jobbers recently ıve been hardly equal to buyers' require- ents. Wintry weather has stimulated the de- and and prices have advanced slightly during e past few weeks.

With a crop of cottonseed about 15 per cent rger than last year, offerings of cottonseed eal early in the season were unusually large ıd prices were forced to the lowest level since e war. These low prices, however, stimu- ted both domestic and export demand and is resulted in a rapid absorption of the rger supplies. Considerably more meal, how- 'er, appears to be available for the rest of e season, as only about 400,000 tons more ed had been accounted for through the 'ushers to January 1 than a year ago, al- ough the crop was over a million tons larg- . While cottonseed meal prices have ad- ınced sharply recently as a result of a con- ıued active demand and the reduced offer- gs from crushers and jobbers, they are at is time still about $2.50 lower than a year 'o. The domestic demand during the next onth will be influenced materially by weather nditions and the stocks that retailers and nsumers now have on hand.

	Jan. 22 1927	Jan. 22 1926
Minneapolis		
andard spring wheat bran	$27.00	$26.25
andard spring middlings	27.50	26.25
inseed meal—34%	46.00	47.50
Buffalo		
andard spring wheat bran	31.00	31.00
andard spring middlings	32.00	31.00
inseed meal—34%	44.50	48.00
Kansas City		
ard winter wheat bran	26.50	26.50
ard winter wheat brown shorts	30.50	29.00
ttonseed meal—43%	35.00	37.30
Chicago		
andard spring wheat bran	29.25	28.50
andard spring wheat middlings	29.25	28.50
uten feed	29.75	38.90
hite hominy feed	31.50	29.50
ttonseed meal—43%	35.50	39.50

The lower prices of cottonseed early in the ason also held linseed meal prices generally wer than last year. With the advance in cot- nseed meal prices, however, the linseed meal arket has also strengthened and at this writ- g (Jan. 25) are practically as high as at is time last year. While the domestic crop flaxseed was smaller than the 1925 harvest has been supplemented by larger imports of rgentine seed. With liberal supplies of flax- ed available in Argentina again this year enty of this feed will be available during the winter, provided that the United States price is sufficiently high to offset the drawback of about $5 per ton allowed on linseed meal ex- ported from imported seed.

Heavy production of starch, syrup, and such corn products has resulted in a large supply of gluten feed and meal which has helped to reduce prices of this feed well below the level of a year ago. Supplies of hominy feed also have been sufficient for the trade demand at prices practically the same as at this time last year. Lower corn prices have also been a fac- tor in the price of these corn product feeds, and unless demand becomes more active it seems probable that gluten feed prices will re- main considerably lower than last year.

Quotations of the principal feeds at some of the larger distributing markets on January 22, 1927, are shown in the preceding table.

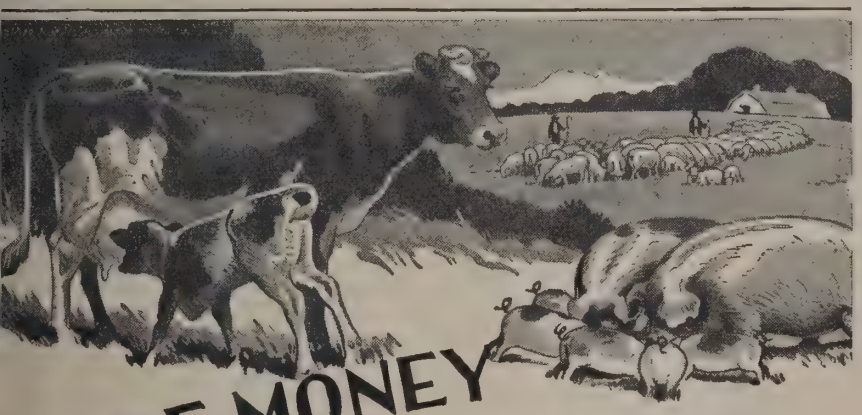
Brown Swiss Cattle in the United States

(Continued from page 113)

Scale of Points for Brown Swiss Bull

	No. of points
Head, same as cow	2
Face, same as cow	2
Expression, full of vigor, resolution, and masculinity	3
Ears, same as cow	2
Nose, same as cow	2
Eyes, same as cow	2
Horns, same as cow	2
Neck, of medium length, somewhat arched, large and strong in muscles on top, sloping symmetrically to shoulders. Shoulders large and strong, smoothly blending into body	10
Chest, same as cow	10
Back, same as cow	10
Ribs and abdomen, same as cow	10
Hips, same as cow	6
Thighs, same as cow	6
Legs, same as cow	2
Tail, same as cow	2
Hide, same as cow	3
Color, same as cow	4
Scrotum well developed and strongly carried	3
Rudimentary teats, squarely placed wide apart and free from the scrotum	6
Milk veins, same as cow	6
Disposition, quiet	3
Size, evidence of constitution and stamina	4
	100

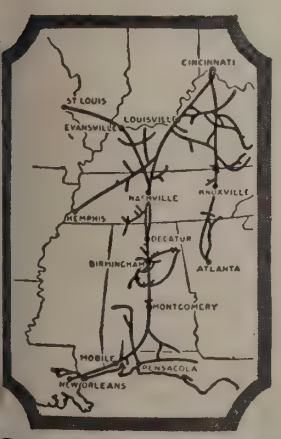
Dark, smoky skin and white spots objectionable.



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915 Santa Fe Bldg., Dallas, Texas

How many cows in your herd?_____

Jerseys_____ Guernseys_____

Holsteins_____ Ayrshires_____

Do you have a registered bull?_____ Grades_____

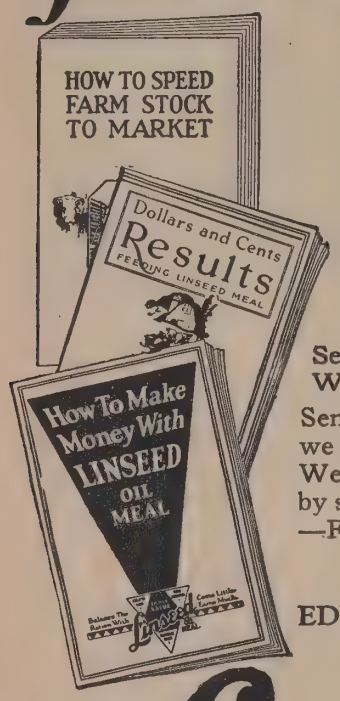
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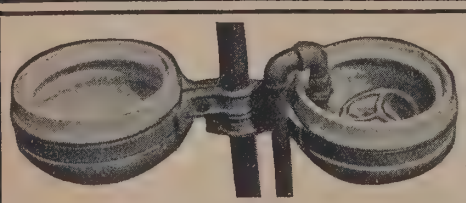
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A quality product for stockmen who want a "better than ordinary" ring. Standard sizes in copper, bronze and nickel silver.

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Made with hinge joint—swings out of way when calf eats or drinks. Calf size 45¢; Yearling 55¢; Cow 65¢, post paid.

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WAGNER SPECIALTY COMPANY — Burlington, Wis.

Seasonable Live Stock Notes

THE right kind of feeding is so closely related to success with cows that we are reminded to suggest that right now is a good time—none too early—to begin thinking about growing more of the best crops for cow feeds. Alfalfa is a good feed but to have plenty of it when needed one must do something about it now or soon. There is the lime to be looked after if it is needed; good seed of the right place of origin must be secured; the inoculating culture must be secured. Time flies, and a decision to do the right thing now is worth more than any decision made after it is too late.

A Fit Place for Little Pigs

It is nearly the middle of February, and on some farms little pigs are already getting acquainted with their surroundings. A little pig has no choice of his place to be born; it has no control over the kind of place in which it spends its early life—nor later for that matter. Environment to a little pig is a mighty important factor. Now is the time to plan a fit place for pigs if they are to escape injury, disease, and parasites.

Cornstalks Poor Cow Feed

We find, among inquiries received, some dairymen who still insist on turning cows into stalk fields, apparently in the hope of making the good feeds hold out longer. Rarely will a cow get enough of nutrients from cornstalks to pay for the energy used in foraging around to find something she will eat. Such a practice undoubtedly does make the good feeds hold out longer, but we question if it enables cows to keep up their good work. Making the feed last longer and getting the best production from the cows are not the same thing.

On Preventing Roup

Roup is a disease frequently experienced in poultry flocks during late winter. It attacks flocks in poor condition more frequently than those that are well housed, properly fed, with quarters kept clean. Preventing roup by good management is to be advised above trying to cure the disease after it has started. In fact, curing roup is a speculative task. The damage in lowered production and death loss is already done by the time the curative agent is employed.

Early Hatched Chicks are Best Producers

Profits in egg production are somewhat in relation to the proportion of eggs produced during the winter months or during the time of highest prices. Good winter egg production has its beginning partly in the time chicks are hatched, the early hatched pullets being the better producers. It is now time to arrange for a supply of early hatched chicks and also for their care after they arrive. It is worth while, also, to know something about the ancestry of the chicks one gets. Getting scrub chicks is even worse than getting late hatched ones.

Sweet Clover Pasture

Manitowoc County, Wisconsin, has 10,000 acres of sweet clover for pasture and more is being seeded. It is nearing the time when those who have been thinking about giving their cows more feed and better feed will have to make a decision to seed or not to seed. If soils are acid, sweet clover needs lime. One cannot get lime day after tomorrow like buying soap at the grocery store. It usually must be ordered several weeks before the time it is to be used. Many times we have heard the alibi, "I intended to sow some sweet clover last spring but could not get the lime in time." One should always remember that good sweet clover pasture next year means doing something this year.

The Future Dairy Cow

Dairymen and beginners are scouring the country for good dairy cows. The good ones are not for sale and the poor ones are meeting with critical buying. All of which suggests a bright future for the well grown dairy heifer of good ancestry. The future supply of good cows depends much on the present practice of selecting and feeding dairy calves. Are the poor ones being culled out? Are the good ones being fed adequately as to give them normal development when they begin work? These are important questions.

Too Much Bedding is Bad

The amount and character of the straw supplied a sow for bedding when she is ready to farrow has considerable bearing on the number of pigs saved, especially if the owner is not around frequently to make things right. The pigs frequently get lost in straw that is too coarse and too much bedding results in a deep hole in the middle of the pile which is all right until the sow decides to get up and lay down again. Then there are too many pigs in the wrong place. A limited supply of bedding of medium fine texture is better, at least until the pigs are more active.



Regina of Fairydale has just won sixth place in Class B with a record of 16,105.1 lbs. milk, 906.7 lbs. fat. She holds ninth place in E with 773.2 lbs. fat and has a Class G. record of 10,402.7 lbs. milk, 573.9 lbs. of fat. Regina was bred and is owned by Geo. C. White, a Guernsey breeder of New York.

Electricity for the Farmer

(Continued from page 111)

light on all of the floor. Shadowy corners invite them to loaf and sleep.

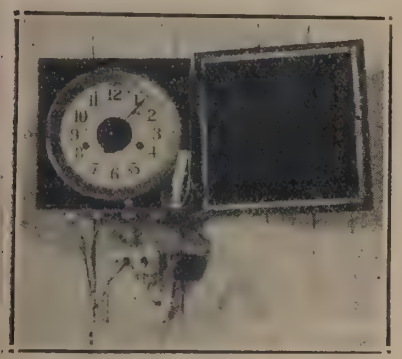
The standard lighting calls for a 40-watt Mazda lamp placed six feet from the floor and fitted with a sixteen-inch metal reflector four inches high. The inside of the reflector should be painted with aluminum to make the lighting conditions perfect. This will light a circle fifteen feet in diameter.

The diagrams shown on page 111 illustrate the arrangement of lights recommended by the Washington Station.

The times for lighting the houses can be arranged so that they will fit in with the rest of the farm work. Those in general use are:

Evening lunch	8:00 P. M.	9:00 P. M.
Evening light	Dusk	7:00 P. M.
Morning and evening	7:00 A. M.	Daylight
	Dusk	7:00 P. M.
Morning light	4:00 P. M.	Daylight

When they use the evening or night feeding, many farmers have a system of dimming which warns the birds



This clock turns the lights on at ten and off at eleven for an evening lunch for the hens. The farmer throws the feed in when he does his evening chores.

that the lights are going out and sends them to their roosts. But it is being recognized generally that when the bird's crop is full, she will go to bed with the lights on, and they are avoiding this extra step in the wiring and control necessary. When they do not dim the lights, they feed the flock heavily to insure their getting their crops full.

Automatic time switches are on the market and in use in large poultry farms. But many farmers who raise flocks only as a profitable side line are proving themselves very ingenious in rigging up arrangements with ordinary alarm clocks to turn the lights on and off.

The diagram shown on page 111 shows a control device in which two clocks turn the lights on and off at any pre-determined hours. Each clock has a rigid key which turns as the clock arm rings and trips the tumbler switches set in its path.

Lighting should begin in the fall as soon as the hens have finished their moult, and should continue until about April 1st.

An accurate idea of the cost of furnishing lights to hens may be gained from the following example: A flock of 100 hens can be comfortably kept in a 20x20 house. Two 40-watt lamps will effectively light such a house. Morning light from 4:00 a. m. to 7:30 a. m. require three and a half hours a day.

3½ times 2 times 40 watts equals 280 watt hours a day.

280 watt hours times 30 equals 8,400 watt hours or 8.4 Kw. hrs. a month.

For a one-hour evening lunch the current will only be:

30 times 2 times 40 watts equals 2,400 W. h. or 2.4 Kw. hours a month.

If this portion of the current comes on a 3c rate, lighting the hen house for three and a half hours a day will only cost 25.2c a month, and the evening lunch will cost 7c. Even at a 10c rate the lighting of a hundred hens for the morning period will only cost 8.4c. If the lighting results in bringing the production to 60%, a by no means uncommon achievement, a dozen and a half of the daily five dozen would pay the bill for the light that secures them.

Results of Lighting Tests at Oregon Agricultural College

(The lights were turned on October 1 and continued until April 1)

House No. 21	Number of birds	Eggs laid No.	Eggs laid Value	Feed cost	Power used Kw. hr.	Power used Cost at 10c	Profit over feed and light	In favor of it
			Best Pullets					
4-Lights	112	11,807	$345.37	$129.74	55.0	$5.50	$210.13	$35.17
1-No lights	115	10,617	298.79	123.83			174.96	
			Less Mature Pullets					
2-Lights	114	10,979	315.86	127.30	51.0	5.10	183.46	49.88
3-No lights	115	9,064	255.33	121.75			133.58	



As a steamer was leaving the harbor of Athens a well-dressed passenger approached the captain and, pointing to the distant hills, inquired:

"What is that white stuff on those hills, captain?"

"That is snow, madam," replied the captain.

"Well," remarked the lady, "I thought so myself, but a man just told me it was Greece."—Everybody's Magazine.

Can you hold your children on the farm?



"THIS country offers splendid opportunities for the man with small capital," says Ernest G. Herbold, of Morristown, South Dakota, "if he is a thrifty, hard-working fellow. It's a healthy climate. For cattle and horses our grass for pasturing cannot be beat. It is great for milk production, also young stock does fine on it, and gets fat. Milk is the back-bone of farming."

Mr. Herbold came out here with $2000 capital, and now owns and farms 320 acres. He averages per acre, 20 bushels wheat, 40 bushels oats, 35 to 50 corn, and 40 to 45 bushels of barley. He finds that feedings can be done at low cost in alfalfa and sweet clover pasture, hogging off corn.

He raises chickens, and grows all the garden crops he needs, including beans, turnips, beets, pumpkins, cucumbers, tomatoes, lettuce, radishes and watermelons.

"We have every bit the same service as on high-priced land back East—such as daily mail, telephone, good roads, good water, cheap fuel, a good market."

Morristown is a modern young city with every convenience and improvement to make community life interesting and progressive.

TO PUGET SOUND
THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY
ELECTRIFIED

THE growing young man who is worth his salt is restless. He wants a place of his own. That is human nature. You felt the same way when you started out in life, thinking of new surroundings, planning a future for yourself. But there is a wonderful way to give a worth-while boy his head, and yet keep his loyalty and interests close to yours!

If he is capable and ambitious, you can afford to send him out to Montana or western North or South Dakota. There is still some choice range here, and rich farmland, that can be bought cheap. He is certain to prosper mightily with the increasing prosperity of the region.

Men who brought their brides in stage coaches to the warm fertile plains and valleys of western North and South Dakota and Montana are today—while still in prime manhood—men of means and assured income. The cow towns to which they went are modern young cities with broad paved streets, unlimited cheap electric power, up-to-date stores, splendid schools, churches, fine roads and convenient markets.

Yet their success is small compared to what lies before young farmers of today. Montana is just emerging from its pioneer period in agriculture. Land as fine as the soil of Indiana and Ohio is still cheap. Rich markets are near or easily reached. The country is wonderful. Thousands of tourists pour in every year just to see it and enjoy it.

This is the country that produces "super-grade" wheat. It also produces butter as fine as any in the United States. Diversification has come in with surprising results. Potatoes, dairy products, poultry, dairy cows, beef herds, horses, sheep, hogs are all producing great wealth. Over half a million acres in this territory have already been growing corn.

There is a great movement up in the Northwest. The marvelous development of such cities as Mobridge, Miles City, Lewistown, Great Falls, Spokane, Butte, Tacoma and Seattle indicates what the future is likely to be when people learn more of the resources of this richest part of the nation.

HARRY F. HUNTER 24-C
Agricultural Agent, C. M. & St. Paul Ry.
Room 796, Union Station, Chicago

I am interested in your ad about Montana and the Dakotas. I would like information on the subjects checked below:

☐ Dairying ☐ Corn
☐ Cattle Raising ☐ Flax
☐ Sheep Raising ☐ Rye
☐ Hog Raising ☐ Barley
☐ Wheat ☐ Living and Climatic Conditions

Name_____

P. O. Address_____

County_____ State_____

Increasing Production of the Grass Herd

GLENN DEGNER, MINNESOTA

THRICE a day milking, alfalfa, and a drinking cup system can increase the butterfat production of an average herd on a diversified Northwest farm at least 30 per cent. This fact was revealed by a comparison of the butterfat production made by the same twelve grade Holstein cows during a period of six months of last winter and during a period of the same length in corresponding months the previous year. Changing from a twice to a thrice a day milking schedule, equipping the stalls with individual drinking cups, and substituting alfalfa hay for clover comprise the improvements in Mr. Grass' dairying methods which added $425 to the gross profits of the department for six months. Mr. Grass is a member of the Owatonna Cow Testing Association of Minnesota and his herd book shows that the twelve cows increased their output 834.97 pounds fat which, multiplied by 51 cents, the average price of butterfat, equals an increase of $425.84 from butterfat alone.

The records of production during the year ending in 1925 when the herd averaged 308 pounds fat per head with ordinary farm herd care, are evidence that Mr. Grass is an efficient dairyman and a judge of good cattle. During the half year period beginning October 1, 1924, the butterfat yield was 2,209.1 pounds produced on a ration consisting of silage, fodder corn, clover hay, ground oats and barley, bran, linseed meal, and ear corn during the early part of the period. The total feed cost was $517.19. This in terms of cost per pound of butterfat equals 23.5 cents, without considering the value of the skimmilk which indirectly brought returns through the 125 hogs marketed annually.

To an average diversified farmer this return from one department would place Mr. Grass out of the health type class of farmers. Nevertheless, believing his herd could increase the monthly cream check by a three-time-a-day-milking plan, as used by another member of the testing association on a few cows during that year, he adopted this plan. In addition he installed a drinking cup system in his barn and improved the roughage with alfalfa hay at the beginning of his second year in the cow testing unit. Except for earlier housing, necessitated by an unusually cold and wet October, these were the only influences on the increased production of the 1925—26 period that the owner and tester, Fred B. Hedberg, could discern.

On an average each cow produced 69.58 pounds of butterfat more during the second period ending March 31, equivalent to 11.6 pounds a month. Most notable is the fact that this increase was made under very ordinary farm conditions, with no extravagant outlay in buildings. With its recording of the feed costs and production account, cow testing pointed the way to this profitable change in the dairy methods, which signify that three times a day milking is practical during the winter months. Little theorizing was indulged in during my interview with Mr. Grass, nor was it necessary, for the herd book tells the story completely and exactly. "If it didn't pay I wouldn't be doing it." That was the terse statement he made regarding the results of what was a new step in practicing a three-time-a-day-milking plan on an average farm in this section.

Labor costs necessarily increase under the three times a day milking. However, Mr. Grass always hires a man to assist him in operating his 160 acre farm, so this change merely necessitated a rearrangement of time spent on the farm activities. As a result the total labor cost remained the same with a more systematic adjustment of time.

The accompanying tables show the total and individual milk and butter



MR. GRASS OF MINNESOTA WHO FOUND THREE TIMES A DAY MILKING PROFITABLE DURING THE WINTER MONTHS

fat production, feed costs, and date of freshening for the two periods. During the period of 1924—25, four heifers were in their first season of milking to which a casual observer might ascribe the increase of the herd. However, the remaining eight cows produced 1,570.6 pounds of butterfat the first six months and 2,074.2 the second period, an increase of 494.6 pounds or 31.3 per cent.

Table I—Production Oct. 1, 1924 to Mar. 31, 1925

Cow	Milk	Fat	Cost of feed	Date fresh	A
	Lbs.	Lbs.			Yr
Roxie	4,896	176.9	$46.29	Sept.	
Bess	4,992	195.6	46.29	Sept.	
Bessie	5,325	179.7	45.82	Oct. 5	
Jane	5,157	183.0	46.39	Sept.	
Beth	6,350	265.6	46.29	Oct. 1	
Bob	5,703	218.2	43.06	Sept.	
Sally	4,382	158.1	43.25	Oct. 15	
Rough	4,110	141.9	43.14	Oct. 15	
Belle	5,714	232.7	44.66	Oct. 25	
Lady	4,612	159.8	44.66	Oct. 25	
Black	4,636	184.5	38.04	Dec. 1	
Bettie	3,201	113.1	29.30	Dec. 1	
Total	59,078	2,209.1	$517.19		
Ave.	4,923	184.1	43.10		

Table II—Production Oct. 1, 1925 to Mar. 31, 1926

Cow	Milk	Fat	Cost of feed	Date fresh	A
	Lbs.	Lbs.			Y
Roxie	6,567	230.7	$42.44	Sept.	
Bess	6,104	241.5	42.84	Sept.	
Bessie	7,652	276.1	45.98	Sept.	
Jane	7,200	265.9	43.04	Sept.	
Beth	7,260	283.2	45.98	Sept.	
Bob	7,699	284.1	54.89	Oct.	
Sally	6,326	179.8	41.83	Oct.	
Rough	7,021	237.3	43.04	Sept.	
Belle	6,798	265.1	45.10	Oct.	
Lady	7,894	276.4	45.70	Oct.	
Black	7,944	317.3	46.00	Oct.	
Bettie	4,974	187.3	40.04	Jan.	
Total	86,489	3,044.07	$536.88		
Ave.	7,207	253.68	44.74		

Feed costs were computed at the same rate for both years, the total cost being $19.69 greater during the second period of six months, or an average of $1.64 per cow. This slight increase in cost is more than offset by the total increased production of 83 pounds fat, which at the prevailing price of 51 cents a pound brought Mr. Grass an increased return of $425.83 or $35.48 per cow. The average profit per cow over cost of feed during the first period was $50.79, which was increased to $84.64 during the second period. This shows an increased pro-

per cow of $33.84 over feed cost for
ie second period, or a total of
106.15 for the 12 cows in the herd.
The feed cost per pound fat was re-
ıced from 23.5 cents during the first
eriod of 17.6 cents during the second
eriod. This is a reduction of 5.9 cents
pound or 25 per cent lower cost.
educed to terms of butter this lower
st is equivalent to an increase of
early five cents a pounds for butter,
hich would be considered very at-
active in any marketing plan and
ould bring in a large and enthusias-
c membership of any organization
ccomplishing this result.
The feed consumption during the
vo periods illustrates the value of
e better roughage supplied during
e second period. There was a reduc-
on in the feed consumption per cow
over 1,000 pounds in dry roughage
id 500 pounds silage, with an in-
ease of nearly 600 pounds grain.
he cost per pound fat was most
rgely affected by the decreased con-
mption of roughage, as during both
eriods it required practically 9 lbs.
ain to produce 1 lb. fat.
The following table gives a record
the kind and average amount of
ed consumed by each cow during the
vo periods:

ble III—Average Production and Feed Consumed by Each Cow During the Two Six-Month Periods

	Six months ending Mch. 31, 1925	Six months ending Mch. 31, 1926	In-crease	De-crease
	Lbs.	Lbs.	Lbs.	Lbs.
age	4,528	3,991		537
rn fodder	2,508	1,087		1,421
ver hay	1,312	802		510
lfa hay		870	870	
rn	312	477	165	
rley	394			394
ts	513	1,553	1,040	
an	340	138		202
meal	83	61		22
tals				
ry roughage	3,820	2,759		1,061
ilage	4,528	3,991		537
rain	1,642	2,229	587	
st of feed	$43.10	$44.74	$1.64	
oduction				
ilk	4,923	7,207	2,284	
at	184	254	70	

The twelve cows on which the rec-
ds were compared and two heifers
ded last fall comprise the milking
rd on the Grass farm, which occu-
es a quarter section located near
avana village. A herd of fourteen
ad might seem at first mention to
too small for so large a farm, yet
e plan of fewer and better cows,
red for and fed efficiently, has
oved to be the most profitable.
In addition to dairying, Duroc-
rsey swine are raised extensively
d contribute a large share of the
tal income of the farm, as there
no other source of revenue beside
irying and swine except an av-
age farm poultry flock. About 125
gs are marketed each year.
EDITOR'S NOTE:—The rather un-
ual increase of 40 per cent in pro-
ction aroused our interest and we were inclined to ascribe a no inconsiderable amount of this to the two rations fed. However, we were surprised, as the reader may be surprised, to find that according to standard analysis the cows during the first period received more than sufficient total nutrients to produce the same quantity of milk they did in the second period, but they did lack something over a half pound of protein to do this. During the second year, although the daily allowance of total nutrients was less and the protein was greater, they had sufficient total nutrients for the amount of milk produced and were slightly under the required protein. The following tabular statement shows these comparisons:

Table IV—Computations Based on Tables I, II, and III Showing Digestible Nutrients Consumed, and Daily Production Per Cow During the Two Six-month Periods Ending in March 1925 and 1926, Together with Feeding Standard Requirements for the Indicated Production

	First period	Second period
1. Total protein per cow, lbs.	396	448
2. Total nutrients per cow, lbs.	3,996	3,751
3. Daily protein per cow, lbs.	2.2	2.5
4. Daily nutrients per cow, lbs.	22.2	20.8
5. Daily milk per cow, lbs.	27.3	40.0
6. Average per cent fat	3.74	3.52
7. Required daily*	3.75	3.50
A. Protein	2.1 to 2.2	2.6 to 2.8
B. Total nutrients	16.1 to 17.6	19.3 to 20.9
8. Nutritive ratio		
A. As feed	1 to 9	1 to 7.6
B. Standard requirement	1 to 7	1 to 6.5

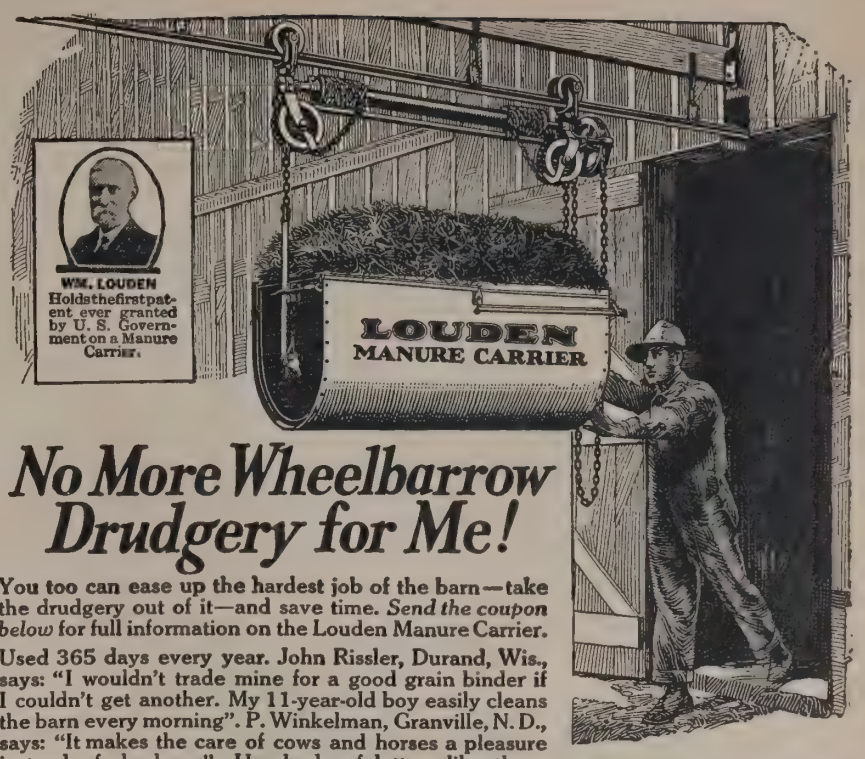
*Minimum requirements for a 1000- to 1200-pound cow producing the quantity and quality of milk shown in 5 and 6.

The standard analysis may not tell the whole story, particularly when applied to the corn fodder which was fed at the rate of 14 pounds daily during the first period and only 6 pounds daily during the second period. It is quite possible that the cows did not recover 3% protein and 53 per cent total nutrients when corn fodder was consumed in these quantities daily. In general, the improved effect to be expected from the ration of the second year was quite largely in its better balance and the increase in protein. However, even during the second year when the total nutrients supplied were approximately correct according to the standard, the nutritive ratio stood at 1 to 7.6 instead of the recommended ration of 1 to 6.4 for the production of 40 pounds daily of 3.5% milk.

From the record as given it would appear that the 40% increase in production was quite largely the combined effect of three times a day milking, adequate water supply, and a somewhat better balanced ration, and possibly that intangible improvement in production of cows in certain years without apparent reason. The owner of these cows has an excellent record of production to strive for and to beat, besides which he has the satisfaction that comes from an increased profit of over $400 for six months of intelligent work.



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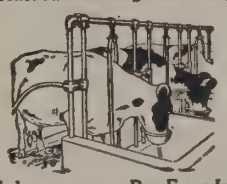
Used 365 days every year. John Rissler, Durand, Wis., says: "I wouldn't trade mine for a good grain binder if I couldn't get another. My 11-year-old boy easily cleans the barn every morning". P. Winkelman, Granville, N. D., says: "It makes the care of cows and horses a pleasure instead of drudgery". Hundreds of letters like these.

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KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wisc.

The Feeding of Dairy Cows

(Continued faom page 112)

during which time feed them adequately to the extent that they will be in good condition when they freshen. For cows that produce up to 300 lbs. of fat a year, the above practice in most cases will suffice to meet their mineral requirements. The chief factors are the feeding of plenty of legume hay, the rest periods, and the adequate feeding when dry.

Direct sunlight and green grass are known to influence mineral assimilation to a greater extent than any other factors. From this it follows that the best time to build up any mineral depletion that may have occurred in the cow's body during the time of her greatest need is in the summer time, in direct sunlight, on green grass when the cow is dry.

The same practice applies also to higher producing cows but it is thought that even with this their mineral requirements are not fully met. To supplement the ration a simple mineral mixture is recommended. The mixture is composed of equal parts by weight of salt, bone meal, and finely ground limestone. It may be self-fed or 3 to 4 ounces given daily to each cow in her feed. It is advisable to feed it the year round. There is no objection to feeding it to lower producing cows.

The salt supplies sodium and chlorine, the bone meal supplies calcium (lime) and phosphorus, and the limestone supplies calcium. In sections where goiter in calves is experienced, it is recommended that a tablespoonful of a solution of one ounce of potassium iodide in one gallon of water be sprinkled on the feed of each pregnant cow each day for at least the latter half of the pregnancy period.

Vitamins

Of late years science has discovered that proteins, carbohydrates, fats, and mineral matter are not the only factors that influence the nutrition of cows. These new discoveries are called vitamins of which five have been somewhat studied more for their effects rather than their composition. Of these five, only two or possibly three are of concern to dairymen.

Vitamin A, the first discovered, is found in butterfat, cod liver oil, yellow corn, and in the green parts of plants. It is not rendered inactive by drying as in haymaking. Well cured hay, especially legume hay, suppli this vitamin in liberal amounts and is thought that cows liberally fed good roughage receive enough of th vitamin to meet their needs. Cere grains, aside from yellow corn, a generally poor in vitamin A. Ski milk is likewise poor in vitamin A, fact that must be considered in fee ing young calves. Some whole mi containing the fat should be conti ued until the calves begin to eat so legume hay. Skimmilk may then entirely substituted for whole milk

The chief functions of vitamin seem to be to promote growth in t young, immature animal and to pr tect health in the adult. The dair man who feeds good rations such have already been suggested in pr vious articles, need not worry abo vitamin A.

The second vitamin that may co cern dairymen is the fourth one d covered, commonly known as D, the antirachitic vitamin. Its ch function, so far as is known, is to pr mote the assimilation of minera particularly calcium and phosphor For this reason it prevents rickets young growing animals and osto porosis in mature animals that r large quantities of calcium as w heavy producing dairy cows.

The problem of mineral assimi tion is, therefore, closely linked with vitamin D in that the one su plies the actual mineral substan while the other promotes its stora and use in the cow's body. Good tions and the right kind of cow ma agement as have already been su gested under "minerals," usually ta care of the requirement for vi min D.

A third vitamin called X may ha something to do with feeding co It has to do with reproduction of t young. Too little is known about occurrence in dairy feeds to warra further statement.

The next article of the series wi conclude it with a summary of the i portant factors in calculating go rations and other factors that infl ence the efficiency of the feeds used

101 Wisconsin Grade Guernseys Sold for $15,200

The sale of grade Guernseys he January 18 at Waukesha, Wis., y Aplin & Benjamin and Geo. McKerrow & Sons Co. was a good one wh very fair prices for good grades. One hundred one grade cows and heifers of milking age brought $15,200, an average of just over $150 each. Ne head sold for $200 or over and on one under $100.

The top price of the sale was $10 for a 7-year-old springer that had n official record of 807 lbs. butterfat from 18,012 lbs. of milk. John A. Davis of Wisconsin purchased he with Geo. Hankinson of Pennsylvania, the largest buyer, the last contending bidder.

It is interesting to note that seven of the nine cows selling for $200 or more had production records.

1927 Dairy Cattle Congress Dates

Secretary Estel of the Dairy Cattle Congress at Waterloo, Ia., announces the dates for the 1927 show as September 26—October 2 inclusive.

Not His

"Did my wife speak at the meeting yesterday?"

"I don't know your wife, but there was a tall, trim lady who rose and said she could not find words to express her feelings!"

"That wasn't my wife!"—Karaturen (Christiana).



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"Have a Camel!"

R. J. REYNOLDS TOBACCO COMPANY, WINSTON-SALEM, N. C.

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Trailing Holsteins to South America

(Continued from page 115)

soundings as we advanced, and finding most of the time about six fathoms of water. A few miles out from Buenaventura, somebody was discovered coming toward us, paddling at a remarkable clip. By and by we met and it turned out to be the pilot, although you never would have guessed it. We slowed down so he and his assistant paddler could lash their dugout to the Humming Bird and come aboard the rope ladder that was already dangling over the side for their convenience.

The pilot was a little, old-looking body, of about 65 years I would judge—although ages in this country are deceiving—spectacled, barefooted, and quite disgusted because we had not waited until tomorrow to arrive. He said they did not expect us until *manana* and for that reason we should not have come till then. But no one argued with him and he did not refuse to pilot over the course of the channel so, I guess, his indignation must have died out.

Once the anchors were sunk in the black Colombian mud, the doctor came aboard. But not finding the contagion or rash on any, the yellow flag was allowed down. But not the Colombian; it stays on the foremast until we leave. Three customs men remain on the ship to, so far as I can see, save board ashore—a custom, Colombian. Together they took out their pistols and shot all their ammunition away, practicing on tin cans floating past the ship. The steward on the Humming Bird gets a bonus back in New York providing he can feed the crew under a certain figure, so naturally he is not pleased with their company.

We have some autos, corrugated roofiing, and barbed wire for the Colombians, 700 tons in all; but just how long it will take to discharge it nobody knows. And nobody ventures to guess and particularly those who have been in this port before. The rooms were out and the winches oiled; we were all set to begin unloading at 3 p. m., but something turned up ashore with the stevedores and the plans fell through. Now it will be *manana*.

December 29. Early the gangway was cluttered with hold-tarps, hatch-planks, strongbacks, cables, blocks, tackle, and negroes in miscellaneous number. These stevedores are broken-down black boys shipped down here from the mines in the interior to recover health and at same time be earning a stipend. They are a slow lot but of course the pay is no incentive to hurry, so there is really two sides to the question. But if the number of pieces of raiment they wear is any criterion of the relative cost of living, then you would say they don't need more pay. They came on the ship barefooted, barelegged, barebacked, and mostly bareheaded, many wearing just loin cloths. Again, some wear a necktie without a shirt.

These blacks are dull and simple and everybody takes advantage of them, we included. I have just dealt a raincoat without sleeves for two bunches of bananas, and if this *hombre* has any luck in the other fellow's banana plantation tonight, the exchange will take place in the morning. But ignorant as they are, they are not so thick that they have not contracted two of the white man's vices, namely, profanity—which is spoken fluently—and stealing. Everybody keeps his cabin door locked on board ship.

December 30. A gang of black boys tried to work at the cargo all night, but a deluge at 2 a. m. drove them to shelter, a good many congregating in front of my cabin. They talked and gabbled in Spanish which let me out on everything but the noise.

To bring this ship through the canal cost $6,200, or one dollar per cargo ton, which is quite a charge. But when you stop to consider that it would take three times that amount to steam it around the Horn, then it does not sound so unreasonable after all.

It is 3:30 p. m. and a great commotion has just taken place among the black boys. It is a conference on conditions; the barbed wire pricks their feet, so they have decided to knock off with the work for today, or till *manana*.

[EDITOR'S NOTE: This is the third of a series of six articles by Mr. Beattie. The next will appear in an early issue.]

Thermos Bottles on Wheels

HOARD'S DAIRYMAN:—Thermos bottle tanks on wheels, capable of hauling milk hundreds of miles through intense heat with only a two-degree rise in temperature, are being used by the Riverview dairy of Portland, Oregon. They are handling milk from the Woodland district in Southwestern Washington at a cost of 10 cents per 100 pounds as compared with 25 cents in ordinary cans. As a result, the Clarke-Cowlitz Dairymen's Association has a contract with Riverview under which it is more profitable to sell whole milk than to make cheese at its Woodland factory, and cheesemaking has just about been discontinued.

For milk cooled on the farm and again at the plant before loading into the 11,000 gallon tank wagons, the association receives 15 cents per pound butterfat above the highest Portland market price for sour cream, which for two years past has been much more satisfactory than cheese prices. The contract is binding upon the Portland distributor only during the latter half of each year. During the first half of each year it may have the association's surplus at the same price if desired.

Oregon. G. N. ANGELL.

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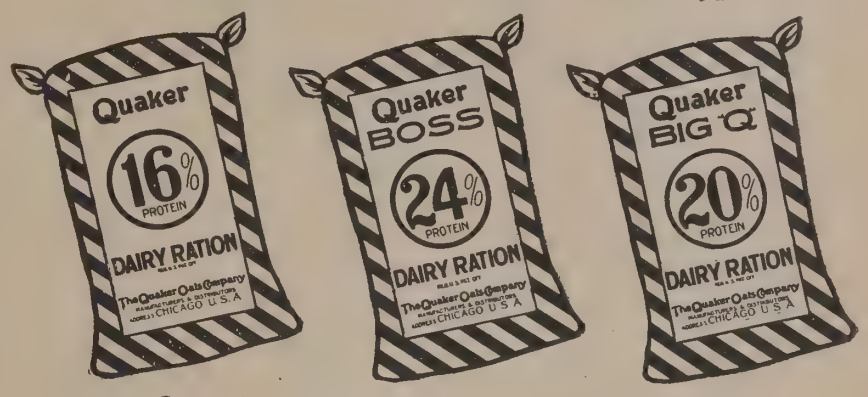
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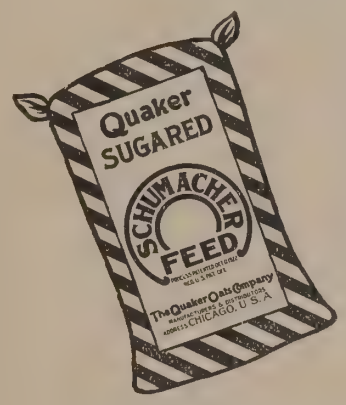
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Closing Out—Registered Holstein cattle on account of subdividing farm. 30 head as follows: 12 cows three to eight years of age, 3 from thousand pound dams and 2 out of 975 pound dams; 9 two year old heifers due to freshen soon; 4 yearling heifers; 4 heifer calves; 1 bull calf; and herd sire, King Lavera Homestead 297960, thousand pound show bull 3rd prize as a two year old at the National Dairy Show and 1st prize as a three year old at Illinois State Fair. This is opportunity seldom offered to anyone wishing to start in Holstein business. A real herd of cattle that we spent years in getting together. Priced to sell. BAINRIDGE FARM, Lisle, Illinois.

Grade Holsteins—Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years' experience. Can also furnish grade or registered Guernseys. JOHN ERICKSON, Waupaca, Wis. 18-Spl

Holsteins—Get your next Ormsby bred bull from State Institutional herd. Bred for high yearly production. Send for free bull list. Can furnish nice lot of grade heifer calves. BOARD OF CONTROL, State Capitol, Madison, Wis. 3-6

For Sale—22 head grade Holsteins and 1 registered bull. Priced reasonable. WARREN HORGAN, Palatine, Illinois, 26 miles from Chicago.

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

For Immediate Sale—Herd of forty registered Holsteins mostly fresh young cows. Sir Pietertje Ormsby Mercedes breeding. H. E. CHIZEK, Wahpeton, N. D.

For Sale—30 head of high grade Holsteins, fresh cows and springers. E. E. LEWIS, R. R. 3, Racine, Wisconsin. 3-2

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Three handsome Holstein heifer calves, registered, $100. ALFAKORN FARM, Evansville, Wis. 2-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Guernseys—Have sold my farm; will sell all cows; heavy producers; young; most of them to freshen; tuberculin tested. G. B. NEWCOME, Pewaukee, Wisconsin.

My Entire Herd grade Guernseys and four pure breds. Big producers. Clean herd. Result of 20 year's breeding. A bargain. FRANK PEPIN, Chippewa Falls, Wisconsin. 3-2

Registered Guernsey Bulls, serviceable age. Guaranteed breeders. Accredited herd. Bargains. FRANK KLEMM, Baraboo, Wisconsin. 3-2

Guernsey Bulls of serviceable age. OTIS A. MARKEN, Valders, Wisconsin. 3-3

Grade Guernseys—We are offering for sale 13 yearling heifers T. B. tested, free from disease. Priced to sell. GUST GRABS & SON, Kiel, Wisconsin.

For Sale—Special offering 2 registered Guernsey heifer calves and 1 bull not related. See display ad page 166. LINWOOD GUERNSEY FARM, Homer Rundell, Livingston, Wis. 1-*

Guernsey Bulls for sale, 4 to 13 months. Dam's record 650 lbs. fat. Popular breeding. Write DALE E. RUNDELL, Livingston, Wisconsin. 3-3

Registered Guernsey Bull and heifer calves and yearling heifers. ALBERT B. HANSEN, Luck, Wisconsin. 1-3

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

High Grade Guernseys. Justamere Guernsey Farm is offering your choice of herd, no reactors, 60 day retest guaranteed if they go into clean place. Fresh, springing and fall cows. Prices very reasonable. CHAS. W. BLOTT, Mukwonago, Wis. 17-*

Guernsey Bulls of serviceable age from A. R. dams; also grade Guernsey springers. FRUIT BROS., Waukesha, Wisconsin. 1-3

A good herd of heavy producing Guernseys. 22 young cows, registered bull. T. B. tested, free from disease. Priced reasonable. C. J. FRIES, Ogdensburg, Wisconsin. 2-2

For Sale—Four young Registered Guernsey cows. Fresh. Half-sisters to a 906-pound class leader. Federal accredited herd. HARVEY LONGLEY, Dousman, Wisconsin. 2-2

Guernseys for sale. Rock County Guernsey Breeders' Association Co-operative. Write FARM BUREAU, Janesville, Wisconsin. 2-4

Guernsey Herd for Sale—20 heavy producing, young, high grade cows, T. B. tested, free from disease. Priced reasonable. WALTER KEMP, Ogdensburg, Wisconsin. 26-6

For Sale—Sophie Tormenter bull calves from one to eight months old, out of high class cows. If interested, write for full particulars. C. F. KNECHTEL, Larned, Kansas.

Flora's Queen's Raleigh's Grandsons for sale cheap. From extra good dams. Federal accredited. J. L. SNYDER, Holden, Missouri.

Registered Jerseys. L. & C. MASON, Armington, Illinois. 27-4

Registered Brown Swiss Bulls. Three to fourteen months old. Herd federal accredited. JOHN ROCKE, Carlock, Ill. 2-2

Brown Swiss Cattle—Herd Federal Accredited, from famous Hull breeding. Write your wants. Prices reasonable. S. C. BOOHER, Albany, Indiana.

LIVE STOCK WANTED

Wanted to Buy—30 to 40 high grade or registered Guernseys, fresh or very close up springers, not over 5 years or under 3 years old. What have you? GREENWOOD & HADLEY, R. 6, Bloomington, Ind.

Wanted—Two grade Guernsey cows fresh or freshen soon. Must be clean and producers. State age and price, cash. BLACK WOLF POINT FARMS, Oshkosh, Wisconsin.

Wanted—High Grade Guernsey heifers from 8 to 12 months old. Must be priced right. OWEN SKILES, R. 8, Frankfort, Indiana.

Wanted—Holstein bull. Will buy old one if records and individuality are exceptionally good. M. BURKE, Dorchester, Iowa.

MACHINERY

For Sale—De Laval Milker; Pulso pump No. 45; General Electric Motor, 2 H. P.—A.C.; two single milking units; one extra can; all first class condition; eighteen sets stall cocks. Price $225.00. JOHN MANNING, Clarksville, Tenn.

For Sale—Slightly used 6 H. P. International gasoline or kerosene engine. Will guarantee condition. First check for $75.00 takes this bargain. L. G. JOHNSON, Box 217, Whitewater, Wis. 3-2

No More Infected Quarters. Use the Automatic Air Trap Milk Tube. Practically eliminates infection. $1.00 each, postpaid. Agents wanted. Money back if not satisfied. H. C. GLISSMANN, Jr., Patentee, Sta. B., Omaha, Nebr. 3-2

Two double unit Empire milker. Pump, tank, pipe, fittings for 24 cows. Pails, valves, good. No further use to me. First $75 check takes this bargain. JAMES McNEILLY, Center Junction, Iowa.

Wanted—Farmers, who would like to make $20.00 or more per acre by growing soybeans with the corn, to write for 36 page book. Address L. C. NOTBOHM, Rome, Wisconsin. 2-3

New Perfection Two Double Unit milking machine used only sixty days. Will sell at big discount for want of use. OSCAR D. GRUVER, Abbottstown, Pennsylvania. 1-3

Another Bargain—Complete two-unit DeLaval Milker, everything but piping. First check for $125.00 takes it or will ship C. O. D. J. C. MARLOW, Mankato, Minnesota.

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Cherry pasteurizer, 150 gallon capacity. Brown recording thermometer used less than one year. MRS. AGNES RUEHMAN, R. 5, Davenport, Ia. 2-2

Separator Bargain for quick sale. Seven new separators in original boxes. F. J. NICHOLS, Box 255, Lansing, Michigan. 3-4

Boilers, new 5 horse flueless, $170. All sizes, low prices. CASEY BOILER WORKS, Springfield, Ohio. 3-Spl

De Laval Milker—Large pump; two single units; one extra pail. In first class condition. Willing to sacrifice. R. B. FOWLER, Hartford, Michigan.

For Sale—New Page electric, two unit milker, $200.00. Cost $315.00. H. E. ANDERSON, Whitewater, Wisconsin. 3-2

Two Unit DeLaval Milker used ninety days. Complete. WALTER SCHMIDT, Burlington, Wis.

Wanted—Junior churn for farm creamery. GUY BRADBURY, Holden, Mo.

Wanted—Used Hinman Milker. Must be cheap. Address BOX 294, care Hoard's Dairyman.

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

German Police Puppies, 3 months old. Pedigree contains four International Grand Champions, one Reserve Grand Champion, and six champions. ROBERT JAMISON, Appleton, Wisconsin.

For Sale—Pups, Shepherd-Collie cross, born Oct. 29, 1926. Price $6.00 each. WARNER HEITZ, R. 1, Fort Atkinson, Wisconsin.

English Shepherd Pups. Males $3.50. JOHN AURENTZ, Hamel, Minnesota.

Pedigreed German Police Puppies, Hohendyk strain. LLOYD ZIMBRICK, Beardsley, Minnesota.

POULTRY

Bronze Turkeys, Toulouse Geese, McCRADIE, Hendrum, Minnesota. 1-4

Mites exterminated from any chicken house in thirty days without oil, spray, or poison. Method endorsed by Minnesota School of Agriculture. Write for free circular. A. D. SCHIEK, 307E Fawkes Building, Minneapolis, Minnesota. 2-2

BABY CHICKS

Unusual chicks—Peters-Certified now for the fourth season sent with a real guarantee to live. This insures that the chicks are properly hatched from healthy flocks and helps protect you against loss during the first two weeks which may occur if chicks are not delivered in perfect condition. We are a reliable organization of 250 successful poultry breeders and supply at very reasonable prices only chicks from our own Peters-Certified flocks having high egg production records. All popular breeds perfected in egg laying and health by our poultry specialist, A. G. Peters, as explained in our illustrated catalog supplied on request, which also tells how you can secure a complimentary copy of our valuable poultry book, "A Money-Making System of Poultry Breeding." PETERS-CERTIFIED POULTRY BREEDERS' ASSOCIATION. Just address Peters-Farm, Box 571, Newton, Ia. 2-*

Liberal Discount on Broiler Chicks—Get chicks for broilers that you can raise. We can supply left-overs from heavy, or light breeds from Peters' Certified Flocks. These are positively not culls, but big, strong, bright eyed chicks that grow rapidly. Order now. Big discount on orders booked early. These are exceptional values. 100% live delivery guaranteed. Write for catalog and price list. PETERS POULTRY FARM, Box 572, Newton, Iowa. 26-*

Pure Bred Chicks from high egg producing breeders. All breeders Hogan tested and strictly culled for correct size, type, color, and health; correctly mated for high egg production. Write for our new free "Poultry Profits" book containing valuable information for the poultry raiser. Liberal discount on all orders booked early. Pure bred chicks of all standard breeds for immediate delivery. WEDGEWOOD POULTRY FARM, Box 188, Pontiac, Ill. 3-*

FOXES

Alaskan Blue and Silver Black Foxes—Breeder-agents wanted, who will start with our foxes, insured 12 months, express paid. Booklet free. Twenty year references, six banks. CLEARY BROS. FOX FARMS, Seattle, Washington. 20-12

EXCHANGE

Will Exchange equity in quarter section farm, for dairy cows. THEODORE M. JACOBSON, Route 4, Worthington, Minn. 2-2

SWINE

Wanted to Purchase—Thorough pedigreed Tamworth boar 3 or 4 months old. J. J. HARRINGTON, 812-38 S. Dearborn St., Chicago, Ill.

Large Yorkshire boars and bred gilts. MILTON HAND, Center Point, Iowa. 2-4

FARMS FOR SALE

In the San Joaquin Valley of California farming is now a paying business, feeding millions of people in towns. Dairying, hogs, poultry and fruit should yield a good income. A small one-family farm, with little hired labor, insures success. You can work outdoors all the year. Best crops to plant are well proved. Selling is done co-operatively in established markets. Newcomers welcome. The Santa Fe Railway has no land to sell, but offers a free service in helping you get right location. Write for illustrated San Joaquin folder and get our paper, The Earth, free for six months. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Railway, 951 Railway Exchange, Chicago. 26-6

64 Acre Hudson R. Valley Farm on state road and bus line with homestead alone worth price, 9 splendid rooms, slate roof, beautiful views; motor bus passing, markets in 3 cities accessible; 60 acres level plow land, 15 cow pasture, good barn, ice house, other farm buildings. City owner accepting low price $5000 to close quickly, only $1500 needed, and 6 cows, pure bred hens, farm equipment and crops thrown in. Details page 24 big illustrated Catalog. Copy free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

North Florida Dairy Farms. No tuberculosis. Lowest summer price for milk $5.80 per hundred. Beautiful, high, rolling country. Permanent all year around legume and grass pastures. No feed to buy. No blizzards or hurricans. Cooler in summer, warmer in winter than your country. Improved farms ready for plow $25 to $50 per acre. Easiest terms. Splendid water, good roads, schools and churches. Many Northern farmers with pure bred herds now here. Land values rising. For details write CHAMBER OF COMMERCE, Monticello, Florida. 27-4

2000 Middle West farmers moved to Oregon in last two years, after thorough investigation. They like our mild winters, cool summers, with no severe storms to ruin a season's work and destroy property. Fine roads and schools, productive soil, good official bulletins and illustrated facts booklet, free. Land Settlement Department, OREGON STATE CHAMBER OF COMMERCE, 265 Oregon Building, Portland, Oregon. 3-4

Dairy Farms Big Opportunity: South Florida where fast growing population makes high priced markets—richest muck and prairie land grows all year forage, as well as fruit and truck crops. Good water, good transportation, two cross state highways, paved, borders property. Two mainline railroads nearby, adjacent to the fast developing, beautiful Ridge Section. One of the best dairy developments in the state adjoins this. Both east and west coast cities market available. Prices of milk very high. Cost of feed low. Large holdings to choose from. For further information write M. W. WOOLSEY, 430 South Michigan Avenue, Auditorium Hotel, Chicago. 2-3

Two splendid dairy farms for sale, cheap. 245 acres and 300 acres adjoining. 5 miles from Louisiana, Mo. Fine corn and blue grass land; good improvements, excellent roads, market, and schools. For full particulars, write to ROBERT A. MAY, Louisiana, Missouri.

North Dakota—Every farmer likes rich black prairie soil such as is found in North Dakota. Your choice of a number of these improved farms of 80 acres up while they last at unheard of prices, $200.00 to $1000.00 cash, balance 36 years at 5 per cent. Write for information. Dept. 20, FEDERAL LAND BANK, St. Paul, Minn. 3-Spl

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

Farm For Sale—Forest County, Wisconsin. 200 acres with 125 acres under cultivation. Modern buildings. On trunk line, four miles from station. Good schools and churches. Inducement for immediate sale. D. J. RAYMOND, Wrightstown, Wisconsin. 27-*

219 Acre Farm for quick sale near Lake Geneva in Walworth County, Wisconsin. Modern improvements. Compelled to sacrifice. WISCONSIN MORTGAGE & SECURITIES COMPANY, 105 Wells St., Milwaukee, Wisconsin. 2-2

For Sale—186 acres equipped for dairy, Central Pennsylvania. Finest of land and good roads to excellent markets. Across the river from town of 7,000. Address BOX 281, care Hoard's Dairyman.

My 100 Acre Farm—15 acres mint land. Bearing Orchards Dairy barn, silo, horse barn, 10 room house, light plant. Flowing well; good roads. For quick sale, $8,500. WARD WRIGHT, Galien, Berrien County, Michigan.

For Sale—480 acres dry land, improved, shallow to water, $6,400. Terms. Owner, E. A. PIKE, 27 East 8th Avenue, Denver, Colorado.

Dairy Farms—"Davidson Plan"—160 acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 3-5

Highly Improved Southern Dairy Farm—206 acres, two miles to city thirty thousand population, large modern barn, complete equipment, herd, routes, and going business. Modern home. $38,500, and worth it. Address BOX 230, care Hoard's Dairyman.

For Sale—540 acre well improved dairy farm one mile from Hettinger, the county seat—a good, live town. Good new buildings, house wired for electricity, excellent water. For terms and particulars address owner, J. A. BALSIGER, Hettinger, N. Dakota. 2-3

For Sale or Rent—Highly improved dairy farm, 155 acres, located on the edge of city limits Fergus Falls, Minn. Possession Mar. 1, 1927. ULLAND LAND CO., Fergus Falls, Minn. 2-3

Wonderful Opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Ga.

Will Sell or Rent choice alfalfa land. Farm on highway and railroad. DR. SPARKS, Demopolis, Ala. 3-2

84 Acre Farm for sale or rent. One mile from Campellsport, Wis. H. SCHIMELPFENIG.

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

FARMS WANTED

Want 200 to 400 Acres. near school. WALT MILLER, Carpenter Bldg., Milwaukee.

Wanted—Equipped farm; give price, etc. L. H. RAISLER, 6700 Wentworth Ave., Chicago, Ill. 3-*

FOR RENT

For Rent—1000 acre stock ranch, located near Newburg, Phelps County, Missouri. 800 acres fenced hog tight, good buildings, near school, ranch spring watered. If interested write W. E. WALLER, Charles City, Iowa for terms and full particulars. 3-3

For Rent on Share Basis—Southern Wisconsin—High grade 200 acre dairy farm, strictly modern, A-1 dairy barn, fine house and out buildings, 50 high grade Guernsey cows now on the place. Address BOX 286, care Hoard's Dairyman.

For Rent—135 acres 4 miles from Kenosha on County Highway. 110 acres cultivated. Soil fertile. Wonderful markets. Good buildings. Modernly equipped. PETER GOODMAN, R. 3, Kenosha, Wis.

For Rent—On shares, 200 acres modernly equipped dairy farm. Reference required. J. H. PORTER, Marshall, Wisconsin.

For Rent—April first, 120 acre dairy farm. MILES ALDERSON, Stanley, Wis.

For Rent—First class dairy farm. GEORGE DAY, Fond du Lac, Wis. 2-2

For Rent—Good dairy farm, 200 acres, stock and machinery, on shares. V. V. BRADY, Lyndon, Wis.

PARTNER WANTED

Partner Wanted for thriving retail dairy. 40 Jers... Modern equipment. Select trade. Fine all year ... mate. Near town and good schools. Two can m... good income. Room for expansion. Must be ... dairyman, clean in every way. Prefer American, ... testant, with small family. Few thousand will han... Now have several thousand invested. Address T. ... MORGAN, Box 643, Prescott, Ariz.

Wanted A Partner—Experienced, with some cap... or cows, to manage farm or pasteurizing plant in ... of 20,000. Output unlimited, a good proposit... Address BOX 291, care Hoard's Dairyman.

DAIRIES

The Best Dairy and creamery opportunity in ... South. First class, 600 acre dairy farm with ... milking herd, first class condition, good team of m... and saddle pony, modern barns, 100 stanchion m... ing barn, milking machine; good residence and ... tenant houses; 1000 gallon capacity creamery in ... of best city in Florida, excellent trade, good rep... tion; room on farm for additional herds. Will ... en easy terms; will sell half interest or whole. W... or wire. Address P. O. BOX 4461, Tampa, Fla.

REAL ESTATE

To Close Estate—44 acres Rio Grande irriga... cotton, truck, 9 acres citrus bearing; 2 houses, ... buildings. Would split. Terms. No trades. ... gain. MRS. A. L. LAWRENCE, Rt. 1, McA... Texas.

HAY

Alfalfa Hay for Sale. Write for delivered pr... ALBERT MILLER & CO., 192 No. Clark St., ... cago, Ill.

Alfalfa, Clover Hay, Dairy Feeds, for sale. W... or wire for prices. Weights and grades guarant... J. A. BENSON CO., 332 So. La Salle, Chicago.

Alfalfa Hay for Sale—A. B. CAPLE, Rou... Perrysburg, Ohio.

Wholesale hay and straw. Write us for pr... Consignments solicited. We buy straw or tim... J. D. REID & CO., 79 Board of Trade, Chic... Illinois.

Hay—Alfalfa and other kinds. Get our deli... prices We serve you best. W. A. FERSON ... & GRAIN COMPANY, Kansas City, Mo.

Alfalfa and all kinds hay. Ask for delivered pr... HARRY D. GATES COMPANY, Jackson, M... gan.

If You Want Alfalfa Hay, wire us. Government ... spection and grades at shipping point. PERRY L... BORN, Garden City, Kansas.

For Sale—Alfalfa and other hay, car lots. C... B. WING, Box 21, Mechanicsburg, Ohio.

Alfalfa and Prairie Hay. Delivered prices. SU... PEDERSON CO., Omaha, Nebr.

Hay For Sale—Any kind in carloads. GEO ... FREDERICK, Beaver Dam, Wis.

MINERAL FEEDS

Feed—Cow County Mineral Feed as fed by Wa... sha County Dairymen. Send $2.50 for 100 pound ... bag. WAUKESHA MINERAL PRODUCTS C... PANY, Waukesha, Wis.

FEED BAGS

We are now paying higher prices for empty ... bags. Write for quotations. THE DAYTON ... & BURLAP CO. Dayton, Ohio.

SEEDS

Jacques Seed Corn—Grown from my own pure ... select breeding stock, under my personal supervi... in North Wisconsin. Selected from standing ... before frost, dried out perfectly in my now dry h... equipped with individual ear racks, furnace heat ... forced ventilation. Every bushel carefully te... 95-100% germination and strong vitality. Inspe... and certified by Wisconsin Experiment Associa... Sold subject to thirty days test. Get reliable s... from North Wisconsin's largest seed corn gr... Golden Glow, Cold Resistant Golden Glow, Silver ... Minnesota Thirteen, Jacques' Northern Yellow ... Wisconsin 25. Also the highest grade Grimm Al... in officially labeled and sealed bags, pedigreed ... and barley. Write for illustrated booklet and pa... WM. H. JACQUES, Box H, Prescott, Wis.

Buy Your Grimm Alfalfa Seed direct from ... Introducer, and know that your foundation sto... pure, pedigreed seed, bred from the original G... strain. Acclimated to severe northwest temperat... since 1857. A. B. LYMAN, Introducer, Exce... Minnesota. The home of Grimm Alfalfa.

Winter-Hardy sweet clover, certified Grimm al... Order clover early, crop smaller than normal. A... from state registered fields; higher quality, ... prices. Write for free samples and delivered pric... Winter-Hardy seeds. NORTH DAKOTA GR... ALFALFA ASSOCIATION, State College St... Fargo, N. D. Co-operative organization of ore... growers.

Alfalfa Seed—Do you know why your alfalfa ... killed? You no doubt did not use hardy ... WESODAK alfalfa seed. The seed we mar... grown by our members who live in Western ... Dakota. We market from producer to consume... grow S. D. No. 12, Registered Grimm and Co... and absolutely guarantee genuineness of variety, ... for price and samples to THE WESTERN SE... DAKOTA ALFALFA SEED GROWERS EXCHA... Nick Caspers, President, Mgr., Rapid City, S. D.

Plant Kudzu for Hay and Pasture—More nut... than alfalfa and yields more. Grows on well d... soil without lime or fertilizer. Never has to ... planted and never a pest. Write for inform... CHEROKEE FARMS, Monticello, Florida.

Pure Certified Grimm's Alfalfa Seed direct ... the man that grows it. Hardiest and best. ... postal for samples and folder for full inform... TRIANGLE RANCH, Cottonwood, S. D.

Certified seed corn and Grimm alfalfa. Pure ... seeds, seed grains and poultry supplies. Book ... seed bargains free. Write NORTH STAR F... Cokato, Minn.

Clover, Alsike and Timothy Seed mixed, $4. pe... bushel. Alsike and Timothy mixed, $4.50 per ... Clover and timothy mixed, $4.65 per bushel. ... free. J. W. RICHARDS, Ferris, Ill.

Grow O. K. Beardless Barley. New two-ro... stiff straw, heavy, productive. Purity 99.36. ... lent opportunity for first growers. Write for ... tion. LONGACRE FARM, Phelps, N. Y.

We Specialize in White Blossom sweet clover ... Grimm alfalfa seed. For best seed and prices ... us. SEBENS BROTHERS, Milnor, N. Dak.

Alfalfa Seed—95% pure, $6.80 per bushel; Sc... sweet clover, 95% pure, $5.00; bags free. GE... BOWMAN, Concordia, Kansas.

Genuine Grimm Alfalfa Seed. White and ... sweet clover. Reasonable prices. SAM B... Newell, South Dakota.

Nebraska-Grown choice alfalfa seed. $13.... bushel. ROSENBERG BROTHERS, Lex... Nebraska.

NURSERY STOCK

Concord, Niagara and Delaware grape vines ... dollar; eight dollars hundred. California Privet ... 12"—18", $3.50 per 100. Agents wanted. H... FARMS NURSERIES, 3918 Ridgewood Avenue, ... timore, Md.

STATIONERY

Your stationery represents you. Good ... paper with an illustration of your farm or ... of your herd arranged nicely. Cost very litt... than the cheap variety. If you haven't a... tures to reproduce on your letterheads a... velopes ask us for illustrations of what we c... stock. Every breed of dairy cattle, and horses ... and poultry are also included. Book of 5,0... ranch and cottage names, 25 cents. H... DAIRYMAN ART DEPARTMENT, Fort A... Wis.

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $0.00 weekly, selling shirts direct to wearer. No ital or experience needed. Represent a real manu- facturer. Write now for free samples. MADISON RPORATION, 564 Broadway, New York. 13-19

ur New Household Device washes and dries win- s, sweeps, cleans walls, scrubs, mops. Complete fit costs less than brooms. Over half profit. RPER BRUSH WORKS, 295 3rd St., Fairfield a. 3-2

SALESMEN WANTED

alesmen wanted to sell "Waukesha Mineral Feed." lusive territory, good commissions. Ask for par- lars now. H. J. WELSH, Box 111, Waukesha, sconsin. 2-8

PRINTING

etter Heads—We specialize in printing Farm Letter ads. Give us a trial. HOARD'S DAIRYMAN T DEPT., Fort Atkinson, Wis. 19-*

CREAMERIES

or Sale—Creamery in large California city. Manu- turing 1000 to 1500 pounds of butter daily. Butter l to local stores. Address BOX 991, Oakland, ifornia. 1-4

MILK BOTTLE CAPS

uy caps direct from manufacturer, $13.50 per rel of 50,000, printed in one or two colors. Write samples. DEPOY BOTTLE CAP COMPANY, dletown Road, Muncie, Ind. 21-*

MATTRESSES

attresses made any size, low factory prices. Cata- free. PEORIA BEDDING COMPANY, Peoria, ois. 3-10

KODAK FINISHING

mazing Trial Offer! One Kodak roll film devel- l; 6 fine glossy prints; only 15c. ASSOCIATED TO, Box 1463-L, Cincinnati, O. 3-4

TOBACCO

omespun Tobacco—Smoking or chewing. 4 lbs., 0; 12, $2.25. Send no money, pay postmaster on ival. Pipe free for ten names of tobacco users. ITED FARMERS OF KENTUCKY, Paducah, tucky. 2-4

ld Ken-Tuk—Country Style. Natural Twist for ving and smoking. 12 twist $1.20 postpaid. Satis- tion assured. OLD KEN-TUCK, Box 754, Paducah, tucky.

omespun Tobacco. Chewing or smoking 5 lbs. 5, ten $2.00; cigars, $1.80 for fifty, $3.25 for 100. aranteed. Pipe free. Pay when received. FARM- S' UNION, Paducah, Ky. 2-4

omespun Tobacco—Mellow, sweet, aged in bulk; oking, 15 lbs. $1.50; Chewing, 15 lbs. $2.25. Sat- tion guaranteed. Pay when received. FARMERS' ON, Mayfield, Kentucky. 2-2

omespun Tobacco—Guaranteed chewing or smok- n 5 pounds $1.00; 10, $1.75. Pipe free. Pay when ved. UNITED FARMERS, Bardwell, Ky. 3-4

PRINTING

inting of Quality—250 envelopes, 250 letterheads, n paper, all for $2.25. Send $1.00 cash, balance n arrive. EGGLESTON PRESS, Corinth, N. Y.

s print milk tickets, checks, shipping tags, etc., farmers all over the country. Our work will se you. Write us now so you will have your ly on hand. HOARD'S DAIRYMAN ART T., Ft. Atkinson, Wis. 26-*

MISCELLANEOUS

vestigate before buying harness. Send for "Wear- " catalog. Pay $5.00 after thirty days free trial. monthly payments. JOHN C. NICHOLS CO., Erie Avenue, Sheboygan, Wisconsin. 1-4

ly one of our leather bound loose leaf pocket herd and be able to give accurate information re- ing the animals you have for sale. Will ac- odate 100 animals, (sketches, sire, dam, date of , records, service date, etc.). Also service record. tion table. Price $2.00, postpaid. HOARD'S YMAN. Fort Atkinson, Wis. 24-*

TESTERS WANTED

wa Cow Testing Associations need testers. Sal- $900 per year and up, plus board. Training es offered. Give age, experience, references first . DAIRY EXTENSION, IOWA STATE COL- E, Ames. 20-*

nted—Experienced tester for cow test association, ized and ready to start work. Need not apply s first class recommendations and training. DO McCORKLE, Secretary, Columbia, Ia. 2-2



dvertising in this department is 8c per word. Remit in advance.

POSITION WANTED

Position as manager or high class herdsman on mercial farm or country estate. College graduate. ied. Ten years experience, farming and animal sandry. Specialized low B. C. milk. Registered Test work. Best of references. Consider only class proposition. Available April first. J. A. s, Perrysburg, Ohio.

Farm Manager open for position March 1st. Thor- ly understand up-to-date farming in all branches pure bred stock. Must be an up-to-date farm be built up as such. Capable of handling large Very best of references. Ten years last place. ess BOX 278, care Hoard's Dairyman.

Position Wanted—Buttermaker at institution or Ten years' experience. 1st prize Michigan Dairy Convention. Age 58; weight 130 lbs.; health; no tobacco or booze. Anywhere, any References. J. L. DAVIS, 70 Cutler S. W., Rapids, Mich.

Married Man, 31, thoroughly experienced in calf , test feeding, barrenness correction and herd ement, desires position with Guernsey herd as ian. Give particulars regarding working and g conditions, size of herd and salary in first Address BOX 279, care Hoard's Dairyman.

Want a share proposition or to superintend large farm. Experienced in dairying, hogs, fruit g. Born and reared on farm, technically ed. Married, small family. Address BOX 293, Hoard's Dairyman.

Position Wanted—In Central or Southern Wisconsin farmer, dairyman of ability, trained in breeding ows, and in raising dairy calves. Also in feed- iry cows and in preparing them for exhibition. s BOX 441, La Crosse, Wis. 3-2

The Institute of Agriculture, Springfield, Massa- s, has a few first class men available for po- as farm managers, farm foremen, herdsmen, limen, poultrymen, and gardeners. 26-Spl

sman or general farm managing position March 1st. Young married man. Wisconsin graduate; experienced showman and stock Middle West preferred. ELMER VAUGHAN, Hermosa Avenue, Chicago, Illinois.

ion Wanted on farm near Lodi. Life experience n furnish references. State wages and length . FLOYD BURCHELL, Hillsboro, Wis.

POSITIONS WANTED

Position Wanted on dairy, by two men ages 36 and 26. Capable to take full charge. Four in family. Worked as herdsman and farm manager. Life experience in feeding and care of dairy cows and the production of Certified and Grade A milk, wholesale and retail trade. Understand machinery, tractors, etc. Southern states preferred. Address BOX 282, care Hoard's Dairyman.

Wanted—Position as herdsman on live dairy. Have good education and first class experience on large practical dairy farms. Good habits. Obtain results with clean and high producing animals. Please state breed, and size of herd. Address BOX 285, care Hoard's Dairyman.

Wanted—Position, by honest, reliable, experienced and successful farm manager, experienced in all lines modern breeding, testing, showing and caring for dairy cattle; field work and modern machinery. Address BOX 277, care of Hoard's Dairyman. 3-2

Manager, dairy farm, married, up to the minute on herd and farm management. Will handle your farm on a practical, economical basis. Wants position after March 1st. Address BOX 288, care Hoard's Dairyman.

Position Wanted—Milk route. Single, no bad habits, rapid worker. Up-to-date young man in every respect. Position accepted at once. State wages in letter. JOHN O. SOCKLER, 803 Elm Street, Marshall, Illinois.

Position Wanted—Experienced, practical farm manager and stockman. Can handle men and get results. Wife would cook for few men. Exceptional references. Address BOX 259, care Hoard's Dairyman. 2-2

Position—Wanted by experienced, reliable, clean man, 31, to test cows, 3 and 4 times milking, or assistant herdsman. Address BOX 295, care Hoard's Dairyman.

Position Wanted—By young experienced herdsman. Experienced in producing high grade milk, handling pure bred cattle, feeding and raising calves. Best of references. Address BOX 287, care Hoard's Dairyman.

Position Wanted by March 5th to manage on shares fully equipped farm with 25 cows. Have own help. N. S. RANCHE, Pine River, Minn.

I will work on farm or dairy at $35.00 per month. Steady, references, 4 years last place. LOUIS KERN, 3649 Wolfrom St., Chicago, Ill.

Wanted—Position in charge dairy herd. Experienced. Single. Southern location preferred. Address T. W. W., BOX 168, Guard, Ala.

HELP WANTED

An Opportunity for a general farmer, breeder and dairyman, who can prove his ability by referring to examples of his successful work. Must be of middle age, healthy, strong, active, energetic and intent upon his work. Must be a married man with not more than three well grown children. Wife must be an able strong, energetic woman, willing to help under all conditions about the household and farm work, as may be required. Must be a neat housekeeper and a good cook. Correspondence with such a man desired. Arrangements must be concluded by March 1st, 1927. FALLIS FARMS, Hillsdale, Mich. Address Fallis Farms, Nasby Tower, Toledo, Ohio.

Wanted—Married man, Protestant, small family, for calf and dry barn and general farm work. Wife to board men, (good cook and housekeeper). Also, single herdsman. Must be capable, reliable, willing and kind to animals. No cigarettes or liquor. Registered Jerseys. Southeastern Pennsylvania. State age, wages expected, and references in first letter. Address BOX 292, care Hoard's Dairyman.

Wanted—Herdsman capable of taking entire charge of pure bred and high grade Holstein herd. 25 cows in milk; product sold at retail. De Laval milkers used. Single man with at least two years dairy husbandry training and some experience preferred. In answering give age, nationality, experience, references, salary wanted, etc. Address WILLOW DALE DAIRY, Bottineau, N. D.

Wanted—Clean family on dairy farm in Illinois to furnish meals to about 10 men. Modern house. All conveniences. Near large town. Man to work on farm. Could use high class experienced creamery man. A1 references required. Address BOX 284, care Hoard's Dairyman.

Wanted—Single men for modern Guernsey Farm Northern Illinois, able to milk 25 cows, and willing to do general farm work. Only men of good clean habits. Wages: $60, board, and room. Tell all about yourself in first letter. Give reference. Address BOX 289, care Hoard's Dairyman. 3-2

Wanted—By March 1st, married herdsman for pure bred Guernsey herd. House, milk and garden furnished. State age, experience, size of family, and wages expected in first letter. LLOYD RUNDELL, Roberts, St. Croix County, Wisconsin. 2-2

Wanted—A married man, general dairyman, on modern Guernsey dairy. Must produce results and be a hustler. Also single hand for general farm. Must be able to handle tractor and all kinds of farm work. CHAS. GREENWOOD, Bloomington, Ind.

Wanted—March 1st, married man experienced in general farm and dairy work. Wages $70.00 per month, house garden and milk. Give age, nationality, size of family, experience and references. A. H. BUEHLER, Mgr., Clearfield Farm, East Moline, Ill.

Experienced Test Cow Feeder, either married or single wanted. An excellent opportunity with one of Wisconsin's best Guernsey herds. The right man will be advanced as he demonstrates his worth. LARSENS FERN-DELL FARMS, Green Bay, Wis. 1-*

Wanted—Married Herdsman capable of taking complete charge of twenty-five cows. Milking machine used. House, garden, and milk furnished. State wages, experience, and references. RAY McCAULEY, Hicksville, Ohio.

Wanted—Superintendent for a 160 acre Guernsey farm, 50 head doing A. R. work. No attention paid to answers unless you have made good. Tell all about yourself in the first letter. Address BOX 290, care Hoard's Dairyman.

Wanted—Single man for milk route and dairy work. Must be capable and thoroughly reliable (no cigarettes). Will pay liberal wages to one who will work for employer's interest. GROVER KULL, Genoa City, Wisconsin. 3-2

Railway Positions—Men, 17-40, wanting positions office or on trains, $125-$400 monthly, free passes, experience unnecessary. Write BAKER, Supt., 124, St. Louis, Mo. 1-24

Firemen, Brakemen, beginners $150—$250 monthly; also clerks, railroads everywhere (which position?). RAILWAY ASSOCIATION, Desk M-10, Brooklyn, New York.

Wanted—Single man to work with Holstein cows. Also married man with small family for general farm work. Good wages paid and only high class men wanted. LAKEFIELD FARMS, Clarkston, Mich. 2-2

Wanted—One or two dry hand milkers two and three time Guernsey herd. Also herdsman that can qualify as calf raiser. Graham course preferred. Address BOX 283, care Hoard's Dairyman.

Wanted—Test cow milkers, whole herd run yearly. Holsteins and Guernseys. Two shifts with DeLaval milker. BROADHURST-SCUDDER FARMS, Trenton, New Jersey.

Wanted—Married man to work in dairy. House and wood furnished. Fair wages. H. C. PAXSON, R. 4, Norfolk, Va.

Good girl for general house work. Must be steady. State wages expected in first letter. MRS. VINCENT FEE, R. R. 2, Plymouth, Wisconsin.

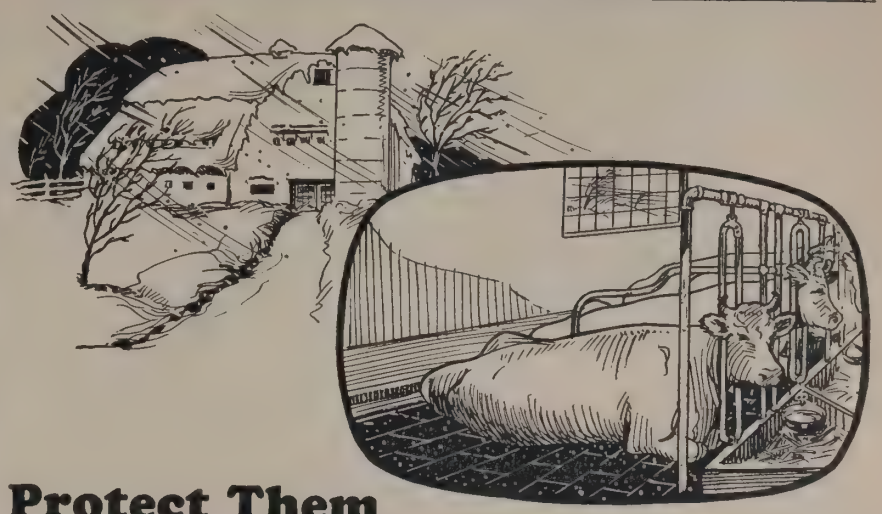
Middle aged woman to help with house work on northeastern Montana farm. Good home for neat reliable party. Mrs. Peter Nyquist, Glasgow, Montana.

Wanted—March 1st, single man on dairy farm. $60 per month for 8 months. ELVIN SWIGGUM, Blanchardville, Wis.

Wanted—Single man, general farm work, clean habits. J. V. STEVENSON, Streator, Illinois.

Wanted—Man for general farm work. No boozer. HARRY BELL, Darlington, Wis.

Wanted—Married man to milk 50 cows, steady work. ADOLPH WHITNEY, Chino, Calif. 3-2



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Cold or damp stall floors are not only decidedly dangerous to the health of your cows during the winter months, but they are frequently responsible for decreased production. Uncomfortable cows are invariably poor producers.

You can easily protect your herd against garget, rheumatism and other costly diseases and also increase your winter yield materially by flooring all stalls with Circle A Cork Brick. They make a warm, dry and sanitary floor that insures comfort and protection in all seasons. Circle A Cork Brick protect cattle against ground chill and dampness. They are non-absorbent and non-slippery, easy to lay, easy to clean—and they last for years.



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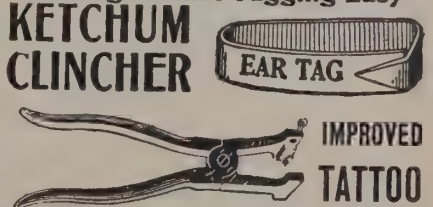
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Sale Announcements

Feb. 10—Holsteins. Ninth Annual Red River Valley Holstein Sale, Crookston, Minnesota. Melin—Petersen Co., Mgrs.

Feb. 15—Holsteins. Bailey & Bailey, Belvidere; Ill.

Feb. 16—Holsteins. Spring Dell Stock Farm, C. H. Lichtenwalner, Prop., Monroe, Wis.

Feb. 23—Holsteins. Stephenson County Annual Holstein Sale, Freeport, Ill.

Feb. 25—Holsteins. Dispersion of George Fox's Holstein herd at Sycamore, Ill. R. E. Haeger, Mgr.

Mar. 1-2—Holsteins. Holstein Dispersion of Walcowis—O'Connor Bros., J. W. Howard and Lauritz Larsen herds at Waukesha and Watertown, Wis. Haeger, Baird and Darcey, Mgrs.

March 23, 1927—25th and semi-annual sale of Registered Guernseys. Waukesha County Guernsey Breeders' Ass'n., Waukesha, Wis., F. E. Fox, Sec'y.

Mar. 24—La Crosse County Guernsey Breeders. Registered and high grade Guernseys, West Salem, Wis. H. W. Griswold, Sale Mgr.

April 26—Holsteins. U. S. National Blue Ribbon Sale at Oconomowoc, Wis. Haeger, Baird & Darcey, Sale Mgrs.

April 27-28-29-30—Holsteins. U. S. National Spring Sale at Waukesha and Watertown, Wis. Haeger, Baird & Darcey, Sale Mgrs.

May 3, 4, 5, 6, 1927—Fond du Lac, Wis. 400 head registered Guernseys. O. G. Clark, West Salem, Wis., Sale Mgr.

May 9, 1927—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.

May 31—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. M. B. Wood, Sale Mgr.

June 2—Holsteins. National Holstein Sale at Springfield, Mass.

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Our Advertisers Deserve Your Patronage!

Poultry on the Dairy Farm



Pays to Cull and Feed Right

HOARD'S DAIRYMAN:—F. J. Stevenson of Phelps County, Nebraska, is convinced that when one starts in the poultry game with well bred stock, culls rigidly, and pays particular attention to feeding, that there are good prospects for success.

As a vocational student at the state college of agriculture, Mr. Stevenson secured his first knowledge of poultry raising. He then purchased a 15-acre tract of land and 500 White Leghorns of good breeding. He kept accurate records and the first year his flock averaged 180 eggs each, and he had culled the flock from 500 to 380 birds.

All through the winter months oats are sprouted so that the hens will have an abundance of green feed. Besides a standard laying mash, buttermilk is purchased as a feed. The poultry yards are rotated each six months so that there will be clean ground for the flock. Rye is available each spring and until about July as forage for the fowls and then sudan grass in another lot is ready. Baby chicks, breeding stock, and broilers are all sold in season in addition to the eggs.

Nebraska. H. H. BIGGAR.

The American Hen

The poultry industry of the United States has been steadily coming into its present position of commercial importance since 1880, at which time poultry was first included in the farm census. The poultry industry, like other commercial and industrial developments, has followed very closely the increase and massing of our population in cities. The great increase which has taken place in the number of city dwellers has created an immense demand for the increased commercial production of poultry and eggs.

The poultry industry has developed during the past fifty years from a neglected side line on the average farm to a point where the farm yard flock has been increased in size, is better handled, and is considered by the farmer a very efficient contributor to his yearly income. Recent years have witnessed the establishment of thousands upon thousands of specialized poultry farms or commercialized henneries. These are found in the largest numbers near intensive centers of population where the demand for nearby high-quality eggs is ever present.

The great bulk of poultry and eggs produced in the United States comes from the Corn Belt States of the Upper Mississippi River Valley. There is a marked effort on the part of producers and shippers from this great poultry producing area to develop improved methods of distribution and thereby get their product into the market on a graded basis, in the shortest possible time, and of the finest quality.

During recent years, the Federal Census and figures from the United States Department of Agriculture show a marked increase in the number of chickens raised and in the number of eggs produced. In the years 1920—1924 the increase in chickens was 43% and the increase in egg productio 20%. This increase is steadily goin on year after year. These figure show that the poultry industry of th United States is keeping up with th ever increasing number of our peopl In 1920 the farm value of poultr products produced was more than on hundred million dollars greater tha the value of all cattle raised; mor than three hundred million dolla greater than the value of our entir wheat crop, and nearly four hundre million dollars greater than the valu of all fruits and fruit products pr duced. In fact, the estimated valu of poultry products is exceeded at th present time by only five other agr cultural commodities which are dairy, corn, cotton, hay and forag and swine.

It is true then that the America hen is a great national asset. She the producer of one of our most whol some and universally used huma foods; to say nothing of the gre volume of poultry meat which s produces. The American hen is ec nomically sound. A position of lea ership among our various agricultur commodities and the very satisfacto remuneration derived by farmers a poultry keepers is evidence of h economic position.

The American hen is a great cre tor of wealth. She is found in ever-i creasing numbers on practically eve American farm and is one of our mo universal sources of farm income.

During the recent World War it generally recognized that the Ame can hen saved the day for hundreds thousands of farmers in our big ag cultural states who, through crop fa ures, shortage of labor, and low pric were unable to carry on from the come from their normal crops but w were able as a result of increased re enues from the poultry flock to su cessfully weather the war period a the reconstruction days immediate following.

The American hen is a most e nomical producer of human fo There is no animal on the farm wh more efficiently manufactures a f ished product for human consumpti from the raw material which th consume than the hen. A little L horn hen, weighing around fo pounds, if well bred and well ma aged, will produce in a year a prod outside of her body in the form eggs weighing from twenty-five thirty pounds. To do this she v consume seventy-five to eighty pou of feed. Truly, the hen is a wonder machine.

The American hen is a universal vorite. It is a well recognized f that a far greater number of pers are interested in and actually c cerned with poultry than is the c in any other live stock industry. T back-lot poultry keeper, the fa poultry keeper, the commercial farmer, the exhibition and commer breeder, the baby chick producer but a few of the groups which help swell the ranks of the poultry fra nity.

The American hen is the safegu of the future. As our population c tinues to increase, as our populat tends to herd itself more and more to large cities, as our cheap graz

ds continue to disappear, we must, a nation, look more and more to t small animal unit as the source of o food supply. Our people must, o necessity, make poultry meat and gs an ever increasing part of their ly diet, if for no other reason than t fact that poultry husbandry lends itself readily to intensive methods a l limited areas.

The American hen is the producer o one of the greatest food products v ich has ever come down the ages. Te egg is one of our greatest pro- tive foods, being rich in the more iportant vitamins. Its greater use i the diet of old and young alike in- s es complete nourishment of the b ly and protects the human organ- is a against certain important nutri- t e deficiencies. The egg meat comes t us wrapped in a sealed container, t contents of which are untouched b the hand of man. Truly a wonder- f work of nature—truly a marvelous f d product!—National Poultry Council.

Despise Not Corn

HOARD'S DAIRYMAN:—Last winter v fed corn on the ear to a pen of s ne thirty Wyandotte pullets. It was s ply placed in the pen unshelled, a b shel or so at a time, and kept there t oughout the winter. The remain- d of our two hundred pullets were f in the usual manner, corn, oats, a l wheat furnishing the grain ra- n. All birds received green feed, e her cabbage, beets, or turnips, p ctically all winter. A standard l ing mash was fed in hoppers to all a ce and it was rather interesting to l rn when winter broke that the best e; yields had come from the pen w ich had had free access to whole c n. This pen was housed under the s e roof as the other birds. A spring c ck-up showed:

There had not been a single bird d d in the pen.

Percentage of production had been h her than any other pen.

Mash consumption per bird seemed a ut equal in all pens.

The corn pen had been practically free from colds. Roup developed among some of the other birds.

The birds receiving all of the corn they wanted were in better physical condition when spring came than other pullets in the house. Their eggs hatched just as well.

There is some difference of opinion even among authorities as to the value of corn as a poultry feed. One of Indiana's real producers uses two parts of corn meal to equal parts of other mash ingredients throughout the winter. About the last of February this is cut to one part.

After handling several thousand pullets, both our own and for others, I am convinced that rarely is a pullet too fat to lay. In fact, I doubt whether or not a pullet can be too fat to lay. Ninety-nine times out of a hundred it is not the fact that the pullet is fat that she fails to lay. It is a lack of protein feeds to make eggs *added to the fat making ration* that fails to fill the egg basket. Our problem has been in keeping the pullets fat enough on a ration calculated to produce eggs. That was our reason for giving free access to corn. Our corn was of the yellow variety in each case.

We are finding out that certain ailments generally attributed to colds and outside influences are due to malnutrition. Corn is not a cure-all but there is no doubt that a bird going into winter quarters in good flesh and kept in good flesh throughout the year will have greater disease resisting powers than one in poor flesh. Corn has the added value of being cheap, readily procurable, and is probably better relished by hens than any other grain.

The fact that corn for a long time was almost the sole feed for hens in the corn belt and as such was greatly criticised, is perhaps the reason we went off on the other extreme. This was also emphasized by the poor quality of the crop grown for two or three seasons—much of it failing to mature properly. Do not despise corn. Feed plenty of it, but feed good, solid, well matured corn. Then feed the protein mash to balance for eggs.

Indiana. W. C. SMITH.

Feeding and Care of Pullets

I have a flock of White Leghorn hens, mostly pullets, which I am feeding about 4 quarts of wheat and oats mixed in the morning and for mash equal parts ground oats 100 pounds, ground yellow hominy feed 100 pounds, flour middlings 100 pounds, wheat bran 100 pounds, which is before them all the time. For green feed I give them cabbage and potato peelings and sometimes I throw in part of a pumpkin or squash and at night they get about two-thirds corn and one-third barley or oats, enough to satisfy them.

My coop is 14 by 30, cement floor, and I also put in a dropping board to keep the litter from getting dirty. Am cleaning out about once a week and oftener if possible. I am only getting from 15 to 27 eggs from about 175 hens. They are getting about 3 gallons of skimmilk and all the clean water they can drink. Now if there is anything wrong in the feed and feeding please let me know as soon as possible. I also keep before them charcoal and oyster shells.

Sparta, Wis. H. B.

The ration which you have outlined here is only partly giving a diagnosis or giving the statement necessary for a proper diagnosis of the trouble in this flock, since the most important thing, which means the time of year when these pullets were hatched, has not been given. If the birds were hatched along in May it is, of course, understood that production from these birds could not be obtained until about this season of year. We have attempted to stress this a number of



304 Eggs in 365 Days

is another record that has just been credited to a ration containing

Diamond Corn Gluten Meal

Hen No. 8-5, a single comb-white leghorn pullet, bred and owned by Mr. Otto Ruehle of Ruehle's Sunnyside Farm, Pleasant Valley, N. Y., and tested at the State Institute of Applied Agriculture, Farmingdale, L. I., N. Y., during a laying contest which closed November 1st, 1926, actually laid 304 eggs in 365 days. This is the first official 300-egg hen in New York State.

Egg production of this sort cannot be achieved without the combination of a great bird and a great feed. In this test the Farmingdale Ration was used exclusively. This is the ration which has been recommended by the N. Y. State Institute of Applied Agriculture for the past two years. More than 15% of it consists of DIAMOND CORN GLUTEN MEAL. The complete formula follows:

100 lbs. Diamond Corn Gluten Meal	100 lbs. Meat Scraps
100 lbs. Wheat Bran	10 lbs. Fine Charcoal
100 lbs. Yellow Corn Meal	10 lbs. Steamed Bone Meal
100 lbs. Red Dog Flour	2½ lbs. Fine Dairy Salt
100 lbs. Hulled Ground Oats	2½ lbs. Powdered Sulphur

If you are taking care of a flock of poultry as your chief concern or as a sideline to your herd of cows, you will do well to consider DIAMOND as an economical egg-producing feed. DIAMOND contains 40% protein and is a lower priced feed than meat scraps or fish meal. Replacing one half of the animal feed in your ration with DIAMOND will do much to lower your feed bills and jack up production. If you are a dairyman, you've probably fed DIAMOND to your cows. If you haven't tried it with your hens, do so. You'll be glad you did.

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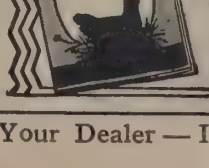
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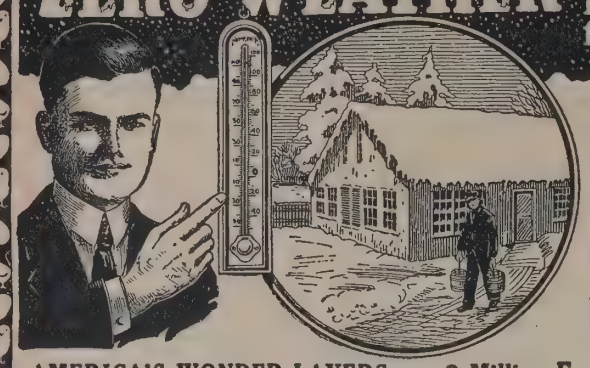
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S. C. White and Brown Leghorns	$11.00	$21.50	$100.00
Barred Rocks, Anconas, S. C. Reds	13.00	25.50	120.00
White Rocks, R. C. Reds	14.00	27.50	130.00
Wh. Wyandottes, Buff Orps., Bl. Min.	15.00	29.50	140.00
Assorted Left Overs	9.50	18.50	90.00

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	100	300	500	1000
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Prepaid	50	100	500	1000
S. C. White Leghorns	$7.00	$13	$62.00	$120
Barred Rocks, Reds, Anconas	7.50	14	67.50	130
White Rocks and Wyandots	8.00	15	72.00	140
White and Buff Orpingtons	8.50	16	77.00	150

White Minorcas, 50, $9.50; 100, $18; 500 $88. Asstd, 100, $12; 500, $57.50; 1000, $113. Order from this ad. Get them when you want them, Ref. Morton State Bank. MORTON HATCHERY, Chris. Waldbeser, Jr., Prop., BOX 23, MORTON, ILLINOIS

ways over and over again, that about six or seven months is required for proper growth and development of a bird, putting her into condition where we can start feeding her for egg production. If they are late hatched the growth is slower and more time is required before they will start producing than is the case where early hatching is practiced.

I don't believe that the first change would make a whole lot of difference, but I believe you would get better results if you mix the oats, the corn, and the wheat together in about the proportion of two of corn, two of wheat, and one of oats, using this as your scratch mixture both morning and night. If the birds are not matured and are not in good condition, the grain feeding should be heavy. If they are well matured and starting to comb out, then the amount of grain which you are giving to them should be cut down to not over four pounds per 100 birds in the morning and all of the grain feed which they will consume at night.

In your mash mixture you are not adding any animal protein feed, and the fact that you are giving the birds both milk and water to drink means that the milk consumption would naturally be rather low. I would advise that you cut the water out entirely, giving the birds only milk and if you do not have enough milk to last them through the entire day, that meat scrap or tankage be added to the mash mixture at the rate of about 10 or 15%. Even though a plentiful supply of milk is available it is still advisable for one to add about 5 or 10% of the meat scrap or tankage to the mash in order to increase the palatability of it, and as a result of that allow the birds to consume a larger amount of mash.

I would be rather led to believe that something is wrong with the ventilation in your coop when you find it necessary to clean it out once a week. I presume that this means in reference to the litter on the floor and not on the dropping boards.

I was in one of the houses which we are recommending in the state this week in a section where the temperature has been to 21 degrees below zero, and the litter in that house had been there for a little better than two months and it was still dry although it was, of course, becoming dirty. This, I believe, should be the only reason why we should be compelled to change the litter in a house, that is, the accumulation of dirt in the litter rather than dampness being responsible. If you do find that your house is damp as indicated by the necessity of changing the litter very often or the accumulation of the frost on the ceiling, this would be the first change for you to make.

In the second place I would advise you to cull out about 75 of the poorer hens or smaller, most immature pullets, and cut the flock down to the size which you should have. In a 14x30 building you have 420 square feet of floor space, which at the rate of three square feet to a bird means that it should carry 140 birds. I can probably allow you to run this up to 150, providing you have an exceptionally good bunch of birds, but even that means that a cull should be practiced at this time.

I experienced one of these problems here recently, when I was taken out to a man's farm. He was carrying a large number of birds and got only five or six eggs a day. I made a cull on them, removed about 45, and he still had too many birds in the house. As a result of that overcrowding, production had been at a low ebb.

Of course it is unnecessary to stress that windows should be opened to avail your flock of the sunlight and that alfalfa or clover chaff should be supplied to them for green feed.—J. B. HAYES.

Cod Liver Oil and Green Feeds

Some of the newer feeding recommendations will probably not be universally adopted. We must always consider local conditions or problems before adopting a given practice. What may be necessary in one part of the U. S. may not be required in another. This is a particular problem in housing, but some of the same limitations exist in respect to feeding.

All sections do not have a year round supply of sunshine. In some places it is necessary to adopt an artificial means of furnishing some of the value derived from direct sunlight.

One means by which this can be done is through the use of cod liver oil as a supplement. The value of this material is generally acknowledged. It at least has an influence on egg production, shell texture, market quality, and control of egg eating by better shell texture. Whether its use tends to improve hatchability may still be an open question.

In all of the northern states where our supply of winter sunshine is very limited and a high egg production is desired, this material is an essential. It acts as a generator to keep the producing pullet charged so that maximum production is possible without harmful effects.

There is still considerable to be known about the various kinds of cod liver oil. The most commonly accepted belief at this time is that the dark colored, sun extracted oil is lacking in Vitamin A, but carries D. On the other hand, the light colored contains both A and D.

It is relatively easy to supply A from some other source so that either kind will probably answer the purpose for which it is used. Even some producers claim that the dark may also carry A. This whole problem is so disrupted that one must take some parts for granted without conclusive proof or argument. The value of an oil is more dependent upon the reliability of the producer than on the particular source or color.

Under usual conditions 2% is recommended. This will mean the addition of 1 quart to every hundred pounds of dry mash. When used in this way, it is necessary to mix the oil with a limited amount of ground corn, by hand, and then combine this with the entire amount of mash. Mash consumption must be maintained at a relatively high level in order to assure a sufficient oil intake.

When milk is used as a drink it is possible to add the cod liver oil to the milk. Under such conditions it will require about 1 pint per hundred hens each week. The supply for the week can be added in small amounts each day.

Another means is adding the cod liver oil mixed with curd to the germinated oats or adding a few spoonsful to the moist mash each noon.

There are numerous means that can be utilized. One concern now has placed on the market a milk product to which the cod liver oil has been added. The feeding should start about November 1 and continue until spring. When used as 2% no flavor will be noticed in the eggs.

It is not advisable to depend entirely upon cod liver oil. One should also allow the flock the additional advantage of any direct sunlight by opening the windows whenever the sun is shining. The combination of sunlight and cod liver oil is preferable to oil used alone, there apparently being

ue value in sunlight not carried in
cod liver oil. This means direct
light not filtered through window
lss.

Considerable attention has been
ien to alfalfa as a winter green
ed. The value of this material is
endent upon the way in which it
a been cured. Alfalfa is an excel-
e source of minerals, but the vita-
n concerned with the assimilation
minerals and that takes the place
direct sunlight is found in the
reatest abundance in green and sun
ed alfalfa hay. One can use either
h leaves that fall off in the loft or
the feeding floor. It is also pos-
le to add good alfalfa meal to the
h in an amount not in excess of
%. Dry leaves will usually be
erable to moistened because one
pt to make a sloppy mash rather
h just adding enough water to
g out the color.

n interesting report from one of
Canadian stations gave some data
h may not be conclusive but at
t shows a possibility in connection
h green feed.

this experiment they used clover,
outed oats, mangels, and Epsom
ls. Both on cost of production and
a hability they found that Epsom
ls ranked second to clover and
s superior to the other materials.
lfa will probably be found
rior to the clover.

prouted oats have become a prob-
. One limitation to sprouting is a
ed room in which it can be done,
the second is the problem of
ding mold development. Ger-
ated oats have become more popu-
on that account. This process
verts the starches into sugar and
creases the palatability and feed
le of the oats. There is also less
ipment required.

ooden candy or lard pails with a
l and plug at the bottom are used.
h oats are soaked for 24 hours in
n water. The water is then
ned and the oats either changed
pail to pail or stirred. At least
each day and preferably twice,
oats are washed through with wa-
r. If any sourness is noted, the
ing is done more often.

st as soon as the oats germinate
e are ready for feeding. About
pounds of dry oats when germi-
ted is sufficient for 100 hens. This
mination of germinated oats, al-
a, and possibly an occasional dose
psom salts should supply the
en feed and succulent needs of a
c adequately. When, however, a
on has mangels or cabbage for
ock they should be used. It
s possible to supply green feed
amount that will tend to limit
mash consumption. There should
aintained a proper balance.

I seems, however, that the germi-
ted oats are more easily produced
d satisfactory than sprouting. This
s alternate offered to those hav-
g trouble in sprouting.

It is not assumed that a person
ould try to eliminate green feed
d depend upon Epsom salts. This
periment does tend to show, how-
er, that when a decided shortage
green feeds exists and it is im-
sible to germinate oats, that salts
n be given regularly. The use of
em would tend to keep the flock in
tter physical condition.

God alfalfa can supply at least a
erful source of mineral. What
obtained from mangels, other than
ccident, is indefinite. Any flock
er with a supply of alfalfa, for
the hens or chicks, has an excel-
nt material which may be more gen-
ally used. It is fortunate that the
ply of this is increasing each year.
Some of the methods that we have
em following are still found to be
actical. In some instances we are
just finding the reason for some of the things that we do. When certain known requirements must be met, certain practices must be adopted.—J. B. HAYES.

Ration for Pullets

Please fix me up a good fattening ration for pullets. We have corn, oats, oil meal. Can get tankage for $3 per 100; have alfalfa. Also have skimmilk. Your suggestion will be very much appreciated."

Sherburn, Minn. W. B.

The first sentence undoubtedly does not mean what it says, since I cannot understand why anyone would wish to obtain a ration for fattening pullets. When we think of a fattening ration it is always in connection with market stock; pullets, of course, are too valuable to be used for that purpose unless they are a bunch of discards one wishes to dispose of.

A fattening ration to be used in a fattening battery consists of about 60 of ground corn, 30 of standard wheat middlings, and 10 of low grade flour, mixed with just enough buttermilk to bring it to the consistency of cream or whitewash, and this is fed twice a day with the birds kept in very close confinement.

What I think is meant in this case is a ration which will bring the pullets through in proper condition in the fall of the year to go into the laying house.

When pullets are pretty well matured, along towards fall one wishes to get a good reserve established on those birds in order to have them in a condition comparable to the dairy cow that is going on to a test. The fat which is established on her body acts as a reserve on which she can draw during the time of heavy production and aids considerably in allowing her to carry on a sustained production.

Unless a bird is properly conditioned and kept in that condition during the year, she will also usually go into a winter moult that ruins the winter production.

A scratch mixture in this case can be made of about three of corn and one of oats. If it was possible to obtain some wheat, that would improve the scratch feed materially.

For a mash mixture one can use 100 lbs. of ground corn, 100 lbs. ground oats, 100 of wheat bran, 100 of standard middlings, 50 of high grade digester tankage, and all the milk that the birds will drink. In addition, the alfalfa can be fed to them in a rack, allowing the birds to pick off the leafy portion, or if it is possible to put this through a hammer mill, meal then can be added at the rate of about 5%. Alfalfa is and is becoming a very important part of the ration for poultry, providing the alfalfa has been properly cured.

Early in the season the scratch grain should be fed rather heavily to get them in good physical condition without forcing them to consume any great proportion of mash.

However, when they get into the house and get matured enough, so the production should start, one can then gradually decrease the amount of grain, which will automatically raise the mash consumption and throw the birds over from growth into production. From that time on the proportion of grain to mash should be controlled by the production and the weight of the birds.

Oil meal is not necessary in the ration for hens. You have plenty of vegetable protein there, and it is the animal protein that we are particularly interested in. Oil meal tends to raise the cost of the ration without improving the results, materially.—J. B. HAYES.



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Wh. & Buff Rocks	4.00	7.50	14.00	Wh. Orp. & Lt. Brah.	5.50	10.00	19.00
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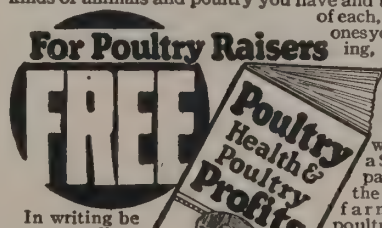
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Potassium Iodide. This element, seriously lacking in the feed, has a direct action on the glands, and during the long period while the cow is carrying her calf it assists in developing a strong, healthy fetus and a better offspring. It helps to prevent goiter or "big neck," lumpy jaw, garget, milk fever and many growing evils.

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The Right Thing at the Right Time

IN playing a football game accurate timing of every movement in each play is essential to success. Likewise in successfully rearing pigs accurate timing of the essential factors that promote the well being of pigs is necessary if the owner would safeguard the depletion of his pocketbook.

One cannot make a market hog out of a pig that dies before it has a chance to be weaned; one cannot even salvage the cost of producing such a pig. Furthermore, it is difficult and frequently impossible to make a profitable market hog out of a pig that has to fight its own way through parasite and disease hazards. All of which suggests that there is a time to do certain important things for the welfare of young pigs. It is not too early to suggest the things that must be done soon if producers are enabled to go to market next fall with money-making hogs.

The number of pigs farrowed this spring cannot now be increased. The number saved and kept free from parasite and disease infection up to weaning time is still partly in the control of the owners.

The time to put the sow in good condition is before she farrows and not afterwards.

The time to reduce the feverishness and avoid constipation is before a sow farrows and not a week afterwards. Two or three days before the sow is due, substitute a laxative slop made of equal parts of bran, shorts, and ground oats and reduce the amount of feed. Give plenty of water. If the weather is cold give warm water. Continue the reduced laxative ration for five or six days after the sow farrows, then gradually bring her up to a satisfied appetite on the ration to be used. A good one for this purpose is composed of 50 parts corn or ground barley, 30 parts shorts, 10 parts tankage, 10 parts linseed meal. Skimmilk may be substituted for the linseed meal and tankage, feeding about two and one-half pounds for each pound of grain fed. Until grass comes feed alfalfa hay in a rack.

The time to clean out the farrowing pen and wash off the sow is before she farrows and not afterwards. Little pigs farrowed in dirty, infected pens cannot escape some disaster. In cleaning the pens one should first remove all loose dirt with a stiff broom. The walls and partitions should be cleaned—and the cobwebs swept down and out with the dirt. Following this the floors and sides of the pens should be scrubbed with boiling hot water in which one pound of lye has been added to 30 gallons of water. After the pens are thus cleaned and dried, no hogs should be allowed in them until the sows that are to farrow are ready to go in. Before the sows are put in they should be scrubbed off with warm water and soap. The bedding that goes into each pen should be new and not contaminated. Thereafter such bedding as is used should likewise be clean and the one who cares for the sows should avoid carrying contamination from the infected yards into these clean pens.

The time to put in a guard rail is before a nice litter of pigs is smashed and not afterwards. These guards are not expensive and they are easily put in. Their cost is insignificant in comparison with the service they render.

The time to be around the farrowing pens is when the pigs are being born and not a day or twelve hours afterwards. Reviving a weak or chilled pig is, of course, frequently necessary under the best of conditions but it is less frequently necessary when the owner is on the job at the right time. Quietly one can guide the little pigs into paths they should go and help to dry them and warm them. Quietly one can keep them from getting tangled up in the straw.

Some sows have very decided notions about the kind of beds they should make; they frequently change their minds while the pigs are being born; they have peculiar notions about their housekeeping after the pigs are born. The skilled caretaker observes all these peculiarities and is on hand to protect the helpless pigs.

The right time to prevent worms, necro of the face and nose, and enteritis of the intestines is between the time the pigs are born and before they are turned out to run with their dams. Just as sure as one turns them out at this age into infected yards just so sure will they become more or less infected. Curing these difficulties after they are started is not only a costly method but often a hopeless task. When the pigs are old enough to leave the place where they were born lock up all the gates to the old, infected yards and provide the pigs and their dams a new, clean place to live until the pigs are about four months old. Then they will go on and make hogs of themselves—the kind of market hogs every producer is proud of—the kind that makes money instead of losing it.

The foregoing practice is recommended because it works. It has been tried out by thousands of swine producers who formerly were paying out thousands of dollars annually for cures and getting nowhere with them.

Only half doing the job is to invite failure. It is just like the full-back fumbling the ball in an otherwise perfect play. Doing all the right things at the right time is the only way the system of management outlined will produce clean, healthy, money-making hogs. Try it.



These pigs have made their owner proud of them. They have not done it alone. Their owner gave them a fair chance to make hogs of themselves because he did the right things at the right time. To be proud of a bunch of pigs next fall is to be punctual this spring.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Congenital Epithelial Defect

It is now fairly well understood by dairymen that goiter and hairlessness of new-born animals are closely related and that lack of iodine in the system is, at least, a contributing cause. They are also aware that complete feeding of the pregnant dam, enforcing daily exercise, exposure to direct sunlight, sanitary housing, and the administration of small quantities of potassium or sodium iodide make goiter and the hairless condition practically unknown. It is likewise a fact that lack of iodine in the system and ration may have much to do with the weak, puny, and sickly condition of newborn animals of all kinds, although either goiter nor hairlessness are evident. It is therefore getting to be a general practice to include in all mineral mixtures for live stock, small quantities of one or other of the iodine salts mentioned. That practice is based largely on supposition, perhaps, but the iodine will not do any harm in small quantities and very likely may do some good. We should favor the use of iodine in that way, on general principles, and it certainly has to be given when goiter and hairlessness have been prevalent.

There is another congenital defect or disease of the new-born calf which, however, remains a mystery and is being investigated by a few veterinary scientists. We refer to that peculiar condition sometimes met with at birth in which the calf lacks skin or epithelium on its legs, from the feet part way to the knees and hocks. The mucous membranes of the mouth may also be deficient so that the mouth looks "raw" and may be so sore that the calf does not nurse. The affected calves are not so-called "living abortions" but have been carried full time, nor does the disease seem closely related to the contagious abortion disease or due to any specific germ that, so far as we are aware, has been isolated. There seems to be a possibility, however, that the disease may prove to be associated with malnutrition or deficiency in nutrients and also a likelihood that it may "run in families," so that tendency to it is transmissible.

One observer says of the disease: "Areas of various size and irregular in outline on the legs, muzzle, tongue, and cheeks appeared to be entirely denuded. It seems that the skin and mucous membrane had never formed or united over these areas. The affected calves were carried full term and the cows were in prime physical condition. The calves were weak and listless; some could not get up or stand when lifted to their feet. So far we have not succeeded in saving any, although vaseline was applied at frequent intervals to protect the raw surfaces. One calf lived several weeks but it did not improve, so was destroyed as worthless." Another breeder, in whose herd several affected calves had been dropped, reported that only one showed signs of having goiter, although a number of other calves were affected with goiter. In his herd the affected calves appeared as if the skin had peeled off, more or less, from around the mouth, also from the ears, and the legs were hairless from the knee down. The ears were somewhat deformed. The affected calves were born alive but were weak and unable to stand.

Any reader who has had calves dropped in his herd that showed symptoms like those described would do well to communicate with Dr. F. B. Hadley, chairman of the Veterinary Department of the Agricultural Experiment Station of Wisconsin, at Madison, as he is investigating the disease.

Drying Up Cow

HOARD'S DAIRYMAN:—Here is my opinion of the proper way to dry up a cow: There are two factors that tend to check secretion of milk; first, withholding feed; and second, allowing the udder to become distended with milk.

Much can be done toward checking secretion without materially reducing the supply of nutrients This is accomplished by feeding dry fodder instead of succulent feeds. If this course is followed a cow may be fed at least three-quarters of her usual grain ration and there will be no marked tendency to keep up the milk flow. In selecting grains at this time to be fed, it is important to choose those that do not tend to stimulate milk production. Ground oats and a small quantity of corn are satisfactory. But the grain ration should be



hat a satisfaction to go down the line at lking time—every cow without a trace of re teats or udder. No hard milking; no loss milk through restlessness and discomfort.

Bag Balm, the great healing ointment is mpounded especially to keep in perfect lth the delicate tissues of the udder and ts. It shortens the labor of milking by eping the teats soft, silky, pliable.

For Caked Bag, Bunches, Inflammation, Sore ats, teats cracked or chapped, stepped on, f any injury or cut, Bag Balm heals quickly. en the healing is accomplished between nkings. Clean and pleasant to use—cannot taint the milk. Has hundreds of uses on t farm.

ig 10-ounce can, 60c. at feed dealers, general stores and druggists. Sent direct if yur dealer is not supplied.

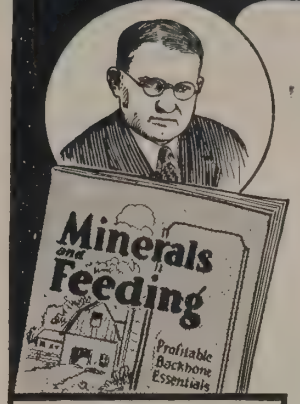
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y would be interested in having these dis- treated by Veterinarians who are Spec- in this work under a positive guarantee isfaction, write Box 351, Peoria, Illinois. ull particulars about your herd in your etter. Individual attention assured.

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Dr. Naylor's
MEDICATED TEAT DILATORS

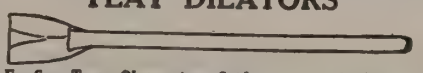
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Made of an absorbent texture capable of carrying the Medicated Ointment into the teat canal to the seat of the trouble. They heal the teat and keep it open.

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COW CLEANING PRESCRIPTION

Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded It releaves GARGET and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1 a pkg. 6 for $5

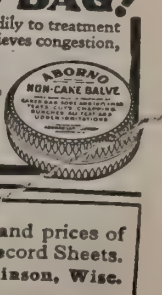
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INSURE— *Health and Profits*

ARE you killing your cows with kindness? Are you wasting good feed dollars in ineffective attempts to force production? Too much heavy, rich, expensive rations that the overworked digestive and assimilating organs cannot convert into milk makes your cows logy, off feed—the easy prey of disease.

Kow-Kare, used with the winter feed, shows such amazing milk gains simply because it actively aids the digestive organs, stimulates assimilation—builds natural health and vigor right where the milk-making process occurs. Kow-Kare is not in itself a food. It throws no added burden on the cow's digestive functions. Its action is not temporary—but PERMANENT. It invigorates the productive process—makes the cow thrive on the less expensive NATURAL foods.

Gear up your cows to higher milk yields right now. It costs you nothing to give your cows this vital help. The added milk much more than pays the slight cost. You get cow-health insurance as a BONUS. A single can of Kow-Kare will ration a cow one to two months. Full directions are on every can.

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Most cow diseases are prevented entirely where Kow-Kare is used with regularity. By keeping the cow's vitality at a high level expensive cow troubles cannot gain a foothold. When disorders such as Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Lost Appetite, etc., do creep in, Kow-Kare brings speedy recovery by restoring the health and vigor of the organs where these troubles always originate. Kow-Kare rescues many a hopeless cow—turns many a loss into profit.

Feed dealers, general stores, druggists have Kow-Kare—$1.25 and 65c sizes, (six large cans, $6.25). Full directions on the can. Mail orders sent postpaid if your dealer is not supplied. Our valuable free book on cow diseases sent free, on request.

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no investment is so certain to pay big returns as giving Kow-Kare. Instead of *expecting* trouble at calving you prevent it with this great invigorator. Thousands of dairymen no longer think of letting cows freshen without the aid of Kow-Kare—fed two to three weeks before and after. It assures a healthy vigorous cow and calf.



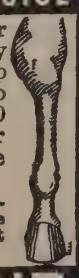
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on ankle, hock, stifle, knee, or throat is cleaned off promptly by Absorbine without laying up horse. No blister; no pain; no hair gone. At druggists, or $2.50 postpaid. Describe your case for special instructions. Valuable horse book 8-S free.

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Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.
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increased again as soon as the milk secretion has ceased.

A course that has been found satisfactory is to milk the cow once a day instead of twice a day, for three days. This will ordinarily reduce the milk flow about one-half; that is, at the end of the third day she will be giving about the same quantity at a single milking that she was giving at a single milking when she was milked twice a day.

The cow should now be milked at irregular intervals and the condition of the udder watched carefully. When the udder has become fully distended all the milk must be drawn out and the organ allowed to become distended again and, if possible, permitted to remain so for a longer time than before. When milked, all the milk should be drawn out.

Usually a cow can be dried off within two weeks by this method, but the udder should be watched carefully for some time after this, and if the udder fills up, as it sometimes will, it should be milked out.

Washington. A. B. YOUNG.

Nympthomania

We have a cow in our herd that has violently been in heat every day for about a month. For the past two weeks she has had the attention of a graduate veterinarian and does not seem to improve. An examination of her ovaries shows them normal, but there is some pus and discharge and apparently inflammation in the uterus or womb. We have thoroughly disinfected several times. She is a very good cow and we are wondering if you have experience with such stubborn cases and can give us advice. Would such a condition result from improper feeding or is it a contagious germ trouble? Would minerals be a benefit to such trouble?

Fort Wayne, Ind. C. B. M.

The diseased condition of the womb (endometritis or pyometritis) is germ-caused and possibly associated with presence of the contagious abortion disease. A sample of the blood might be tested to determine whether the cow is so affected. In such cases of nymphomania or persistent heat the ovaries are almost invariably diseased. Chances of recovery are poor. It will be necessary for the veterinarian to treat the womb with antiseptic solutions at least once a week by means of return-flow catheters, etc. He should also massage the ovaries to rupture cysts and dislodge persistent "yellow bodies." The cow should be kept isolated.

Abortion Infection

My brother and I live on farms joining and have always used the same sire. We would each lose a few calves from abortion each year. We keep from 12 to 18 cows each. Now I have not lost a calf for over a year and this fall and winter my brother's cows are most all losing their calves. I have had trouble getting some of the cows with calf and sold two last fall that would not breed. One of them had aborted before and the other one never had aborted. Do you think my cattle have become immune to the disease? Is the disease transmitted by the bull? Do you consider it dangerous for us to continue using the same bull?

Barron, Wis. J. J. B.

Cows that have aborted several times may become immune so that they carry calves full time, but they may remain infected and be capable of infecting susceptible cows and heifers by their vaginal discharges contaminating feed. To determine which cows are affected you should have a sample of blood from each of them tested at the state experiment station, veterinary department, at Madison. Your veterinarian can attend to that. While the bull is no longer considered a fertile source of infection it would be unwise to let your bull serve other cows than those of your own herd. Keep them isolated and bring your own cows to him for service. To control the disease, follow the instructions given in a bulletin on abortion which you can obtain from the experiment station.

Old Pipe-Smoker Switches Back to Favorite Tobacc

Having tried other brands, l returns to his old favorite with new appreciation

Evidently, one way to appreciate certain tobacco is to try another ki

At least, that has been the expe ence of one veteran pipe-smoker. switching temporarily to other tob co he finally came back to his old-ti favorite with a new appreciation a vow never to change again.

It is significant that this pipe-sm er found that his former favorite bacco still had the same flavor quality that first won him to it. A matter of fact, most pipe-lovers kn that Edgeworth never changes.

Read Mr. Fishburn's "signed c fession:"

Peoria, Il
Aug. 26, 192

Messrs. Larus & Bro. Co.,
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Dear Sirs:

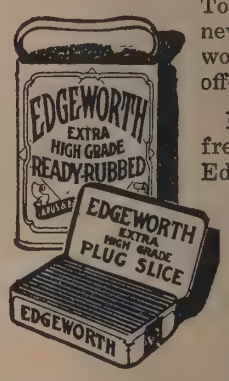
Just a confession and an appreciation

A number of years ago I was a use of your Edgeworth smoking tobacco But, like some others, perhaps, I wa led by alluring advertisements to change

A few days ago I went into a dru store to get some tobacco, and on th case was the familiar can of Edgeworth I bought it and since then I have en joyed old-time comfort.

So my confession is that I made mistake in changing to other brand and my appreciation is such that Edge worth will be my Smoke Pal while lif lasts, which may not be long, for I hav passed my "three score years and ten."

Very truly yours,
(signed) E. P. Fishbur



To those who h never tried Ed worth we make offer:

Let us send free samples Edgeworth so you may pu to the pipe If you like samples, y like Edgew wherever whenever buy it, for never changes in quality.

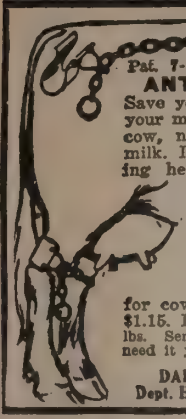
Write your name and addres Larus & Brother Company 15-1 21st Street, Richmond, Va.

We'll be grateful for the name address of your tobacco dealer, if you care to add them.

Edgeworth is sold in various to suit the needs and means o purchasers. Both Edgeworth Slice and Edgeworth Ready-Rub are packed in small, pocket-size ages, in handsome humidors hold pound, and also in several hand between sizes.

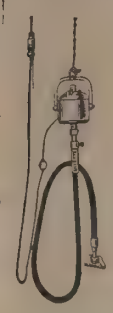
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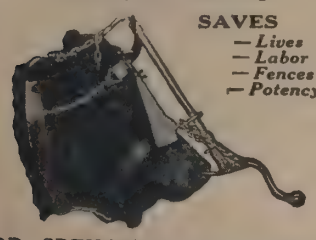
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...R KS APPLIANCE CO., 219 State St., Marshall, Mich.



MR. C. E. BROOKS

Wisconsin's Earliest Cow Tester

(Continued from page 114)

fieldman or tester. However, our faith was shattered as the farmers had so much work to do that they neglected to take samples regularly, especially when old "bossy" got to giving a small flow of milk.

"We operated about thirty associations under this plan up to the year 1909 when we gave them over and adopted the government plan of placing a competent man in the field who would go directly to the farm, weigh and sample the milk, weigh the feed, and complete the work at each patron's home.

Change System of Charging

"When we started work under the government plan, the price for testing was $1.00 per cow per year. This method of charging did not work well with us because we had to make a canvas. If we secured 400 cows from 26 farmers all was well and good for we could then pay $400 to our tester or fieldman. However, we found that farmers would not sign up all of their cows. Some would say, "Well, there are five or six cows in my herd that I must sell, so I'll not put them on test." When Neighbor Jones saw that Neighbor Smith signed only 15 of his 20 cows, he would follow the same kind of a scheme.

"A kind old farmer near Wausau gave me a tip on the flat rate plan when I was working hard in his neighborhood to get an association under way. This old gentleman said, 'Searles, I have only seven cows in my herd, but if you can possibly start the association I will stand for one day's wage of the tester each month." Those words soaked in pretty sudden and I started at once to organize on a flat rate of so much per day, with the provision that farmers could test up to 30 cows without extra charges since a tester could handle that number for a day's work. The latter plan has proved very satisfactory so we have never cared to change to any other system."

Government records do not give Wisconsin credit for her first regular cow testing association of 26 members because no fee was charged the farmers. "Moreover," says Searles, "after the first year we did not accept the government plan of placing a field man in each association to go to the home of each member one day each month, but we allowed each farmer to take his own samples. This, I suppose, was another reason for not allowing us credit for our work, but then we never asked it to give us credit."

This, then, is an account of one of the early attempts to improve dairying at its source. It will probably be many generations before the true worth of the Wisconsin Dairymen's Association will be fully appreciated, but it was largely because of the efforts of such directors as J. Q. Emery, Ex-governor Hoard, General George Burchard of Ft. Atkinson, A. D. DeLand of Sheboygan, C. P. Goodrich of Fort Atkinson, E. C. Jacobs of Elk Mound, H. C. Taylor of Orfordville, Chas. Everett of Racine Chas. Hill and F. H. Scribner of Rosendale, and others of their caliber who were guiding the destinies of the association at that time that Wisconsin has been able to take and maintain her lead in the dairy world.

H. C. Searles will probably continue his task of organizing cow testing associations for many years to come, for, full of the worth of his mission, he says, "There is no line of extension work carried on in the United States that is doing the amount of good as is that done by cow testing associations."

SWINE



BERKSHIRES
The Quality Breed
Consumers of meat now-a-days demand quality. In this respect Berkshires are the undisputed leaders, as the results of any International Show will prove. Our Berkshires have quality, are prolific, easy feeding, and big type.
Write for facts!
PINEHURST FARMS
PINEHURST, N. C.
Ayrshire Cattle and Berkshire Hog Breeders

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For Sale
REGISTERED JERSEY BULL ready for service, out of high production stock; ALSO REGISTERED JERSEY BULL CALF.
My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.
D. A. CURTIS, Jamestown, N. Y.

FINANCIAL KING JERSEYS
Our bulls of serviceable age have been sold but we have a few excellent calves from R. of Merit cows. Prices reasonable.
COLDWATER JERSEY FARM, COLDWATER, MICH.

Write For
SALE-LIST
of bred daughters of Xenia's Sultan and You'll Do's Volunteer. Breed up QUALITY TYPE AND PRODUCTION in your Jerseys with an ELM HILL BULL.
ELM HILL JERSEYS,
LEE BOYCE, MGR.
Brookfield, Mass.

HEAVY PRODUCING
JERSEYS
Serviceable bulls and younger for sale, from herd that averaged 505.01 lbs. butterfat in C. T. A. past year. Accredited herd, no abortion. Prices reasonable. Write or call and see herd.
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BURN BRAE JERSEYS
Ibsen's Chief—herd sire. Serviceable bulls and younger from high producing dams including the state champion in the 305-day division. We now have 16 cows on R. of M. test, and a choice lot of young stuff, both sexes for sale.
Federal Accredited herd and no abortion.
CHAS. A. PETERSON, Rosendale, Wis.

Easton Farm
-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
H. W. DAY, Mgr. LA CROSSE, WIS.

JERSEYS
MAJESTY'S and SYBIL'S — of Quality
Offering 6 well grown heifers of excellent type and quality—ready to breed.
CEYLON COURT FARM, G. D. GILBERT, Manager
LAKE GENEVA, WISCONSIN

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University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.
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YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
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Entire Herd REGISTERED JERSEYS For Sale
12 cows, heifers and heifer calves, 1 bull. Write for full description. Priced to sell.
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Shavings make the best bedding for cattle and horses. Sanitary and easy to handle. Absorb moisture. Best and cheapest kind of bedding. Prompt Shipment. OUR PRICES ON BALED SHAVINGS WILL INTEREST YOU.
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We have sons and grandsons of Langwater Holliston that will develop into real breeding bulls. They have real individuality and persistent production back of them. We can sell you a good bull calf from either A. R. or untested dams. Our prices will interest you.

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FERN-DELL GUERNSEY FARMS, A. W. FOX, MGR., GREEN BAY, WISCONSIN

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COMBINE TYPE AND PRODUCTION

PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. **CINDERELLA'S FAME OF MOUND CITY 78385.** Dam: Cinderella's Josephine 909 lbs. fat.

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Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

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BULLS—HIGH CLASS FEMALES

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We have for sale a few first class bulls, serviceable and younger from A. R. dams, and can also offer some good, young, registered cows and heifers. For several seasons our herd was successfully exhibited at the larger midwest shows. Cherub breeding. Write us or come to the farm.

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OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

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Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

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FOREMOST GUERNSEYS

We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
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The very best breeding. Accredited Herd. Write for information.

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Bay Cliffs Herd SOLD!

This splendid breeding herd of 71 head have been sold to Loma Farms, Marquette, Michigan. By keeping the entire herd together in this manner the same blood lines will be maintained. We have several mighty fine young bulls to offer right now and at very reasonable prices. All interested write

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.,
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TWO VERY HIGH CLASS YOUNG BULLS, born Feb. 9th and Feb. 10th, well-grown, good color, very good type (show kind) sired by Saugerties May Rose King 50343 A. R., one of Wisconsin's best sires. Dam's records 677.13 fat A. A. and 652.8 A. respectively. Accredited herd. Blood tested.

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COME and make your own choice from a wide selection or wire or write for prices.

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One serviceable bull and one bull calf nine months of age. Prices on application. Herd free of abortion and Federal Accredited.

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Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

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BULL CALVES out of Advanced Registry dams or cows now on test, sired by National Grand Champion bull or sons of his.

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A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD Lines—May Rose through King of the Mays, Golden Secret, Langwater Cavalier; Beauty, founder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records to 800 lbs. fat.

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ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pronounced by authorities as the best son, individually, of Ne Plus Ultra, whose offspring, for a number of years past, have invariably topped the sales of major importance. Near descendants of this great sire are becoming harder to secure, and in the near future will be valuable acquisitions. Breeders desiring the best there in this blood will do well to investigate, as we are offering stock at the right price. Address inquiries

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When they sire daughters which produce

A TON OF MILK A MONTH

Brookmead's Banner, sold as a young bull (Sight Unseen) for a reasonable price, is a sire of Silverwood's Diana:

December, 1925—2,158 lbs. Milk—ONE TON
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Our present sales list carries equally good o

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We are offering at attractive prices a young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 19 He is a son of GOLDEN CORONET OF JE DU LUTH 81283, world's champion Guern in Class AA, 968.80 lbs. fat.

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Bulls from A. R. dams, 843 lbs. B. F. rec will surely increase your herd average. A few ready for service.

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FOR SALE FROM A CLEAN HER

Langwater Juvis, a son of Langwater Ju rior from a good record May Rose dam our senior sire. We have for sale a few cl class registered cows and heifers as well some excellent young bulls. They are pr to sell. Write.

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Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportu to select what you want from 250 tube tested herds owned by members of the b county breeders' association in America. cattle, service, and prices will suit you. or come.

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Will sell or trade one of our herd sires, his six est dams average 775 lbs. fat, May Rose bre Young bulls 2 to 13 months old. Can also spar females. Visit us or write.

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I have for sale a few good young registered and heifers from A. R. dams. The price is The herd is clean. Write or come to the farm

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Carloads of pure-breds or grades. Price right. Come or write.

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They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

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Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

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OFFER FOR SALE 3 YOUNG COWS, 2 HEIFERS and one BULL CALF of the blood lines of College Bravura 2nd., Ethel B., Rosaind B., Iola, Militia May and Ola B. Females are bred to Elite, a grandson of Hawthorn Dairy Maid. Write for pedigrees and prices. The herd accredited since 1920.

ERWIN H. KRAUSS & SONS,
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WOOD FORD FARM

AVON, CONNECTICUT

— OFFER —

Grandson of the World's Champion Mistress Pride of South Farm.

Sire—McAllister Betty's Son.

Dam—Barclay's Thistle. R. of H. record, 659 milk, 4.02% fat, Class EE.

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South Farm Ayrshires

Will sell a limited number of Young HEIFERS and BULLS.

Let us know your wants.

SOUTH FARM, Willoughby, Ohio

AYRSHIRE COWS

FULLY ACCREDITED

300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers, heifer and bull calves.

ALTA CREST FARMS,
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AYRSHIRE BULL — Ready for Service!

Past two years old, medium size, quiet, good markings, a good straight bull. Sire, Sir Douglas of Glen Foerd, whose dam and grandam made world's records in R. of H. Sire, Dam, Vira Festus, our greatest breeding and producing cow, two official records average 21,021 lbs. milk; 544 lbs. fat. Price of this bull $125.00, or will sell his full brother now eight months old for $100.00.

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Accredited Herd

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For Sale At All Times!

Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL

AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us.

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SYCAMORE FARMS, Douglassville, Berks Co., Pa.

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HEALTH—PRODUCTION—QUALITY

Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.

PENSHURST FARM, NARBERTH, PA.

Ayrshire Bull

BORN: MAY 16, 1926. Sired by Penshurst Rising Star, 20922, A. R. 260, with 30 daughters having records averaging 10,688 lbs. milk, 436 lbs. fat, 4.07%. Dam, Auchinbay Ella, 70176, has the following records: Sr. 2-year-old, 14,153 lbs. milk, 547 lbs. fat and Jr. 4-year-old, 15,665 lbs. milk, 618 lbs. fat. 100 official yearly records average 12,236 lbs. milk, 492 lbs. fat, 4.02%. 6 World's Champions in 6 years. This offering is white with red cheeks and very typy.

GLEN FOERD FARMS, TORRESDALE, PA.

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 3 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.

ALDEBARAN FARM, E. J. Nelson, Mgr., Racine, Wis.

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Center, Wis.

AYRCROFT FARM

is offering some **good bargains in Ayrshires.** Write for what you want. Herd Federal Accredited.

B. B. SIMMONS & SONS, PEWAUKEE, WIS.

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COWS, HEIFERS and HEIFER CALVES.
Accredited Herd

SPINNEY RUN FARMS, Gurnee, Illinois

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2000 SALES IN 18 STATES

DAIRYMEN FRIENDS:—CONSIDER ME AMONG THE Auctioneers when arranging your sale. I try to instruct, interest, and entertain visitors and buyers, and keep the rates where you can have the VERY BEST at the lowest possible price.

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HOLSTEINS



A Real HOMESTEAD BULL CALF

Born: Nov. 8, 1926

Sire: Prince Mooie Fobes No. 458471—son of a 16-lb. two-year-old. A grandson of Iowanna Sir Ollie, the great show bull.

Dam: Milcoaggie Pauline Homestead No. 821776—a daughter of our senior herd sire, King Canary Homestead Segis, an 1,123-lb. bull. This dam made 51.3 lbs. of butterfat during December, 1926, in C. T. A. work.

Do not let this opportunity slip. Priced to sell quickly. Inquire of

MILWAUKEE COUNTY INSTITUTIONS FARM
E. C. THOMPSON, Farm Manager WAUWATOSA, WIS.

STATE and FEDERAL TESTED **HOLSTEINS**

BUY FROM AN AREA TESTED COUNTY

The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.

Write or wire for information or appointments.

WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

KING PRIDE PONTIAC MECHTHILDE

BORN DEC. 17, 1922.

Sired by Pride of Sir Piets, who has eight 2-year-old daughters with records from 20 to 33 lbs. Dam a state record granddaughter of King Segis Pontiac Count.

BROWN COUNTY ASYLUM,
Green Bay, Wisconsin

MILFORD MEADOWS

Where long-distance records and high test counts

Our daughters of King Bess Burke Ormsby (1164 butter) and Marathon Aaggie (1,250 butter) are most all bred to

SIR TRIUNE PANSY (1,317 lbs.)

First to freshen in January. You will be pleased with this combination of type and production.

W. W. KINYON, Mgr., LAKE MILLS, WIS.

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

HOLSTEIN Bulls - Females

YOUR PICK OF 150 HEAD. Abortion tested and T. B. free. First prize National Dairy Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.

F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

SERVICEABLE BULLS — FOUNDATION HEIFERS

Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.

BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

REGISTERED HOLSTEIN HEIFERS

We offer several bred heifers due in March and April. All are sired by a 1,040-lb. Homestead sire and all are bred to a 990-lb. grandson of Iowana Sir Ollie. Accredited herd.

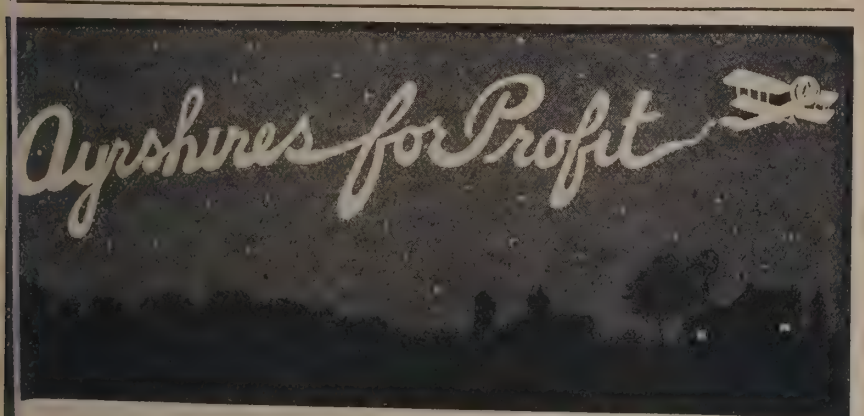
CHAS. HUGHES & SON, NEENAH, WIS.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Buy that herd bull from a Hoard's Dairyman advertiser. You'll be better satisfied.



It is written over every farm where Ayrshires are owned. Modern barns, cheerful homes, and well-deserved recreation are found on the farms where Ayrshires lighten the cares and increase the bank balances. The net profits from these herds have sent children through school, bought radios and paid for mother's new electric washer,

These farmers have learned that their Ayrshires produce at the lowest feed cost. They are sure that their hardiness helps them to thrive under all conditions. They know that their 4% Aryshire milk is a premium product.

Write for new booklets.

May we help you locate a Foundation Herd?

AYRSHIRE BREEDERS' ASSOCIATION, 10 Center Street BRANDON, VERMONT



NORTH STAR JOE HOMESTEAD
Senior Herd Sire—Carnation Milk Farms

Now *you* can own a son of "Joe"

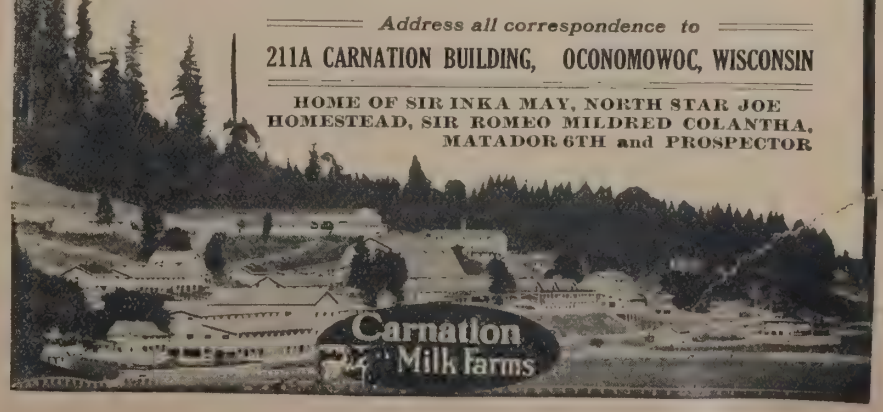
Some dairymen have said, "My greatest ambition is to own a son of North Star Joe Homestead, but I can't afford it."

Just now we have a son of "Joe" we can offer at $175. We also have a few other very desirable youngsters from $150 to $300. You will appreciate that there will be mighty few opportunities like this. Let us tell you about it.

Address all correspondence to

211A CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



4 of Wisconsin's Best Herds

—IN ONE DISPERSION SALE

MARCH 1-2, 1927

— at —

Waukesha and Watertown



THE WALCOWIS HERD

Owned by Louise H. Dickinson, Lake Geneva, Wis.

60 REGISTERED HOLSTEINS

Including—12 daughters of Iowana Sir Ollie, that great bull that was grand champion at the National and full brother to a bull that was twice a National grand champion. He was a sire of producers as well as of show animals.
50 granddaughters of Iowana Sir Ollie, among them:
10 daughters of Sir Ollie Mooie Watson, a 36-lb. son of Iowana Sir Ollie.
22 daughters of North Star Gift Champion, a son of Johanna Bonheur Champion from that former world record cow, Little Gift of Spring Valley.
The Herd Sires—North Star Gift Champion and Walcowis Ollie Denver, will be sold.
You know the herd. It has long been one of the best in the state.

J. W. HOWARD'S HERD

Genesee, Wis. — 30 Registered Holsteins

Including—8 daughters of Pabst Champion Hartog, an 800-lb. son of King Pontiac Champion.
4 granddaughters of Terracelawn Hengerveld Segis, whose daughters twice won the get of sire class at the National Dairy Show.
5 granddaughters of Woodcroft Perfection, the 40-lb. bull.
This is a high class herd of producers, cattle that should interest those who want to add some of the profit making kind to their herds.

O'Connor Bros. Holsteins

Watertown, Wis.— 60 HEAD

This herd was built entirely on a Homestead foundation. It is one of the oldest and best herds in Dodge County. It includes
26 daughters of Carnation Johanna Matador, a son of Matador Segis Walker. 20 daughters of Colantha Walker Segis, a son of Carnation Segis Prospect. One expects good cattle from such breeding and this is a herd of good ones.

The Lauritz Larsen Herd

From Elroy, Wis. — 35 Good Holsteins 35

A Herd that Includes . .
- 15 GOOD COWS.
- 5 TWO-YEAR-OLD HEIFERS.
- 6 YEARLING HEIFERS.
- 8 HEIFER CALVES.

These are practically all daughters and granddaughters of semi-official record cows and among them are 2 daughters of a 900-lb. cow. These are the kind of cattle every good dairyman likes to have. The entire herd is largely of Admiral Walker Prilly breeding.

All Herds Federal Accredited and sold on a 60-day retest.
For Catalogs and Further Information, write —

WAUKESHA SALE & PEDIGREE CO.

WAUKESHA, WIS.

At Waukesha, March 1 | **Watertown, March 2**

R. E. HAEGER, J. E. MACK, Auctioneers

Complete Dispersion Sale!

80 REGISTERED HOLSTEINS 80

FRIDAY, FEBRUARY 25, 1927

COMMENCING AT 10:30 A. M. at our farm situated ½ mile west of

SYCAMORE, ILLINOIS

35 COWS two to seven years in ages — 16 HEIFERS due to freshen this Spring
12 HEIFERS, yearlings, ready to breed — 12 HEIFER CALVES — 1 BULL CALF

4 HERD SIRES —

KING COLANTHA CHANGELING AAGGIE who is sired by a 41-lb. son of Colantha Johanna Lead and his dam has 32.47 lbs. butter and 633 lbs. milk in seven days. 20 of his daughters in this sale.

KING PONTIAC JOMO sired by a 31.51-lb seven day and 1057-lb. year grandson of King of the Pontiacs and his dam has 30.75 lbs. butter seven days, 1076 lbs. butter, 27111 lbs. milk in a year. 8 daughters in this sale.

SIR BESS PIETERTJE BEETS and his younger brother from the same dam at 3 years old, butter 31.67 lbs., 926 lbs. butter, 24100 lbs. milk in one year.

Tuberculin tested under Federal Supervision. Catalogue ready day of the sale. Send for circular now.

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GEORGE A. FOX, Proprietor — **SYCAMORE, ILLINOIS**

DISPERSAL! — HOLSTEINS AT AUCTION

Spring Dell Stock Farm, Monroe, Wis., Feb. 16, at 1 o'cloc

37 Head - Federally Accredited — 37 Head

Nearly all sired by two great sons of Pietertje Ormsby Mercedes Della, w was the sire of the World's record 2-year-old, Pietertje Ormsby Merced Frisby, making over 32 lbs. in seven days and coming back with over 41 l at 4 years. The dams of these two bulls average over 1000 lbs. in a year, a one has 34.80 lbs. in 7 days. 1 bull, from a 23-lb. 4-year-old, ready for servi This herd has plenty of Individuality, Size, and Production. Are in Good Co dition. A sale worth attending.

Farm on Highway 31—6 mi. south of Monroe, 1½ mi. N. W. of Clarno.

F. H. EVERSON, SALE MGR.; COL. G. B. GOODHART, AUC.

Write for Catalogue! — C. H. LICHTENWALNER, Pr

Come to Hollyhock Farms For Your Herd Sire!

Although we seldom have a bull of serviceable age, we always have some very good younger ones sired by Sir Bess Ormsby Fobes or by Creator out of Sir Bess' daughters. We have a few good ones right now with the right type and from good record dams. Write us or come to the farm.

HOLLYHOCK FARMS (Waukesha County) **P.O. DOUSMAN, WISCONSIN**
GUSTAVE PABST, OWNER — F. J. SOUTHCOTT, MGR.
A Clean Herd Under State Supervision

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

JOHN H. PULS — ALLENTON, WISCONSIN

THE NORRIS FARM—Home of King Homestead Veeman Pontiac, 13 lb. son of Piebe Laura Ollie Homestead King and Molly Veeman Segis Pi- tiac---daughter of King Segis Pontiac Count.

MUKWONAGO *Federally Accredited* **WISCONSN**

Sons of Pabst Persistency

FROM PROFIT MAKING DAMS.—FARMERS' PRICES

PABST PERSISTENCY, our herd sire, is a son of King Segis Alcartra Prilly from a 3lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 ns and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today or information.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., — **NORTHVILLE, MICHIGN.**

FRIEND PIEBE

A 1281-LB. SON OF K. P. O. P.

was 1st prize 3-year-old at New York State Fair in 1924 and a consistent winner wher er shown. His dam made 1281 lbs. butter with an average test of 4.34% for the year. She so has a 41-lb. seven-day record. Am offering sons of Friend Piebe from dams with good year re- ords for from $200 to $400 delivered anywhere in the U. S.

KARL NIMS — **MENTOR, OIO**



Registered Yearling Heifer

Bred to Ona Bulls — Farmers' Prices

Because we have more young stock than we like to carry, were offering for sale a nice lot of yearling heifers at $100 to $00. They are bred to our Ona Bulls and are due this winter. Many of them are from tested dams. Better write us today.

THE RIECK CERTIFIED DAIRY FARMS CO., — **Rootstown, hio**

OHIO HOLSTEINS

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
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High Grade Holstein Springer

If in the market for big productio these cows will please you. Tuberculi tested. Address

RIVER MEADOW FARMS, Portlandville, N.
P. S. Come and make selections.

Quality Holsteins

Jefferson County Holstein-Friesian Breeders Association has them. Over 1000 herds to select from. Write your wants to our field man.

BERT ANTHES, — **Fort Atkinson, Wisconsin**

Buy from Hoard's Dairyman l- vertisers and tell them you saw their ad in Hoard's Dairyman.



Holsteins--
Producers of Cash

Holsteins stand supreme as butterfat producers. Holsteins in most instances are leaders in cow testing associations both in individual and herd records. Under official test the important records for butterfat are all held by Holsteins. Their ability to produce butterfat, milk and calves economically, make them consistent producers of cash.

Write for Holstein Literature and Facts

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The HOLSTEIN-FRIESIAN
Association of America

230 E. Ohio St. Room 601 **CHICAGO**

AILEY'S DISPERSAL SALE

F PUREBRED ACCREDITED HOLSTEINS
Accredited Herd No. 69786

BRUARY 15th, 1927, at 9 A. M.
36 PUREBRED HOLSTEINS

isting of 7 cows, 2 4-year-old heifers, 3 3-year-heifers, 9 2-year-old heifers, 6 yearling heifers, ifer calves, 1 bull calf, three months old. Herd ir—"Marathon Bess Burke 15th." Females bred to hland Colantha King Ormsby," grandson of antha Johanna Lad," whose dam made 36 lb. n 7 days, and whose 6 nearest dams average B. in 7 days, and "Marathon Bess Burke 15th," dson of K. P. O. P., whose 6 nearest dams average .6 B. in 365 days. **Also 8 high grade Holstein and heifers, 5 Grade Guernsey cows and heifers. ead horses, and all farm equipment.**

uctioneers: CHAS. LEONARD, J. E. MACK.
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located six miles northeast of Belvidere. Write atalog to

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RVICEABLE YEAR RECORD SON OF OUNT WALKER HOMESTEAD SEGIS

Tered for sale by **HIGHLAND FARM, LAKE EVA, WIS.** His dam, sired by the best son of lbe," produced 764.2 lbs. butter, 18,542 lbs. milk 39 days. His sire is a son of King Segis Pontiac dt and that great American record cow, May er Ollie Homestead. Write today for price and ree to

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HOME OF THE
RING BROOK BESS BURKE 2d FAMILY
BULL CALVES FOR SALE

n since March. Write for price list. Herd er Federal Supervision for Tuberculosis; ative to Blood Test for Abortion.

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UNDATION HEIFER CALVES
For Quick Sale!

m Man O' War—"That Son of 37th."
as—Daughters of Sir Korndyke Bess Piebe is from Queen Piebe Ormsby Mercedes ecords averaging 1,000 lbs.) and Sir Korne Bess. Price $100. Write today.

EMPIRE STOCK FARM,
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AYOWOOD FARMS
26 — HOLSTEIN BULLS — 26

new Sales List offers you a variety of serviceable younger bulls from dams with splendid A. R. ds, and from well-bred heifers now on test. We meet your requirements for

QUALITY—TYPE—PRODUCTION

Prices to meet your needs. Write us.
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NELS PARSON, SALES SEC.,
RTHFIELD, MINNESOTA

A GOOD BABY BULL

Sired by **ST. OLAF ORMSBY SENSATION** No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

I we can fer in . . BULLS

tag 575. Born December 1, 1926, evenly ked. Dam, a show cow, daughter of 1,227-bull. Sire proven son of "Piebe." Get calf for next year. Price $75.00.

Federal Accredited.

CARLETON COLLEGE FARM,
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Healthy Holsteins

If you are in the market for grade or registered Holsteins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.
608 S. Dearborn, St., CHICAGO, ILL.

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3 GOOD BULLS
9 to 12 Months Old

All three are by Segis Prospect Eminent, a 30-lb. 1,165-lb. grandson of Matador Segis Walker and Segis Pietertje Prospect.

No. 1, born Feb. 8, '26, is from Piebe Homestead Ormsby Fobes, 25.7-lb. 4-year-old that has produced over 500 lbs. fat each of past two years in C. T. A. Price $175.

No. 2, born Feb. 20, '26, an excellent individual, from De Kol Netherland Homestead, 25.19-lb. cow. Price $200.

No. 3, born May 7. A good, straight, well bred calf, priced worth the money at $150.

The herd is clean. Write today.

THE W. T. RAWLEIGH COMPANY
Props. Rawleigh's Ideal Farm
FREEPORT - ILLINOIS

Illinois Greatest Holstein Herd

For 5 years every cow in this herd has been regularly tested by the Ogle County Cow Test Association. We have and offer for sale young bulls carrying both official and C. T. A. proven production records. May we describe them to you?

Rock River Farms, BYRON, Ill.

YOUNG BULLS
Priced to Sell!

I am sold out of serviceable bulls but have some excellent bull calves 2 to 4 months old, priced right. They have the type and breeding that will suit you and are from A. R. dams. Write today.

HARRY M. WOOD, Delavan, Ill.

BUFFALO CREEK FARM HOLSTEINS
38-POUND BULL—

A six months calf, light in color and a good individual. His 38-lb. dam also has 970 lbs. yearly record. His sire is a grandson of S. P. O. M., from a 926-lb. two-year-old. Write for pedigree and price. Federal Supervision.

BINGHAM BROS., Arlington Heights, Ill.

WARWOOD FARM HOLSTEINS
YOUNG BULLS FOR SALE

These youngsters are sired by a 1000 lb. grandson of Sir Pietertje Ormsby Mercedes 37th and are from our best producing cows. Write today if you want a bull with type and backed by productive breeding.

FRED LANDORF, GLEN ELLYN, ILL.

YOUNG BULLS
FOR SALE

We have some real good bull calves from one to three months old. They are real straight calves and from our highest record cows. They are priced reasonably, quality considered. Our herd is under federal supervision.

ELLWOOD & NELSON, DE KALB, ILL.

Hyde Park Farm

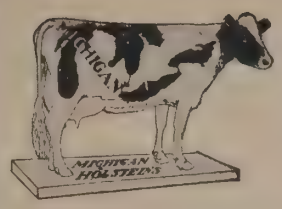
is now located at

Palos Park - Illinois

where our fully accredited herd of high-producing registered Holsteins is headed by a splendid son of Matador from a 35 lb. dam. We sell our Bull Calves at reasonable prices to local dairymen.

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Now is the Time!

Michigan's pure-bred Holstein cows are right in heavy production. Don't have to rare all over the back forty;—stuff is all in the barns. Owner isn't far off, either—his chores won't permit him to ramble far. He has time to show you his Black and White wares. What do you want in the pure-bred line? Tell me, so I can ask our 16 County Sales Managers to quote you.

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MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
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KENT COUNTY A Modified Accredited Area. Six Cow Testing Associations proving about 800 Holsteins. Inquiries for Purebred stuff solicited.
JOHN C. BUTH, Sales Manager, R. No. 2, GRAND RAPIDS.

Serviceable 30-Lb. Bull

SERRADELLA CANTRILLA FAYNE was born Jan. 1926. He is a growthy fellow backed by the best of production. His dam produced 30.56 lbs. butter as a 10-year-old and has two 29-lb. daughters, one with 828.5 lbs. butter in a year. Write us today for price and pedigree.

SERRADELLA FARM, Federal Accredited Herd, OSCODA, MICH.

A Grandson of "Fobes 6th"

A dark colored calf of excellent quality, born June 3, 1926. His seven nearest dams average 32.37 lbs. butter in 7 days.

His sire is a son of Marathon Bess Burke and the famous "Fobes 6th" that topped the Erickson Sale at $6,800. She is a 38.5-lb. cow with 1105 lbs. butter in a year and one of the best individuals of the breed.

His dam is a 27.29-lb. Jr. 4-year-old daughter of Echo Sylvia King Model from a 31.27-lb. cow with a 365-day record of 989.69 lbs. butter in a year.

SEND FOR PEDIGREE OF TAG NO. 661
"MICHIGAN STATE HERDS"
BUREAU OF ANIMAL INDUSTRY, Department B, Lansing, Mich.

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of
Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.
"The Herd With Straight Top Lines and Perfect Udders"



READY FOR SERVICE
A Show Bull From a 1155-lb. Dam

DEAN INKA SEGIS ORMSBY, born Jan. 13, 1926. **SIRE:** DEAN COLANTHA SEGIS ORMSBY, a richly bred ORMSBY show bull of 1000-lb. breeding. **DAM:** LASHBROOK INKA SEGIS, a 30-lb. cow who just finished with 1155 lbs. butter from 27,335 lbs. milk in 365 days. This bull is a top notch individual, a prize winner at the 1926 Iowa and Minnesota state fairs. HIS EIGHT NEAREST YEARLY TESTED DAMS AVERAGE 1130 LBS. BUTTER. Send for pedigree, photo and price.

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P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by **KING PEITERTJE MERCEDES ORMSBY,** one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

AKONA HOLSTEIN FARM
A FEW REGISTERED HEIFER CALVES for sale. Sire's dam 1,016 lbs. butter in year. Dams have good records. Prices $50 to $75. Accredited herd.

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SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

L. E. FERGUSON, LAURENS, IOWA.

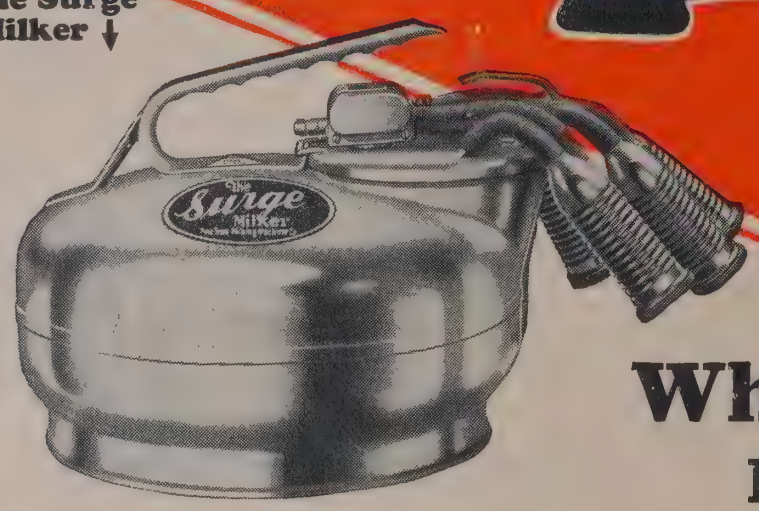
4 feet or 4 inches?

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Like this

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Which would YOU rather wash?

ANY salesman will tell you that his milker is easy to clean *but* — he is not going to be there to wash it for you. You have to do that yourself. So why not judge for yourself! Don't buy any milker until *you* have taken it all apart, washed it thoroughly, and then put it all back together again. When you have done that a few times you'll know—and not until then! Once you you have washed The Surge Milker you will not be interested in an old-fashioned milking machine with a lot of rubber tubing and twisted claws to wash. Don't just take our word for it — *try it!*

Above you see an old-fashioned milking machine with claws and long tubes. Look at the chances for bacteria—"bugs"! The milk washes around in the teat cup and then flows past several joints into the claw. By this time it has probably gathered a good many bugs. But the worst is yet to come—the trip through the long milk tube—3 feet of constant exposure to bacteria! Finally the milk reaches the pail after having washed 4 feet of rubber. Contrast that with The Surge Milker shown to the left above. NO Claws! NO Long Tubes! Milk travels ONLY 4 scant inches from teat to pail. A short, direct, *clean* route!

The Surge Milker

The Surge Milker is EASY to clean. NO claws! NO Long Tubes! It can be taken ALL apart, easily, in 20 seconds, washed in 3 minutes and assembled in 30 seconds. *Because* The Surge is so easy to clean it IS washed after every milking as it should be. *It is not neglected.* That's why average farms under average conditions are producing clean milk every day with The Surge. And that's why we guarantee clean milk and premium prices with The Surge.

Bear this in mind: To produce *clean* milk ANY milker must be taken ALL apart and washed *clean* every day. Mere rinsing, dipping in sterilizing solution or sucking water or sterilizing solution through by means of any "circulation system" is NOT ENOUGH! That's why we say—before you buy any milker be sure to see how much of a job it is to wash and clean!

Read This:—"I have used . . . . and . . . . machines (*both* Long Tube Claw-Type Milkers). I find The Surge *far easier* to keep clean, and I can produce a higher quality of milk."—G. Schmidt, Lenexa, Kansas.

No milker with long tubes and claws *can* be as easy to clean as The Surge. Surge owners never have any bacteria trouble. They get premium prices every day for their milk. Don't buy any milker until you have seen the famous "Easy-to-Clean" Surge Milker.

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Please send me without cost or obligation your FREE Surge Book telling all about The Surge Milker and also tell me about your special FREE Demonstration and "Easy Terms" Offer.

Number of cows milked _____ *R. F. D.* _____

Do you use electricity? _____

Name _____

Address _____

6 Milkings FREE!

Easy Terms!
You can buy a Surge Milker on very easy terms. We'll figure to use any equipment you may have already in your barn. You'll be surprised how little it will amount to. Mail coupon now. No obligation to buy.

In order that you may see for yourself we make you this liberal Free Offer to install The Surge Milker complete in your barn and give you —6 milkings Free! Then you can SEE how easy it is to clean. SEE its wonderful NEW milking action milk your cows like no other machine ever milked cows before. No obligation to buy! Get the facts about our wonderful FREE OFFER. Mail coupon today—NOW!

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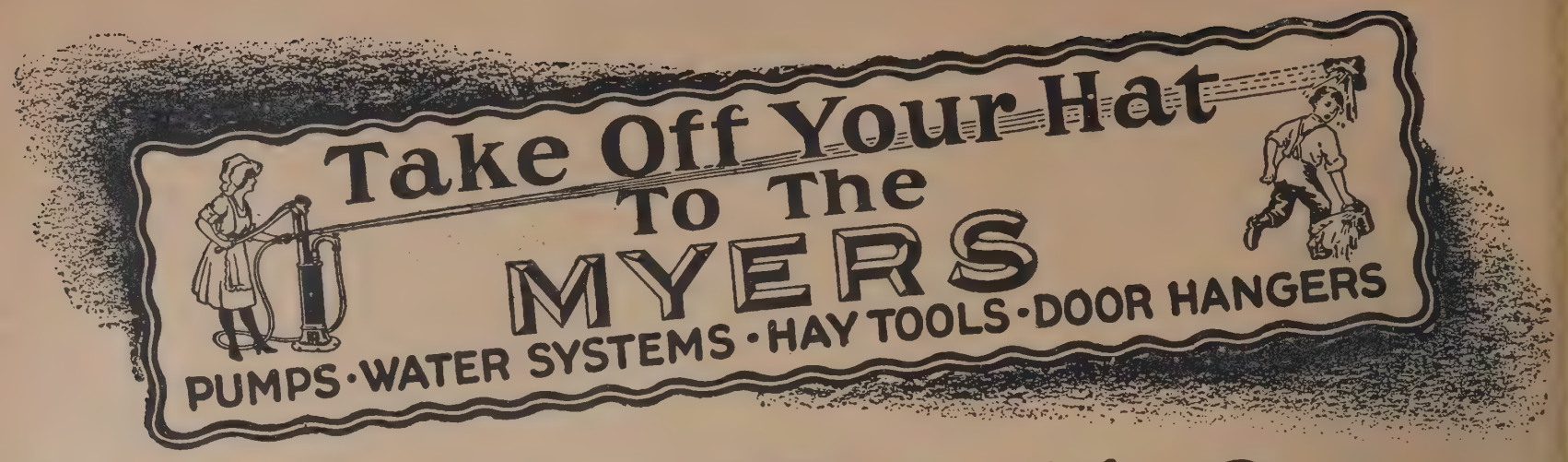
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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 4 Fort Atkinson, Wisconsin February 25, 1927



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—Known to Farmers Everywhere Since 1870



FOR more than half a century the name Myers has been an unfailing symbol of dependable service. Your grandfather and quite possibly your father's grandfather had complete confidence in the Myers, "The Best Pump Built!" Down through the years the quaint old trade-mark showing the mischievous girl and the hatless youth has always been associated with *products of outstanding quality and value.* And today Myers Pumps for Every Purpose, Myers Water Systems, Myers Hay Tools and Myers Door Hangers are unquestionably the leaders in their field.

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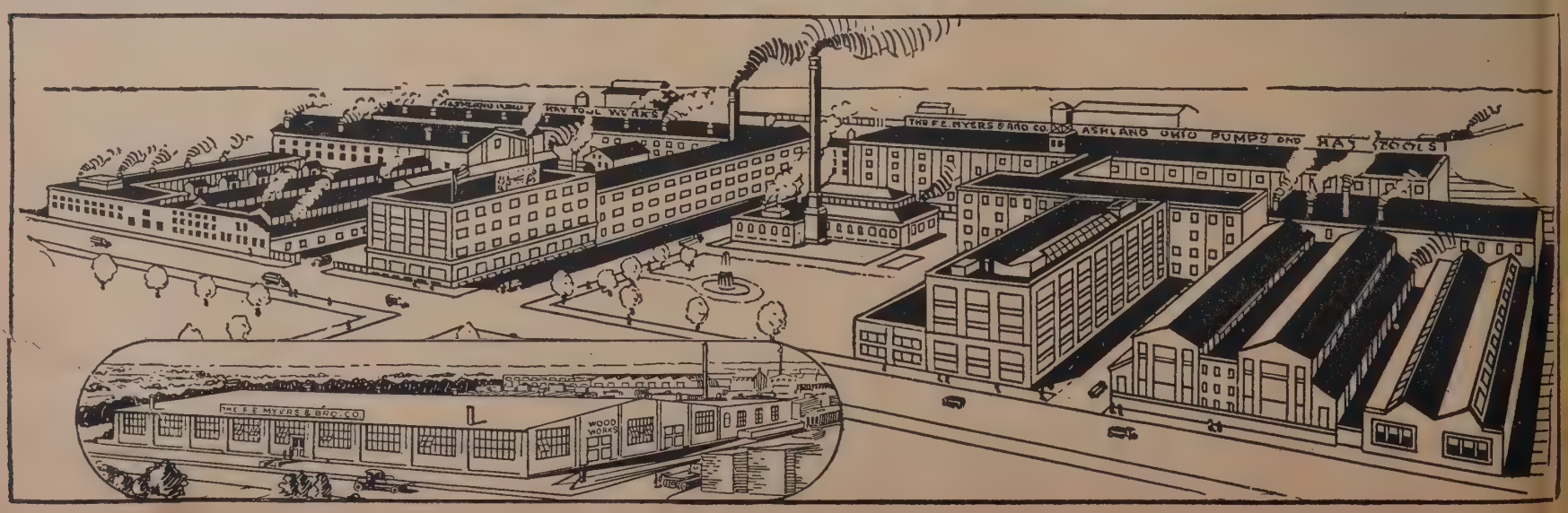
If you are using Myers Products of any kind you fully realize that the ideals of the founders of this business are still being maintained. We take just pride in the fact that today we are known as "World Headquarters for Pumps for Every Purpose, Hay Tools and Door Hangers" — and we are grateful indeed for the splendid opportunity handed down to us to serve the farm public through the national organization of Myers distributors and dealers.

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Waukesha Co. Holstein Meeting

The Waukesha County Holstein Breeders' Association held its twentieth annual meeting at Waukesha, Wis., Jan. 27, with a very good crowd in attendance. The secretary's report, covering an eleven months' period, Feb. 1 to Dec. 31, 1926, showed a gratifying increase in the number of Holsteins sold for members at private sale by the association. In the eleven months which the report covered, $137,798.33 worth of Holsteins were sold privately, a 15% increase over the business done in the previous 12 months.

W. H. Swartz, J. W. Burbach, and D. J. Howell were re-elected as directors.

The afternoon program was largely on milk and milk marketing. Howard Greene, a large certified milk producer, E. M. Clark of the Holstein-Friesian Association of America, and E. R. McIntyre of the Wisconsin Farmer were the speakers.

The Corn Borer Situation

A conference of experiment station directors of the corn belt states, representatives of the U. S. Department of Agriculture, and others was held at Washington on January 6 to consider the corn borer situation. Professor F. B. Morrison of Wisconsin reports that details were presented concerning the research work carried on thus far by the United States Department of Agriculture and the Ohio Station. The European corn borer has just been found in Northeastern Illinois. It is also quite near the Michigan shore of Lake Michigan. This pest, the most serious that has ever threatened our corn crop, has spread steadily the past few years from Ontario across Lake Erie to Ohio and then to parts of Michigan and Indiana.

The plan under the federal appropriation of ten million dollars will be to wage this spring a drastic campaign against the borer in a strip 50 to 100 miles wide on the outskirts of the present infested territory. Farmers will be required to use proper control measures and they will be compensated for the extra expense they are forced to incur, in addition to the normal cost of the ordinary methods of growing the corn crop.

According to the reports at Washington, the best possibility of controlling the borer is through the plowing under very thoroughly of all cornstalks, corn stubble, and corn cobs, either in the fall or the spring. Some of the borers will be buried so deep they cannot emerge, but many will come to the surface. Here they will perish unless they find debris to take refuge in.

Except in very heavily infested areas, practically all the borers are found in corn, although they are capable of attacking 200 species of plants. Therefore, growing corn under control measures offers hope of checking the pest, though probably not of exterminating it.

The Ohio Station, in co-operation with farm machinery manufacturers, has devised an attachment for corn binders which makes possible the cutting of the corn within 2 to 3 inches of the ground. This leaves less borers in the field than otherwise. Also a "stubble beater" has been developed. When this is run over the field, it chops and tears into shreds the corn stubble and stalks, killing practically all the borers. As thus far developed, the machine works best on corn stubble, instead of standing cornstalks.

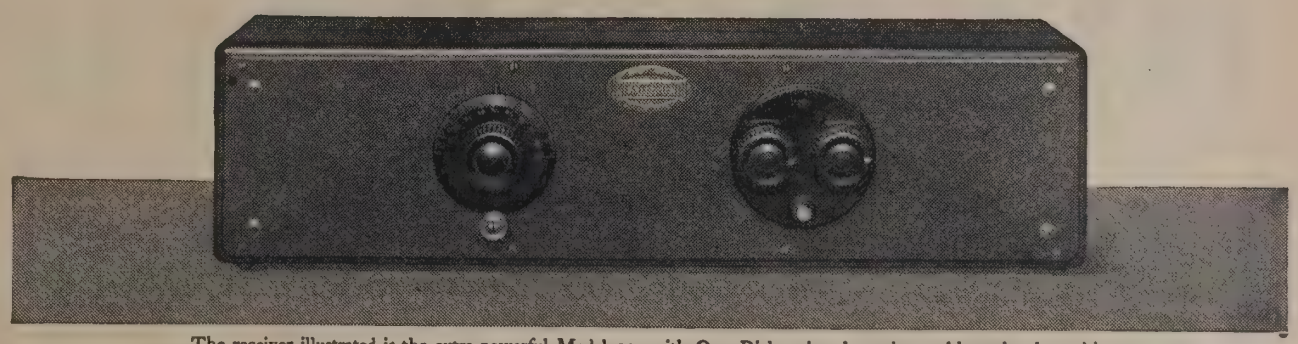
Damage from the pest will be the worst in sections where the practice is to leave the standing stalks in the field, as under typical corn belt conditions. Where the crop is ensiled, the pest will probably not cause so great damage.

The Ohio Station and the United States Department of Agriculture are likewise carrying on extensive cultural experiments. They find that late planted corn suffers less from the borer, though the late planting itself tends to reduce the yield.

Work is to be continued on the introduction from Europe of parasites of the corn borer in the hope that some parasite may be found which will aid materially in holding the pest in check under conditions in this country. Unless it is possible to check the borer, it will unquestionably reach Wisconsin in a few years. However, this state will probably suffer less than most others from the borer, since such a large part of our corn crop, including the stalks, is fed to stock.

Samantha says: As discretion is the better part of valor, so silence is the better part of neighborhood gossip.

ATWATER KENT RADIO



The receiver illustrated is the extra-powerful Model 32, with ONE Dial; price, less tubes and batteries, but with battery cable attached, $140. Other ONE Dial Models, $70 and $85. Radio Speakers, priced from $16 to $23.

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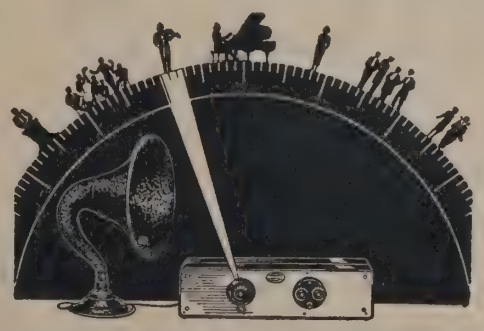
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WGY..Schenectady	KSD.....St. Louis
WSB.....Atlanta	WWJ.....Detroit
WSN....Nashville	WMC....Memphis
WHAF...Louisville	
WCCO....Minneapolis-St. Paul	



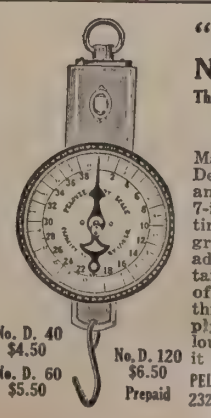
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Entered at Fort Atkinson, Wis., as second class matter.

Semi-monthly

Three Years $1.00

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Volume 72 FORT ATKINSON, WIS., FEBRUARY 25, 1927 Number 4

A Decade of Co-operative Dairy Endeavor

ORGANIZED to improve milk marketing conditions in the Philadelphia Milk Shed, the nter-state Milk Producers' Associaion, successors to the Philadelphia Milk Shippers' Union founded in 901, has now rounded out ten years f strong co-operative endeavor.

The growth of this organization is presented in a very graphical way in he illustrations on this page. In his nnual report, President H. D. Alleach reviews the progress of this organization. Mr. Allebach has been dentified with the organization from ts beginning and R. W. Balderton has been its secretary throughut. From Mr. Allebach's annual reort we glean the following story:

Wartime increases in milk producion costs had reached a serious sitution by 1916. Efforts to increase etail prices during the period 1901 o 1915 had been met with very trong resistance on the part of the ublic. The farmers realized that omething very constructive must be one if they were to stay in the dairy usiness.

In the summer of 1916 the Pomona Grange of Chester and Delaware Counties, Pennsylvania, appointed a pecial committee to help organize he farmers. Meetings were held at nany points. The by-laws adopted or the new organization provided for (1) local units; (2) county organization; and (3) a board of directors.

About the same time some farsighted civic leaders suggested a milk commission be appointed by the governors of the four states supplying Philadelphia; which should investigate the whole milk marketing situation and report back to farmers, dealers, and consumers alike. The immediate result of the hearings of this commission was to satisfy the consumers of Philadelphia for the first time that, in order to have an adequate supply of milk for themselves and their children, the price to producers would have to be sufficient to enable the farmers to continue in business. The need of an immediate advance in price was clearly shown.

At the annual meeting held December 11, 1916, F. P. Willits was elected president, F. K. Tyson vice-president, R. W. Balderston secretary, and Walter Kirby treasurer. On March 17, 1917, a charter was granted the association. Two days later the first board of directors' meeting was held at which Secretary Balderston reported an estimated membership at that time of 3,494.

At the first annual meeting President Willits' report stated, "The first test of our strength came July 1st when we assumed active charge of the sale of milk of our members. We demanded and secured a substantial advance over the previous price."

In 1918 the president reported, "The policy of carefully inspecting the dealers' books and eliminating unsound business practices has enabled the dealers to sell for 14c per quart as compared with 17c in New York and Baltimore. As an example of the improved conditions I might add that the Philadelphia dealers have voluntarily agreed to so concentrate their routes that one man and one horse serve as much milk as was commonly delivered by two men and two horses ten years ago in this city, or even now in many neighboring cities."

The "Philadelphia Selling Plan" was developed in the summer of 1919, was presented at the annual meeting held December 1st and 2d, and went into effect in January, 1920.

Early in 1920 the proposition was considered to issue a monthly paper. "The Milk Producers' Review" appeared first in May of that year. This publication is now in its seventh volume. It has proven its value in keeping the membership informed on the market situation.

Realizing that successful efforts to increase milk consumption would increase the demand for dairy products and that this might be partially obtained through advertising, the association in 1921 levied a tax of one cent on every hundred pounds of milk sold by its members.

In December, 1920, the Philadelphia Inter-state Dairy Council was organized. Its activities have been very closely allied with the Milk Producers' Association. This combined effort to spread the story of milk resulted in an increase of over twelve million quarts for the year 1921, according to President Willits' report.

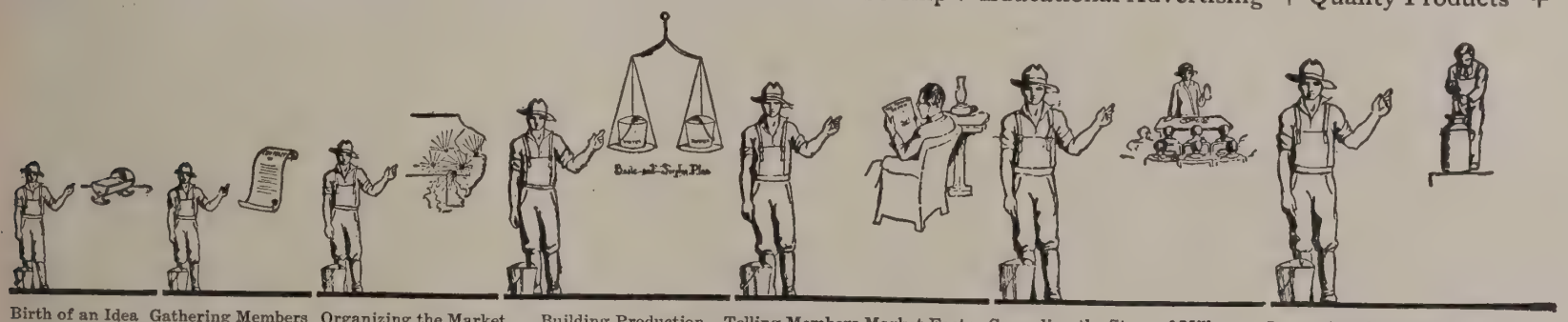
The association set for its goal in 1922, Quality Production. The Quality Control Department was organized in July, 1921, and carried on a campaign to improve the quality of milk through the use of sediment tests and country meetings. Moving pictures were developed to put across the story. In 1923 a system of checking, testing, and weighing was inaugurated. General testing conditions throughout the territory were greatly improved through the work of this department.

Inspection on farms and at plants as a part of the Quality Control program began in March, 1924.

In 1925 the association's system of records was substantially enlarged. A history card for each member was started in January of that year. Great stress was given to the collec-

(Continued on page 223)

1916 Vision + 1917 Faith + 1918 Co-ordination + 1919 Stabilization + 1920 Informed Membership + 1921 Educational Advertising + 1922 Quality Products +



Birth of an Idea | Gathering Members | Organizing the Market | Building Production | Telling Members Market Facts | Spreading the Story of Milk | Improving the Quality

The above illustration shows accurately the growth and accomplishment of the ten years of progress of the Inter-State Milk Producers' Association. The comparative growth of the organization is pictured in the size of the farmers, drawn to scale. Each farmer points to an illustration of what has been carefully selected as the outstanding new work of that year. Above each picture is the marketing principle illustrated by that particular activity.

1923 Protective Supervision + 1924 Standardization + 1925 Knowledge of the Market + 1926 Balanced Supply and Demand = THE YEARS TO COME

1 Good Prices
2 Assured Markets
3 Fair Competition
4 Confidence in the Future



hecking the Testing and Weighing | Safeguarding the Quality | Developing Market Records | Developing the Selling Plan Further | Results

There are milestones in the life of every individual and every organization which denote definite periods of growth and development, of progress and accomplishment. This illustration records the healthy enlargement of membership, year by year, during the ten years of its existence. Parallel with this membership increase has been a steady improvement in service to members, serious problems solved, definite goals reached, and a continuous education in co-operative principles by working together for the common good.

THE FEEDING OF DAIRY COWS

No. 9—Summary

Good Dairy Cows Are Important but the Man Who Grows the Crops and Feeds Them to Cows Is More Important



A FEW days ago we were on a farm where cows were being fed moldy silage and marsh hay as roughage. The cows were thin, extremely lousy, and covered with more dirt than is conducive to good health and clean milk.

When we came away we thought of the opening statements in this series of articles. "The *good* dairy cow is a *good* market for crops grown and for feeds purchased. The value she returns for these depends very much on *how* she is fed. Her feeding depends on the *knowledge* and *skill* of her *owner*."

In concluding this series we are tempted to say something about the owners of cows instead of repeating briefly what has already been said. We promised the summary and will stick to it but we want to emphasize here that the man factor is by far the most important one in turning feeds into higher values through dairy cows. In making a summary it is necessary to be brief—to leave much between the lines. Detailed discussion has already been made.

The first article discussed five important points that have a very direct bearing on the profits made from cows. The first of these states that the owners of cows must first improve their knowledge and skill in feeding and managing cows before the cows themselves will be improved. It was emphasized that cows are nothing more or less than indirect markets for crops grown and purchased, and that in this respect owners have something to say about the final returns for their labor.

About 50 per cent of the nutrients of the feed fed to average cows is used for body maintenance. The better the cow and the better her ration, the greater the proportion of feed nutrients used for making milk.

It is poor business to underfeed good cows. It is worse to feed poor cows too much. Either increases the feed cost per hundred pounds of milk produced. It is likewise poor business to feed good cows poor rations. This is just as bad as to feed scrub cows good rations—it is worse. In either case the feed cost per hundred pounds of milk produced is too high to return good values for the feeds fed.

Dairy cows are well adapted to use large quantities of roughages. Usually feed nutrients may be supplied cheaper in roughage than in concentrates.

The backbone of a good ration is found in a succulent roughage and a legume hay. When the silo and hay mow are empty, the pocketbook likewise begins to lose its contents. Some succulent feed and legume hay may be grown almost anywhere that dairy cows are kept. The skillful dairyman finds out what succulent roughage and legume hay he can grow best and then arranges his crop producing program so that these feeds may be grown in adequate quantities to supply the needs of his herd. Plenty of good roughage reduces the cost of grain feeding, but with good cows it does not serve to eliminate the need for some grain.

Some concentrates are needed because good cows cannot get enough of the bulky roughage to satisfy their requirements for normal production. The concentrates mixture is to supply additional nutrients and to add nutrients in such proportion as will properly balance the ration. The basis for selecting the feeds to be used in a concentrates mixture depends much on the kind of roughage it is to be fed with.

The most common errors in feeding concentrates are: (1) underfeeding in quantity; (2) feeding a mixture not suitable for the roughage fed with it; (3) underfeeding of protein. The effect of these errors is to increase the feed cost per hundred pounds of milk produced.

A simple rule for feeding roughage is to feed all the cows will clean up. Where silage and hay are both fed this will be about 3 lbs. of silage and 1 lb. of hay daily for each 100 lbs. of live weight; where only hay is fed it will be about 2 lbs. daily for each 100 lbs. of live weight. The actual amount consumed will vary according to the individuality of cows and to the quality of the roughage.

After the concentrates mixture has been made right for the available roughage, it is fed according to the production and condition of individual cows. With breeds whose milk tests 4 per cent fat or less the c... centrates mixture is fed at a rate f... about 1 lb. for each 3½ to 4 lbs. f... milk produced; for the higher test g... breeds it is fed 1 lb. for each 2¾ o... 3¼ lbs. of milk produced. He... again the actual amount that sho... be fed will vary somewhat accord... to individuality of cows and qual... of roughage. With simple stand... feeds this rule is fairly reliable wh... compared with an acceptable feed... standard.

Definitions of terms used are ... repeated here. The reader is refer... to article 5 of the series.

A good ration is palatable; it ... bulk and succulence; it is well b... anced, meaning that it supplies nu... ents in the right proportion for ... cow's needs; it supplies an adequ... quantity of nutrients; it does not c... tain any feeds that, when prope... fed, will injure the cow or impart ... desirable flavor or odor to the m...

In article 5 you were told how ... calculate the maintenance and p... duction requirements of cows. ... this article we present a table sh... ing these calculations already m... for cows of different weights, prod... tion, and fat percentage in their m... The legend beneath the table t... how it may be used to find the nu... ent requirements of cows ranging ... weight from 800 lbs. to 1,400 lbs., ... production from 15 lbs. to 60 lbs. f... milk, and in fat percentage from 3 ... to 6 per cent. Save this table ... future use—it will save time in che... ing up the requirements of your co...

It is not necessary to repeat he... the detailed method of fitting a gi...

(Continued on page 224)

Pounds Protein and Total Nutrients to Feed Daily for Maintenance and Production

Live weight of cow	% fat in milk	For 15 lbs. milk		For 20 lbs. milk		For 25 lbs. milk		For 30 lbs. milk		For 35 lbs. milk		For 40 lbs. milk		For 45 lbs. milk		For 50 lbs. milk		For 55 lbs. milk		For 60 lbs. milk	
		Protein	Total nutrients	Protein	Total nutrients	Protein	Total nutrients	Protein	Total nutrients	Protein	Total nutrients	Protein	Total nutrients	Protein	Total nutrients	Protein	Total nutrients	Protein	Total nutrients	Protein	To nu- er
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	L
800 lbs.	3.5	1.29	11.0	1.54	12.6	1.78	14.1	2.03	15.7	2.27	17.3	2.52	18.8	2.76	20.4	3.01	21.9	3.25	23.5	3.50	25
	4.0	1.37	11.4	1.64	13.2	1.91	14.9	2.18	16.6	2.45	18.3	2.72	19.1	2.99	21.7	3.26	23.4	3.53	25.1	3.80	26
	4.5	1.42	11.8	1.70	13.7	1.98	15.6	2.27	17.4	2.55	19.6	2.84	21.0	3.12	22.9	3.41	24.8	3.58	26.6	3.98	28
	5.0	1.46	12.3	1.76	14.2	2.06	16.2	2.36	18.2	2.66	20.2	2.96	22.1	3.26	24.0	3.56	26.0	3.86	28.0	4.16	29
	5.5	1.52	12.7	1.84	14.8	2.16	16.9	2.48	19.0	2.80	21.1	3.12	23.3	3.44	25.4	3.76	27.5	4.08	29.6	4.40	31
	6.0	1.56	13.1	1.89	15.3	2.23	17.6	2.56	19.8	2.90	22.1	3.23	24.3	3.57	26.6	3.90	28.8	4.24	31.1	4.57	33
900 lbs.	3.5	1.36	11.8	1.61	13.4	1.85	14.9	2.10	16.5	2.34	18.0	2.59	19.6	2.83	21.1	3.08	22.7	3.32	24.2	3.57	25
	4.0	1.44	12.2	1.71	14.0	1.98	15.6	2.25	17.3	2.52	19.0	2.79	20.8	3.06	22.5	3.33	24.2	3.60	25.9	3.87	27
	4.5	1.48	12.7	1.77	14.5	2.05	16.3	2.34	18.2	2.62	20.0	2.91	21.9	3.19	23.7	3.48	25.6	3.76	27.4	4.05	29
	5.0	1.53	13.0	1.83	15.0	2.13	17.0	2.43	19.0	2.73	21.0	3.03	22.9	3.33	24.9	3.63	26.8	3.93	28.8	4.23	3
	5.5	1.59	13.5	1.91	15.6	2.23	17.7	2.55	19.8	2.87	21.9	3.19	24.0	3.51	26.1	3.83	28.2	4.15	30.4	4.47	32
	6.0	1.63	13.9	1.97	16.1	2.30	18.4	2.64	20.6	2.97	22.9	3.31	25.1	3.64	27.1	3.98	29.6	4.31	31.9	4.65	34
1,000 lbs.	3.0	1.40	12.2	1.64	13.6	1.87	15.0	2.11	16.5	2.34	17.9	2.58	19.3	2.81	20.7	3.05	22.2	3.28	23.6	3.52	25
	3.5	1.43	12.6	1.68	14.1	1.92	15.7	2.17	17.3	2.41	18.8	2.66	20.4	2.90	21.9	3.15	23.5	3.39	25.0	3.64	26
	4.0	1.51	13.0	1.78	14.7	2.05	16.4	2.32	18.2	2.59	19.9	2.86	21.6	3.13	23.3	3.40	25.0	3.67	26.7	3.94	28
	4.5	1.55	13.4	1.84	15.3	2.12	17.1	2.41	19.0	2.69	20.8	2.98	22.7	3.26	24.5	3.55	26.3	3.83	28.2	4.12	30
	5.0	1.60	13.8	1.90	15.8	2.20	17.8	2.50	19.7	2.80	21.7	3.10	23.7	3.40	25.6	3.70	27.6	4.00	29.6	4.30	31
	5.5	1.66	14.3	1.98	16.4	2.30	18.5	2.62	20.6	2.94	22.7	3.26	24.8	3.58	26.9	3.90	29.0	4.22	31.1	4.54	33
	6.0	1.70	14.7	2.04	16.9	2.37	19.1	2.71	21.4	3.04	23.7	3.38	25.9	3.71	28.2	4.05	30.4	4.38	32.7	4.72	34
1,100 lbs.	3.0	1.47	12.9	1.71	14.4	1.94	15.8	2.18	17.3	2.41	18.7	2.65	20.1	2.88	21.5	3.12	23.0	3.35	24.4	3.59	25
	3.5	1.50	13.4	1.75	14.9	1.99	16.5	2.24	18.0	2.48	19.6	2.73	21.2	2.97	22.7	3.22	24.3	3.46	25.8	3.71	27
	4.0	1.58	13.8	1.85	15.5	2.12	17.2	2.39	18.9	2.66	20.6	2.93	22.4	3.20	24.1	3.47	25.8	3.74	27.5	4.01	29
	4.5	1.62	14.2	1.91	16.1	2.19	17.9	2.48	19.8	2.76	21.6	3.05	23.5	3.33	25.3	3.62	27.1	3.90	29.0	4.19	30
	5.0	1.67	14.6	1.97	16.6	2.27	18.6	2.57	20.5	2.87	22.5	3.17	24.5	3.47	26.4	3.77	28.4	4.07	30.4	4.37	32
	5.5	1.73	15.0	2.05	17.2	2.37	19.3	2.69	21.4	3.01	23.5	3.33	25.6	3.65	27.7	3.97	29.8	4.29	31.9	4.61	34
	6.0	1.77	15.5	2.11	17.7	2.44	20.0	2.78	22.2	3.11	24.5	3.45	26.7	3.78	29.0	4.12	31.2	4.45	33.5	4.79	35
1,200 lbs.	3.0	1.54	13.3	1.78	15.2	2.01	16.6	2.25	18.0	2.48	19.5	2.72	20.9	2.95	22.3	3.18	23.8	3.41	25.2	3.65	26
	3.5	1.57	14.2	1.82	15.7	2.06	17.3	2.31	18.8	2.55	20.4	2.80	22.0	3.04	23.5	3.29	25.0	3.53	26.6	3.78	28
	4.0	1.65	14.6	1.92	16.3	2.19	18.0	2.46	19.7	2.73	21.4	3.00	23.1	3.27	24.8	3.54	26.6	3.81	28.2	4.08	30
	4.5	1.69	15.0	1.98	16.9	2.26	18.7	2.55	20.5	2.83	22.4	3.12	24.2	3.40	26.1	3.69	27.9	3.97	29.8	4.26	31
	5.0	1.74	15.4	2.04	17.4	2.34	19.3	2.64	21.3	2.94	23.3	3.24	25.3	3.54	27.2	3.84	29.2	4.14	31.2	4.44	33
	5.5	1.80	15.8	2.12	17.9	2.44	20.1	2.76	22.2	3.08	24.3	3.40	26.4	3.72	28.5	4.04	30.6	4.36	32.7	4.68	34
	6.0	1.84	16.2	2.18	18.5	2.51	20.7	2.85	23.0	3.18	25.2	3.52	27.5	3.85	29.7	4.19	32.0	4.52	34.2	4.86	36
1,300 lbs.	3.0	1.61	14.6	1.85	16.0	2.08	17.4	2.32	18.8	2.55	20.3	2.79	21.7	3.02	23.1	3.26	24.6	3.49	26.0	3.73	27
	3.5	1.64	15.0	1.89	16.5	2.13	18.1	2.38	19.6	2.62	21.2	2.87	22.8	3.11	24.3	3.36	25.9	3.60	27.4	3.85	29
	4.0	1.72	15.4	1.99	17.1	2.26	18.8	2.53	20.5	2.80	22.2	3.07	23.9	3.34	25.6	3.61	27.3	3.88	29.1	4.15	30
	4.5	1.76	15.8	2.05	17.7	2.33	19.5	2.62	21.4	2.90	23.2	3.19	25.0	3.47	26.9	3.76	28.7	4.04	30.6	4.33	32
	5.0	1.81	16.2	2.11	18.2	2.41	20.1	2.71	22.1	3.01	24.1	3.31	26.1	3.61	28.0	3.91	30.0	4.21	32.0	4.51	33
	5.5	1.87	16.6	2.19	18.7	2.51	20.9	2.83	23.0	3.15	25.1	3.47	27.2	3.79	29.3	4.11	31.4	4.43	33.5	4.75	35
	6.0	1.91	17.0	2.24	19.3	2.57	21.5	2.91	23.8	3.24	26.0	3.58	28.3	3.91	30.5	4.25	32.8	4.58	35.0	4.92	37
1,400 lbs.	3.0	1.68	15.4	1.92	16.8	2.15	18.2	2.39	19.7	2.62	21.1	2.86	22.5	3.09	23.9	3.33	25.3	3.56	26.8	3.80	28
	3.5	1.71	15.8	1.96	17.3	2.20	18.9	2.45	20.4	2.69	22.0	2.94	23.6	3.18	25.1	3.43	26.7	3.67	28.2	3.92	29
	4.0	1.79	16.2	2.06	17.9	2.33	19.6	2.60	21.3	2.87	23.0	3.14	24.7	3.41	26.4	3.68	28.1	3.95	29.9	4.22	31
	4.5	1.83	16.6	2.12	18.5	2.40	20.3	2.69	22.1	2.97	24.0	3.26	25.8	3.54	27.7	3.83	29.5	4.11	31.4	4.40	33
	5.0	1.88	17.0	2.18	19.0	2.48	20.9	2.78	22.9	3.08	24.9	3.38	26.8	3.68	28.8	3.98	30.8	4.28	32.8	4.58	34
	5.5	1.94	17.4	2.26	19.5	2.58	21.6	2.90	23.8	3.22	25.9	3.54	28.0	3.86	30.1	4.18	32.2	4.50	34.3	4.82	36

The above table gives the nutrient requirements for cows calculated according to the Haecker feeding standard. To use the table first find the weight of a cow whose requirements ... desired to be known in the first column at the left; in the next column find the figure representing the percentage of fat in the cow's milk; next follow this line to the right until reaching t... double column of figures under the heading representing the amount of milk the cow produces. The figures in this line at this point give the amount of digestible protein and total digesti... nutrients required for maintenance and production. Article 6 of this series tells how to put feeds together to meet given requirements. Save this table for future reference.

GUERNSEY CATTLE IN THE UNITED STATES

THE Guernsey breed originated on the Channel Islands which belong to England but are located somewhat nearer the north coast of France. The original foundation cattle doubtless came to the islands from the mainland of Europe and most of them were probably the large red and brindle cattle from Normandy and the small red cattle from Brittany.

All of the Island cattle were at one time known as Alderneys, the name coming from the island of Alderney, but later laws had been enacted forbidding the importation of cattle from the continent or between the islands of Guernsey and Jersey, two distinct breeds were developed. That one on the islands of Alderney, Sark, and Guernsey became known as the Guernsey breed, and the cattle on Jersey Island as Jerseys.



GOVERNOR OF THE CHENE, LEADING GUERNSEY ADVANCED REGISTRY SIRE, WITH 114 A. R. DAUGHTERS AND 48 A. R. SONS

Importation and Distribution

The first known importation of Guernseys into the United States was made in 1818 by Reuben Hains of Germantown, Pa., but no authentic records of these animals or their descendants were kept. Another importation of a bull and two heifers was made in 1833 by a sailing captain who sent them to his brother in New Hampshire. Thirteen head were imported between 1840 and 1868 and from 1874 to 1905 there were some cattle imported each year. The total number of Guernseys imported up to January 1, 1905, was 1,645 head, and from 1905 to 1926, 10,346 were brought over.

The American Guernsey Cattle Club was organized in February, 1877, and at the time of their first meeting in December of the same year there were 193 Guernseys registered by 40 breeders. On April 1, 1926, there had been registered a total of 119,049 bulls and 201,159 cows.

According to the U. S. Department of Agriculture, there were, in 1920, 8,000 registered Guernseys and about 1,900,000 grades in the country. The breed is to be found in every state, but by far the largest number are in the North Atlantic and North Central States.

General Characteristics

In size the Guernseys are about equal to the Ayrshires and slightly smaller than the Brown Swiss. The calves weigh from 55 to 85 lbs. at birth and reach maturity early. When mature the cows weigh from 850 to 1,300 lbs. averaging about 1,100 lbs.; and the bulls from 1,400 to 2,000 lbs., averaging about 1,600 lbs.

The color of the Guernseys is fawn and white, with fawn predominating. A light cherry red with white is also found. Sometimes white may be entirely lacking except on the legs. The switch is usually white and the tongue light in color. The horns are of moderate size and amber in color. The skin is yellow.

Production

Guernsey milk has a high per cent of butterfat and a yellow color. The 22,165 cows and heifers that have completed records up to August 1, 1926, produced an average per cow of 9,664.5 lbs. milk and 482.3 lbs. fat, the average fat test being 4.99 per cent; 42 per cent of these records were made on twice a day milking, 55 per cent were milked three times daily, while only 3 per cent of the records were made on 4 milkings a day.

Five hundred fifty-one Guernsey breeders had 2,384 cows on official test August 1, 1926, and of these 433 cows owned by 155 breeders were in the Farmers' Division or 305-day class.

The present world's record holder for the breed is Anesthesia Faith of Hill Stead whose record made as a four-year-old is 1,112.5 lbs. butterfat, 19,741.9 lbs. of milk.

In the Advanced Register are three classes. The single letter class fixes a minimum of 400 lbs. fat in 365 days for a mature cow. The double letter class requires in addition that the cow carry a calf for 265 days of her record. The triple letter class fixes a minimum for a mature cow of 360 lbs. fat in 305 days on twice-a-day milking, cow to carry a calf 205 days.

The ten highest fat producers and milk producers for the breed are listed below:

Leading Guernsey Producers in Each of the Several Advanced Register Classes

Class*	Age years	Name	Milk lbs.	Fat lbs.
A	Mature	Countess Prue	18,626 9	1103.3
B	4½—5	Anesthesia Faith of Hill Stead	19,741.9	1112.5
C	4 —4½	Norman's Missaukee Red Rose	17,527.2	900.7
D	3½—4	La Noce's May Rose	18,199.9	932.8
E	3 —3½	Afterglow of Roughwood	16,815.7	878.2
F	2½—3	Maxim's May Queen of Dassel	13,967.1	849.9
G	2 —2½	Procris Snowdrop	15,487.7	822.2
		Ave. for 70 Single Letter Class Leaders	16,443.2	864.2
		Ave. for 22,511 Single Letter Records	9,674.1	482.8
AA	Mature	Golden Coronet of Jean Du Luth	15,485.9	968.8
BB	4½—5	Lone Pine Mollie Cowan	16,927.7	840.3
CC	4 —4½	Merry Rose Maid	13,944.3	822.3
DD	3½—4	Pearl's Orpha	15,149.6	828.9
EE	3 —3½	Daisy Chicoma	12,015.2	748.1
FF	2½—3	Mixter Faithful	12,601.9	744.7
GG	2 —2½	Norman's Missaukee Red Rose	15,122.3	760.7
		Ave. for 70 Double Letter Class Leaders	14,262.5	754.3
		Ave. for 3,823 Double Letter Records	9,385.0	476.0
AAA	Mature	Midgetta	12,525.2	597.1
BBB	4½—5	Anton's Lucile Primrose	10,084 1	573.8
CCC	4 —4½	Sharon Bell	9,171.9	541.4
DDD	3½—4	Oregon Pet	10,287.5	580.8
EEE	3 —3½	Tuscarora Ledyard Blossom's Esther	10,758.4	581.5
FFF	2½—3	Oregon Pet	8,849.0	517.3
GGG	2 —2½	Mazie of Blue Clay	8,377.5	452.7
		Ave. for 70 Triple Letter Class Leaders	9,081.5	474.2
		Ave. for 360 Triple Letter Records	7,793.6	392.6

*In the single letter class the record is for 365 days, with no calving requirement. In the double letter class the record is for 365 days, but cow must carry calf for 265 days of the record. In the triple letter class, called "Farmers' Division," the record is for 305 days, cows are milked only twice daily, and cow must carry calf for 205 days of the record.

Ten Highest Yearly Butterfat and Milk Production Records in the United States

Butterfat Production

Name	Milk	Fat
	lbs.	lbs.
Anesthesia Faith of Hill Stead	19741.9	1112.5
Countess Prue	18626.9	1103.3
Murne Cowan	24008.0	1098.2
May Rilma	19673.0	1073.4
Gertrude Claire	20738.1	1020.0
Nella Jay 4th	20709.9	1019.3
Langwater Nancy	18783.5	1011.7
Dairy Maid Queen of Spring Hill	18180.7	1011.2
Langwater Hope	19882.0	1003.2
Lillia of Iowa 2d	18520.1	998.4

Milk Production

Name	Milk	Fat
	lbs.	lbs.
Murne Cowan	24008.0	1098.2
Katherine's Trixie	21071.4	839.4
Gertrude Claire	20738.1	1020.0
Nella Jay 4th	20709.9	1019.3
Molly's Lassie	20591.9	826.7
Miss Daisy of Maple Hill	20314.8	847.7
Tom's Daisy	20297.7	885.0
Jean Du Luth Coronet	20004.0	952.3
Langwater Hope	19882.0	1003.2
Yeksa's Top of Gold's Fannie	19794.9	981.5

The ten Guernsey sires having the largest number of daughters with of-

(Continued on page 219)



ANESTHESIA FAITH OF HILL STEAD, THE WORLD'S RECORD GUERNSEY COW WITH 19,742 LBS. MILK, 1,112.5 LBS. FAT



SHOREWOOD RESOLUTE, GRAND CHAMPION GUERNSEY BULL AT THE 1926 NATIONAL DAIRY SHOW



HOPE OF CORNUS FARM, GRAND CHAMPION GUERNSEY COW AT THE 1926 NATIONAL DAIRY SHOW

What I Am Trying To Do On My Farm

To Solve The Labor Problem

W. J. DOUGAN, WISCONSIN

THE present condition in hired help for the farm is uncertainty. If other industries can use the men, the farm must wait. If other industries shut down, men flock to the farms. In reality, with large classes of laborers the farm is the last resort for a job. The farm-raised boys have become enticed by apparent high wages and short hours in other industries. Therefore, the farmer has no certain sources of labor to rely upon. He usually finds himself short of help when it is most needed.

In my line of dairying, where I produce and distribute my own milk, a constant supply of reliable help is all important. Therefore I have given this end of my business close attention.

I require men of high quality. They must be intelligent, of clean morals, loyal to their employer, and efficient. The farm requires men of intelligence because they have to be independent workers. They must take a job and carry it through to completion. They must be clean in morals and in person because they handle the most delicate and most easily contaminated of food. They must be efficient because there is no place on a farm for a droon or a shirk. I am able to keep men of this high standard. Many of my men are college graduates; all are men of alert intelligence. Even during the war I held to my ideals, and had enough men to carry on.

I realize that to hold men of these qualities one must offer something in return. We cannot drive such men like beasts, house them in shacks, and feed them at the trough, even though we may pay high wages. Such men must have desirable working and living conditions.

To give suitable working conditions, I first try to keep enough help to do the work in the right way at the right time. Nothing will take the heart out of an ambitious man like always being behind with the work; sowing small grain when he should be planting corn, and planting when he should be haying. Nothing has a worse effect on the man than this, unless it be the companion evil of always slighting, half doing the job, so as to get through in time to start the next. A good motto, then, for any farmer, is: Enough help to do the work in the right way at the right time.

Self respecting men must have suitable tools; not necessarily expensive, fancy tools, but tools intended for the job and kept in repair. Good stock and a fertile soil are the necessary accompaniments of good men. You cannot expect an ambitious, high-spirited man to stick by the farm with scrub cows and a barren soil.

Men must have a chance to live as well as to work. I am solving this problem by working toward a shorter farm day. The farmer can stand a longer day than the mechanic, because his work is more diversified; but a fourteen-hour day, as is practiced on many farms, would kill any industry. I find we can shorten the day even on the dairy farm, and yet tend to more efficient work.

When I started dairy farming, I found it necessary to do continuous work 365½ days in the year. The dairy cow knows no Sundays or holidays. When God gave the command to the children of Israel to rest on the Sabbath, He gave a double portion of manna on the day preceding, and none on the Sabbath. He did not make the dairy cow that way. By no hook or crook can we get the cow to give a double portion of milk on Saturday and none on Sunday. Therefore she must be milked and the milk cared for each day of the wee How, then, can we get a regular d of rest? If the slow, plodding Isra ites in their pastoral life needed t regular relaxation, how much mo do we dairy farmers need it in t rapid age?

I tried various plans to get t Sabbath rest for myself and fami and all those connected with t farm. For many years we have f lowed this plan. On Sunday, t field work, of course, stops. The fie men help with the dairy chores Su day morning. This lightens the wo for all. After the morning chor are done, only enough men are tained the rest of the day to do t necessary dairy wor The balance of the m have the day to the selves. All can get church if they so d sire. Then to even the time, each man h one-half day to hims during the week.

This plan has work to advantage of the m and to efficiency in g ting the work done. could not possibly back to the old plan everybody working of the time. We try keep the fourth co mandment, and it pa

The farm help shou have a fair share of t farm's prosperity. help gets from 25 cent to 35 per cent the gross income of t place. I do not pay wages but I try to me ure up in the fact that will get good m and keep them int ested.

The best class of m are those young men ability and ambition, either farm city bred, who want to work for period of years to get knowledge a experience, and save a little mon with which to start farming for the selves. If we can only encoura this class, the farm labor probl will take care of itself and t future of agriculture will be sured.



VIEW OF THE LIVING ROOM TO WHICH THE HIRED MEN ON THE DOUGAN FARM HAVE FREE ACCESS

Experience With Rock Phosphate

CHAS. D. KIRKPATRICK, IOWA

IN the last three years, twenty car loads of Tennessee rock phosphate have been used by farmers in this community. From this fact alone it might be inferred that our soil is unusually poor, but we resent that interpretation. The farms where the phosphate is being used are level prairie Grundy silt loam, and during boom times would have been priced at $400 to $500 per acre. However, men who are interested in soil problems are not the kind to trade around; at any rate those who have been buying rock phosphate here look upon their land as a source of permanent profit.

Though County Agent Sloss has made soil improvement a special project in Keokuk County and has reports from several dozen trials, I can best give my own experience which dates back to some small purchases of acid phosphate ten years ago. I was fully convinced that this soil is low in phosphorus and that an abundance is highly important for profitable crop production but I was not satisfied with acid phosphate. As compared with powdered raw rock phosphate, it costs three times as much per pound of the element phosphorus. After half a dozen trials I realized that the acidulated fertilizer must be used year after year and I was afraid to use a fertilizer in which 50% of the raw materials are sulphuric acid.

The Tennessee raw rock I found could be had in paper bags for $15.50 per ton f. o. b. my station. It is a red powder and handles like so much cement. Spreading must be done on a quiet day to avoid wind loss and it is advisable to harrow it into cultivated ground. Since the raw rock phosphate will not dissolve in water, there is no waste in drainage water but it must be thoroughly mixed through the soil by cultivation so the plant roots will come in direct contact with it. In order to get the largest possible area of surface exposure, it is important to get a finely ground material. I have had several tests for fineness made by commercial engineers whose reports on my purchases range from 94.8% to 97.5% through a dry screen with 10,000 opening to the square inch. At some of the experiment stations where coarsely ground material has been used, rock phosphate has been relatively slow acting and unprofitable. This was especially true at the Ohio Station where only 67% would pass a standard screen.

When rock phosphate was first put on the market, the custom was to plow it under with green manure. I heartily approve of green manure if the soil is in poor physical condition and needs the organic matter to promote favorable bacterial reaction, but I have not found any need for green manure to plow under directly in contact with the rock phosphate. It is just as quickly active if spread on cultivated ground, alike on cornstalks ahead of the small grain seeder, or on the seed bed prepared for corn. In several fields I have seen half a ton application in the spring add ten bushels to the oats crop and follow up with as much as double t tonnage of clover the next se son. The benefits to corn yiel have been in two ways: t yield has been directly advanc several check strips sho ing more than ten bushels differe the first year, and in quality the i provement is noticeable in earlier n turity and stiffer stalks.

In one thirty-acre field, I had ne been able to get a yield of m than sixty-five bushels per acre til gave it an application of rock ph phate a ton per acre. The first cr after that weighed in to the crib o eighty bushels per acre. That I h not been mistaken in crediting t increased yield to the rock phosph is proven by the results my neighb had on the adjoining field. He spr a thousand pounds of rock phosph per acre on half his field and as a sult got a ton per acre more hay first cutting and proportionally m second growth which was pastur The line between the phosphated a unphosphated halves of the field w sharply distinguished by sever inches difference in height of grass, the number of stems per pla

(Continued on page 225)

TRAILING HOLSTEINS TO SOUTH AMERICA

The Log of Their Keeper

JAMES G. BEATTIE, WISCONSIN

DECEMBER 31. This is New Year's Eve, and 105° in the shade. We left Buenaventura at 6 p. m. Someone has a propensity for water barrels. Last night one of the cattle's disappeared; it was emptied, flung over the side, and towed ashore. Learned today, on inquiring around a little, that barrels are very much in demand with the people here, as they use them to catch the rain. Rain is what they drink; so no catchy, no drinky.

January 1. New Year but, as Tony —sailor—says, "No new revolutions." Steamed due south all day. A light sea was running this a. m., but a squall knocked it down, soaking the cattle at same time. Another squall soaked them tonight, and still another one an hour later, so that they get plenty of soaks. We crossed the equator at 4 p. m. but you never would have known it. There were no gates to open and close, no tolls to pay, no red or green lights to heed, and no signs to read. Everything so far as the eye could reach was just plain sea—water, and plenty of it.

January 2. A lovely day at sea, passing the mountainous coastline of Ecuador and Northern Peru. Last night some thoughtless fellow hung his shirt up in the engine room to dry and, in some mysterious manner, it fell down and lodged in the meshes of the steering gear, making it possible for the sailor to turn the wheel in only one direction. When the Humming Bird began steaming round in a



BULL FIGHT AT LIMA

Matador trying to incite the bull so he will charge and give the hero a chance of stabbing him between the shoulder blades.

circle, an investigation soon led to the discovery of the garment. The old man was irate over the incident; no one claimed the shirt.

January 3. We dropped anchor in front of Talarra, Peru, at 2 p. m. instead of 2 a. m., which was the rumor on deck yesterday. This port is built around a little peninsula of water that backs up into a mammoth coulee for perhaps a mile or more. The shoreline is dismal and rugged, the only excuse for the town's existence is as a loading and discharging port for the oil fields near here.

They had a rain last year, the first since 1884. Or was it 1874? But regardless of the correct date, it is clear to be seen that they do not have rains in Talarra. In the first, there is not a vestige of vegetation, and second, their roofs are not built to shed water. In another direction from the harbor, which has berths for two ships only, a cemetery flourishes. Tonight, after darkness fell, a queer procession of lights wound its way, very slowly, toward it. Some say it is an Indian funeral, that the night time is when they occur, while others contend that it is food being taken to the graves for those in repose; and that the gulls get it at daybreak and the Indians are no wiser. Some goats —red and bearded—and donkeys hang around the shacks, but what they live on is hard to say. In the bay, porpoise jump, cormorants dive, buzzards hang overhead, and great spectacled gular pelicans roost on the buoys, together with thousands of gulls.

January 4. These natives are descendants of the Incas, the historic Incas of Peru, the people Pizarro stole the gold from. They are dark skinned, not big of stature—resembling the North American Shoshones—Argus-eyed, and hair black, straight, and wiry. They have more pep than the stevies in Buenaventura; they hustle the cargo out faster, which is what we like to see, and they are more indulgent with wearing apparel, as some have shoes and an occasional one a shirt with which to shield his muscular, bronze-tinted loins and back.



STREET SCENE IN CALLAO, PERU, —THE CHARACTERISTIC BALCONY AND DONKEY

Once more, tonight, the procession went to the graveyard. They move slowly in a row and each carries his own lantern. We learned from a source today, which I would consider reliable, that these people march up there regularly with food for the dead.

The Southern Cross came to view in the West Indies, but here it is a pretty constellation. The North Star is receding down the horizon.

January 5. I tried to make a deal this morning with one of these sepia-skinned fellows on a jackknife, but we couldn't quite get together on the price, the thing that has prevented more than one deal from going through. A pretty smart *hombre* this fellow was. He couldn't speak Chillyvillian and I couldn't speak *Espanol*, so really we were at a disadvantage with our trading. He asked me what I would take for a cow, and I told him an oil field—*un grande oily hacienda.* "Ah!" said he, in awe. Either awe or indignation, I don't know which. Then he says: *"Compro cigaretty!"* And I says: "Me no selly cigaretteo, me have plenty jacknifeo to selleo." At which he became disgusted and walked away. And you couldn't blame him. I'm going to get a Spanish dictionary as soon as possible.

We had beautiful brown hash for dinner and my bananas are ripening. What combination could be better than that? At 3 p. m. anchor was lifted, two tugs gave the Humming Bird a hand to get herself squared away and two hours later the bleak, sandy shore line of Talarra is but a memory. Also, what could be better than that?

January 6. We have steamed from dawn till dark under a sun shining full time and strenuously and without once seeing a single object, except waves, waves, waves,—the waves, the rolling, restless wanderers of the sea. The heavens are adrift with stars, but none appear so brilliant nor half so close at hand as does Venus which gleams through the portholes at midnight with a sentry's eye.

January 7. We've been steaming down the coast of Peru today, occasionally heaving in sight of guano islands and promontories that are tenanted by birds that are protected by law. They are distant, very distant, on the horizon, and through a haze one barely recognizes them. The Humming Bird is doing her best against the contentious Humboldt current, a fresh breeze, and a heavy swell. Aboard is the monotonous regularity of sea routine. It is just a day at sea, a plain, ordinary, uneventful diurnal stretch that must be lived if one desires to reach others ahead of it.

This forenoon the petty officer's messman sprayed my cabin with tear gas. Other cabins got it, too, otherwise I would have considered myself under observation. Tonight the cockroaches are scurrying hither and yon, as if a deadly foe were on their heels. Also the ranks of ant regiments have been broken for the time being.

January 8. Well, this day was about as eventful as yesterday was uneventful; in other words, the term, "inverse proportion" could be used. We arrived before Callao, Peru, at daybreak (pronounced as you please in Chillyvillian, but in *Espanol* it begins like a crow and ends like a cat—caw-yow), ran up the required flags, got a pilot to assign us to our berth, and soon the medical authorities were out in full regalia to inspect us. There was a short session with them in the skipper's quarters after which we were all mustered on deck for a roll call, which is distinctly Peruvian in custom. Anyone making these South American countries often should be well posted on customs, as each country has a set entirely its own.

While we were eating dinner, these adamantine tickets, called stevedores, came aboard, discovered that the lock on the poop deck would yield to a little persuasion, entered, knocked the lock off a trunk containing hospital supplies for the cattle, and ransacked it plenty. Since, I've wondered why they left the trunk. With one of these local cops we "frisked" a few of the barges but with no success. I imagine the hipboots, hospital blankets, clinic thermometers, sponges, bandages, surgeon's scissors, scalpel, etc., have parted with each other's company forever. The scalpel could be used to trim cabbages in a pinch.

Tonight everybody but the watch went ashore for a cool glass of beer. And here is mutual misunderstanding. There are many things about the customs of the Peruvians that we do not understand, and there are instances in our case when the Peruvians don't understand. One of them is coming from the land of prohibition and spending our money for their



THE CHIEF MATE OF THE HUMMING BIRD

scotches, extra drys, and lagers. They simply can't figure us.

January 9. Nothing has been done about unloading cargo today. The stevies came on board at 8 a. m. and struck 15 minutes later on the grounds that they would not open hatches, claiming that it was dangerous and that (for that reason) they must have more pay. The ship's agent was obdurate, so ashore they went and with them went one of my water pails. When they will work again nobody knows. Someone risked, "When they get hungry."

I went ashore this afternoon, the first in 25 days, and the stability of the ground felt strange. Bought a straw hat and two tickets to the bull fight in Lima, tomorrow—*manana.* The narrow calles and avenidas and the odd methods the people have to do things with impress one. They have little donkeys for transportation purposes and stout little fellows they are. It is regretful that they do not have a humane society here. Going through the Plaza one sees nasturtiums, geraniums, and verbenas—all well known flowers in Chillyville, Wis.

January 10. One of the mates and I went to the Plaza de Torros (place of bulls) at Lima, which is a 25-minute ride from Callao by street car. We enjoyed the ride and seeing the growing fields of cotton, corn, and alfalfa; and the orchards of apple, peach, and fig. Of course, all crops

(Continued on page 218)



UNLOADING AN ENGINE AT CALLAO, PERU



"U.S." Blue Ribbon Boots have sturdy gray soles, uppers red or black—in knee to hip lengths

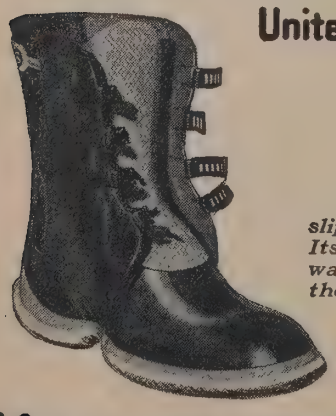
Only the best rubber can stand this test

BEND a "U.S." Blue Ribbon upper, wrinkle it as you will. The high grade rubber in it keeps you dry and comfortable when inferior boots have been thrown away.

And it's reinforced for the hardest job. At every point where strains are hardest from 4 to 11 separate layers of tough rubber and fabric are anchored in—to give *extra* strength. And the sole is built for farmers—it's oversize, as tough as a tire tread. It wears!

Seventy-five years of experience in making waterproof footwear is back of "U.S." Blue Ribbon boots and overshoes. They fit better, they look better, they wear better. Get a pair — and notice the difference.

United States Rubber Company



The "U.S." Blue Ribbon Walrus slips on right over your shoes. Its smooth rubber surface washes clean like a boot. Either red or black, 4 or 5 buckles

Trade Mark

"U.S." BLUE RIBBON *Boots Walrus Arctics Rubbers*

Wayside Musings The Abundant Life

JOSEPH S. MORRIS, WISCONSIN

GRANTED that everything in life is not just as we would have it —in all probability it will always be that way—would you judge your life today to be a poor one or a rich one? What would be your standard of values? Would you judge yourself rich by the things you have or poor by the lack of things? Knowing how to make correct judgments as to real values is of the utmost importance to an abundant life.

Jesus, the great Teacher, was very poor and yet He was the earth's richest man. He was rich because He was in possession of abundant life. He spent not one moment in envying any man the things he had. His own life was crowded so full of truth, love, beauty, understanding, poise, power, knowledge of God and man that, seemingly, he lacked nothing. Yet, judged by ordinary human standards he would have been called a poor man.

The teaching of Jesus was teaching that welled up directly from life. He spoke the language that people knew. He took their common world and made it teach the highest lessons. His words, flung upon the air like scattered seed, have lived on in the hearts of men; molded the life of nations; have brought comfort, guidance, uplift, courage; have transformed life for millions.

The thought of the seed leads us to one of the rich days in the life of the great Teacher. A great crowd has gathered by the seaside. The Teacher gets into a boat, pushes away from the shore, and there under the blue canopy of the sky, with the bright sun streaming down upon the people, He tells them the beautiful parable of the Sower.

He Himself was an example of the Sower. He had the good seed of Truth. He scattered it wherever he went, scattered it in the sure faith that some of it would find prepared soil, take root, grow, bring forth its fruitage.

The people who listened to the parable could understand it. They knew all about weeds, and rocks, and hard-baked earth, and the fortune of seed that fell into those places. They knew, too, about the "Good Soil," knew that they, too, had cast in the seed in the sure faith that there would be harvests. They could readily understand that God, the Sower, had scattered the seed of truth, of good, of love, with prodigal hand, and that some had fallen on "rocks," some among "weeds," some on "hardened lives," and, happily, some always fell into good lives, prepared lives, lives that had been made ready, and that there had been harvests, some thirty, some sixty, some a hundredfold.

Abundant, rich, spiritually-significant lives come from innumerable seedtimes, cultivation, harvests. Men and women who have lived much, thought much, whose souls have been mellowed of life; men and women who can look with patient, kindly, tolerant eyes upon their neighbors; men and women who bear comfort, healing, uplift, and transformation in their hearts—these shall capture the heart of humanity.

Stinging criticism, relentless fault-finding, suspicion, failure to take into consideration all the facts in making judgments, these result in hard, stony, weed-grown, poverty stricken lives.

The Great Teacher walked among the men and women of His day and brought helpful, encouraging truth to them. He was not a lecturer spouting doctrines. He was anxious of life. He saw people anxious and troubled and showed them the birds, the flowers, the grass for which God was caring. He was intensely interested in life. Look through the gospels and see how Jesus touched life on every side. All things were used to minister to a life of loving confidence and



Crops exceed expectations

SUTTON'S. Pedigree Mangels are the heaviest cropping mangels known and also possess the highest percentage of dry matter. They have been bred for over 70 years for heavy production and practically every seed germinates. Hundreds of farmers and cattle breeders feed Sutton's Pedigree Mangels daily and are getting amazing results as well as saving money.

A dairy farmer of Johnstown, Pa., writes: "We planted the Long Reds and got an outstanding crop of 15 tons to a half acre. The crop so exceeded our expectations that we carefully weighed the product and measured the ground."

You can do as well. Write for illustrated catalog containing full cultural directions and valuable data on cattle feeding. Address

H. P. WINTER & CO., INC.
Room 405 64 Wall Street, New York City

CONDON'S SILO KING **SEED CORN**



Fills the Silo Quickest With The Very Best of Silage

Finest strain of Ensilage Corn ever grown—so say all farmers in describing Condon's Silo King. *A true statement.* Grows 16 to 20 feet high; very prolific—two to three ears to the stalk; makes heavy, thick growth of fodder; big, broad leaves from ground to tassel. Yields

40 to 70 Tons Per Acre!

One acre Condon's Silo King will produce more and better tonnage than 2 acres ordinary corn. Mr. Carpenter, one of Winnebago's progressive farmers, while on a visit to our Seed House, said: *"Would not have any other corn as a gift when I can get your SILO KING."*

FREE Send Postal Today for Generous sample Condon's Silo King Corn and big 1927 illustrated catalog, full of information about Condon's "Sure Crop," hardy, Northern grown, pedigreed seeds

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Rock River Valley Seed Farm Box 117 ROCKFORD, ILL.

Make Big Profits

SCOTT'S SOY BEANS

For soil improvement alone they pay for themselves. A valuable general farm crop. They make rich hay, pasture and nutritious silage and build soil fertility. Will grow in poor soil. **Any farmer can grow Scott's Soy Beans.** Soy bean hay is richer in protein than any other annual crop of equal yield. Scott's Soy Beans are of highest quality and cost no more than the ordinary kind. And besides — **we pay the freight.** Our new Seed Guide is the best book we have ever offered. Every farmer should have a copy. Contains valuable information on all the Clovers, Soy Beans, Sweet Clover, Alfalfa, Pasture Mixtures, Corn, etc. Tells how to **avoid weeds and how to know good seed.** Write for your free copy today.

O. M. SCOTT & SONS CO.
Dept. 404 Marysville, O.

GOOD SEEDS!



Grown From Selected Stock—None Better— years selling good seeds satisfied customers. Prices reasonable. Extra packages free with all orders. Large catalog free. 700 illustrations of vegetables and flowers. Send for

R. H. SHUMWAY
Dept. 36 Rockford,

CLOVER AND TIMOTHY BARGAINS

$4.80 Per Bu.

Red clover and Timothy mixed—the standard grasses cannot be surpassed for hay and pasture. Contains 10 to 15 per cent clover, just right to sow. Thoroughly cleaned and sold on approval, subject to government test. Ask for this mixed seed if you want our greatest bargain. Also Pure Clover, Sweet Clover, Timothy and Field and Grass Seeds. Buy now. Prices are advancing. SAMPLES and 132-p. catalog FREE.

BERRY SEED CO., Box 655, CLARINDA, IOWA

BARLEY Featherstone Dakota 30 and Grimm Alfalfa. Highest quality field, flower and vegetable seeds. Moderate prices. Write

Chas. B. Wing Seed Co., Dept. 221, Mechanicsburg, O.

aith, to a life of contentment, to an bundant life.

There is a plan of continuous, abid- ng life in our world. Too often fear nd uncertainty get hold of us and estroy our peace of mind. Too often re we tempted to lose peace of soul n the quest for possessions and ever ore possessions. We forget that that ower that gives color to the plum- ge of a bird, beauty and fragrance a flower, exquisite shading to the loring of fruits, variety in shape nd form to foliage, loveliness to ke, and sea, and river, and desert, nd hill, and mountain is vitally con- rned with the crown of all life— AN. We forget, and this is written, at many may be caused to remem- r that this is so. Man can and must much for himself but when he has ne his all there is still necessary e eternal power of God.

St. Francis of Assizi so sensed the wer of God everywhere that he felt must be kind and tender to every ing thing lest he hurt God. Was not right?

The great Teacher's purpose was t to cram life into the grooves of ws. His purpose was to point out e highways of life and to thrill the ul with the desire to travel those ghways in confidence. He awak- ed a noble discontent in the poor ubles of possessions without char- ter and sent the soul after the real, fe Eternal, after God.

Some seeds fell by the wayside, up- the beaten paths, upon lives over nich all the cares of life were per- tted to tramp and harden it. The ed fell there but it could not take ot and so the birds carried it away. Some fell upon rocky, shallow ound; grew up in a hurry and then ed under the withering heat of the dy. Some fell into weedy soil and the eds grew up and choked it out. me fell into good ground and grew and brought forth harvests

Rich and fruitful character does t grow in us whether we will or rt. It comes from a set purpose to ve the abundant life. It comes from ading, and thought, and reverence, d good companionships, and love, d taking careful thought. The undant life is a beautiful thing ether you find it on the farm, in factory, in the office, on the rail- ads, or in schools and colleges. It is find everywhere and it is found al- ys when men have deliberately pre- red for it. It is a law of good re- ion and good science that the rich- results come only through pains- ing effort. They are deceivers who us that through the application some panacea we shall come all a moment of time into a rich and ndant life. They are deceivers be- se the experience of the race oves them to be deceivers.

There is enough truth in the world build the noblest race the world s ever seen but it can only come in natural way of every man trying better himself, trying to make his n soul richer and fuller.

Death and Taxes

Some one has said that death and es are two things from which man not escape. From the recent dies made by Bushrod Allin and B. Hibbard of the Wisconsin College Agriculture, it seems fairly obvi- that the farmer is hit harder by es since the war than ever before. During 1924 Dane County farmers d nearly three times as large a per t of their net incomes as did city village people. When taxes take rly one-fifth of a man's income, it beginning to look like conditions ch obtained in England right af- the war. From 1918 to 1924 the ne County farmers' taxes rose from 5.3% to 20.5% of their net income, while the tax on city people went up from 5.3% to 7.7%.

The main reason for this unwonted discrepancy between city and country tax rate is found in the failure of farm incomes to increase in proportion to urban incomes. The general property tax is relatively inelastic. It does not rise and fall with a variation in income as does the income tax. It is to be hoped that this initial study may be supplemented with additional data from other representative agricultural counties of the state. The accumulation of such facts is of utmost importance in laying a proper foundation for constructive consideration.—Wisconsin College of Agriculture.

"You bad boy. I wish I was your mother for about twenty-four hours."

"Well, teacher, I'll speak to Dad and maybe I can fix it up."

Catalog FREE

SALZER'S FARM SEEDS

NEW INBRED WONDER CORN

FREE 1925 CATALOG

Trial Packet FREE

$100 in cash prizes given for best ears grown of Inbred, Copper bronze or yellow field corn. The new breed of corn that yields 8 to 12 more bushels per acre and is 10 to 16 days earlier. Seed scarce. Only a limited amount available. Send for your free packet. Plant it separately. Give it special care. Watch it grow. Win a cash prize. Write

WONDER TOMATO

$25 prize given for biggest tomato grown. Get particulars.

BEST BY TEST

Every pound backed by 59 years of Salzer service. Planted by thousands of farmers year after year for 59 years. Thoroughly tested and recleaned. Why not sow Salzer farm seeds and reap bigger yields. The surest way to bumper crops. Leading varieties Alfalfa, Clover, Timothy, Grass, Alsike, Oats, Wheat, Corn, etc. at lowest prices, quality considered.

BIG CATALOG FREE Write today for Salzer's farm seed catalog and low prices. Big yielding varieties as well as Highest Quality Standard Varieties Recleaned Farm Seeds.

John A. Salzer Seed Co., Box 284, La Crosse, Wis.

20 ft. ROW SWEET PEAS 10¢

Special advertising offer. 20 ft. row Asters, Nasturtiums, Pansies or Sweet Peas, 10c. Any 3 packets, 60 ft. in all for 25c. Complete Vegetable Garden, 10 pkts., most popular vegetable seeds—radish, lettuce, tomato, beets, etc. Easily worth $1. All for 25c as special Salzer advertising bargain.

BUY NOW SWEET CLOVER

UNHULLED $2.90 BU. SCARIFIED $6.90 BU.

Write today for free samples and special wholesale prices. We can save you big money. Our seed is tested. Guaranteed and sold on 60 days' approval. Investigate this wonderful crop. Grows anywhere. Cheap to sow. Best fertilizer—wonderful pasture and hay. Big money-maker. Crop often worth $60 per acre. Our superior scarified seed assures a stand with less seed. Write today for free samples and catalog. Low prices on Alfalfa, Clover, Alsike, Timothy, etc. BERRY SEED CO., Box 1055, CLARINDA, IOWA

CERTIFIED GRIMM ALFALFA

RAISE more Grimm Alfalfa, cheapest of protein-producing crops! 3 to 4 heavy yields yearly. Will not freeze out. "Farmer Brand" Grimm means Genuine, weed-free Grimm at lowest, direct-from-grower prices. Free 1927 Catalog! Famous northern-grown farm and garden seeds. Many prize-winning vegetables and flowers. Money-back guarantee. Write. FARMER SEED & NURSERY CO., Seedsmen since 1888, 107 First Ave., Faribault, Minn.

3 to 4 CROPS YEARLY

Mention Hoard's Dairyman to your dealers.



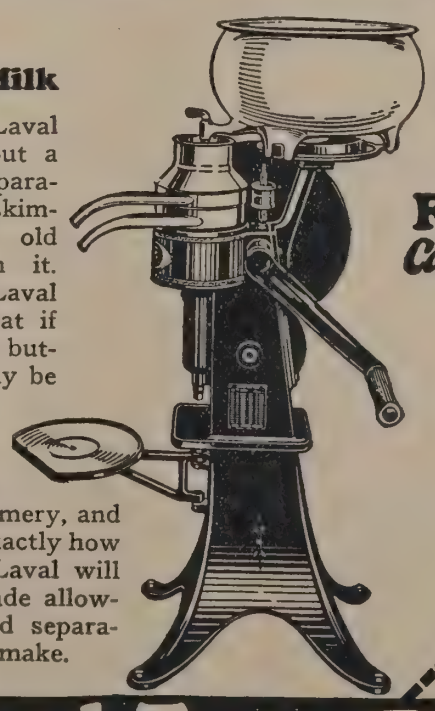
The butter-fat you *leave* in the skim-milk *won't* buy the baby any shoes

The loss of only 25 cents' worth of butter-fat a day costs you $91.25 a year—enough to keep the whole family well shod, and then some. Thousands of farmers have stopped the waste of much more butter-fat than that by replacing their cream-wasting separators with new, clean-skimming De Lavals.

Never in the history of centrifugal cream separators has there been a machine to equal the new De Laval—for clean skimming, easy turning or durability. It has the wonderful new self-centering bowl which runs smoother and easier, and eliminates vibration. It will give you more and a richer cream than you have ever gotten before.

Skim Your Skim-Milk

Ask your De Laval Agent to bring out a new De Laval Separator and run the skim-milk from your old separator through it. The new De Laval skims so clean that if you are losing any butter-fat it will surely be recovered. Have any cream recovered in this manner weighed and tested at your creamery, and then you can tell exactly how much a new De Laval will save for you. Trade allowances made on old separators of any age or make.



New De Lavals sold on easy terms ranging from

$6.60 to $14.30 Down

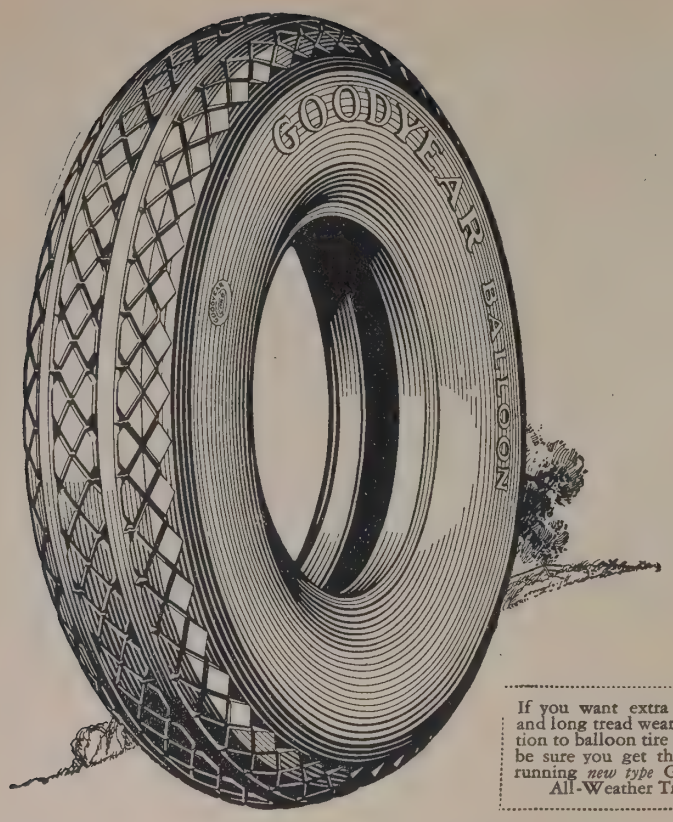
the balance in 15 easy monthly payments

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New York, 165 B'way; Chicago, 600 Jackson Blvd.,
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See and Try an Improved DeLaval



If you want extra traction and long tread wear in addition to balloon tire comfort, be sure you get this quiet-running *new type* Goodyear All-Weather Tread

Are you overlooking *something?*

Maybe you're missing one of the biggest factors in tire economy without knowing it.

You are if you're denying yourself the benefits of the service performed by your local Goodyear dealer.

He sells the world's greatest tires. His prices are low. He knows the right size and type of tire for you.

He will mount your new tire on the rim for you, fill it with air, and afterward help you care for it so it will deliver you its maximum performance.

If you've been sending away for tires you've been overlooking something worth having.

Prove it, next time, by giving your home town tire merchant a chance.

See how much it means to you in dollars and trouble saved to enjoy the quality and service advantages of the Goodyear policy.

This policy is: *to build the greatest possible value into Goodyear products,* and *to provide facilities so that users can get all this inbuilt value out.*

Goodyear makes a tire to suit *you*—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced Goodyear standard quality Pathfinder

Goodyear Means Good Wear

GOODYEAR

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Opinions, Brickbats, and Bouquet

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative. destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

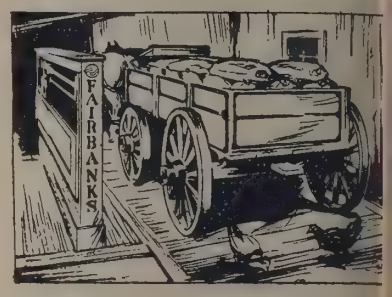
Who Is Knocking Jerseys?

HOARD'S DAIRYMAN:—In your issue of January 10, W. E. Main of Michigan comes back at me for taking "Butterfat" to task for his slam at the Guernsey. Mr. Main seems to think my sarcastic letter was aimed at the Jersey and proceeds to compare the two breeds. He makes out a very good case for the Jersey which ought to be easy enough for such a fine breed. I never knock pure-breds and don't think comparisons amount to anything because, as a rule, they are meaningless figures; and although they say figures won't lie it is possible to do almost anything with them. I could go on comparing Guernsey and Jersey records till doomsday but would not be getting anywhere because the comparative records were not made under the same conditions or checked up by the same men.

Consider his tuberculin test statistics. They are of no value in comparing the relative healthfulness of the various breeds. Our herd has been subjected to the test fourteen times without a reactor, simply because we take pains to keep them from contamination when exposed on the show circuit and have no dairy herds nearby to spread tuberculosis in our neighborhood. I don't think Mr. Main's figures are correct or they would mean a very poor showing for the Jersey. To quote: "Guernseys tested, 82,824, reactors 3,444, per cent 4.16. Jerseys tested, 33,889; reactors, 7,438; per cent 2.37." The Jersey percentage looks like close to 20% to me. The last census showed 231,834 Jerseys in the United States and 79,446 Guernseys. If Mr. Main's figures are correct, nearly all the Guernseys have been tested and only about one-sixth of the Jerseys have been tried out. Please enlighten us or I am apt to let loose some more sarcasm.

I still contend that the reason Jerseys are not selling any better is because they are not being advertised properly. This issue of Hoard's Dairyman shows 54 Holstein ads, 48 Guernsey ads, and only 17 Jersey ads. Mr. Main contends that the Jersey people do their advertising in the Jersey Bulletin. The last two issues of the Bulletin show a total of 143 Jersey advertisements, or an average of less than 75 to the issue! There are over 20,000 Jersey breeders in the United States and the Jersey Bulletin reaches a good majority of them; it stimulates business among Jersey breeders and doubtless its few hundred advertisers are not complaining about the prices they get or the demand they have for their cattle. How about the 19,000 odd breeders who do no advertising in the Bulletin? Can they expect to get results? It is just plain foolishness to sit back like a lot of them do and comfort themselves with the thought that the Jersey is the best breed anyway and that when the Guernsey boom is over the good old Jersey will come back into her own safe and sound. Quit poring over statistics showing which cow did the best at such and such a contest and why such and such a breed is going to the wall. It is a lot of tommyrot.

Real dairy cows are all right, all good progressive dairy sections have strong representations of all breeds. As the Jew said, "Wherever you find a prosperous town you find Jews. Not that the Jew makes the town prosperous, but because he does not stay the town is not prosperous." Po dairy sections have mostly scrul and if one breed gets a foothold a manages to hold the field to the selves and the scrubs, you soon s a lot of scrubby pure-breds. Co petition between the breeds is a fi



Has *your* farm a scale?

Is your farm the modern type, run just as any business—with just as accurate a check on money and goods coming in and going out? Do you control farm profits at the point where they are often made or lost — *weighing?*

Every farm run for profit needs the protection of a dependable scale — *right on the farm.* You can put this big-value Fairbanks Wagon and Stock Scale on your farm at a very moderate cost. You can use it for all your wagon and stock weighing.

This scale will save you money and time — make unnecessary tedious trips to public scales. It will protect your profits in every buying and selling transaction.

Your dealer will be glad to show you this scale, and explain the finely built mechanism that insures sustained accuracy and dependability.

Write for free booklet—
"Weighing for Profit"
Address Dept. 5202

Fairbanks Scales

Preferred the *World Over*

NEW YORK Broome and Lafayette Sts.

CHICAGO 900 S. Wabash Ave.

And 40 other principal cities in the United States

ASA 28

hing, that is why the O. B. B. olumn is a fine thing and why fairs re fine.

There are only about 10,000 uernsey breeders in the United tates and about 90,000 breeders of ther cattle. There are 900,000 reeders of scrubs who need Jerseys r some other breed, Mr. Main, but s long as pure-bred men are too busy inging brickbats at one another they ill have to be content to milk cows or little or nothing.

Try our plan awhile. We sell bull alves to our neighbors for very ominal prices, being careful to see nat they get the registration papers nd either a three years' subscription o Hoard's Dairyman or a one year's ubscription to the Guernsey Breeders' Journal, whichever we think will ppeal to them most. In this manner we have placed thirty bulls in the ast five years within ten miles of s. The farmers are very enthusiasc about their young grade Guernseys and some are on our list for heir second bulls and some have ought registered females. Don't ollow the short-sighted policy of sellng animals without the papers and ee that he gets the paper to read. ou will be surprised at the results a few years. No use to try this ith scrubby pure-breds.

I have read The Jersey Bulletin or 22 years, and think it a very fine aper. Suppose you read the Guernsey Breeders' Journal that long and hen try comparing the two breeds. ou just would not attempt it unless mebody came out with a line like Butterfat" had.

Virginia. A. G. INGHAM.

An Alfalfa County

HOARD'S DAIRYMAN:—By some of e best authorities in the United ates, Moffat County, Colorado, is an eal dairy country. We can raise the st cow feed in the world of the best ality alfalfa and lots of it. In 1925 a measured field I raised over ght tons to the acre. After once getng a stand, we have it for life. I ve some I sowed in 1908 which is st as good as it ever was. On an adining farm they have alfalfa that s never been cultivated or reseeded r over forty years and it is still goig strong. Can you beat that anyere else?

If you have too many good farmers d especially good dairymen, send em to the best dairy county in the d U. S. and the most healthful.

I notice in the Dairyman you want ople to tell how they dry off their ws. I simply milk them once a day r five or six days, then skip a day two for three or four times, then them go. I have never had any uble yet. I always milk them dry.

Colorado. F. C. BARNES.

Cut Out Government Control

HOARD'S DAIRYMAN:—This will in probability not get into print but tting it out of my system will, like Fleming says, "ease my mind." ny of us have known, probably for usands of years, that man is "the preme predatory animal." The govment did fix prices during the war guaranteeing a certain price on eat, but *government* was safe in s because we knew there was an sual demand, and in fact I believe market went above the guarand price.

consider myself an ordinary erican citizen. I am 50 years old, e raised a family of three boys, l have been able to support them a reasonable way. In other words, I sider I am normal, yet I confess I e never been able to see any reafor or in government price fixing. People are very notional. Great Britain, years ago, undertook to make the citizens of Boston buy tea. Who is going to make the consumer buy our corn, our hogs, our beef, our poultry, our wheat, our dairy products at his fixed price? Government now has the power to fix the value of money in relation to money, also its value in relation to taxes. But I fail to see anything that gives any authority to government to establish the purchasing power of the dollar.

To me C. Fleming's and O. C. Gottesleben's positions are absurd and yet I must agree that there is a radical wrong when the man who grows a bushel of potatoes receives less than 50 cents and the man who eats them pays more than $1.50.

I want to call attention again to the M. F. A., The Missouri Farmers' Association, a product of the show-me state. Last summer our eggs did not go below 25 cents; this winter they have not yet reached 50 cents. When a majority of the packing and storage plants are owned and operated by the producer then, and only then, will the producer receive just and living prices. Food products should not leave the control of the producer until they are in the hands of the retail dealer or the consumer.

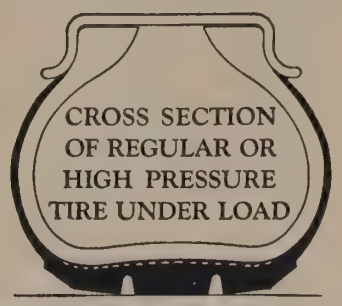
Farmers want to sell their products. Our farms could easily produce more than they do if price justified the production.

Consumers prefer to eat our own products but when speculation makes their purchase price exorbitant they buy a substitute. What farmers want is to sell their products high enough so they can produce them and yet cheap enough so the consumer can afford to buy and I, for one, say, for our sake, for the nation's sake, for any sake, cut out so everlasting much government control. It seems to me our nation is like Germany, running to seed on this government control proposition. I think someone has figured that about 4 per cent of us are government officers or employees.

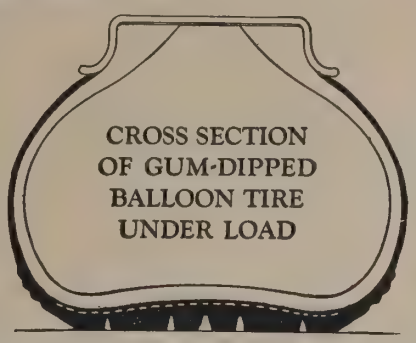
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Scientifically Designed BALLOON TIRE TREAD



THIS type of tire rides more directly on the wide rider strip at the center of the tread. That is where the weight and wear come, so that is where extra rubber is needed. The walls and tread of this tire are thick and stiff, making necessary the use of large tread design for high pressure tires.



THIS type of tire—low pressure Balloon—carries the load on a wider surface, therefore grooves are cut directly in the center of the Firestone Tread to permit easy flexing. Greater amount of Rubber is placed at outer edges of tread where most of the load is carried. Instead of large, heavy rider strips and projections which retard flexing and cause skidding, the Firestone Tread is provided with small projections and narrow rider strips which increase flexibility and give greater safety and skid-protection.

Another Reason why— Firestone Tires are Better

When Firestone engineers were developing the Balloon Tire they found it necessary to design a tread altogether different from that which is required by High Pressure Tires.

The Firestone tread was not designed with large, massive projections for appearance or to make plausible sales argument. On the contrary, the projections of the cross-and-square tread are small and the rider strips narrow permitting the tread to yield to irregularities and cling to the road, giving the greatest non-skid surface. This tough, pliable tread has the wear-resisting qualities that give thousands of extra miles of service.

The tread, however, is not the only important part of the Balloon Tire. Such a tread as this, designed to yield to every depression of the road, must be placed on the carcass that also has the qualifications to withstand the terrific flexing that this design tread permits. Firestone provides this extra strength and endurance by dipping the cords of the carcass in a rubber solution. By this process, every fiber of every cord is saturated and insulated—to withstand the extra flexing of the Firestone tread.

If you want the economy, comfort and safety of Gum-Dipped Tires—see the nearest Firestone Dealer. He will gladly explain the many features that make Firestone Tires better.

MOST MILES PER DOLLAR



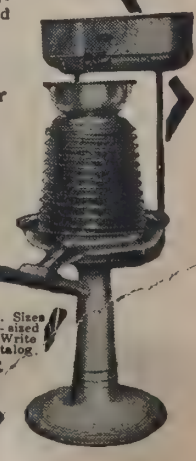
AMERICANS SHOULD PRODUCE THEIR OWN RUBBER Harvey S. Firestone

Better Milk Bigger Profits

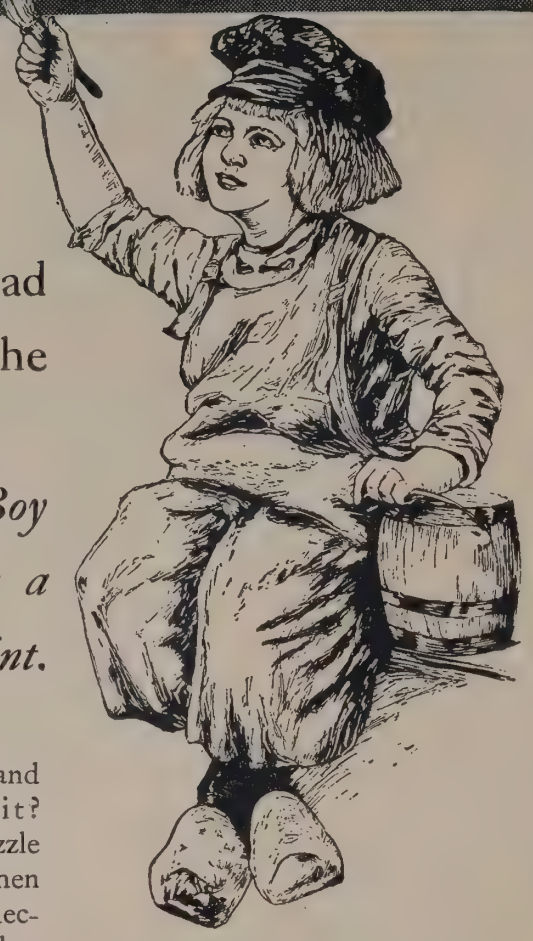
Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

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Cooler and Aerator

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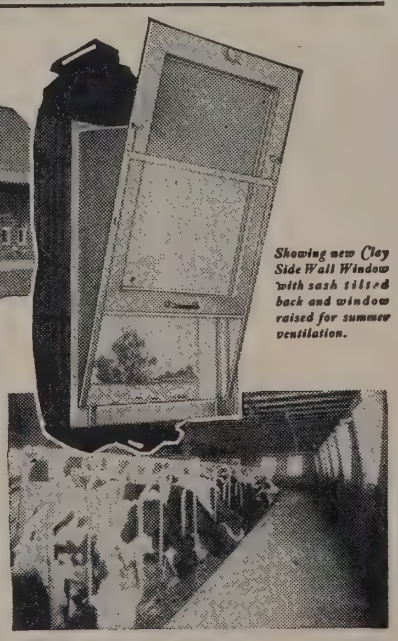
WHAT to do and how to do it? These questions puzzle every house-owner when the time comes to redecorate the home, either inside or out. As a starter, send for the "Handbook on Painting" and the booklet (in color) "Decorating the Home." Follow with any specific questions that may be bothering you. We offer the facilities of our Department of Decoration to you. Individual service gladly given.

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Showing new Clay Side Wall Window with sash tilted back and window raised for summer ventilation.

New Side Wall Window

Galvanized Steel Sash and Frame

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(*New Name*) CLAY EQUIPMENT CORP.

Side Lights On Co-operation

A. CORNELL, IDAHO

No. 4

IN the promoting of a co-operative project it is natural to emphasize the necessity and importance of a sufficient sum of money and the ease with which this sum can be made available when many interested people buy stocks and bonds. The general superintendency of all co-operative concerns is placed in a board of directors whose important duty it is to spend money that is not strictly their own. It is not easy to find men who spend even their own self-earned money wisely. There is a great deal of the element of habit in this matter of spending money. If one is in the habit of looking closely to values in spending his own money, he can be expected to do so in spending community money.

Habit is of no less importance in acquiring money. Material acquisitiveness is a very dominating trait and it is usually, but not always, narrowly selfish. Those who have been especially acquisitive in their own affairs are usually thought of first as desirable candidates for co-operative directorates. However, this very thing should call for more than ordinary caution, because, if their acquisitiveness is narrowly selfish, they may be good directors only when they can be so without any sacrifice of their narrow personal interests. Directors must be chosen because they are temperamentally socialistic (we are not speaking from a partisan standpoint, for the most narrowly selfish of men often boast loudest of their socialistic party tag and those who never think of voting the socialist ticket are often the most broadly social).

Granted that a board of directors are chosen who devote themselves to determining values for their corporation, there yet remains two distinct classes of values, namely material values and moral or spiritual values.

Material values have to do with building and mechanical equipment. These are standardized commercial products whose qualities and performance can be observed and tested in a cold, calculating, impersonal way. This is to say, if you and I as directors have under construction a brick building and I have reason to suspect that a wall of that building leans out from the perpendicular and you think my imagination is playing me a trick, we do not have to debate and parley until the wall topples; we can apply the plumb. If it leans, we know it will not straighten itself and we can proceed to reject or rebuild it.

However, if the rectitude or the capability of a worker or a manager is under consideration, it is not so simple a matter to apply a test that will be conclusive and final. Even if we are thoroughly convinced t there is a serious fault in either performance or in the purpose of person in question, we may still far apart as to the proper disposal make of the man. He may be cient in other ways, or he may be friendly and pleasant that we can kick him out; or he may have a fa ly that we do not want to disgr or distress. In fact, there may one or many of hundreds of possi complications that will give rise toleration and indecision on our p and all the time matters going from bad to worse.

These are facts that apply even the most individually owned and p sonally managed concerns. Whet they have multiplied significance der a board of directors of a co- erative corporation largely rests on whether the members of t board are devoted to their narr selfish interests or to their broad enlightened selfish interests. It well to understand, right from start, that co-operative concerns h to face the disadvantage of having vest general superintendency in board of directors whose person is scattered and whose years of votion to agricultural and mechani occupations have not contribu greatly to making them quick and cisive actors where a lack of ch acter or of capability weighs in balance against human qualities t give rise to strong human atta ments.

Co-operation is often criticised parsimony in the employment managers and helpers. This critici is based on the theory that good m agement can be insured by pay high salaries. This criticism is m by those who are inexperienced employing help. It is doubtless t that those who have already pro their value to a business organi tion are sometimes allowed to when a more liberal salary would tain them, but in view of the f that high salaries are likely to r upon the element of brazen self p motion on the part of the candid for the job, directors have to be v cautious about employing manag at their face value. True worths not characterized by the grea ability for self promotion.

Co-operation is enlightened selfi ness and enlightenment ari through the functioning of the f intelligence of mankind. The "f intelligence" of a community is ne corralled into any formal board directors. Free intelligence is t which expresses itself through free thought that results from man experience and the free spe and the free press that expresses observations of all who scrutinize reflect upon human affairs. This



Hubbard Creamery, Minnesota, is a farmers' co-operative organization with 100 stockholders, operating since 1897. This new building cost approximately $19,000 and was partly paid for from the profits of the company and the balance of the funds was raised by 6% bonds. Some of the machinery of the old plant was used. Butter is made and sold on the New York City market. There are about 225 patrons.

why it is always the part of wisdom for directing boards, as well as editorial boards, to be composed of men who are broad minded enough to encourage the expression of "brickbat" opinions as well as "bouquet" opinions. Men who lack this breadth of mind are poorly fitted for such positions.

Guernsey Breeders of Wisconsin Meet

The annual meeting of the Wisconsin Guernsey Breeders' Association held Feb. 1 at Madison, Wis., was the best meeting this organization ever held. There was a record breaking attendance of approximately 200 and the Guernsey men there were very evidently interested in their organization as well as in the meeting. Credit for a good deal of the success of the meeting and for the work the association has done the past year or two belongs to its officers and directers.

The report of Secretary Hulburt showed the association membership to be less than 100 about what it was a year ago, but with a good many new members included in the list. During 1926, the association adopted a label for Guernsey products and already a number of individuals and firms have been granted permission to use it.

To remedy the small membership, the meeting voted the adoption of a plan whereby individual memberships would still remain $2.00 but if an entire county association wished to join it could do so with a membership fee of 50c per member. The Waukesha Co. Association with a membership of 200 took advantage of this offer within the week.

Secretary Musser pointed out to the breeders that they have a direct responsibility in the improvement of dairy cattle. If registered Guernseys continue to improve in producing ability they will in turn have a direct influence in the improvement of the production of dairy cows generally.

Ralph Tratt, C. H. Hulburt, and H. W. Griswold were re-elected directors. Dr. W. A. Munn was re-elected president and Gavin McKerrow was elected secretary.

Brood Sows After Cows

I am running my six brood sows behind my 15 Holstein cows. The cows are getting 100 lbs. total daily of a mixture composed of 400 lbs. of ground corn, 300 lbs. of ground oats, 200 lbs. of bran, 100 lbs. of linseed meal, 100 lbs. of a commercial dairy feed, salt, and minerals. In addition to this, the cows are fed all the silage and alfalfa hay they will eat. The sows seem satisfied as to appetite. Are they getting enough of the right kind of feed?

Wiota, Iowa. M. D.

Where cows are fed ground grains and no silage, the feeding value in their dung for swine is materially lessened from that where cattle are fed whole corn and silage as in steer feeding. Inasmuch as there are 2½ sows for each sow and the cows are full fed, we would expect these sows to be kept in reasonably good condition provided the corn in the silage was fairly mature. The best answer to the question may be found in the condition of the sows. Pregnant brood sows should be made to gain slightly from conception to farrowing. They should not be excessively fat at farrowing time.

In order to insure the sows getting enough of the right kind of protein, together with calcium or bone building mineral, we suggest that they be fed alfalfa hay in a rack in addition to what they get after the cows.

Canadian Prices Lower

HOARD'S DAIRYMAN:—Too much moisture is almost as great a drawback to agriculture as too little. If press dispatches can be relied upon, United States farmers had reason to come to this conclusion last season, and we in Ontario are thoroughly convinced of it. I believe that most of us would prefer a thorough-going drought to continual rain. Never were crops harvested with greater difficulty than in 1926 and still much corn is unharvested in sections. As a result, feed is not so abundant or as good as in normal years and in some sections there is an acute scarcity.

From the marketing standpoint, 1926 was somewhat of a disappointment. Prices of both cheese and butter were lower than in 1925, cheese by four cents a pound and butter by five cents. It was hardly to be expected, however, that we would have a repetition of the banner year of 1925. Prices were advanced beyond normal in the former year by the seamen's strike in Australia and New Zealand, which retarded supplies from that source and artificially boosted the price level in Great Britain. These supplies came forward later to influence the market of 1926 and on top of that was the coal strike in Great Britain. Many industries were affected and the buying power of the British people depressed. Thus we had abnormal conditions in both years but working in opposite directions. Conditions are rapidly returning to normal in the Old Land and more satisfactory conditions are anticipated for 1927.

The foregoing illustrates how dependent are dairy produce markets on world wide conditions—where a country has a surplus for export. Canadian dairymen are watching with interest the efforts in the United States to induce Congress to adopt legislation whereby the surplus will not set the price of farm products consumed on the home market; also the working of the Patterson scheme in Australia, where the creameries have taken the matter in hand without seeking legislative aid. In Canada, however, the cultivation of the foreign market is vital to the progress of the dairy industry and we are more apt to seek success through improved quality, better marketing methods, and lowering cost of production than at the expense of the home consumer.

Canada. F. E. ELLIS.



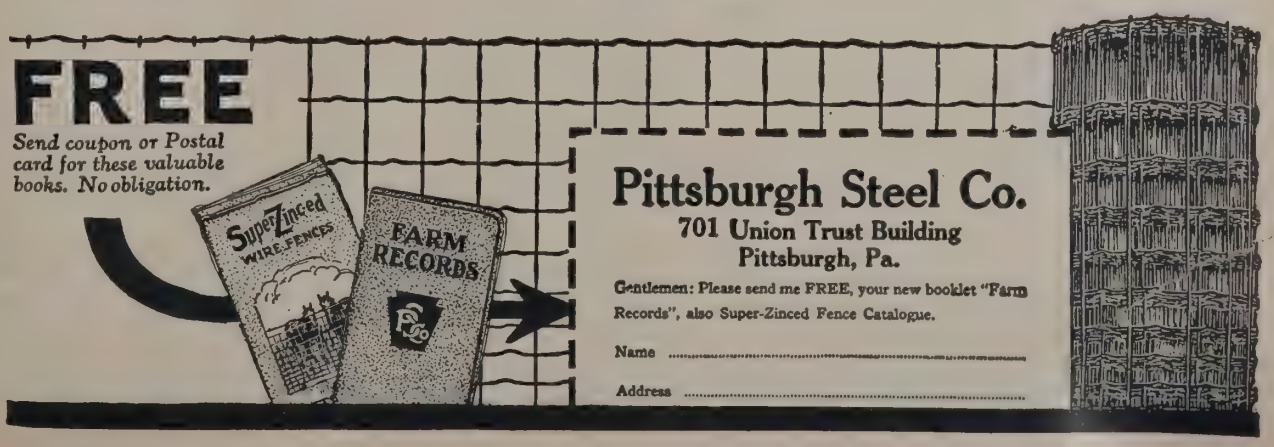


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mean bigger acres and larger farm profits because they provide the first essential to modern, diversified, profitable farming, which is hog-tight enclosures. They are made of special formula steel and Super-Zinced against rust by an extra heavy coating of zinc so closely bonded to the steel that it will not crack or peel. They enable you to have complete control over crops and live stock, and to operate your farm with the utmost economy and profit.

Super-Zinced Fences meet every requirement for field, poultry, garden and lawn enclosures and are *guaranteed unexcelled in quality and durability.* For the same high standard of quality insist also upon our brands of barbed wire, gates, steel posts and wire nails. Be sure to send for your copy of our new vest pocket booklet "Farm Records" which will be mailed free, together with Super-Zinced Fence Catalogue and name of nearest Super-Zinced Fence dealer.



EDITORIAL COMMENT



SUCCESS in dairying does not depend so much on the high prices of dairy products as it does on cheapening the production of feed.

DO COWS NEED EXERCISE?

The question of exercising cows has been debated many times at dairymen's conventions. The opinions in reference to the benefits of exercising dairy cows have been divided.

The Bureau of Dairy Industry of the U. S. Department of Agriculture conducted an experiment to determine whether exercise would increase the milk production and improve the health of the herd. One lot of cows was walked three miles a day and another lot was turned out in the yard. Careful records were kept of each lot as to feed consumed, milk and fat produced, and the general condition of each animal included in the test. In time the procedure was reversed and those cows that had received exercise by walking three miles per day were kept in the yard and the others taken on the hike.

The cows that received the exercise by walking produced a little more milk and it tested a little higher than those remaining in the yard, but the exercised cows consumed 8 per cent more feed. So far as could be observed they showed no better health when being exercised than when confined to the yard. Additional experiments will be required to establish definitely the effect of exercise on health.

The conclusions of the test were that cows do not need more exercise than they receive in moving about the barn yard. The results of the test, however, show that pastures not yielding a great quantity of feed and which require considerable walking on the part of the cow to obtain a full meal can be used without feeling that there will be a sacrifice in milk production.

PASTEURIZATION OF BY-PRODUCTS

At the annual meeting of the Granite State Dairymen's Association, consideration was given to the feasibility of securing a law to compel the pasteurization of by-products of creameries and cheese factories. It was proposed that no by-products be returned to the farm from a creamery, cheese factory, or processing plant that had not been properly pasteurized.

There is no question about the efficacy of pasteurization when properly done, but it is here that the shoe pinches. We know of no practical way of enforcing such a law and of making sure that upon all occasions the by-products have been properly pasteurized before returning them to the farmers. It is easy to conceive of the operators of a creamery neglecting occasionally to heat the skimmilk to the proper temperature or to hold it for a sufficient length of time to destroy all disease germs. To feed milk occasionally that had not been properly pasteurized would be sufficient to inoculate the calves with tuberculous germs if the herds supplying the creamery were infected with tuberculosis.

New Hampshire is making splendid progress in the eradication of tuberculosis and it seems to us it would be a mistake to enact a law to compel pasteurization of by-products, as this would establish a false confidence. No doubt many operators would thoroughly pasteurize their by-products before returning them to the farmers and could be depended upon to do this 365 days in the year. However, there are bound to be some who would always be careless and others who would be careless at times.

The enactment of a law to compel pasteurization of by-products would naturally lead a great many dairy farmers to believe that skimmilk coming from the creamery or whey from the cheese factory would be safe to feed their calves. This is our chief reason for not favoring a law of this character. We believe it is better that the patrons of such institutions look after the pasteurization of by-products from creameries themselves if they are using them for feeding to their calves, swine, or chickens. We do not believe it is a safe practice for any dairyman to feed skimmilk from a creamery to his calves and especially if an attempt is being made to get rid of tuberculosis or if the herd is free from this disease.

It is our belief that all skimmilk from creameries and whey from cheese factories should be pasteurized before it is fed to calves or pigs even though the herds supplying the creameries have been tuberculin tested and found to be free from tuberculosis. We can not approve of feeding skimmilk to calves from a creamery for we know it is dangerous even though the herds supplying the creameries may be accredited. It is just as important to shut off the avenues of infection as it is to test the herd and eliminate the reactors. There is little use of going to the large expense of tuberculin testing and then be careless in the use of by-products which may again infect the herd.

We do not wish it understood that we are opposed to the pasteurization of by-products; in fact we approve of this process, but we do not believe it is wise for any state to enact such a law because, as stated, it leads dairy farmers in too many instances to put false confidence in the safety of by-products. Furthermore, we do not believe there is any way of successfully enforcing a law of this character.

SEVENTY-SEVEN CENTS AN HOUR

Over twenty-five years ago when Professor W. M. Hayes was chief of the Department of Agronomy and Farm Management of the Minnesota College of Agriculture and Professor Andrew Boss was his assistant, they established several farm statistical routes in Minnesota. The purpose of this work was to gather information concerning the management of farms, the approximate cost of producing various agricultural crops, and to determine, as far as possible, the net income from these crops. Much practical information has been obtained through this work and it has assisted the farmers of that state to practice greater diversification and to increase their incomes.

A dairy bulletin of this work, prepared by Professor W. L. Cavert of the Division of Agricultural Extension and Professor G. A. Pond of the Division of Farm Management, has been issued. It is a clear statement of useful dairy information gathered from 21 farms in Steele County.

On these farms the sales of butterfat furnished 35 per cent of the income, and sales of dairy cattle and veal calves about 17 per cent, a total of 52 per cent of the income. Next to the dairy enterprise, hogs were most important as a source of income, furnishing 25 per cent of the total.

From the summary of the bulletin we take the following statements: "The return per hour for time spent in caring for cows among 21 cost cooperators in Steele County varied from 7 to 77 cents. Three obtained 65 cents or more. The cows produced an average of 192 pounds of butterfat per year. The average return per hour of labor was 20 cents above market prices for feed and other expenses. If the charge for barn rent and horse labor is ignored, the average return per hour for man labor was 26 cents. The principal factors needing attention in order to get a return of 65 cents or more per hour are: Feeding in proportion to production, feeding adequate rations, having adequate all-season pastures, weeding out the poor producers, having cows that are sired by pure-bred bulls of high producing ancestry, effectively controlling losses from abortion, tuberculosis, garget, and other diseases, and a reasonable overhead for barns and equipment.

"High production and a high return per hour usually go together. The most profitable number of cows will usually be determined by the number that can be milked without increase in the cost of hired help over what would otherwise be incurred. Exclusive dairy farming is no more to be commended than exclusive wheat or cotton farming. There should be at least enough hogs and poultry to use the skimmilk to advantage."

We find also in the bulletin this statement: "Many farmers who have had inadequate pasture could increase the returns 15 to 20 cents per hour by getting good all-season pastures." It would be our suggestion that they give sweet clover an opportunity to demonstrate its value as a pasture for dairy cows. We most heartily approve of the suggestion, too, that dairy farmers need to follow diversification just as much as wheat farmers. Under certain conditions it pays to devote the entire farm to milk production, but in most instances the dairy farmer who is making money is diversifying. Those who are devoting all energy to the production of milk, unless under special conditions, are very little better off than the man who is raising corn or wheat or cotton as his sole crop.

FITTING CROPS TO THE HERD

The winter feeding season is far enough advanced to determine the shortcomings of last year's crop program. When a dairyman has plenty of the right kind of feeds he feeds liberally, but when he forsees a shortage of feeds he is inclined to try to "get by" until grass is ready. He frequently turns out before the grass is ready, thereby decreasing the yield. This "getting by" is a doubtful practice, particularly if considered from the standpoint of the better cows that could profitably use more feed. If one must stretch the feed, a better practice is to take out some of the poorer producing cows.

That there is a vital relation between crop production and profit per cow goes without argument. Right now is the time to decide whether the weak places in last year's crop production are to be repeated this year or whether they are to be supplanted with a program that will leave less to be desired next winter.

If one is to put in a summer's labor and the use of land to the growing of crops for feeding, is it not good business to measure the milk produced from these crops in terms of acres of crops grown for this purpose?

We were on a farm the other day where cows were being fed moldy corn silage and marsh hay as roughage. Whether this feeding program has been deliberately planned or was the result of uncontrollable circumstances, we do not know. The cows were in poor flesh, extremely lousy, and covered with more dirt than is conducive to good health or clean milk. That they were unprofitable we have no doubt. Repeating this practice for a few years will most certainly send a dairyman to the poor house and his cows to the shambles.

The dairyman who is able to grow enough succulent feed and legume hay to meet the needs of his herd has the bigger part of his feeding problem solved. The dairyman who could grow these feeds and is not doing so, is the one who needs to revise his crop producing program. He is the one who could now find greater reason for making some changes by reason of finding the hay mow nearly empty and the cows in poor condition.

Hundreds of dairymen are increasing their acreage of alfalfa this year because they have begun to measure milk production in terms of crops grown for feeding purposes. Others are increasing their acreage of sweet clover for pasture because they have learned how to get more money from an acre of this pasture turned into milk than from an acre of any other crop they have ever grown for pasture. There are thousands of dairymen on the fence, undecided as to what to do. These are the men for whose benefit this bit of argument and persuasion is published.

Time flies and if the decision has not already been made to revise the crops grown to better fit the needs of the herd, it will soon be too late. Talk with your neighbor who has worked out a crop producing program that gives him more milk per acre than you are getting. Find out how he does it. But do it now, for tomorrow may be too late.

Crops for Silo

I am thinking of erecting a tile silo or two next fall. Will you please help me to find out what I can most profitably raise for ensilage, corn, feterita, cane, sudan grass, artichokes, mangels?

St. Edward, Neb. J. I. C.

Where corn is a sure crop, it provides the best and most economical source of silage. In regions where there is not always sufficient rainfall to mature a good crop of corn, cane or one of the other sorghums will make a very good substitute. Sudan grass may be ensiled, particularly as an emergency crop, and gives satisfactory results, although we would not ordinarily rely upon it as the main silage crop. Artichokes have been used to some extent as cow feed but there has not been sufficient experience with them to warrant a definite statement as to their value. Mangels are not ensiled but are stored in pits or root cellars. We have recently had our attention called to the fact that some men are running in one mangel to every one or two bundles of corn when they ensile their corn. They believe in this way they get a more palatable silage.

Service Charge for Partnership Bull

Please give me information about a partnership bull in regard to keeping him. There are three of us that bought this bull. One has 20 females, one has 12, and one 10. The bull will be kept at the place that the 20 females are kept. The bull is two years old. The two herds are one and a half miles from the place where the bull is to be kept.

Louisville, Ohio. N. B.

We always hesitate to suggest actual prices for services rendered because conditions vary so much in different sections of the country and what may be suitable and fair in one section will not always be applicable to another section. Then, too, local practices and conditions very often govern matters of this kind. It is a good deal like attempting to fix prices for products all over the country on the basis of certain cost of production studies. Unless one is very careful in his interpretation of these costs, he may be led astray in arriving at a proper conclusion.

Various costs of production studies indicate that the annual cost of keeping a bull may be based on the following figures: grain 500 to 1,000 lbs., hay tons, silage 1½ tons, and labor 40 hours. The cost of these items plus interest on the investment in the stable and exercise yard may be reasonably estimated at approximately $100 a year. In this case, no account is taken of the money invested in the bull nor is any charge made for depreciation in the bull, as each of the present three owners are already bearing an equal part of this charge.

Assuming that the annual cost is estimated at 100 and service is to be provided for 42 cows, the average service charge per cow would be about 2.50. On this basis the 10-cow herd would pay 25 and the 12-cow herd $30. The owner of the 0-cow herd, where the bull is kept, would receive his $55 and, in addition, free service for his herd. In some respects this arrangement is not wholly fair as the lack of convenience for the two other farmers might well offset a portion, at least, of the expense of keeping the bull. The contributions of the small herd owners might be reduced by 25 per cent to 50 per cent to compensate for their extra labor and convenience in bringing their cows a mile and a half at the time of service.

We would suggest as a matter of convenience and possibly to avoid dispute that no charge be made for each individual service but that each owner make his payment annually upon an agreed upon rate. The annual payment would necessarily be revised from year to year as a previous year may have shown one or the other of the present owners of the bull to have increased or decreased the size of his herd.

Cows Are Underfed

I am feeding from 45 to 50 lbs. of silage per head daily plus one bundle of green leafy fodder corn to each cow. The cows get no hay of any kind. My concentrates mixture is a 20 per cent protein commercial dairy feed. I am feeding this at a rate of one pound for each 3½ to 4 lbs. of milk produced daily. My cows have been in milk from 8 to 10 weeks; the tests range from 2.8 per cent fat to 4.1 per cent fat; the production from 35 to 45 lbs. of milk daily. Is my ration all right?

Hastings, Minn. F. E. C.

If we assume that one of these cows weighs 1100 lbs., that she produces 40 lbs. daily of 3.5 per cent milk, that she is fed the equivalent of 50 lbs. of silage, that she receives 11 lbs. of the concentrates mixture which is a rate of 1 lb. for each 3½ lbs. of milk, we find the ration does not supply enough protein and total nutrients to meet the requirement according to the Haecker feeding standard. The above quantity of feed supplies 2.42 lbs. of digestible protein and about 17.25 lbs. of total digestible nutrients; the requirements for a cow of this size and production are 2.73 lbs. of digestible protein and 20 lbs. of total digestible nutrients. If the corn fodder contains a normal proportion of ears and is of such quality that the cows clean it up fairly well, it is likely the cows are getting nearly enough of total nutrients, otherwise it is probable that these cows will first be reduced considerably in flesh and thereafter decline fairly rapidly in production during the last half of the lactation. If they were in good condition when they calved, they will produce fairly close to their normal production for about the first third of the lactation period. By this time they will have begun to be noticeably reduced in flesh and this will continue somewhat to a point where the production will be lowered. After this their weight will remain fairly constant but their production will decline more rapidly than it otherwise would had they been in good flesh when they calved and adequately fed thereafter.

It is not likely these cows can be induced to eat more roughage. The additional nutrients needed must be supplied from the concentrates and this would need to be fed at a rate of about 1 lb. for each 3 lbs. of milk produced daily. One should not rely wholly on an arbitrary rate to feed grain, but should guage the feeding according to the condition and production of individual cows.

Unless the commercial dairy feed has included in it mineral substance that supplies calcium and phosphorus, we suggest these cows be given free access to a mineral mixture composed of equal parts by weight of salt, bone meal, and finely ground limestone. The reason for this is the fact that no legume hay is included with the roughage and the silage and fodder are both low in calcium and phosphorus.

Choosing a Breed

I am just starting farming and want to get into one particular breed of dairy cattle. I live in the southwestern part of Wisconsin, among the hills and rocks. I am planning to get in either Holsteins or Guernseys. Which would you recommend where the milk is taken to the American cheese factory? Which of these breeds has won the most records?

Wisconsin. PERPLEXED.

In most cheese factory districts the Holstein cow is most popular. This is because of the relatively larger flow of milk and its particular suitability for making cheese. Where the cheese factory pays on the basis of test, it is not quite so advantageous to produce Holstein milk, but even so, the Holstein will be preferred by most producers of milk for cheese factories.

The Holstein will, on the average, produce 100 pounds of milk at a lower cost for feed and labor than will the Guernsey, but she will not, as a rule, produce a pound of butterfat quite as cheap. However, a fair to good Guernsey will produce milk at a lower cost per hundred pounds than will a poor to mediocre Holstein.

The census of 1920 showed something over a half million pure-bred Holsteins and over ten million grades. Calves of this breed will weigh from 70 to 105 pounds at birth. Mature bulls will weigh in the neighborhood of a ton or more, while mature cows will weigh in the neighborhood of 1,200 to 1,300 pounds. There have been 25,431 Holstein cows that have finished a year's Advanced Registry test. The average production of these cows is 15,720 pounds milk containing 533 pounds fat, the average test being 3.4 per cent. There have been 109 Holstein cows that have produced in excess of 1,000 lbs. butterfat in a year, and there are 74 that had yearly records above 30,000 pounds of milk. The highest producing Holstein cow has a record of 33,465 pounds milk containing 1,349 pounds fat.

According to the last census, there were 80,000 pure-bred Guernseys in the United States and nearly two million grades. Calves will weigh in the neighborhood of 75 pounds at birth, mature cows about 1,100 pounds, and mature bulls about 1,600 pounds. There were 22,165 Guernsey cows and heifers that have completed a year's Advanced Registry record. Their average production is 9,664 pounds milk containing 482 pounds fat, the average test being 5 per cent. There are 9 Guernsey cows that have produced in excess of 1,000 pounds of butterfat in a year, and there have been 8 Guernsey cows that have produced in excess of 20,000 pounds of milk in a year. The highest producing Guernsey cow has a record of 19,742 pounds milk containing 1,113 pounds fat.

While a comparison of the foregoing records is desirable, yet it can not be expected that the average owner of either of these breeds will be able to secure this production. These records have been made under specialized conditions and not under what would be termed ordinary farm care, and the animals to a very considerable degree are exceptional representatives of their breed.

The major consideration is, first, to consider the market for the product of the cows, the relative economy of production of the breeds as breeds, the personal preferences of the dairyman, and, finally, and most important of all—the wise selection of good animals of the breed that most appeals to the prospective owner. There is more difference in the productive capacity of cows within a breed than between the breeds themselves. There are good animals and poor animals in all breeds, and profit will be secured only as a man exercises care in purchasing good animals and then rigidly eliminating from his herd those that fail to produce up to expectations or fail to produce at a profit.

Pasteurizing in Bottles

I would like information as to the economy in operation and the practical use of a bottle pasteurizer. These pasteurizers have been installed in some small dairies in this territory. Have heard arguments pro and con in regard to them. Could you enlighten me as to the following questions? Will they produce a better cream line than a vat pasteurizer? Do you consider milk cooled in bottles in the process of pasteurization, a good method? What system of pasteurization do you deem the most practical for a small dairy?

Wooster, O. H. S.

In their book entitled "Market Milk," Kelly and Clement have the following discussion concerning the pasteurization of milk in the bottle:

"With the in-the-bottle system of pasteurization which has been developed in recent years, the milk is heated, held, and cooled after it has been put into the bottles. There are several types of in-the-bottle pasteurizers. With some types the bottles of milk are placed in a compartment and the milk heated by sprays of hot water. The milk is held for thirty minutes in the same apparatus after it has been heated to 145° F. and is then cooled by changing from hot to cold water. With another type the bottles of milk, after being removed from the cases, pass slowly through the machine, being heated at the beginning and cooled at the end of the process. It takes thirty minutes for the bottles to travel from the point at which they are heated to the desired temperature to the point where cooling is begun.

"The following are some of the advantages of pasteurizing in the bottle:

"1. Operation is comparatively simple.

"2. For a small dealer the first cost is comparatively small.

"3. There is little chance of recontamination of the milk after pasteurization, provided water-tight caps are used and bottles do not have to be recapped.

"4. The bottle, as well as the milk, is heated.

"5. In some cases, small plants can save space by the use of this method, as the pasteurizer serves also as a cold storage room.

"6. There are no pumps, pipes, or other apparatus to clean.

"The following are some of the disadvantages of in-the-bottle pasteurization:

1. The system is rather slow for a large commercial plant. For a small plant, however, this objection may not be serious.

"2. Considerable extra steam and refrigeration are required, as it is necessary to heat and cool the bottles, caps, and cases, in addition to the milk.

"3. During the heating process, the milk will expand in the bottle, so that unless a bottle of extra capacity or a special and more expensive cap is used, many of the bottles will have to be recapped after cooling, because the expansion of the milk will force the cap out. It is advisable to use a bottle of extra capacity, since recapping, besides causing considerable trouble, may contaminate the milk. Where extra-sized bottles are used they contain full measure of milk, but there is some empty space between the top surface of the milk and the cap to allow for expansion during heating. Such bottles do not appear full when delivered, and thus cause some complaint among customers."

If any of the readers of Hoard's Dairyman have had experience with "in-the-bottle" pasteurization, we would appreciate their courtesy in giving us replies to the specific inquiries of H. S.

Biggest Value on the Market!

Read what farmers actually say about Fords Milker:

"It is the best milker on the market regardless of price."
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"Three features of Fords Milker appeal to me—price, simplicity, and service."
"Milks just as good as milkers that cost a great deal more."

Our new, improved model makes this the finest milker on the market. Heavy aluminum pail; General Electric Motor; New Departure Ball Bearings. Durable, simple to operate, easy to clean. Practically no expense for upkeep.

Farmers are enthusiastic about it. Easy on cows' udders and cows take to it better than hand milking. Practically no stripping necessary.

Electric models complete with motor. Gas engine outfits complete except engine. Prices east of the Rockies: Single unit $90, double unit $120, complete ready for milking; also larger outfits.

$90
Complete
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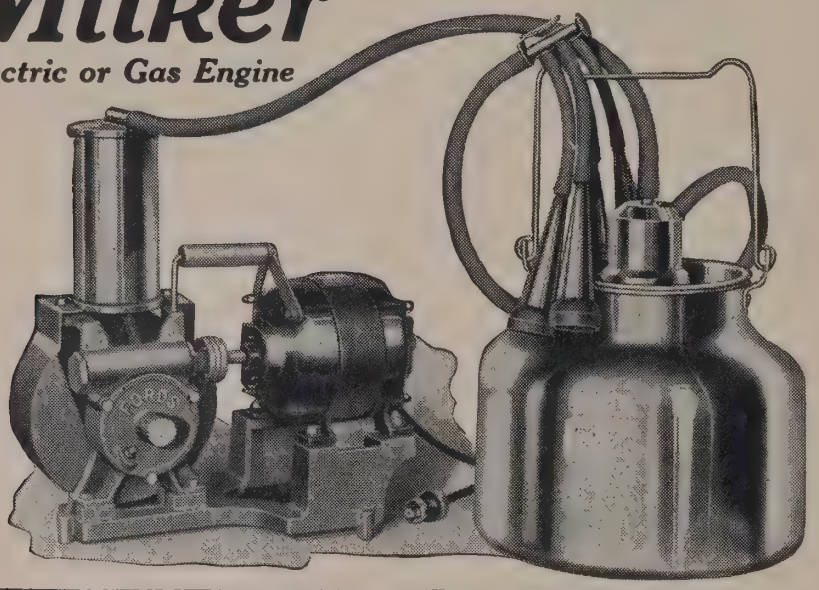
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The First Cattle in America

THE following history of the introduction of cattle into America is taken from an address delivered by Colonel R. M. Littler of Iowa before the Northwestern Dairymen's Association in 1882:

The first cattle imported into this country was about the year 1609; then civilization began. The following year, or 1610, several more cows were imported, and in 1611 there was what was considered at that time, so the historian recites, a very large importation of cows. About 100 head were added to the herds in the Old Dominion. So the state of Virginia can lay claim to being the mother of the dairy industry, in connection with her title as the mother of presidents.

Soon after the period alluded to, other cows or cattle were imported from the West Indies, supposed to be descendants of those brought over by Columbus in 1493. The Virginians valued their animals so highly for working and for producing milk, cream, and butter, that in order to promote their increase, a law was passed forbidding the killing of cattle on penalty of death. It seems from the record that the herds increased very fast, both from importations and breeding, for in 1620 there were five hundred head of cattle in Virginia; in 1639 there were thirty thousand. Now, I presume these figures are correct and from official sources, for even in those days the assessor and tax collector were known. I believe it was a little matter of tax that inaugurated that movement in the colonies which resulted so happily for us all.

New England derived her stock of cattle largely from Virginia, though history tells us that Governor Winslow made the first importation in 1624. This was a valuable herd of three heifers and a male animal. These were owned in common by the Pilgrims. In 1626 twelve cows were sent to Cape Anne Colony; in 1629 twenty more cows were imported by the New England colonists, and in 1630 Massachusetts colony received an invoice of one hundred more. New York was indebted to the Dutch for her cattle. Whether the debt has ever been paid I do not know, but we presume that Vanderbilt or Jay Gould will pay it if they do not wish to go to law about it. The Dutch West India Company brought over to New York one hundred and three horses and cattle for breeding. The Swedish West India Company introduced cattle in Delaware as early as 1627; in 1631, 1632, and 1633 brought se cattle to New Hampshire. In as the colonies grew in numbers the country was developed, the h of cattle imported from these se countries were exchanged back forth amongst the colonies, be inextricably mixed, and the com cattle of the United States is th sult.

The earliest account we hav cattle in the great Mississippi V states that in 1770 cattle brought to St. Phillip by the ca of militia—whether it was one J of the horse marines or not, the torian does not tell us. The set at Cahokia (St. Louis) at that day were slaves, cattle, and pou In 1800, Reynold states, cattle abundant in Illinois, and that plowing and hauling were gene done by cattle, without distinctio kind or breed. The harness cons of a straight yoke of wood, which tied to the horns of cattle by st of leather or rope. This valu service of the cows may account the scarcity of hornless or polled tle in this country. These c were small and hardy, and brought by the French settlers Canada. It is also recorded of t cattle that they stood the winter ter without grain than the Amer cattle from New England, York, or Virginia; that they much less milk in summer "risked more all the time." The tom was to let the calves run the cows, but little interest was t in buttermaking.

As civilization advanced, dom cattle kept pace with the marc improvement and helped to cheer sustain the hardy pioneers in t arduous labors. In 1850 Amer cows were driven across the plai California. The climate of Califo was pronounced by the forty-ni unfit or unsuited for dairying. T however, had formed their opi because the native or Spanish found they were so notoriously for milking. However, Yankee t soon found that it would pay to gage in dairying in that land of and in 1855 dairying was well i gurated.

Salesmanship

Passerby: Here, boy, what's you were shouting? "Great swind 60 victims!" I can see nothing a it in the paper.

Newsboy: That's the swindle. are the 61st.—Good Hardware.



HARVEY KERN OF INDIANA AND HIS BELGIAN STALLION, "CAMILLE," THAT SIRED MORE GOLD MEDAL WINNERS THAN ANY OTHER STALLION IN THE STATE IN THE HOOSIER GOLD MEDAL COLT CLUB OF 1926

This contest was conducted by the Indiana Live Stock Breeders' Association and Purdue University Extension Department with Mr. P. T. Brown in charge. This gives to Mr. Kern the Premier Sire Trophy offered by the Indiana Draft Horse Breeders Association and also the Belgian Trophy offered by the American Belgian Association.

Wisconsin Dairymen Meet

The 55th annual meeting of the Wisconsin Dairymen's Association was held at Madison on February 1. The meeting was well attended and the members again renewed their enthusiasm for the work that is being accomplished by that association, particularly for its development of cow testing association work in all its various phases.

The program for the meeting was well balanced with speakers of professional as well as farm experience. Secretary Conklin of the Ayrshire Breeders' Association discussed the herd test plan and showed definitely how it was based on the principle of raising the breed average rather than to secure exceptional records on a few cows. The plan is growing in popularity and influence. Cow testing association members and testers told of their experiences in testing and the gains made through this work.

Selective Registration Endorsed

One of the resolutions of outstanding importance that was adopted concerned itself with the problem of selective registration for pure-bred cattle. The resolution reads as follows:

"WHEREAS, the success of dairymen in dairy cattle and milk production is dependent on dairy cattle of most approved type and character, and

"WHEREAS, much of the improvement in dairy cattle is dependent on inherited factors relating to both milk production and good type which are transmitted from one generation to another through a most careful registration and selection of animals, and

"WHEREAS, the present method of registering animals for pure breeding in so many instances is in name only and is inadequate for best results; therefore, be it

"*Resolved*, That the Wisconsin Dairymen's Association favors a careful consideration of selective registration based on purity of breeding, good type, and production records which will permit not only the breeders of pure-bred dairy stock but breeders of high grade stock to make greatest progress."

An increase in the legislative appropriations for the Wisconsin Dairymen's Association from $6,000 to $10,000 was asked for, and members were urged to get in touch with their representatives in the state legislature and request their support of this cause that the association may meet the demands of farmers for the further extension and proper supervision of cow testing association work. An investigation of bovine mastitis by the Agricultural Experiment Station was urged and the regents of the University were requested to provide for this. The Milwaukee Association of Commerce was commended for its efforts in introducing milk for the christening of a new lake vessel, with similar approval given the Wisconsin Manufacturers' Association for its gift of $50,000 toward an investigation of abortion. Approval was also given to the establishment, if found practical, of regular cow testing associations operated through high school students.

Process Cheese

"WHEREAS, the growth and success of the dairy industry," reads the fourth resolution, "is dependent in a large measure on the quality and standardization of dairy products, therefore, be it

"*Resolved*, That the Wisconsin Dairymen's Association approve the proposal of federal legislation to define and control the manufacture of process cheese not only as a protection to the consumer but also to protect the honest manufacturer and the industry as a whole from fraudulent practices."

Mass Production and Marketing

"WHEREAS, it is generally conceded and has been demonstrated that a wider application of the principle of mass production and mass marketing through co-operative action has resulted in a material gain in the dairy industry and

"WHEREAS, through the improvement of Wisconsin highways there is opportunity for combining and enlarging creameries and these factories in a manner to permit the employment of more expert help and to provide for better facilities for the manufacture of high quality products and thus further the possibility of marketing such products through such organizations as the Land O' Lakes Creameries' Association and the Wisconsin Cheese Producers' Federation, therefore be it

"*Resolved*, that the Wisconsin State Dairymen's Association indorse and approve all of these developments."

The officers elected for the ensuing year were: W. J. Dougan of Beloit, president; Ed. Korrer of Fond du Lac, vice-president; and Paul C. Burchard of Fort Atkinson, secretary.

Canadian Ayrshire Meeting

Officers' reports given January 27 at the annual meeting of the Canadian Ayrshire Breeders' Association showed that organization to be stronger than ever before in its history, which in turn is a very definite indication of the increasing popularity of Ayrshires in Canada.

Secretary Stephen's report showed a larger paid up membership for 1926, and a decided gain in registrations and transfers. Liquid assets of the association now total $10,750.

The meeting voted a protest against the rule now in force which does not provide for a man to accompany live stock shipments.

Dean Burton of McDonald College and R. R. Ness of Quebec both pointed out the fact that the time had about arrived when bulls should not be registered until they are inspected and passed for Advanced Registry. They also suggested the desirability of a system of inspection of females.

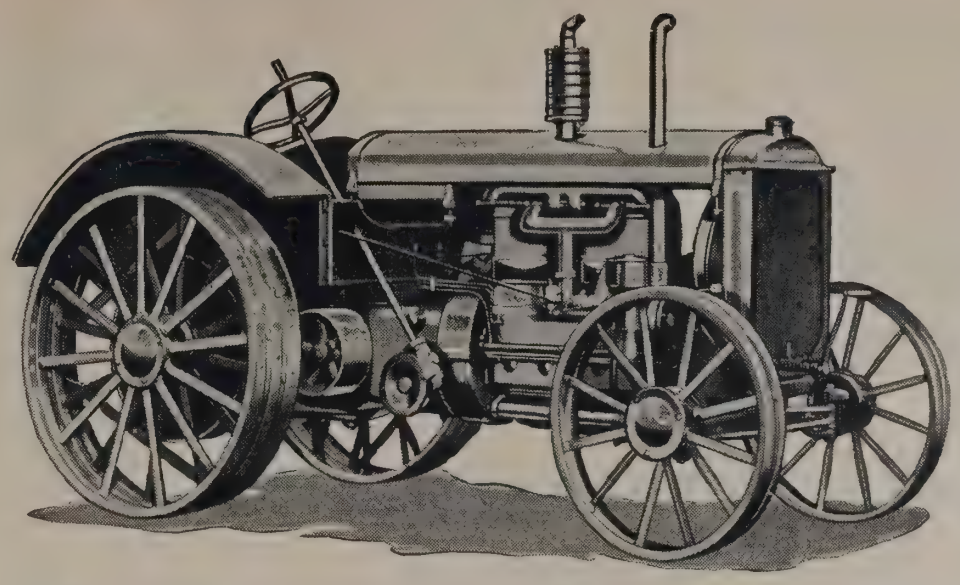
Officers elected for 1927 are A. Hume, president; J. H. Black, vice-president; and W. F. Stephen, secretary.

Minnesota Cow Produces Over 33,000 Lbs. Milk a Third Time

Final figures just announced on the record completed last November by Grahamholm Colantha Segis Maid credit her with 33,545.6 lbs, milk containing 1,053.27 lbs. butterfat (1,316.58 lbs. butter) produced in 365 days as an 8-year-old cow.

This is "Maid's" third record in excess of 33,000 lbs. of milk. As a 5-year-old she produced 33,112.3 lbs. milk, 984.85 lbs. fat in a year. During her next lactation she produced 33,811.6 lbs. milk, 1,033.28 lbs. fat in 344 days; 32,155.1 lbs. milk, 974.43 lbs. fat in 305 days; and as an 8-year-old cow made her third big record given above.

Grahamholm Colantha Segis Maid was bred and is owned by Dr. Christopher Graham of Minnesota. She is the seventh Holstein cow to twice produce over 1,000 lbs. butterfat, and ranks 43rd among all Holstein producers.



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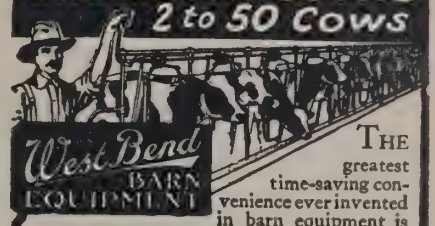
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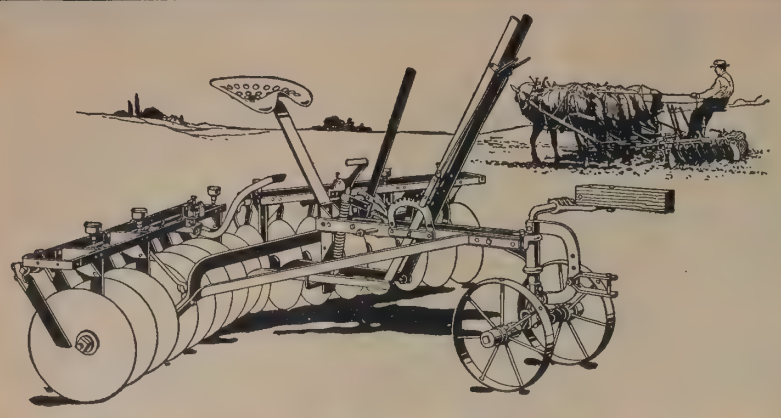


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has for nearly a half century of outstanding performance continued to strengthen its position as a leader in the disk-harrow field.

Farmers like the independent action of the gangs—the way one gang holds to its work when the other gang meets an obstruction.

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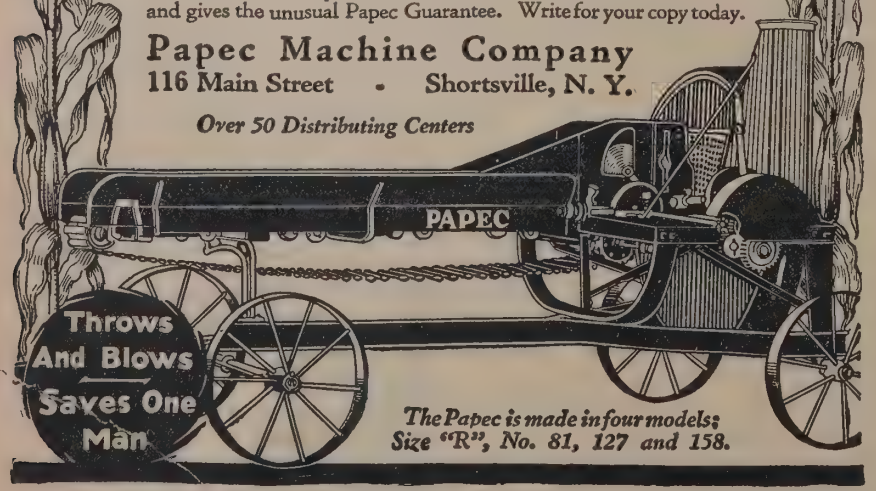
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Seasonable Live Stock Notes

WITHIN a month horses will be called on to earn their oats by the sweat of their shoulders. They will be called on for power and lots of it. How well they stand up under the work load put upon them depends on a number of things, some of which their owners are mainly responsible for, as, for example, starting them off in good condition, gradually hardening them for the heavier tasks, getting the harness in good condition so there will be less of bruised shoulders, chafed sides, and gaskin muscles, and such like. Are your horses and harness ready?

Horse Breaking Time

Horse breaking time is here. The well grown, green, three-year-old colt can no longer board for nothing. He must earn his keep. The wise horseman has already given him a chance to learn the feel of his working equipment. He has first given him the feel of the halter and made him accustomed to his stall; next he has put a bridle on his head and a bit in his mouth; and then, very carefully, he has put a harness on his body. All these things should always be done before connecting the power with the load. They should be done now.

Feed Dairy Heifers Enough

At this time of year when a possible feed shortage is indicated, there is a great temptation to slight the feed for growing heifers. This is a mistake. It must be paid for later when these poorly developed heifers are called upon to produce milk and at the same time continue their growth. The greatest and cheapest growth is made on dairy heifers when the growth stimulus is greatest and when there is no competition for feed nutrients like that which comes as in milk production.

Mark Calves Now

Before the spring work demands so much time it is advisable to mark the calves that are to be retained for breeding purposes. This applies especially to pure-bred calves but should also be done with grades that a record may be kept of their ancestry. Calves that go on pasture during the early summer are not easily recognized at one year of age.

Teaching Cows Their Places

A subscriber has asked about the best way to get cows to take their proper stalls when entering the barn. He is having trouble. It takes too much of his time each day to direct the cows where they belong. Aside from patience, kindness, and feed we could not suggest a "best way" to do this. Perhaps some of our subscribers can help us out.

Normal Decline in Production

A number of our subscribers have indicated that they are having difficulty in holding their cows up to the amount of milk they think ought to be produced. While a number of factors may be responsible for this it is well perhaps to compare their production with what is considered normal for each month in the lactation period. Eckles of the Minnesota Station gives us the figures on this: The decline is in about the following amounts figured as percentage, and beginning with the first month: 99.6 100, 92, 86, 82, 75, 71, 69, 64, 52, 34, 11.5. This means that a cow in her fifth month of the lactation will give 82 per cent as much milk as she gave in her first or second months.

Keep the Pig Warm and Dry

The time to strike the iron is when it is hot; the time to help a little pig is when it is newborn—most help ss
Striking a cold iron won't beat he
plowshare into a sharp edge. A w
born pig that gets cold is usually be
yond the helping stage, too. Mar i
little pig time on a good many fa hs
Keep them warm and dry for a ew
days at least and they will b ng
money to buy coal with next wi er

Have you cleaned out the far w
ing pens, scalded the floors and ar
titions with boiling hot water and ur
ranged for a supply of clean d
ding? There are millions of w m
eggs and disease germs just wa ng
for a favorable location to set p
their own business. If you a ow
them to once get established in ur
little pigs it will cost consider le
later on to drive them out. Be er
get those pens ready now.

Hog Pasture for Next Year

How about a hog pasture for x
year? Good pastures for pigs hel to
control diseases and parasites bes es
saving grain. The time to th k
about a good hog pasture for x
year is now. For this year one a
use rape or such annuals as su a
grass, oats, rape, and peas, or e
small grain.

Ready for Baby Chicks?

Some folks make the mistake o
not being ready for their baby ch ks

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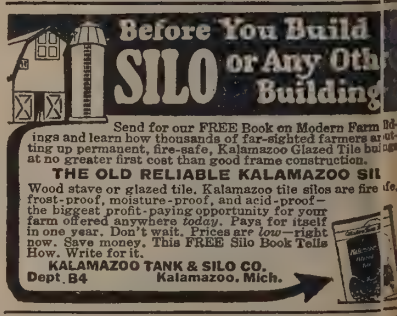
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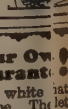
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Buckeye Brooder Houses, Corn Cribs, Gra ins

when the mail carrier leaves them at the door. They put them where they fill up on fine sand or other material that should not be eaten by baby chicks, at least not for their first feeding. Then again they have overlooked putting in guards at the proper places in the brooder house and the result is a big loss from smothering or chilling.

St. Louis Reorganizing

Plans for the more complete organization of the St. Louis Pure Milk Producers' Association, East St. Louis, Ill., are being laid before the membership of the association. It is proposed that the chief activity of the organization shall be to bargain with the milk distributors as to prices to be paid the producer members. In addition to bargaining, the association will undertake to check weights and tests made by the dealers purchasing milk from members. It will also undertake to increase the demand for dairy products by promoting advertising campaigns, and in other ways stimulating demand.

The organization is to be a nonstock, nonprofit membership association. Milk producers must pay a membership fee of $2 and execute a note for use as collateral for loans, on the basis of $1 for each cow, with a minimum face value of $15. The association will be sales agent for its members, with authority to sell all dairy products. The marketing contract is a continuous one with option of withdrawing at stated times. The association will be largely financed out of prospective earnings. It is intended that reserves shall be accumulated for meeting future emergencies.

Payments for milk will be made by distributors directly to producers, such commissions and deductions as are required by the association being made by the distributors and paid to the association.

The association will be managed by fifteen directors representing producing districts. An executive committee of five, working through the manager, will be directly responsible for the operation of the organization.—Agricultural Co-operation.

The Calves Made Good

HOARD'S DAIRYMAN:—The following testimonial by Blaine Ferguson, county agent at Conrad, Mont., is a straw in the wind to indicate how calves distributed by the Tillamook County (Oregon) Cow Testing Association are "pailing out:" "The Tillamook calves that we received in the spring of 1923 have completed 11 months' milk flow in a cow testing association and have averaged 425 pounds fat each with first calf under ordinary farm management. These heifers are valued by their owners at over $200 each, and I doubt very much if they could be bought for that."

At $12 each f. o. b., the Tillamook Association successfully ships Jersey, Guernsey, and Holstein calves at two weeks of age into nearly all of the western states, and association members annually pocket $4,000 to $6,000 for surplus heifers that formerly were never raised. W. D. Pine, Tillamook county agent, devised the plan which includes a guarantee that the calf is sired by a pure-bred bull, is out of a 300-pound cow or better, and comes from a tuberculin tested herd. Oregon. G. N. ANGELL.

Jersey Bulls to Texas

The development of dairy farming in Hale County, Texas, made a big advance recently with the importation of sixteen registered Jersey bulls from Ohio to be used in the formation of three additional bull circles in the county. This is the largest importation of Jersey bulls ever brought into Texas in one shipment.

County Agent Huey, assisted by representatives of the American Jersey Cattle Club and the Ohio Jersey Cattle Club, selected only bulls of good breeding, with good type and from good record dams.

Under the bull circle plan, four or five men purchase bulls signing an agreement that they will each keep one bull for two years and then exchange. This provides each with the services of a first class sire for a total of eight or ten years at the cost of a single bull, and should prove the means of noticeable herd improvement.

"Hey, waiter, where's my honey?"
"Sorry, sir, but she doesn't work here any more."

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If you want a wood silo—the INDIANA is recognized as the best wood silo ever made. If your farm layout calls for a tile silo—get the HOOSIER, the leader in its field. Both of these silos are now built and sold by the same company. An INDIANA or a HOOSIER will give you years of wonderful, money-making service. See our nearest dealer or write us for prices telling size silo interested in. Special discount for early orders. Fine territory open for salesmen. Address DEPT. K5, Albany, Indiana.

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See your SUPERIOR dealer now—or write direct to us—if you are in need of a drill or planter for any purpose. Grain, Corn, Cotton, Beets, Beans, Clover, Alfalfa—all crops are given the right start with SUPERIOR.



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The coupon below will bring you full information on any implement in the complete SUPERIOR line, which includes the famous SUPERIOR Black-Hawk Manure Spreader and the SUPERIOR Buckeye Cultivator. Even if you are not in the market for an implement of any kind, write us for advice and information regarding any special planting problems you may have.



The American Seeding-Machine Co., Inc.
440 Monroe Street Springfield, Ohio

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—Beet & Bean Drills
—Alfalfa Drills
—Corn & Cotton Drills
—Corn Planters
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Fort Atkinson, Wisconsin

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

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Entered at Fort Atkinson, Wis., as second class matter.

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For practical purposes average milk may be figured at 8.6 pounds per gallon and average cream at 8.4 pounds per gallon.

News From Washington, D. C.

[Special to Hoard's Dairyman.]

WASHINGTON, D. C., FEB. 10—The Lenroot—Taber Milk & Cream Import Bill has been passed by Congress and it is expected the President will sign it.

Notices have been issued for the annual "Dairy Pilgrimage" to be held the week of April 18. Representatives are invited from all dairy organizations, and any and all individuals interested will be made welcome. The affair is under the auspices of the American Dairy Federation.

Two boys or girls, chosen for excellence of work in the boys' and girls' club work—the 4-H clubs—from each state, together with the state leaders, and a few others invited as special guests, will join in a week's visit to Washington the week of June 16—23.

Clarence W. Kitchen has been named as Assistant Chief of the Bureau of Agricultural Economics. Lloyd S. Tenney, former assistant chief, was promoted to the position of chief of the bureau some weeks ago.

Inspection of all cattle exhibited in the shows at the fairs and expositions by veterinarians of the B. A. I. service has been attacked recently, and is strongly defended in a Department of Agriculture news bulletin just issued. Repeated instances are cited of spreading infection from various communicable diseases, due to the close contact in the show ring of diseased cattle uninspected, with healthy cattle which have been inspected. These conditions, the publication states, are "exceptional" but indicate the possible danger. The B. A. I. will continue to exercise close inspection of interstate shipments and urges authorities of local fairs and shows to take adequate precautions where B. A. I. service is not required.

Dairy and poultry products—still considered together in spite of requests and efforts to get them separated—hold the highest place in the price index table for January, compared with all other groups of farm products. They are not as high as some manufactured products, in spite of this relatively favorable showing. The index of dairy and poultry products for January, 1927, is given as 152. Fruits and vegetables are at 140 and meat animals at the same point; fruits and vegetables coming up, and meat stationary. Grains are at 120, cottonseed and cotton at 85, and the miscellany included as "unclassified" at 87. This indicates that it is a good, profitable time to moderately increase butter production at a profit so far as feedstuffs are concerned.

Grinding Hay for Stock

During recent years there has been much discussion as to whether it pays to chop or grind hay and other dry roughage for the various classes of live stock.

Two trials were carried on by the Wisconsin Experiment Station last winter to study the effect of chopping or grinding good quality, Wisconsin grown alfalfa hay for dairy cows. Each trial was carried on by the reversal method to eliminate the effect of individuality of the cows so far as possible. Five cows, fed for 3 periods of 42 days each, were used to compare rather coarsely chopped alfalfa hay with uncut hay; and in other trials, 4 cows, fed for 3 periods of 35 days each, were studied to compare finely chopped hay with uncut hay.

The experiments will be repeated before definite conclusions are drawn. Averaging together the results of these two tests, there was no advantage in favor of thus preparing good alfalfa hay for dairy cows. The results from the finely cut hay appeared to be slightly more favorable than from the coarser preparation, though the difference was not marked.

It is quite probable that with poorer quality hay there could have been more advantage in chopping it, as cows usually refuse to eat poor hay up clean. In these trials the cows ate the uncut alfalfa with practically no waste.

For Beef Cows

An experiment was conducted during the past winter to study the effect of chopping alfalfa hay for beef cows and nursing calves. Two lots of cows were fed by the reversal method in two periods of 63 days each. Each lot received the same amount of hay and corn silage, but the lot receiving chopped hay was fed 10 per cent less concentrates, to find whether chopping the hay would make possible this saving of concentrates. On an average the cows in both lots were fed 30.0 lbs. corn silage and 8.4 lbs. hay. On uncut hay they received 6.0 lbs. concentrates (corn, oats, and bran) a head daily, and 5.4 lbs. of chopped hay.

The results were slightly in favor of the chopped hay ration, the cows gaining 0.17 lb. per head daily on the uncut hay and 0.38 lb. on the chopped hay. There was practically no difference in the gains of the calves on the two rations. In this one experiment, therefore, chopping the hay apparently permitted a saving of 10 per cent of the concentrates.

Chopping Soy Bean Hay

In the experiments carried on during the past four years it was found that when fed uncut soy bean hay with the usual supply of corn silage and concentrates, the cows would often eat the coarser stems of the soy bean plants, refusing on the average 7.6 per cent of the hay. Experiments were therefore carried on during the past two years to see whether it would pay to chop the soy bean hay so as to induce the cows to consume all of it.

In these trials the cows were fed all the uncut hay they would eat without undue waste. They received on the average 11.8 lbs. uncut soy bean hay per head daily, and actually consumed 9.7 lbs. On chopped soy bean hay 10.1 lbs. were fed daily, which was eaten with practically no waste. The amounts of concentrates and silage in the two rations were the same. In the first trial the yield of milk and fat was slightly greater on the chopped hay, but there was practically no difference in the second trial. In both trials the cows maintained their weights a trifle better on the uncut hay. Taking all factors into consideration in these trials, chopping the hay so the cows would eat all of it increased its value 23 per cent, taking the price of the uncut soy bean hay at $15 a ton.—F. B. Morrison, Wisconsin College of Agriculture.

A Jewish immigrant had to fill up the usual form. The first question was: "Born?" There was a space for the name of the place. He filled it up with the one word "Yes."

Wins Trip to Guernsey



ARVILLA BOESE WITH ONE OF HER PRIZE WINNERS

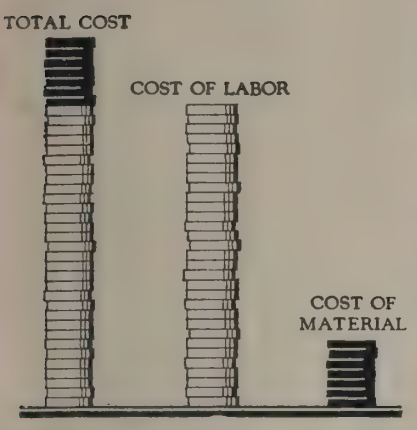
ARVILLA I. Boese, 18-year-old Wisconsin calf club member, was declared the winner in a national contest open to Guernsey calf club members of every state, and has just been awarded a trip to the Island of Guernsey. She will be a guest of the American Guernsey Cattle Club on the coming pilgrimage to the home of the Guernsey breed conducted in honor of the fiftieth anniversary of the Club's organization.

Arvilla has been for the past three years an outstanding member of the Guernseyway Calf Club under the leadership of J. C. Ralston, secretary of the Jefferson County Guernsey Breeders' Association. Her father, Will R. Boese, is president of that association. Arvilla is a Hoard's Dairyman Junior, and has been secretary-treasurer of the county Guernsey calf club for two years.

Her achievements include: winnings in the show ring at the Fort Atkinson Calf Club Round-up, the county fair, state fair, and National Dairy Show; trips to the 4-H club short course at Madison, the National Club Congress at Chicago, and the state fair; prizes in dairy cattle and live stock judging; and prizes in showmanship. Her record books have been of particular excellence. She has twice been selected as an honor calf club member in the state of Wisconsin.

Arvilla sails with the pilgrimage from New York City May 14 on the Tuscania for a six weeks' trip, visiting points of interest in England, Jersey, Alderney, Sark, and Guernsey. She is a very enthusiastic club member and plans to become a 4-H club leader.

What is the COST of painting with Eagle?



THE cost of painting is determined by the cost of materials, plus the cost of labor.

In the big cities a paint job is 70% labor cost and only 30% material cost. In rural communities labor costs are a little lower but labor everywhere is so high that you can not afford anything but the highest quality of paint materials. It requires less labor to apply high quality paint because it covers well; it brushes out easily and can be spread over a greater area, thus reducing the cost per square foot.

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Ask any good painter his opinion of Eagle Pure White Lead—in use since 1843. *The Eagle-Picher Lead Company, 134 North La Salle Street, Chicago, Illinois.*

Have you your free copy of the Eagle "Tinting and Mixing Chart"? It contains many helpful suggestions for farm painting.

EAGLE
PURE
WHITE LEAD
OLD DUTCH PROCESS



When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

New Live Stock Secretary



ARLIE MUCKS

Arlie Mucks, county agent in Barron County, Wisconsin, has recently been appointed secretary of the Wisconsin Live Stock Breeders' Association. This position has been creditably filled for the past five years by Reid Murray who has resigned to take up other work.

Mr. Mucks was a star athlete at the University of Wisconsin a dozen years ago. He held the world's record in the discus throw, was a shot putter of note, and a member of the U. S. Olympic team that invaded Stockholm, Sweden, in 1912. He played football and was mentioned by some critics for All-American honors.

Dairy Sire's Daughters Best Index of His Value

A great dairy sire is one whose daughters have a high average yield of milk and butterfat, a high average increase in milk and butterfat yield over that of their dams, and a high percentage of their number better than their dams, says R. R. Graves of the Bureau of Dairying, United States Department of Agriculture.

In a study of 23 Holstein-Friesian sires, each having six or more tested daughters from tested dams, some conclusions were arrived at concerning the hereditary transmission of production, says Mr. Graves. Some of the sires in the list raised both the milk yield and the percentage of butterfat of their daughters as compared to the production of their dams. Some raised one and lowered the other. Some lowered both. But no one sire raised both the milk and butterfat percentage of all his daughters, nor did any one sire lower these records of all his daughters.

The ability of a sire to raise or lower the yield of his daughters does not necessarily have a correlation with the record of his own dam. Rather, the prepotency of a sire seems to depend upon the combination of factors governing the yield of milk and percentage of butterfat that he has inherited from his parents. If he has inherited only factors that will determine high milk yield and high percentage of butterfat, he will be prepotent in impressing these characters on his offspring. If he and the dams with which he is mated have inherited from their parents a mixture of the factors for both low and high production, which is often the case, a variety of combinations in the different offspring will follow, and they will be of varying degrees of producing ability.

The fact that the percentage of butterfat and the milk yield are inherited independently, at least within limits, and that both the sire and the dam contribute to the inheritance of their daughters, governing both milk yield and percentage of butterfat, indicates that improvement in yield of butterfat can be brought about by selection for both milk yield and percentage of butterfat.

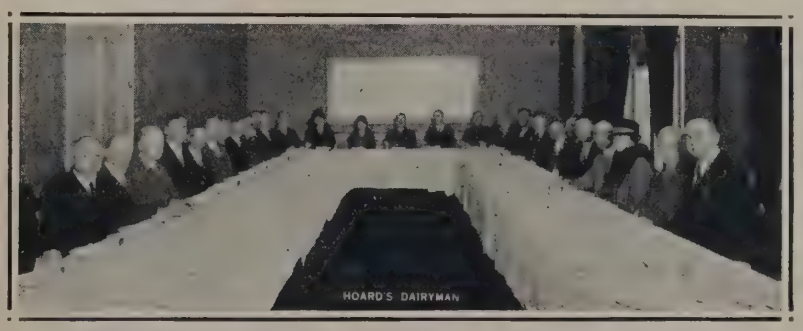
The big problem seems to be to locate the sire that has inherited only the factors determining a high producing capacity. The degree to which he has inherited these factors can be determined only by testing a large number of his daughters and comparing their records with those of their dams.

The increasing number of records of daughters and their dams becoming available through the cow testing associations furnishes a means of calculating the comparative worth of a greater number of sires than has been possible in the past. The 23 sires in this study were given comparative rankings in a new method devised by Mr. Graves.

For instance, sire E ranked first in average milk yield of daughters, third in average butterfat yield, fifth in average increase of milk, fifth in average increase of butterfat, first in percentage of daughters making increase in milk, and first in percentage of daughters making increase in butterfat. The sum of these rankings is 16, which, being the smallest ranking number, places him at the head of the list.

On the other hand, sire V, at the bottom of the list of sires, ranked nineteenth, twentieth, twenty-third, twenty-second, seventeenth, and sixteenth respectively in these same classes, giving him a total ranking of 117, or more than any other sire in the list.

The complete discussion of this study has been published in Department Bulletin 1372, recently issued. A copy may be obtained, while the supply lasts, by writing to the United States Department of Agriculture, Washington, D. C.



ELEVENTH ANNUAL CONVENTION OF THE OREGON GUERNSEY BREEDERS' ASSOCIATION

E. J. Mahy, president for past year, at center in back; to his right, Mrs. J. W. Mulloy, past secretary; second to his left, C. T. Gilbert, president for the coming year.

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Thousands of farmers tell how good fences pay for themselves by the waste they save

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2 Lauby, Savageton, Wyo., saves $1500 a year in herding expenses with 13 miles of woven wire fencing on his sheep ranch.

3 Laird, Mason City, Iowa, makes $6 more per acre rent on a stock-share basis with good fence.

4 Hiner, Reed Point, Mich., paid for stock tight fence in 2 years by saving herders' wages.

5 Oathout, Ethan, S. D., says well fenced farms sell for at least 25% more than the same farms poorly fenced.

6 Schultz, Russell, N. D., made worn out land bring 28 bushels of wheat per acre and turned off $2,600 worth of mutton, wool and hogs in one year with $800 worth of fencing.

7 Kennedy, Hunter, Okla., says: "Gleanings from 100 acres of stubble will produce 1000 pounds of pork."

8 Taylor, Eaton, Tenn., turned pigs into a fenced-in wood lot and made them outweigh his neighbor's pigs 90 pounds each at killing time. Good fencing paid for his farm.

9 Luscombe, Fairmont, Minn., hogged down and saved $420 worth of blown down corn last year in a hog-tight field.

10 Pinkney, Fairmont, N. D., cut his corn feed from 11 to 8½ bushels per 100 pounds of pork with hog-tight fence.

11 Simpson, Eden, Texas, with good fence, made $3,100 in one year on sheep and goats.

12 Wyrock, Lewistown, Mont., summer fallows grain fields every third year and makes more than $1000 net returns on tight fence.

13 Richards, Fairbank, Ia., with tight fence, made $40 per acre extra profit on hogs and lambs.

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Practical Cream Grading

F. E. CHARLES, KANSAS

WHERE there is a will there is a way—and with Walter Daly, county agent in Lincoln County, Kansas, the adage apparently works.

In his Western Kansas county, where dairying is in its infancy and the average person doubtless thinks of farming in terms of so many bushels of wheat to the acre, Daly has been doing something that should set dairymen in other sections to thinking. He has organized the cream buyers and producers so that cream is bought and sold on a graded basis and a five-cent differential paid between first and second grade cream.

For years, dairy extension men, dairy commissioners, and creamery men have been trying to do just this thing. They have attempted to set up a workable plan for buying butterfat on a basis which pays a premium for the first grade product and thereby rewards the careful, sanitary dairyman. But they have had little luck in getting local buyers lined up on a set of rules and standards for grading. It has been easy to set up the standards but to make the buyers use them uniformly and pay the premiums has been a horse of another color.

"In our campaign we found a great deal of difficulty due to the fact that all buyers have been after the volume of cream without any regard to its quality," Daly stated in telling about his efforts. "This has resulted in a bad competitive condition which is responsible for bad methods of cream buying."

Daly set out to see that cream in his county was purchased on a graded basis. He arranged last February a joint meeting and banquet of the county farm bureau and the local chamber of commerce, at which F. D. Farrell, president of the Kansas State Agricultural college, was the principal speaker.

An all-day meeting was held, attended by one or more representatives of each creamery. Everything they had hoped for was not accomplished at that meeting. There was no agreement on a price differential between first and second grade cream. But all buyers agreed to grade in Lincoln County and to tag every can of cream that came in designating it as first or second in quality.

The tagging was to continue for one month. When a farmer brought in a can of cream it was graded and given either a blue or a red tag. The blue was to denote first grade; the red, second grade. On the blue tags were printed these words: "First Grade Cream; You are helping to raise the standard of Lincoln County cream which will mean a higher price for butterfat. The Sweeter and Cleaner it is, the Better it is; Lincoln County Farm Bureau."

The red tag, denoting inferior cream, admonished the owner to produce first grade cream by: 1. Keeping all utensils clean. (Thoroughly clean separator immediately after using.) 2. Cooling at once and keeping cool—by placing in cold water and stirring. (Do not mix warm cream with cool cream.) 3. Marketing at least twice a week. (Oftener is better.) 4. Skimming cream to test about 40 per cent.

A little later in the spring, with the help of other local boosters, Daly got the producers, local buyers, fieldmen, and creamery companies whipped into line at one and the same time. All along he had explained to farmers the advantage to them of grading cream—it meant better prices—a reward for a quality product. He talked local buyers—explained that the obstacle in grading was simply getting started. He convinced creamery fieldmen of this, and finarranged meetings in Kansas and Omaha with the managers creamery companies buying in county. The heads of the compaimmediately agreed to pay a five-differential and all local operawere instructed to grade and pay differential.

The five-cent difference is made paying a two-cent premium for grade cream and docking the sec grade cream three cents per po for butterfat.

Some of the operators were opp to the differential plan but sinc was put into effect they are pay the premium and making the th cent dockage. Clipping three c off each pound of butterfat brou in by a customer is a good way to patronage and buyers have a tende to grade cream as first grade w some of it should really be sec grade. But the loss by such prac must ultimately be absorbed by company, so the economic angle finally force operators to grade 2 cream as No. 2 and they in t will force the farmers to market t cream in such condition that it rank first grade.

The admirable feature of the Daly has put across in his coun it is the more remarkable bec farmers dairy only as a side lin their wheat farming—is that the cream earns for the producer a cent premium on every pound of while second grade cream actu draws a dockage of three cents b normal market price. The plan wards the conscientious dairy who produces clean, pure, whole cream and actually fines the car ones who for years have retarded production of better butter and c milk products.

He Was Married, Too

Butcher: "I've worked under same boss for 20 years."

Butter and Egg Man: "I can that—it's my silver wedding week!"—The Progressive Grocer.

Dairy cows are relatively i fleshed and do not withstand o weather like beef cows. It is econ to keep them from becoming o and not to turn them out in w except for such time during the m dle of the day as they appear t joy being out.—G. C. HUMPHREY



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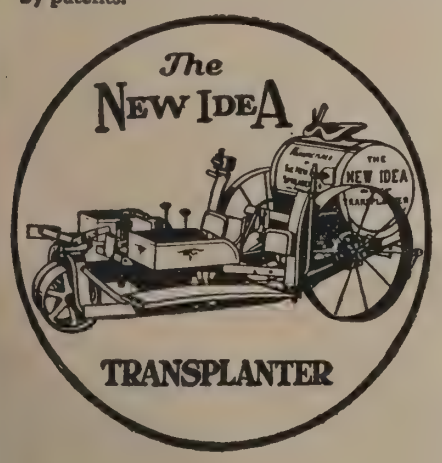


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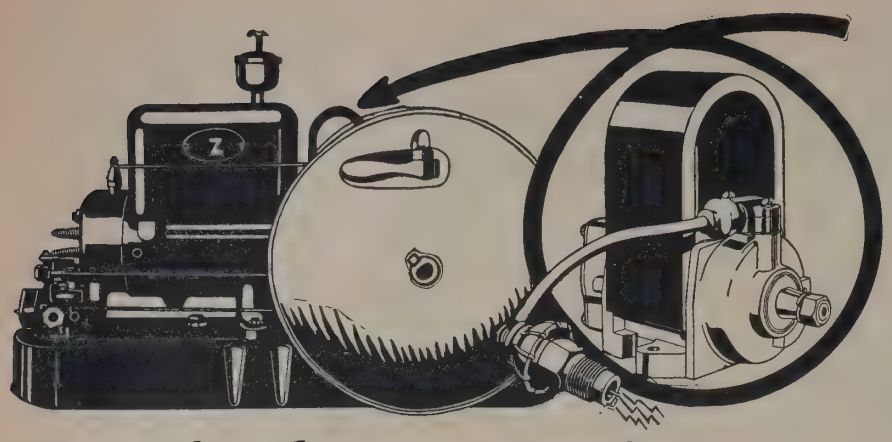
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Quality throughout

"Z" Engine quality is universally recognized. So is their long life and dependability. There are fewer parts subject to wear in the "Z" Engine and those parts are carefully made—are drop forged and specially heat treated just as such parts are made in the largest and finest engines. Yet the prices are exceptionally low because large production has cut manufacturing costs to a minimum.

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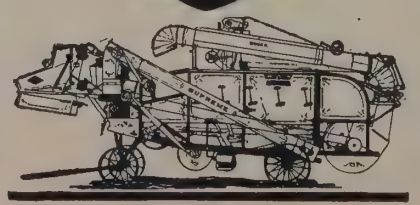
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COW TESTING IN IRELAND

J. R. MOLLOY, IRELAND

ABOUT eighteen years have elapsed since the first cow testing association was established in Ireland. There are about 200 associations with 50,000 cows under test, an increase of 5,000 over the previous year. An association can be formed wherever there are 200 dairy cows within easy reach of each other for the purpose of supervision. Where it is not possible to get so many cows within a convenient distance, an association of 150 cows may be recognized.

These cow testing associations, as might be expected, are in the more progressive districts. The average milk production for cows under test is about 4,500 lbs. per annum. For cows not under test the average yield is probably not over 3,500 lbs. Irish herds are chiefly of Shorthorn type. There are cows giving from 10,000 to 12,000 lbs. and showing an average yield of 6,000 lbs., but a lot of grading up will have to be done before this becomes general.

When it is mentioned that there are 1,350,000 milch cows in the Irish Free State and that only 50,000 of these are under test for milk yield, it will be seen that, despite undoubted progress, a great deal of leeway has to be made up. In order to speed up the work in this direction, the Department of Lands and Agriculture arranged a term of lectures for cow testing supervisors at University College, Cork. The last of these was attended by 150 supervisors who listened to lectures on various aspects of their work by well known authorities.

In 1925 County Cork led with 70 associations and 16,777 cows under test, not a bad number, but only nine per cent of the cows in the country. An example of the value of cow testing is afforded by one farmer in Clonakilty who doubled the milk yield of his herd in six years. In 1919 he had six cows yielding an average of 5,330 lbs. This he increased by 1,000 lbs. each year until 1925, when from five cows he obtained an average of 11,080 lbs. milk with 397 lbs. butterfat.

Tipperary had 26 associations with 6,054 cows under test, while Limerick had 19 associations with 5,288 cows under test. Limerick now has 32 milk testing associations, and the County Committee of Agriculture has set an example by raising the qualifications of premium dairy bulls to 8,000 lbs. on both sides of their pedigree, thus doing much to improve the milking record of that county. Kerry, with 12 associations, had 3,460 cows under test in 1925, while Waterford with 13 had 2,761 cows und test.

We are now approaching the tir when dairy cows will be sold more their performances than on appea ances. Milking tests have clear shown that appearances are dece tive, and when dairy cows are bei sold their records are now frequent asked for.

To form a cow testing associati it is necessary to secure an entry not less than 200 milch cows. App cation for recognition must be ma to the Department of Agriculture b fore February 1, but the Departme of Agriculture reserves the right sanction associations of smaller si for special reasons. Each memb must pay an entry fee of 75 cer per cow for each cow in his herd, a such further contributions in propo tion to the number of his cows may be necessary to defray the e penses of the association.

Provided that the requirements the scheme are complied with, t Department of Agriculture, for ea of the first two years' work, w grant one dollar for each cow on t throughout the year while on mi Afterwards it will continue to co tribute, for a limited number years, a grant which will be subje to a gradual reduction each ye Each member must contribute n less than 75 cents per cow enter for test, and the association mu provide itself with the apparat necessary to carry on the work. some cases county committees of a riculture make grants toward t purchase of apparatus, but outsi this the association is liable for l expenses including the payment of supervisor to check the records a take samples. Each member of association must undertake to wei and record every seventh d throughout the year the milk yi of every cow entered for the te In this connection each member is pected to provide himself with a liable scales.

It is urged that every cow testi association should own at least c dairy bull descended from deep mi ing dams on both sides of his pe gree. In certain cases this has ac ally been done with gratifying sults. A further object of these sociations is to have the best milk mated to such bulls and the heif calves kept to replace the poor mi ers sold off. These again are to e mated with bulls of heavy milki strains.

The affairs of each association worked by a committee of five, wh a president who also acts as tre urer.



SEVENTH ANNUAL CONVENTION OF THE WASHINGTON GUERNSEY BREEDERS' ASSOCIATION

Leland J. Clark, past president of the association, is in the far corner and Dr. H. A. Wright, recently elected president, is third to his right.

Production Records and Registration

HOARD'S DAIRYMAN:—Merit in dairy cattle depends, first, on performance at the pail; second, general form and appearance or good looks. "Handsome is that handsome does."

The basic standard, may we say requirement, for a breeder of pure-bred dairy cattle should be fixed that each milking should be weighed and properly recorded, honestly, of course. A test of butterfat of a day's milk should be made at stated intervals not less than monthly, by the dairyman himself, if competent. Each dairy breed should have a minimum standard of milk and fat production for the first or, preferably, for the first two lactation periods. The registration application should be accompanied with photographs instead of drawings of the animal. Application for the registration should be made within a year after birth as at present and kept on file for females until a record of performance is completed of the first lactation before the registration is published. The registration should be annulled for the individual that does not meet the standard minimum production. The progeny could also be unqualified for registry. This would eliminate much record keeping of pure-bred scrubs.

Sentiment with reason prevents complete eradication of human degenerates but it should not interfere with the decapitation of bovine degenerates. At least they should be placed in the grade animal class, not eligible to registry.

The Advanced Registry class might be continued by the different breeders' associations, but with individual records for each recorded female the necessity would be in a measure obviated. If C. T. A. and A. R. O. testing is to be continued, then we need O. R.-T. I. (dairyman's record test inspected) testing. The C. T. A. and A. R. O. testers might lose their jobs in their present capacity if each breeder of pure-bred dairy cattle were to keep adequate records himself and establish a D. R-T. I. class of testing. But there would be room for those testers as dairy experts and inspectors.

In the registration of dairy cattle they could first qualify and then be authorized by the different dairy breed associations to O. K. registration application within prescribed regions and score the animals, eliminating those falling under the 75% point as recently recommended for bulls in the Holstein-Friesian Association of America. A stipulated fee would be allowed them for judging, to be paid by the breeder. When an animal would be scored by the regional inspector under 75%, the dairyman could refer the case to a state authority at his expense, for the higher authority to come and do the scoring.

As dairy experts they could advise dairymen in the compounding of rations and purchasing of feeds similar to the work done now in cow testing association work. As inspectors they could serve in counties or regions as do our bank examiners within stated periods of time, say every six or perhaps three months as a minimum, at which time the daily records of the dairyman could be checked and proven by bonifide sales of milk, butter, or cream for a given period, as well as a check-up on quantity and cost of feed fed. The inspection trip could be paid by the dairyman as banks now pay for state or national inspection. In case of suspicious records the time and thoroughness of the inspection could be prolonged at the expense of the person who throws himself open to suspicion.

The dairy expert could serve in counties or regions and cover a larger constituency than is now being done by a cow tester who is limited to 30 herds. It could be done at less expense to the dairyman and withal make a larger compensation possible to the capable and energetic man.

The system presupposes the necessity of honesty on the part of the dairyman, but does not registration under the present system presume the same? Are the present A. R. records always beyond suspicion? Evidently not, if press reports can be relied upon. Daily milk records are more accurate than a day record per month is, and butterfat testing is simple enough to be learned by any one who is worthy of being called a dairyman.

We need technical advice and guidance by the expert, but it is an undue expense to the dairyman or unnecessary sacrifice to the cow tester in time or compensation to spend a full day monthly in weighing the feed and milk from 8 to 12 cows and testing the milk with a computation of feed cost and product values.

Economy, efficiency, and development on the part of the dairyman and expert would result from the suggested changes.

Pennsylvania. ENOS H. HESS.

Medium: "The spirit of your wife is here now. Do you wish to speak to her through me?"

Interviewer: "Yes, ask her where she put my winter underwear."

Wheel it in—and start milking!

Nothing to install — no pipelines — no vacuum tanks — no special pails



Clean in 1 Minute
Just Pump Water Through!
It almost cleans itself. No rubber lined teat cups to wash. No pipe lines or vacuum tanks to clean. No pulsator. No extra parts to bother with. No pails to wash—*you milk right into YOUR OWN shipping cans.* Boon to housewives. *Absolutely sanitary.*



Gas Engine, Electric or Hand Power

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So simple! So very, very simple!

That's the secret of this successful milker. That's why it's *so* easy to clean; that's why the upkeep is almost nothing; that's why the cows take to it so quickly. A positive *stop* of *all* vacuum on each stroke of our simple pump; that's *the* way for teats and udder! The secret? Our simple, direct air release pump and teat cup—no pulsator, no rubber lined cup. Our catalog explains. ***Read it!***

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Thousands of dairymen write us like this:

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"I have used my PAGE Milker twice a day for over two years, and have milked as high as twenty-two cows. I also want to say that your company has given me the very best of service." Yours truly, Albert E. Nelson, R. F. D. No. 2, West Chicago, Ill.

"The PAGE Milker does very good work and is far ahead of hand milking. It lets us out about one hour sooner than if we were milking by hand."—Frank H. Fuller, Orvell, Ohio.

"I still like my milking machine fine. It is giving entire satisfaction. We are milking fourteen cows and have milked in thirty-five minutes. We could not begin to do it without our machine."—Fletcher Peterson, Rt. No. 2, Brownstown, Ill.

"Can milk 6 cows and strip them in 15 minutes. Cows like it better than hand milking. Easy to keep clean. My wife can use it just as good as I can."—Geo. Miller, Rt. 3, LaSalle, Ill.

$67 *down* **AFTER free trial**

Don't pay us a cent *until* you are satisfied that this milker is just right for *your own* cows—No money down—No C.O.D. to us. Just wheel it in and TRY it *thoroughly*—nothing to install. *Then* if you are satisfied:

8 months to pay

—and yet, while allowing 8 months, we give you a *rock-bottom price,* direct from the factory. Also our iron-clad 10 year guarantee—yes, 10 years.

Send for complete information on this wonderful milker and the long time payment plan today—**NOW while offer is still open.** Find out NOW even though you are not yet ready to buy. No obligation. Write for free catalog **NOW.**

YES, **Mr. Dairyman,** here it is—at last—the milking machine that *solves* the dairy problem!——Find out—investigate—get the catalog and special offer *now,* while this special offer lasts!

Here's your one chance with this wonderfully simple machine to find out on a REAL Free Trial what the milking machine will mean for you on your own cows. Why? Because you get this machine and start right in milking; there's nothing to install; nothing to build or fit into your barn; just move the PAGE in and start milking. No bother, no expense. Payment only after you've given the milker a thorough trial.

DO SEND for our monster size circular with letters from hundreds and hundreds of farmers all over U. S. A., telling what they know about Page Milkers and *what these practical farmers say about the way to use a milker! Investigate* —Mr. Dairyman. Don't miss this—write for that circular of farmer letters.

FREE Book on Milking

"The Page was always a success with me I used it 6 years." —W. R. Olson, Fairchild, Wisc.

"I milk 14 cows in 35 minutes."—Arthur Forrester, El Centro, Calif.

"I am milking 250 cows, and I use 3 of your machines. I highly recommend the Page."—G. Anderson, Lemon City, Fla.

Mr. Dairy Man: Even if you don't want to try out a milker for many months, do write *at once* for our catalog and get your name on our list for our extra special offer. It costs you nothing and no obligation. Now we WARN YOU: write now if you just *may* be interested in a trial *later.* We *do* want you to find out, to investigate—*now.* Learn about the latest discovery in machine milking, get the facts, the figures. See coupon! Don't miss this chance to *find out* the *latest* and best news on milking machines.

This offer is POSITIVELY for introductory purposes! Void the day we have a dealer, agent or salesman in your neighborhood. So, if you don't want to try a milker now, *reserve* the right for this offer (also for user agent offer right) later—no obligation. Write at once for catalog or you may be too late.

Special Farmer Agent Offer—No canvassing—just demonstrate the milker on your farm. No selling experience necessary. Other dairymen have made hundreds of extra dollars—easily—quickly.

BURTON-PAGE CO. 400 No. Michigan Ave., Dept. 9622 CHICAGO

Please send me your free booklet containing the facts on milking machines and full details of your free trial, easy payment offer on the Portable Page Milkers.

Also copy of your 10-year guarantee, and your mammoth size circular of letters from farmers telling how they use your milker on their own cows.

Name.....

Address.....

.....

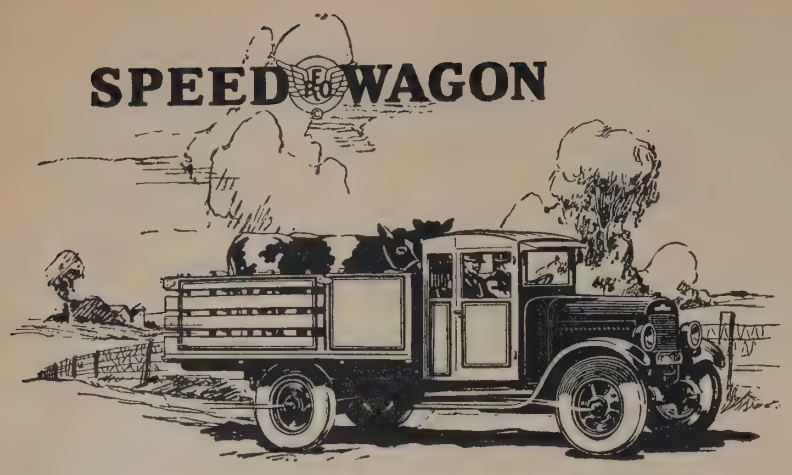
Would you like to be a FARMER AGENT?.....
Some farmers have made big money as agents *without* leaving the farm.

Do you also want our cream separator offer?.....

If you are going to be in the market for a separator any time within the next twelve months, state here about when?.....

The editors of many leading farm papers know the Page Milker. A leading editor said, "I advise you to investigate all good machines, including the Page offer as per coupon above."

SPEED WAGON



Sales to Dairymen Increase Over 250%

Last year the percentage of Speed Wagon sales to dairymen leaped 253% over the average for the two previous years. That means that dairymen realize the greater earning power of Speed Wagons in their work. It speaks volumes for Speed Wagon performance.

It is the same in every line of farm work. Speed Wagons have risen to pre-eminence through sheer ability and economy. Yet even more pleasing is the attractive first price which combines with low operating cost and long years of dependability to make low cost transportation such as dairymen must have.

Your Speed Wagon dealer is acquainted with your transportation problems. He has helped others solve theirs. He can help you. See him today.

CHASSIS PRICES
at Lansing
4-Cylinder 6-Cylinder
$1090 $1240
Heavy Duty
$1985

© R. M. C. Co., 1927

REO MOTOR CAR COMPANY, *Lansing, Michigan*

HOLDEN Lime and Fertilizer **Spreader**

Sour soil means poor crops. Experts agree fertilizer is useless on sour soil—it must have lime. The "Holden" Spreader makes bigger crops. Guaranteed to handle lime in any form, fertilizer, phosphate, gypsum, wood ashes or crushed shells.

Soil Tested-*free*

What about your soil?—your crops? Are they big and sturdy as they should be? Find out today with our free Litmus Test Papers—positive sour soil test recommended by all soil experts. Write for them now.

Cannot Clog. Try Spreader 10 days Free.

The Holden Lime and Fertilizer Spreader will make your soil healthy and productive. Spreads twice as far as any other; 20 ft. Attaches to any wagon or truck. No holes to bore. Spreads evenly 100 to 10,000 lbs. per acre Handle material only once, from car to field. Get literature and low prices now and ask about 10 Day Free Trial.



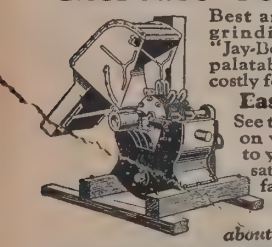
THE HOLDEN CO., Inc.
Dept. 507 Peoria Illinois

SPREADS 20 FEET

Grind With the "JAY BEE" HUMDINGER

Increase Your Profits

Crusher - Grinder - Pulverizer



Best and most economical grinding is done with the "Jay-Bee." Makes nutritious, palatable feeds. Eliminates costly feed losses.

Easy Payment Plan

See the Humdinger at work on your farm without cost to you. Prove to your own satisfaction it's the best, fastest, most economical mill made. 4 sizes—7 H.P. to 30 H.P. *Ask about our easy payment plan.*

Grinds Any Feed or Roughage to Any Degree of Fineness

Grinds any feed, dry, damp, wet or oily—to any fineness. Any roughage: hay—Kaffir corn—fodder—snapped corn, husks on—leaves no sharp edges to cause sore mouths as with buhr mills. No hulls in oats. No rats' nests in shock corn. No metal touches metal. No heat. No friction. No breakdowns. Always dependable. Biggest capacity. Lowest operating cost. *Unequalled* as grinder—feed saver—money maker. Free feeding booklet, literature, etc. Stock in principal cities.

J. B. SEDBERRY, Inc., 268 Hickory St., Utica, N.Y. *All Infringements Vigorously Prosecuted*

Mention Hoard's Dairyman to Your Dealer—It Helps Us

Georgia to Meet Its Problems

J. H. REED, GEORGIA

THAT the business men of Georgia will co-operate with farmers wishing to change from an all-cotton to a cow-hog-hen program was indicated recently at a conference held in the offices of the Georgia Association and attended by representatives from practically all of the lines directly concerned in the equipment of farms for the production of live stock.

In opening the discussion, Secretary Abbott of the Georgia Association pointed out that the minimum expense involved in changing from cotton farming to live stock farming was $500, and that if only ten per cent of the farms in each county were thus "converted" each year, it would involve a total expense to the state of $8,000,000. On the other hand, he reported a survey of Turner County had showed that the only farmers in good shape were those who had adopted a live stock program, and that the all-cotton farmers of the county were in bad shape financially. He urged upon the business men the necessity of helping farmers to make the change from cotton to cattle.

Mr. Abbott was followed by Willard Cope, of the Georgia Utilities Information Committee. Mr. Cope stated that a survey of a certain county had revealed the fact that the average profit made by farmers for the year was only a little more than $40, and he pointed out that this profit did not allow them to buy electric power or any of the products carried by the firms represented. He stated that the only solution of the problem lay in a change from a one-crop system to a system including live stock and diversified crops and he warned the business men present that no large sales to the farmer could be expected until the change had been accomplished. He concluded his remarks with the pointed statement that it was everybody's business to help the farmer get on his feet in Georgia.

Mr. Antrim, of the Jesup and Antrim Ice Cream Company, gave some idea of the demand for milk and milk products by stating that during the past year his company had purchased $40,000 worth of butter *to be reconverted into ice cream!* The cream, he declared, could not be secured in Georgia. To have it shipped in from the North or West would involve too heavy freight charges. So he reversed the usual procedure by buying butter and reconverting the butterfat for use in making his product. He stated that his company could consume a great deal more milk if Georgia farmers would only supply it in the quantity and quality demanded by his concern for the manufacture of ice cream and other products.

J. W. Firor, of the Georgia State College of Agriculture, pointed out the necessity of raising more forage and of always having a market for the surplus milk and cream. Experience in marketing poultry, he stated, had shown the vital necessity of "clearing" the surplus stock if the industry were to grow. And the same problem was faced by dairying. Wherever a surplus of milk or cream was produced, it acted as a heavy weight upon the expansion of the industry, and he urged upon those present the vital need of perfecting a marketing organization so that all of the surplus milk in each community would be used and the demand be continually increased.

While no definite action was taken at the conference, it is probable that a survey will be made by the Georgia Association of every county and community in the state to learn the number of responsible farmers in each community wishing to make the change to dairy and live stock farming. A careful study will be made of the financial ability of each of these farmers to make the change. Then, in each community, the ability of the bankers and merchants to extend the necessary credit to these farmers will be carefully surveyed; after which it is likely that steps will be taken, either through the extension of special credit or a special live stock financing organization, to provide the funds and the credit needed by these farmers to make the change.

At any rate, it is certain that the problem will be attacked in a businesslike way; that the firms directly concerned in the supplies needed by dairy farmers will co-operate to a large extent, and that the farmer who is reliable and who really wants to start in the live stock business will receive every possible aid in his venture, including credit for the goods he needs, advice from the county agent and state college of agriculture, and a ready market for the milk, cream, butter, poultry, and eggs that he produces.

"What would your mother say, little boy," demanded the passerby virtuously, "if she could hear you swear like that?"

"She'd be tickled to death if she could hear me," answered the bad little boy. "She's stone deaf."



Fifty-two old time fiddlers from four states ready for action in the elimination contest for corn belt championship at the Agricultural Conference at Purdue University, January 10—15, 1927. This was one of the most popular events during the conference week.

Genuine Cork Linoleum Rugs in NEW–DIFFERENT–PRETTIER *Patterns*



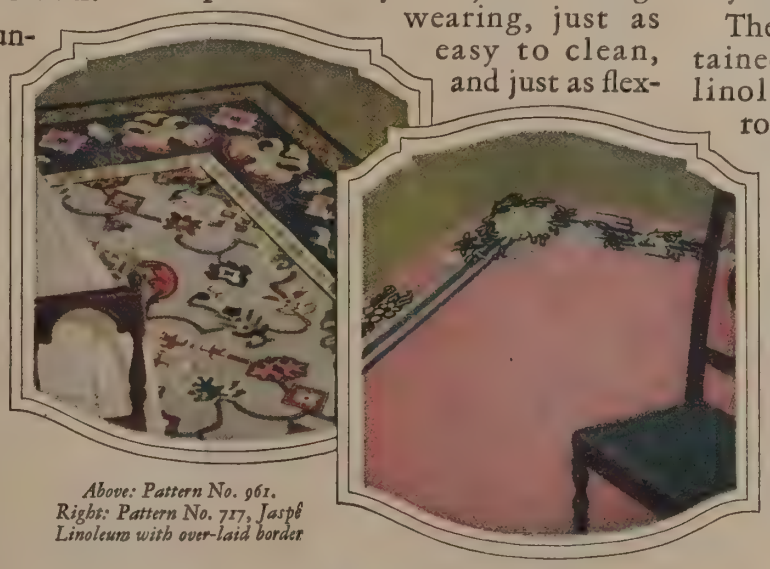
On the floor: Armstrong's Jaspé Linoleum Rug with over-laid border, No. 706

"I never dreamed a smooth-surface rug could be so beautiful"

NEW BEAUTY in Armstrong's Linoleum Rugs . . . a brand new idea in rug design, something entirely different from anything you have seen before. New colors, new patterns, prettier than anything you ever dreamed of having in a smooth-surface rug of real linoleum.

No words can picture the unusual beauty of these new Armstrong Rugs. Nothing less than your own personal inspection at a floor covering store will do them justice. Ask to see the genuine Jaspé rugs with the over-laid borders, the rugs with the two-toned field, and the rugs with the unit borders. Again Armstrong has achieved a new style and vogue in rug design!

Only the patterns have been changed. Armstrong's Linoleum Rugs are still made of genuine cork linoleum from the printed surface right through to the sturdy burlap back. They are just as long-wearing, just as easy to clean, and just as flexible and easy to handle as ever. They are just as inexpensive and economical to buy as they always have been.



Above: Pattern No. 961.
Right: Pattern No. 717, Jaspé Linoleum with over-laid border

These new rug patterns can be obtained only in Armstrong's genuine linoleum rugs. Designs for every room—in all sizes up to 12 ft. by 12 ft. and 12 ft. by 15 ft. Remember to ask for Armstrong's by name. Any furniture or rug merchant can get them for you if he does not have them in stock.

"RUGS OF PRACTICAL BEAUTY"

This attractive booklet, printed in colors, illustrates the new patterns. It is free. Write for it to the Armstrong Cork Company, Linoleum Division, 1012 Jackson St., Lancaster, Pa.

Armstrong's Linoleum Rugs

they wear and (A) *wear and wear*

Look for the CIRCLE A *trade mark on the burlap back*



If you ask *me*, P. A. is great tobacco!

I'VE DONE a lot of pipe-pioneering. There's hardly a brand or a blend that I haven't tried out at some time or other. As man to man, I want to say that there is just one tobacco that gives me the solid, deep-down enjoyment I demand of a pipe—*Prince Albert*.

When I opened my first tidy red tin and got a full breath of that rich, mellow P. A. aroma, I said to myself: "Old Son, this is *tobacco!*" The first pipe-load proved the aroma was no false prophet. I'll never forget that day. It has meant a lot to me.

I stick by Prince Albert because Prince Albert sticks by me. Its fine, full-bodied flavor is a genuine joy. I smoke it from morning to midnight and enjoy every fire-up. There's no more bite or parch in P. A. than you'd find in a honey-dew melon, and it's just as sweet.

The one regret I have about P. A. is that I didn't discover it sooner. I'm telling this to you now so that you may profit by my experience. You may think you are perfectly satisfied with your present brand. So did *I* . . . until I tried Prince Albert!

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



PRINCE ALBERT

—no other tobacco is like it!

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.



Another reason why over 60,000 Dealers carry Hood Rubber Products



The Red Tread across the sole

—identifies this longer-wearing, lower-priced boot!

Second in quality only to the Hood Red Boot—this Red Tread Boot will give the extra wear previously had from none but higher-priced boots.

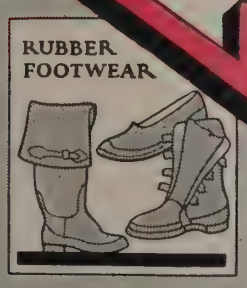
Full double sole and quality uppers welded into one piece by the patented HOOD pressure process—a remarkable dollar for dollar value. The mark HOOD indicates the best buys in rubber footwear for all the family. In heavy footwear these marks are: YELLOW LABEL, means highest quality; GREY LABEL, means extra wear for the money.

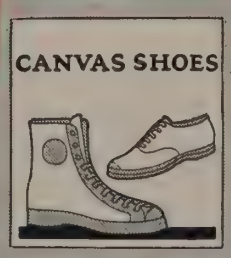
At Your Dealers

Made by Hood Rubber Company, Watertown, Mass.
Distributed by Hood Rubber Products Co., Inc.
Through Branches in all Principal Cities

Look for the Hood Arrow

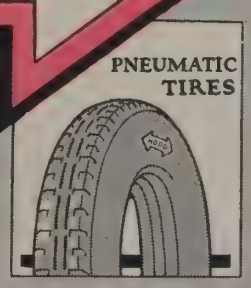
HOOD











QUALITY ◆ ALWAYS ◆ MAINTAINED



The dependable Radiola 20
enriches every side of farm life

There's the business of farming—the interest of learning—the joy of living! And in it all, Radiola 20 takes a central place around which the days revolve.

When the weather reports are being broadcast, a single turn of a finger brings them in clearly. Whenever there's produce to sell, there's news of its market price, just for the tuning in. You can count on a Radiola 20, without tinkering or fussing or servicing. It is one of the products of a quarter century of radio pioneering; and throughout a considerable period of trial, testing and perfecting, it has proved it will stand up, and give steady, dependable performance.

It has a special "amplification" that gives it the distance reach of much bigger sets. And it is twenty times as selective as the ordinary radio set!

It has a power tube, too, that means you can turn up the volume, without losing the clear, undistorted tone. Mother can listen to the home talks, while she works across the room. In the evening, the lectures from the colleges are loud enough for the whole family to listen to. And a world of fine music comes in vividly and clearly, giving life new pleasure.



Radiola 20, with Radiotrons, . . . $115
RCA Loudspeaker 100, ... $35

It is in music that tone quality counts most. Tune in dance music or finest symphony concert, and Radiola 20 challenges even high priced competitors to any test of tone! It is a moderate-priced set, but it has proved that quality of performance is not a matter of price, but of design and manufacturing skill. Not only RCA, but its associates, General Electric and Westinghouse, have contributed to making this Radiola so remarkably fine that, when you hear it, you will be satisfied with nothing less in radio!

Buy with confidence Authorized Dealer *where you see this sign.*

RADIO CORPORATION OF AMERICA

RCA Radiola

MADE · BY · THE · MAKERS · OF · THE · RADIOTRON

NEW YORK · CHICAGO
SAN FRANCISCO

MILK STOOL PHILOSOPHY

J. J. SPRENGER, MINNESOTA

'HERE have been about as many reasons given for the reverses which came to the farmer and y others during the last four or years as there are people speak- about them; yet very little prog- has been made toward an ac- able solution, largely because we rying to explain economic forces changes in a political way with usual result. When we study omics we need a lot of light and eat, but when we study politics always get a lot of heat and no at all. Whether we understand or not, economic forces work on, slow but sure.

vo important truths have been looked. First, if this nation is to re, there must be a flow of tem- g blood and brain from the try to the cities or they will be- unfit places in which to live, be- humans were not intended to massed together in congested ps. But this movement comes in nse to an economic pressure h is in itself unrelated to the e results. As labor saving ma- s make our work more effective are always less people needed e the machines are used and more where they are made.

bout a dozen years ago the in- l combustion engine became ical. It saved much labor, but what is more, it made it possible for gasoline to displace the use of millions of bushels of feed grains like corn, oats, and the many other feeds. Naturally there should have been a flow in response to this extraordinary change, but the need of food for the war retarded it. When it did come it came in the form of an upheaval rather than in the normal way. It is not easy to accomplish as marked a change as had become necessary because there is always an insistent human craving to remain on the soil. Although it seems easy to take boys out of the country, it still remains a fact that after they are out they never have the country taken out of them.

The second truth easily overlooked is that even if legislative relief could be made fully ample and so that it would really reach the farm in an added price for our products, it could not long come any nearer to giving us the cost of production. Every added prosperity coming to us is always reflected in a corresponding increase in land values, thereby keeping production costs on the same level as before. This may help the man who has land to sell, and some of these may be accused justly with insincerity in urging relief for farmers when they are primarily interested in selling land at a better price.

dvertising With a Milk Bottle Sign

ARD'S DAIRYMAN:—As we were ng into Yuba City, California, ong ago, we were attracted by a electrically lighted milk bottle near a roadside market place. dairymen the country over are ning to see the value of advertis- s a means of increasing the use iry products, we stopped to ask Jeanette Donally who was dis- ng the milk at the Rosebud stand had noticed any growth in sales the sign had been put up. She is that far more tourists ask for now than did before.

e sign was erected by the Marys- Yuba Dairy without charge, on tion that the proprietors of the ud stand would keep it lighted they closed each evening. Mrs. ly said it is a very satisfactory arrangement because the profits from the extra sales much more than pay for the electricity used.

We stopped at the Marysville Yuba Dairy to talk with the manager, Mr. S. E. Watson. He designed and perfected the sign but he did not patent it so anyone may make one who cares to do so. He said he found this sign to be one of the most effective methods of advertising. He had not yet made a check on the increased business that had been brought about by the lighted milk bottles, but he was confident it was a good investment. The signs are now attached directly to the main lighting system of a stand or store because Mr. Watson has found that some people forget to light them if they are attached to a separate switch. About thirty signs have been erected in the two small cities of Marysville and Yuba City so a rather high percentage of the inhabitants see one or more of them every day and it would be safe to say that nearly all of the tourists who go through these two towns have milk brought to their attention because of them.

Wisconsin. G. A. PETERSON.



attractive sign outside the Rosebud at Yuba City, California, invites ourists and townspeople to buy more

Alfalfa Hay Vs. Alfalfa Meal

The Institute of Animal Nutrition at Pennsylvania State College conducted some experiments to determine the comparative net energy values of alfalfa hay and alfalfa meal.

It was found that the net energy value of alfalfa hay of excellent quality when coarsely cut in a silage cutter is essentially the same as when finely ground into meal.

The net energy of any feed is defined by Henry & Morrison as the amount of energy left after deducting from the available energy the losses of energy in mastication, digestion, and assimilation of the feed.

The net energy of a feed is that used to maintain the body, not including requirements of digestion, following which if there be a surplus it may be used for growth, fat, milk, or wool or in performance of external work.

NATIONAL FRESH WATER SYSTEM



Nothing to freeze

PUT the National Fresh Water System wherever most convenient — in *unheated* garage, barn, milk house, basement — anywhere! Think of that!

"Will it freeze?" No! Because air *only* is stored in the tank and every water pipe is laid below the frost line.

"Must it be near the well? Must I build a separate power house?" No! Because the National can be placed 10 feet or 10 miles from the water supply.

New National Power Unit as Perfect as Our "OK" Pump

For several years our engineers have been developing a new type power plant. The result is a unit with a patented Sleeve-Valve compressor. Everyone acclaims it as great an advance as the "OK" National Pump, now over 400,000,000 gallons beyond experiment. First, it entirely does away with the troublesome check valve, making air leakage impossible. Second, makes the usual unloading valve for starting unnecessary. Third, assures easier, quiet running, giving you more water at less power consumption. Now, when you install a National Fresh Water System, you get:

1. New dependability from pump and power unit.
2. Fresh water, instantly, direct from the well to every faucet.
3. Also soft water from cistern, lake or stream, pumped by the one power unit.
4. Protection against freezing. No water storage tank or exposed pipes to freeze; no fouling of water in Summer.
5. Installation convenience. Put power unit in unheated garage, shed, basement or barn—anywhere within ten feet or ten miles from water supply.
6. Any lift up to 150 feet.
7. Choice of motor-driven or engine-driven power unit. Capacities, 200 to 2,000 gallons per hour.

"OK" National Single Cylinder deep well pump. Submerged in water inside of well casing (fits 4, 5, and 6-inch casings). Also supplied for shallow submergence in open water. Lifts water 150 feet with strong faucet pressure. No pump head above well; no clanking pump rods.



Write for free copy of interesting 32-page book, "FRESH WATER" —a real aid to anyone planning on a water system for farm, suburban home or public buildings.

NATIONAL UTILITIES CORPORATION
814 BELLEVIEW PLACE MILWAUKEE, WIS.

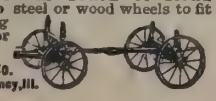
Subsidiary of National Brake & Electric Company, Division of Westinghouse Air Brake Company.



National FRESH WATER SYSTEM FOR FARM & SUBURBAN HOMES



Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear Send for it today.



Electric Wheel Co.
31 Elm St., Quincy, Ill.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

Cash always ready for your produce



THERE is an enormous daily market for you if you know how to reach it. It is an assured outlet for all the dairy produce you can supply. And it means a steady income in cash from each day's sale.

Armour and Company, through its many branches, keeps close contact with world markets. Therefore it can buy your produce at all seasons and always find a market for you.

Armour and Company pays you cash on delivery! Because of its great organization it is able to find outlets not only throughout the United States, but also in foreign countries. This means an uninterrupted demand—*and an uninterrupted income for you all through the year!*

ARMOUR AND COMPANY
Chicago

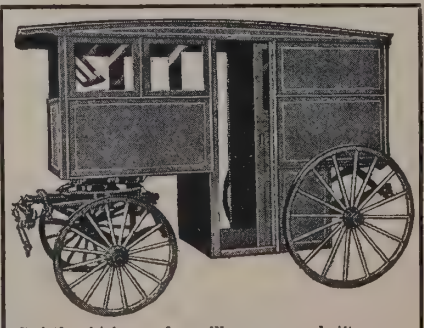
Now's the Time

A Vest Pocket HERD BOOK

is worth money to you. Have the story of your herd with you at sales and meetings.

PRICE $2.00

HOARD'S DAIRYMAN
FORT ATKINSON WISCONSIN



Strictly high grade milk wagons, built upon honor and fully guaranteed. Ask for free catalog showing styles for every requirement. Suitable terms and liberal cash discounts. Pioneers in milk wagon building with sanitary bottled milk equipment.

DEKALB WAGON COMPANY
P. O, Box E DEKALB, ILL.

Sell Your Surplus Cows, Poultry and Other Live Stock with an Ad on Our Special Opportunities Page

DAIRY MARKET NEWS

January Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers for 3.5% milk delivered at factories during January is based on reports made by condensed milk and evaporated milk firms.

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.40	$2.40
Middle Atlantic*	13	2.37—2.80	2.60
E. No. Central	81	1.95—2.59	2.28
W. No. Central	6	1.97—2.30	2.17
North Western	7	1.58—2.10	2.01
South Western	10	1.85—2.20	2.09
United States	118	1.58—2.80	2.28

*Fifty-three additional factories reported prices to be based in part on the current month's wholesale butter quotations. Twenty-seven factories reported prices not determined, and 20 reported plants closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for December:

	Range	Ave.
Condensed, per case	$5.60— 6.55	$ 6.02
Condensed, per cwt.	9.28—13.00	10.26
Evaporated, per case	3.80— 5.05	4.35
Evaporated, per cwt.	7.42— 9.80	8.75
Condensed skim, per cwt.	4.25— 7.00	5.99
Evaporated skim, per cwt.	2.75— 4.44	3.55

January Cheese

Cheese prices on Wisconsin Boards advanced one cent during January, and are now one cent above prices prevailing a year ago. A small decline was registered during the latter part of the month and the first ten days in February. The average for January on Single Daisies was 25.5 cents as compared with 24.3 cents a year ago, and 24.8 cents in December.

Cheese production for 1926 was 417,728,000 lbs., a decrease of 5.8 per cent from 1925. Net imports were 74,518,000 lbs., an increase of 21,305,000 lbs. over the previous year. The total storage at the end of the year was 71,920,000 lbs., or 4,729,000 lbs. less than a year ago. This indicates a trade output of 496,975,000 lbs., an increase in consumption of two per cent over 1925.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during January:

	Jan. 1927	Dec. 1926	Jan. 1926
	Cts.	Cts.	Cts.
Twins	24.7	24.5	23.5
Single Daisies	25.5	24.8	24.3
Longhorns	26.5	25.7	24.6
Square Prints	26.6	26.5	25.4
*Receipts, since Jan. 1	11,990	195,358	14,450
*Receipts for month	11,990	15,126	14,450
*Storage (end of mo.)	13,929	16,598	21,103

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted).

December Dry Milk

(From Report by U. S. Dept. of Agr.)

The wholesale prices given below are based on reports from manufacturers governing actual sales F. O. B. factory during December:

Dry Skimmilk: Prices ranged from 7.5 cents to 13 cents for dry skimmilk in bulk, averaging 9.8 cents a pound for sales, totaling 6,081,648 lbs. When packed in one-pound cans the price reported was 29.2 cents a pound.

Dry Whole Milk: Prices ranged from 20 cents to 29.5 cents for dry whole milk, averaging 26.7 cents for sales totaling 519,989 When packed in one-pound cans the price ported was 44.8 cents a pound.

Dry Buttermilk: Prices ranged from 6 c to 10.5 cents for dry buttermilk in bulk, av aging 8.9 cents a pound for sales total 1,335,556 lbs. When packed in one-pound c the price reported was 10.8 cents a poun

January Foreign Butter

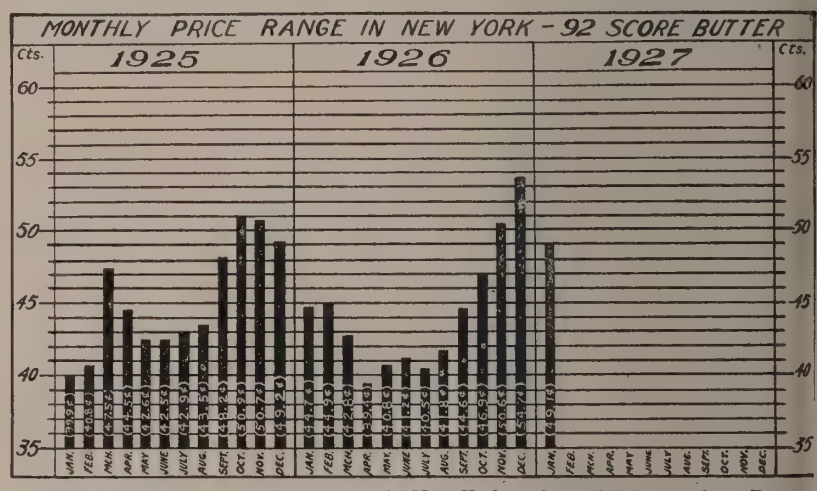
The following table of January fore butter prices gives the average of wee quotations as published by the U. S. Dep ment of Agriculture:

Market	Jan. 1927	Dec. 1926	J
	cents	cents	ce
New York	49.1	54.7	
Copenhagen	36.1	37.1	
Berlin	37.1	39.3	
London:			
Danish	38.9	40.2	
New Zealand	36.4	36.8	
Australian	36.8	36.2	
Argentine	34.4	32.2	

Wisconsin December Butt

Wisconsin co-operative creameries paid ducers a net price of 58.1 cents a pound butterfat in December according to rep from 96 of these creameries to the Wisco Departments of Markets. These creameries ceived an average of 51.4 cents a pound butter, making a spread of 6.7 cents betw the price received for butter and the p paid for fat.

The range of prices paid for fat was f 52.1 to 64 cents, with the price received



Butter in January averaged 49.1 cents in New York, a drop of 5.6 cents from December. However, it is 4.4 cents above January of last year and 9.2 cents above January of 1925.

January Butter

December butter broke sharply at the of the month, followed by a sharp reco in the fore part of January. This reco was of short duration and declines were istered until nearly the close of the m Prices advanced again and on Februar the New York price was 51 cents, or five above the lowest point in January. The ket appears nervous, with firmness regis one day and nervousness the next. The erage price of New York butter was 49.1 approximately five cents under December 4.5 cents over January of last year.

The statistical position of butter is goo both production and surplus are less th year ago. Receipts at the four markets lighter and withdrawals from storage larger than last year, indicating a lower able supply at these markets of 15 m pounds on February 10. The one factor ing down prices is the fear that consu will not take butter at the higher prices

The total production of creamery butte 1926 was 1,345,389,000 lbs., which is 16 lion pounds less than 1925. Farm butter duction is estimated at 580 million pound ten million pounds less than the pre year, making the total production near

Wisconsin January Condensery Prices

Forty-six condenseries reported to the consin Department of Markets the prices in January per hundred pounds milk d ered at their factories. Reduced to a com 3.5 per cent test basis, these prices ra from $2.06 to $2.96, the average being $2.

Sixteen factories sent delayed reports December, the average being $2.31. Thi ten cents above the previously reported age of $2.21 for 50 factories.

er cent less than in 1925. Net imports were ,546,000 lbs. and the decrease in storage mounted to 18,430,000 lbs. This indicates a otal consumption of 1,946,365 lbs. butter, a ecrease of 20 million pounds (one per cent) nder 1925.

Daily quotations from the U. S. Department f Agriculture show the following average holesale prices on 92-score butter (extras) t four of the principal markets, together with eceipts and storages:

	Jan. 1927	Dec. 1926	Jan. 1926
	cents	cents	cents
hicago	48.1	52.5	43.0
ew York	49.1	54.7	44.7
oston	49.5	53.7	45.2
hiladelphia	49.7	55.7	45.4
Receipts for month	36,687	35,141	40,626
Receipts since Jan. 1	36,687	558,334	40,626
Storage (end of month)	10,208	19,620	19,753

*In thousands of pounds at the four markets i. e.—000 omitted), ninety score butter averged 46.8 cents for January in Chicago, with entralized butter at this market selling for 7.4 cents. Jobbers prices on extras sold to etailers averaged 50.6 cents in Chicago, a pread of 2.5 cents above wholesale.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage oldings of dairy products on February 1, figres being given in thousands of pounds (000 mitted):

	Feb. 1 5-yr. av.	Feb. 1 1926	Feb. 1 1927
	lbs.	lbs.	lbs.
utter, creamery	30,309	39,381	17,967
heese, American	36,084	50,339	46,078
heese, Swiss	6,942	8,856	8,131
heese, Brick	1,557	2,126	1,631
heese, Limburger	880	1,293	1,477
heese, All other	5,227	4,917	4,869

These holdings include stocks in both cold orage warehouses and packing house plants.

Philadelphia Milk Prices

The Inter-state Milk Producers' Association nnounces that the February basic price for ilk will be $3.29 F. O. B. Philadelphia and 2.71 per hundred at receiving stations in 51—0-mile zone.

The January surplus prices were $2.55 first rplus and $2.15 second surplus F. O. B. hiladelphia. The January surplus prices at ll receiving stations on railroad were $1.97 rst surplus and $1.57 second surplus.

These prices are based on milk testing 3 er cent butterfat with a differential of 2 nts for each half point of test up and down.

Connecticut February Milk

The Connecticut Milk Producers' Associaon announces the following prices for Grade milk delivered during February at market ilk centers:

All milk sold in the fluid form, 9.5 cents per uart for 4 per cent milk, and 4 cents per oint allowed for other tests; all milk made nto cream that is sold in fluid form, 10 cents er pound fat above the average monthly rice of 92-score butter on the Boston market: l milk made into butter, at a price per ound fat equal to the month's average on 92-ore butter in Boston.

Milwaukee January Milk

The Milwaukee Co-operative Milk Producers nnounce the following prices for the month January:

For the portion sold as fluid milk, $2.90 per wt.; and for the portion manufactured, $2.09 er cwt. These prices apply to 3.5 per cent ilk delivered f. o. b. city, four cents being dded or substracted for each one-tenth of one er cent variation in test. Seventy-one per nt of the total receipts were sold as fluid.

Sheffield January Price

The cash price for January, 1927, paid heffield producers, New York, for three per nt, Grade B milk in the 201—210-mile zone $2.64 per hundred pounds, with the usual eight and butterfat differentials. This is quivalent to $2.84 for 3.5 milk.

Makes Good Record

Edna Segis Walker, an 8-year-old aughter of Matador Segis Walker, ecently completed a year record of 3,341.5 lbs. milk containing 875.15 s. fat (1,093.94 lbs. butter), in the arns of the Carnation Milk Farms.

She is one of the older daughters this sire, born before he was purased by Carnation Farms. Nineen of these older daughters have ade records which average just short of the thousand-pound mark with five of the records made by two- and three-year-old heifers.

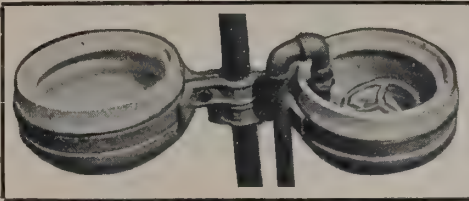
Wisconsin Sells 72,770 Dairy Cattle

A recent statement from the Wisconsin College of Agriculture shows that the farmers of that state have sold 72,770 head of cattle, exclusive of those for slaughter, to out of state buyers in 1926. This is the largest number ever sold from the state in a single year. The sale figures for 1925 were 58,446 head.

A Correction

In our January 25 issue, Annis of Walhalla, a Brown Swiss cow, was credited as a world's record holder for all ages in the 305-day division. Our attention is called to the fact that this honor belongs to Silver Bell, a mature cow owned by the Iowa Brown Swiss Co. She produced 17,692.9 lbs. milk, 772.98 lbs. butterfat in ten months.

All I have seen teaches me to trust the Creator for all I have not seen.—Emerson.



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NOW!—for the first time, the farmers of America have a chance—*if they act quick!*—to see and USE, on 30 days' free trial, the New Low Model Belgian Melotte Cream Separator.

AT LAST!—a shipment of 2,000 of these new models has arrived—and if you write us at once, before this supply is quickly exhausted, you will have an opportunity to get a New Model Melotte for 30 days' free trial. But don't delay!

The World's Leading Separator has taken a NEW Leap Forward! In ADDITION to the unsurpassed and unsurpassable Cream-separating efficiency and durability for which the Melotte has been world famous for 38 years, you NOW have, in the New Melotte, a greater convenience, a greater ease of operation and a more complete, all-around satisfaction that was ever known before. There is a new, swinging steel supply tank, waist high for your convenience. It is lined with white bath-tub enamel. Easy to handle. Easy to drain. Easy to wash. Sanitary! See the many OTHER refinements and improvements which have started the whole dairy industry of Europe talking!

Of course, the Melotte's wonderful Self-Balancing Bowl is NOT changed. A Bowl that NEVER gets out of balance—a Bowl that has NEVER had to be rebalanced—NEEDS NO CHANGE! YOU CANNOT IMPROVE PERFECTION!

Write for Special Low Introductory Price Offered NOW! Act Quick!

We KNOW that the New Melotte is going to be the talk of the dairy farmers of America—just as it now is in Europe—so, we are now making, for a short time only, a special low introductory price, to get this new model in the hands of American farmers right away. The price on later shipments may be considerably higher. Save money by acting NOW!

OUR CLAIM Which we Stand Ready to Prove

We claim that year in and year out, over a period of ten—twenty—thirty or more years, the Melotte will put the most cream in your cream can. The most cream because with its suspended, single-Bearing self-balancing bowl, the MELOTTE skims perfectly during its entire lifetime and never wastes any cream. The most cream with less expense, because the hand balanced separators wear themselves out of balance and waste cream before each rebalancing. There are no Melotte rebalancing bills, as it never, never gets out of balance.

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Write for the new Melotte literature today and find out how you may have the new model 77 Melotte on the same terms as the old Melotte. Don't pay for 4 months. Or, if you choose, pay only $7.50 down after 30 days' free trial and then $7.50 per month.

Take this Melotte and set it up on your own farm. That's the right place to select a cream separator. Use it there just as if it were your own. Give it any test. After you have skimmed sixty times you will know it gets all the cream. You will know how handy it is. You will know how easy it turns. Your wife will know simple it is to wash. You will know the reason why we haven't been able to get any of these new Melottes until now.

Write for Full Details!

of this Great New Separator

Get the facts yourself. That's the first thing to do. Then you can decide. Don't be rushed into buying a separator from anybody until you have found out all about the new Melotte, until you have tried it right on your own farm. Remember, you get a whole year to pay for it. When you have a new Melotte, you are through buying separators forever; for the new Melotte lasts a lifetime and stays in perfect balance every minute. Even if you won't need a separator for several months, let us tell you about the New Low Model 77 self-balancing bowl Melotte.

The Melotte Separator
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2445 Prince St., Berkeley, Cal.

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Please send me at once full details about the new low model 77 Melotte Cream Separator and your "Don't Pay for 4 Months." Offer and Special Low Introductory Price to first buyers.

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How many cows do you milk?.....

Milking Machine Yes, we have a milker which is bound to interest you—Melotte quality—reasonably priced—terms. Check here if interested . . . . . ☐



The Hygiene of Sleep

A large audience of women of every kind and calling went home from the first session of Farmers' and Homemakers' Week at Madison, Wisconsin, all set to take the sleeping of their respective families more firmly in hand.

Mrs. Nellie Kedzie Jones, known all over the—well, where is she not known in this field?—was put on the program to talk on this often uninteresting subject. Most people would rather hear about clothes or food or anything else, but this audience knew its speaker so they sat right forward to hear about sleep and, true to form, Mrs. Jones gave them something to smile about, something to think about, and something to do—all in the inimitable way she has that makes people remember what she says.

We all came away thinking about sleep and while it is fresh in my mind I want to remind you of some of the things that probably you know, but forget in the rush of the work to put into practice.

We don't know as many facts about sleep as we do about food, exercise, and some of the other things that help us to live long and do it successfully but we do know that man will die more quickly from lack of sleep than he will from lack of either food or water and it is reasonable to suppose that the results of going with an insufficient amount of sleep are just as serious as are those of going with too little food.

"What do you mean by vitality?" Mrs. Jones asked a well known physician.

"Vitality," he replied, "is the thing that keeps one man alive when another, without it, would have died under the same circumstances—and sleep is one of the best known means of producing vitality."

"Oh, but I just can't sleep. I never could and my mother was a poor sleeper before me!" How many times we have all heard that cry and how many times we have wondered if that person is doing anything to remedy the situation or if she (or he) is just sitting back, accepting the inheritance. Of course, we all know that most poor sleepers sleep a great deal more than they think they do. If they didn't they wouldn't be alive. Sleep habits are much more easily learned in childhood but older persons can acquire them if they set their minds to it. A high-strung person I know was told by his doctor that he was to take a nap every noon right after eating. I expected to hear him reply that he simply couldn't sleep in the daytime and there was no use trying. But this man valued his health enough to make the effort and in a short time he was able to go to sleep within a few minutes of lying down.

Sleep is truly "Nature's sweet restorer" for older people and for children, one of the very foundations of their health. How many of our high-pitched, hair-trigger friends would be as they are if they had been taught to sleep properly when they were little.

"I don't understand why people don't put their children to bed when they should," ventured one woman to Mrs. Jones.

"It's nothing but lack of backbone," was the reply. "I went into a home in the evening not long since where the children, querulous little things, were lopping around on chairs, floor, or any place except where they ought to have been. I suppose I looked surprised for the mother said, 'Oh, they just won't go until we do.' An open confession that it was the children, not the parents, who were running things.

"In other homes the first opposition is met firmly and presently sleep habits are so deeply rooted that it never occurs to the child to resist. That means power, strength, and health all their days."

The hours before midnight are the best for sleep and the young girl who wants to be beautiful and remain so will remember that the doctors say this is the time for real beauty sleep.

The old saying about "seven hours sleep for a man, eight for a woman, and nine for a fool" is no more than the saying of a person who wanted to make a glib remark. Find out how much sleep you personally thrive best on and then get it. If you discover that you need nine hours, don't let anyone keep you from getting it, for you will be worth all the more when you are awake.

If it is really true that such men as Napoleon and Edison required only four or five hours sleep out of the 24—personally, I have always crossed my fingers when I heard that said—then they are as exceptional in that respect as they are in their achievements and no more capable of being copied.

If you are one of those persons who has not been taught to sleep, you can still remedy much of the difficulty by putting yourself in the best possible health and then be willing to sleep go to bed expecting to do so. You remember the old story about the woman who had been reading about the faith that would remove mountains; how she prayed for the removal of a certain mountain and then rose from her knees saying, "There it is just as I knew it would be." So don't say, "No, I didn't sleep; I knew I wasn't going to." Expecting to goes a long way.

Then a little something in the stomach helps. No hungry person sleeps well and even if you are not hungry it often brings on drowsiness to drink a cup of warm milk or eat a bit of something light just before retiring.

Then, of course, the advantage of having a good bed is obvious, as Miss Wealthy Hale pointed out following Mrs. Jones' talk. It's nice to have a handsome bedstead but never get one at the sacrifice of good springs and mattress. These things last a long time and even a well person spends a good deal of time in bed, so why not be comfortable.

A hair mattress is fine but most of us cannot afford such a luxury and besides there are many good cotton mattresses on the market, much cheaper, that will give us good comfortable service for 20 years, with proper care. Box springs are the most expensive and, unless made to suit the individual user, are not always the most comfortable. Coiled springs are extremely satisfactory and even the cheaper slat spring will give excellent service.

Light-weight covering has always been a hobby of mine. It is, unfortunately, a little more expensive, but so worth while for children, or delicate people, or those whose sleeping has to be coddled a little. Wool bat comforters have about half the weight and twice the warmth of the same size cotton comforter and if you cannot afford them for all your beds, it is worth while to have one, at least, for special occasions.—LUCY THOMPSON.



This is the bedroom of Amanda Hass of Indiana, which won first place in the Vanderburg County Bedroom Improvement Contest. The first score on this room in its original condition was 48½% and the final score when the contest closed was 98%, or almost perfect; making an improvement of 49½% at a total cost of only $28.19 and lots of good, hard work. Miss Hass scrubbed the floor with lye in order to remove all of the old paint and then refinished the floors, woodwork, and furniture and papered the walls, doing most of the work herself.

Those Delicious Mints

"Your mints are perfectly delicious" (they were store mints), said a young society matron to her hostess after the refreshments had been served at a bridge party.

"You know," the young hostess laughed in reply, "I tried once to make some and they did look lovely but when I went to get them after they had cooled they were just one solid, straight mass."

"Did you ever try making them with a mashed potato?" asked another.

No one had and all about the two bridge tables wanted to know how

(Continued on next page)

Miscellaneous Fashions



No. 2966—Two-Tone Frock. The patter cuts in sizes 18 years, 36, 38, 40, 42, 44, an 46 inches bust measure. Size 36 requires 2⅝ yards of 40-inch dark material with 1⅛ yard of 40-inch light material.

No. 2969—One-Piece Dress. The patter cuts in sizes 16, 18 years, 36, 38, 40, 42, an 44 inches bust measure. Size 36 requires yards of 36-inch material with 1½ yards o 32-inch contrasting.

No. 2974—One-Piece Dress. The patter cuts in sizes 16, 18 years, 36, 38, 40, 42, 4 and 46 inches bust measure. Size 36 require 2⅞ yards of 40-inch material with ⅝ yar of 54-inch contrasting.

No. 2312—Attractive Apron. The patter cuts in sizes 36, 40, 44, and 48 inches bus measure. Size 36 requires 2⅝ yards of 3 inch material.

No. 2939—Exceedingly Smart. The patter cuts in sizes 16, 18 years, 36, 38, 40, 42, an 44 inches bust measure. Size 36 requires 3 yards of 40-inch material.

No. 2644—Junior Frock. The pattern cut in sizes 8, 10, 12, and 14 years. Size 8 re quires 1⅝ yards of 40-inch material with ⅜ yard of 36-inch contrasting.

No. 2010—Boys' Blouse. The pattern cut in sizes 4, 6, 8, 10, and 12 years. Size 8 re quires 1¾ yards of 36-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coi carefully) for each pattern ordered. Sen your order to Fashion Department, Hoard' Dairyman, Fort Atkinson, Wis. Every pat tern is seam-allowing and guaranteed to fi perfectly. Do not fail to state size.

Our patterns are made especially for us b the leading fashion designers of New Yor City. No stock of patterns is carried in ou office and, since all orders are forwarded t the factory, kindly allow a reasonable tim for delivery of any pattern you order.

Look up your December 10 issue an see the color page advertisement o the beautiful articles to be embroid ered. We are sure you will be please with them. Let us have your orde



FREE

Your copy of "How to Have Running Water" is waiting for you! May we send it? There is no charge or obligation, and it contains many useful water supply suggestions.

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Foremost in banishing housework drudgery, running water under pressure becomes indispensable once the family knows its convenience. There is a Hoosier Water Service for every farm and home need, offering city water convenience and protection against fire, at less than city water cost. The Hoosier uses any kind of power and pumps from deep or shallow wells, or from any other source of supply. Protected inside and out by the Galvazink Coating it will give long years of satisfaction.

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Style is not a matter of money. The woman who spends the most money on dress is not necessarily the best dressed. Very often her neighbor, with much less money to spend, will look more smartly clothed. It's largely a matter of taste.

In our Spring Fashion Magazine, we present a wide range of styles that are new, smart, and in good taste. For each one a pattern is offered and the designing is so clever that the styles are easily made.

In addition to afternoon and evening frocks, there are styles for wear around the house, also lingerie, children's clothes, embroidery, and some picture dressmaking lessons that are of interest to anyone who sews and of real help to the beginner.

Send 10 cents today for your copy of this book. Its style value is much greater than the price you pay and will be saved many times over on patterns. Address Fashion Dept., Hoard's Dairyman, Fort Atkinson, Wis.

it was done and exclaimed over the easiness and quaintness of it.

The young lady went on to explain that one was always sure of their mints when made in this manner: Take one fair or medium sized potato and mash it well. Add gradually pulverized or confectioner's sugar. As the potato is hot it will melt the sugar and about a pound can be beaten into one small potato. It wants to be of a consistency to be easily handled. When there has been all the sugar added that the potato will absorb, divide into as many portions as you wish flavors. If one wants only peppermint and wintergreen creams divide into two portions. Add the peppermint flavoring, a little at a time, and work in well, tasting often to be sure you have the desired amount. Then shape in little round patties by taking a small ball of the confection between thumb and forefinger of left hand and turn with the thumb and forefinger of right hand until you have a satisfactorily shaped cream. Beside the flavoring add a little red coloring to the wintergreen creams until the beautiful pink color has been obtained.

Other flavors that may be added to this uncooked fondant are maple, almond, orange, and vanilla. If the maple flavored fondant is wrapped around a raisin and a walnut meat placed on top it makes a delicious looking as well as tasting confection. The almond fondant worked around a marachino cherry and dipped in chocolate is a candy that will just melt in one's mouth. Orange, too, is very appetizing dipped in chocolate, while if cocoanut is added to the vanilla and shaped in bars it will delight the sweet tooth of any child or grown-up.

One will find that the flavoring extracts will soften the mass of fondant somewhat so a trifle more sugar may need to be added before the creams will be hard enough to shape. For the cocoanut ones a bit more mashed potato will need to be added in order to allow the cocoanut to be worked in nicely.

For the price of a pound of sugar and a tiny bit of flavoring, nut meats, coloring, and perhaps chocolate, one can make beautiful candy that would cost at least sixty cents a pound at almost any confectioner's shop.

By the way, the almond flavored candies are beautiful colored a delicate green.

At a bazaar held by one of our churches these candies found a ready sale and the only complaint found was, there weren't enough of them.

"Well, I declare," said all the young ladies after they had asked every question they could think of and had had a satisfactory answer in return. More than one remarked that she was so glad to learn of such a simple method of making fondant, as the cooked fondant was usually so risky to try to make unless one had candy theremometers and everything just right to do with.—ELLEN A. ELLIOT.

Four Ways of Serving American Cheese

American Cheese Pudding: ½ cup tapioca, 2 eggs, 1 cup water, 1 tablespoon butter, 1 cup milk, ¾ teaspoonful salt, 4 tablespoons grated cheese. Soak tapioca over night; cook 30 minutes in double boiler, then bake brown 30 minutes. 1 cup bread crumbs or 1 cup canned corn may be substituted for tapioca.

American Cheese Loaf: 1 cup cooked rice, 1 cup mashed potatoes, 1 tablespoon minced onion, ⅓ cup grated cheese, 2 teaspoons salt, 1 cup peas, ¼ cup canned tomatoes. Combine ingredients and shape the mixture into a loaf. Bake in a slow oven 30 minutes. Serve with tomato or horseradish.

American Cheese and Baked Cereal: 2 cups cooked cereal, 1 cup grated cheese, 1 tablespoon butter, 3 tablespoons corn meal. Put in greased dish and bake 30 minutes. Corn meal may be sprinkled on top. Corn or potatoes may be used instead of cereal.

American Cheese Soup: 2 tablespoons butter, 2 tablespoons flour, 4 cups milk, ½ teaspoon salt, ¾ cup grated cheese. Cook 3—4 minutes.

Since cheese is a soft and a highly concentrated food it is advisable to combine it in a meal with crisp foods as toasted bread or crackers or with fruits and vegetables.—MAYBELLE FRUIT.

Use of Rice in Soup

Rice as a thickening for highly flavored vegetables and with meat stock are general suggestions made by the Bureau of Home Economics for the use of rice in soups. Following are recipes tested by the bureau which may be varied in making other combinations:

Rice added to any kind of meat stock with a little parsley, bay leaf, or thyme, or a pinch of celery seed for seasoning makes a palatable as well as a nourishing soup. Also, rice makes excellent thickening for soups made of highly flavored vegetables, such as tomatoes, asparagus, celery, or onions.

Cream of celery or asparagus with rice is made with the following ingredients: One-half pound celery or asparagus, one-fourth cup rice, one quart cold water, two tablespoons butter, drippings or other fat, one tablespoon chopped parsley or one teaspoon onion juice, two teaspoons salt, one-fourth teaspoon pepper and one quart milk.

Cut the celery or aspargus in half-inch pieces. Cook the rice and celery or asparagus in the water until both are tender. Press them through a colander and add the fat, the seasoning, and the milk and reheat. This will make five or six average servings.

Rice and chicken soup require the following ingredients: One-half cup uncooked rice, three cups chicken broth, three cups water or milk, one-half cup minced chicken, two tablespoons chicken fat, butter, or other fat, one-fourth teaspoon celery seed, one-half teaspoon salt, one-eighth teaspoon pepper.

Cook the rice in the broth and the water or milk until tender. Add the minced chicken, the fat, and the seasoning. The minced chicken may be omitted if desired. This will make five or six average servings.

Husband (watching wife in the kitchen): What is it this time, darling, bread or cake?

Wife: I don't know, dear; it isn't finished yet!—The Progressive Grocer.

Says Sam: It's probably wiser to change the kitchen to fit the wife, than to change the wife to fit the kitchen.

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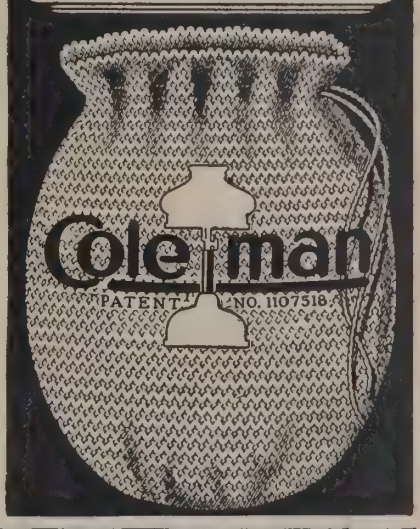
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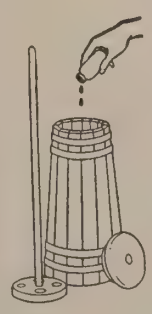
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Roofing Paper as a Reliner for Silos

HOARD'S DAIRYMAN:—An inquirer in a recent issue of Hoard's Dairyman, asks as to the advisability of lining a stave silo with galvanized iron. Perhaps as practical material, and material that is more easily handled that will give longer service and costs less, is the use of ordinary smooth surface, two ply roofing paper.

The writer visited a silo a few days ago in order to see how roofing paper had lasted during the past 11 years, and evidently there had been no deterioration during that time. The silo was built of unmatched boards and lined with second grade roofing paper which at that time cost 90 cents a roll. The material in the paper had so cemented the paper to the sides of the silo that it seemed to stick as closely as paper on a wall. The former owner, and the man who built the silo, told the writer that the only repairs were in one or two small places where a fork had ripped a slit in the paper The rolls were hung up and down and were quite closely nailed. Perhaps the first silos that were built in this way, were erected around Sherman, New York, about 25 years ago, and the method was to secure the paper to the side wall by nailing thin strips up and down the interior of the silo. These silos gave good satisfaction.

In the writer's community there are several silos built within the last two or three years, in which rough boards were used, the corners rounded, and the silo lined with roofing paper, not the slated surface kind. These h given entire satisfaction, and in t particular community neighbors adopting the method of building repair. One silo visited by writer was built by this farmer had a large silo and two years divided it, lining it with roofing per. It has given the best of satisf tion and he has kept over silage ing the summer a year ago, and carry over this year a good pro tion of the contents of one silo.

The writer's own experience been satisfactory, and one side o matched lumber silo was cove with roofing paper. This year other sides will be covered. method, as we have our own fil will be to fill, and then line wit width of roofing paper so the lap the upper are on the outside of upper edge of the strip below. writer at one time patched a with roofing paper at the time it being filled. This was for a ne bor, and the silo had been lathed plastered. There were a numbe large holes and many small ones. strip of roofing paper would be t off, smeared with tar, and slap over the hole. Several nails dri around the patch held it in place, the neighbor said that the sil kept well, and that there was harm done due to the settling of silage as the patches all stuck

A good silo is worth all it costs for relining a stave silo or for li of a wood silo which is cheaply b a good grade of smooth surfa roofing paper will give remark service for 15 or 20 years. Th will be no need of painting the side and acid does not in any affect the paper. Of course t will be a question rising as to wh er or not the silage will be affec This doubt should cause no con for if the flavor is affected it w not be more than an inch or and the writer has seen no indica of cows refusing silage on this count.

Ohio. WALTER JAC

Waukesha Guernsey Meeting

The Waukesha County Guer Breeders' Association was organ to be of service to the breeders of county and it does exactly Those who were present at the an meeting at Waukesha, Wis., Feb know that the association serves efficiently as a sales organization.

The secretary's report for the year shows that the members $151,887.50 worth of Guernseys buyers from nineteen states and Canadian provinces. Twenty-thousand nine hundred ten do worth were sold at public sale, balance, $129,977.50, privat through the secretary's office. was not the best selling year the ganization has had but it was above the average for the past years.

Some of the figures in this re are interesting. Of the 940 Gu seys sold, 669 were grade cows heifers above a year old that bro an average of $134.14. One hun ten registered cows and heifers of same age averaged $244.15. Eig eight grade heifer calves bro $38.07 each while 15 registered he calves sold for $119 each. Fifty-e bulls of all ages sold for an ave of $142.16.

In his talk, Secretary Musser po ed out the fact that the Guer products label actually serves basis for selective registration s producers using the label are pr sure to weed out their unprofit animals and, after all, economic s tion is probably the only proper for selective registration.



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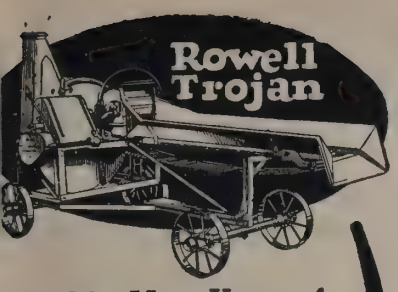
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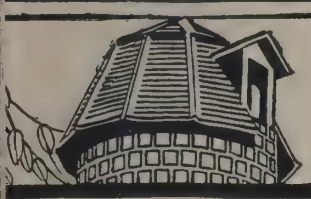
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Good morning! Have you seen my mother? She has been gone quite awhile. I am getting chilly and, besides, it's time to eat.

Corn Substitutes for Pigs

Corn properly supplemented is the ideal local grain for pigs. It is frequently limited in supply on dairy farms, however, and other feeds must be substituted. The price of a substitute feed and the comparative feeding value of that feed with corn are the important factors governing its selection.

Some corn by-products are valuable substitutes for corn. Hominy feed is worth from three to seven per cent less than corn in feeding value. When corn is $1 a bushel hominy feed is worth from $33 to $34 a ton.

Corn feed meal makes a satisfactory substitute for corn when it can be bought for no more than the cost of corn.

Corn germ meal, a by-product from the manufacture of hominy, glucose, and starch, is not a satisfactory substitute for corn but may be fed in limited quantities along with other carbonaceous feeds together with high protein feeds, such as skimmilk and tankage. A limited amount may also be fed to pigs on pasture.

Although wheat shows a higher feeding value than corn it is usually too high in price to justify its being used as a substitute. Wheat at $1.15 a bushel is worth as much as corn at $1 a bushel. Ground wheat produces more economical gains than whole wheat.

A good grade of flour middlings is worth about 89 per cent as much as an equal weight of corn. With the price of corn at $1 a bushel, flour middlings at $32 a ton would make a satisfactory substitute. Middlings has a higher value for feeding pigs than for finishing shotes. It should not replace corn entirely but is best fed with other carbonaceous feeds.

Ground rye has a feeding value of approximately 89 per cent that of corn. With corn selling for $1 a bushel one could not afford to pay more than 90 cents a bushel for rye.

Ground barley is used as a substitute for corn to a greater extent than any other grain. It is worth about 92 per cent of the value of corn. Ground and properly supplemented, barley is a satisfactory pork maker.

Dairymen are frequently tempted to feed oats to pigs. In doing this it should be remembered that oats are worth only about 75 per cent of the value of corn and even then should not constitute more than one-third of the grain in the ration. The feeding value of oats is reduced mainly because of the high percentage of hull or fiber. The pig does not make efficient use of feeds high in fiber. Oats should always be ground for pigs.

In supplementing these feeds it should be kept in mind that they are more or less deficient in protein and mineral matter. In a dry-lot experiment at the Ohio Station each pound of alfalfa meal added to corn and tankage, at the rate of 3 per cent of the total ration, saved 1.4 pounds of corn and one-third of a pound of tankage. In like manner 1.5 per cent of ground limestone in a corn and tankage ration saved 2.7 lbs. of corn and 0.43 lb. of tankage for each pound of limestone fed.

Skimmilk, tankage, and alfalfa hay or meal are the best of protein supplements. A mixture of equal parts by weight of salt, bone meal, and ground limestone to which is added 10 per cent of tankage to make it more palatable is a good source of mineral supplement.

Composition of the Hog's Body

A builder of houses is able to calculate very closely the quantity of building materials to be used in a given structure because he knows what materials are needed.

It is no less important that a producer of swine know what materials compose the hog's body and approximately the proportion of these materials.

A hog's body is composed of water, protein, fat, and mineral matter. Of these, water constitutes about 58 per cent of the unfinished hog's body and about 43 per cent of the fat hog's body. Protein constitutes about 14 per cent of the unfinished hog's body and about 11 per cent of the fat hog's body. The hog before fattening carried about 25 per cent fat and after being finished about 44 per cent fat. Of mineral matter, 2.8 per cent of the unfinished hog's body is composed of this substance and 1.7 per cent when the pig is finished for market.

The mineral matter of an unfinished pig is composed of 10.79 lbs. calcium, 10.66 lbs. phosphoric acid, 1.96 lbs. potash, and .53 lb. magnesia per 1,000 lbs. live weight. For the fat hog these amounts are about 30 per cent less.

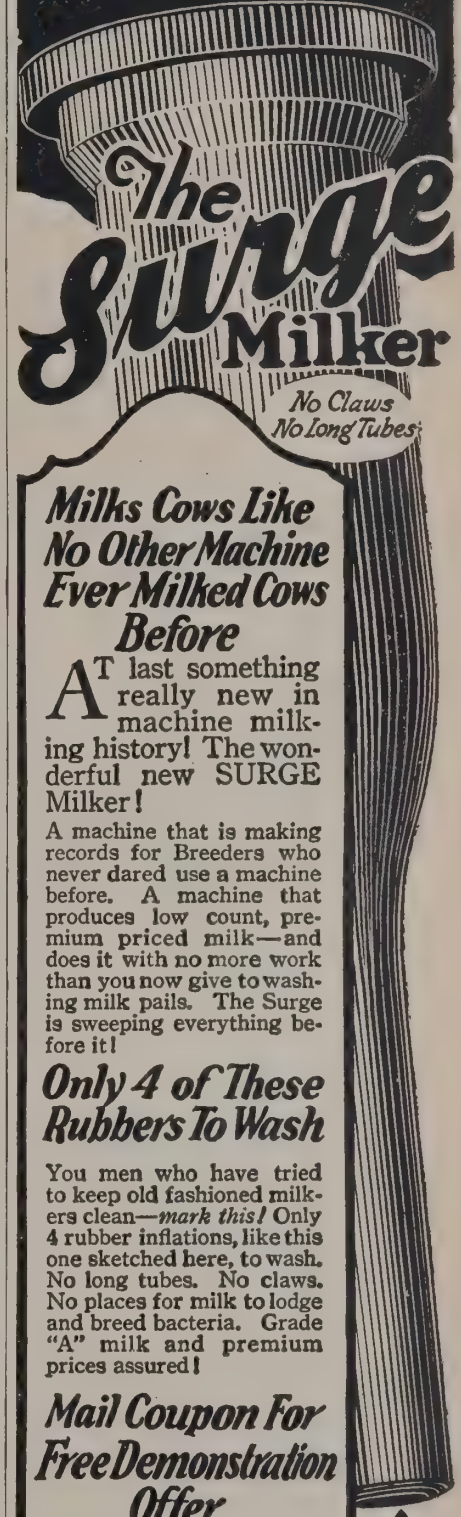
White Corn

Yellow corn is rich in vitamins; white corn is not nearly so good in this respect. When pigs are fed on good pasture the color of the corn makes little difference. In winter pigs fed on white corn and skimmilk frequently suffer from a lack of vitamins and become unthrifty, often showing symptoms of rickets. The Wisconsin Experiment Station has found that the addition of as little as 5 pounds of alfalfa hay of good quality to each 100 pounds of white corn made good the vitamin deficiency.

Water for Pigs

In an experiment at the Minnesota Experiment Station it was demonstrated that pigs having water before them at all times drank one-fourth more than the pigs watered by hand three times daily. However, there was no significant difference in the rates of gains of pigs given water by the two methods.

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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

How to Cull Poultry

How many of you juniors can pick out the good layers in a flock? Can you tell by handling a hen or pullet if she is laying enough eggs to pay her board bill?

Culling poultry and culling cows are much alike. In both cases you are separating the producers from the non-producers. Points of conformation in *good* producers are quite similar, whether chickens or cows. Two things are found in all good producers, capacity and producing ability. These can usually be determined by observation and handling.

When is the best time to cull poultry? The answer is the same as for culling cows, "All the time!" Put a ring around the months of July and August on your calendar, save this page, and give the flock a good thorough going over at that time.

How many eggs should a good producer lay? At least 150 eggs a year. When she lays only eight or ten a month, she hardly pays for her feed.

What are some of the signs of a *good* producer? Late to bed and early to rise is not just what Benjamin Franklin suggested to make one "healthy, wealthy, and wise," but it is a pretty good rule for picking out the hustling hens and pullets. It takes work to make eggs.

If "contented cows are good producers," then don't you think that "happy hens should be good layers?" The birds that sing at their work are the kind to keep. Generally, too, good layers are easy to tame and handle.

Did you ever pick up a bird and examine her toenails? If they are short and well worn, that means she scratches for her living. Look out for the long toenailed birds. Maybe they are not earning their living.

Fading is another sign of a good producer. In the yellow skin breeds the color gradually fades f the vent, eye rings, beak, and sha in the order named. This color g into yolks. Compare the color v that of the male as his color is typ of the non-producer. Hens fed tions containing no yellow corn green stuffs are likely to have fa beaks and shanks even when t are not laying.

Are there any cripples in y flock? Do any of your birds h frozen feet or weak legs? Th troubles would certainly interf with their working ability. Are th any very thin hens, or birds v crooked backs? Get rid of cripples!

Which hens eat the most fe Other things being equal, th should be the best layers.

What kind of a ration have been feeding the flock? Before g ing be sure the hens and pullets getting enough of the right sort feed to make eggs.

Should you keep more pullets t hens? Yes. An average farm f should be made up of about two-th



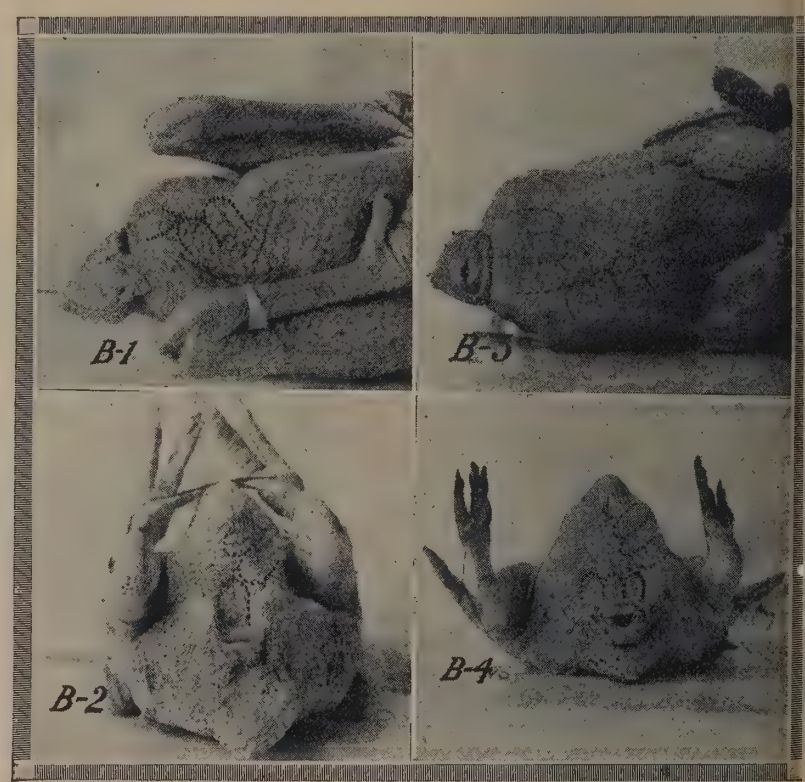
Photos Courtesy Dr. B. F. Kaupp, N. Carolina Experiment Station

Early complete molters are poor layers. These two pictures were taken on the same day, August 16, of hens in the same flock. The hen on the left molted July 25 and did not lay until the following spring. She laid 102 eggs. The hen on the right did not molt until October and laid 152 eggs for the year.



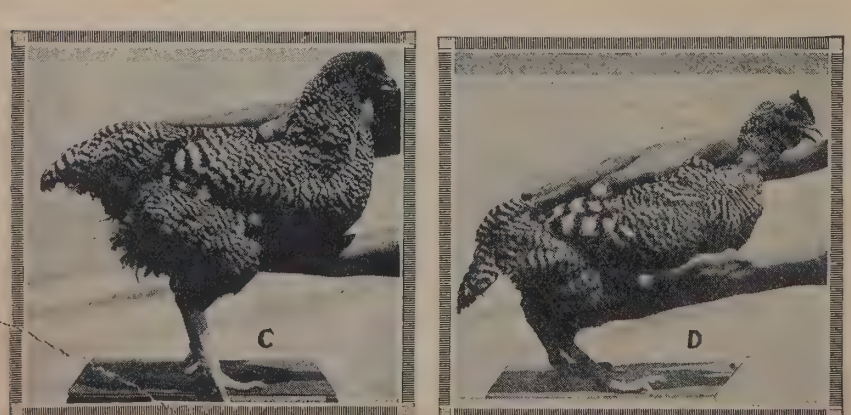
Courtesy Kansas Agricultural Experiment Station

First, examine the head. A hen like a cow reveals producing ability in the character shown by her head. A good layer generally has well developed comb, wattles, and ear lobes, a full bright eye, and a short, well curved beak. A-1 and A-3 show side and front views of such a head. A-2 and A-4 show two views of a poor producer. Note the sunken eye, shriveled comb, and prominent eye ring. Get rid of the crow headed birds. Now go to the other end of the bird and measure the pubic span and abdominal capacity.



Courtesy Dr. B. F. Kaupp, N. Carolina Experiment Station

The two pubic or lay bones are located below and on each side of the egg vent. I good layers they are wide apart, three fingers. The abdominal capacity is indicated b the space from the pubic bones to the rear of the breast bone, four fingers in goo layers. B-1 and B-2 are two views of the carcass of a poor layer. Note also the coarse rough skin as compared with B-3 and B-4, the carcass of a good producer. How thes measurements are made is shown below.



Photos Courtesy Kansas Agricultural Experiment Station

The relation of the keel to the back indicates production. On poor producers the finger tips of the lower hand point upward, C; while they point downward in good producers, D. The first year's production for these two was C 97 eggs, D 187 eggs.



Photos Courtesy Kansas Agricultural Experiment Statio

Measuring abdominal capacity, E-1 poor, E-2 good, and pubic span, F-1 good, and 1 poor, on the live bird. The egg vent of the good producer is large and moist, E-2; of t non-producer, small and dry, E-1.

oullets and one-third hens. As a rule, he older the bird the fewer eggs he lays in a year. Hens that can keep their production up year in and year out are the ones to keep for breeding.

Having given the flock a general survey and marketed the cripples and those that spend the most time on the roost, the next step in culling is to handle and give each bird a close examination.

Comes the day of reckoning. Put the catching crate outside the small entrance to the poultry house, and give it full of birds. Have a crate ready for the culls. From the catching crate take the birds one at a time, and examine them closely. If lousy put a little blue ointment about the size of a pea, around the egg vent. Watch out for diseased birds.

Just as the cow's usefulness is measured by the milk scales and the Babcock test, so the hen's usefulness is measured by the number of eggs she produces. Check up on the culling. Keep the culls for awhile and give them a fair chance to show their stuff. Compare their laying with the rest of the flock. If they don't lay, off to market they must go. The illustrations accompanying this article show how to examine hens for good and poor production.



Courtesy Kansas Agricultural Experiment Station

Evidence of a good producer—a quality head, a vent indicating present production, and egg organs that show a high rate of production.

Our Review Column

[A regular feature of the junior department, viewing the contents of Hoard's Dairyman or the previous issue. Let's talk it over.]

For further discussion of the following see the February 10th issue.

Why put lights in the hen house? To give the hen a 12-hour day the year round which lets her eat more, drink more, work more, and lay more. (See page 111.)

Who first discovered this? In December, 1889, Dr. Waldorf, a Buffalo physician, tried the experiment of lighting his hen house to reproduce the long working days of summer.

How much air does a cow require? To supply her with good air requires about 3,550 cubic feet per hour. (See page 112.)

How much moisture does a cow exhale? A cow eating enough feed to produce 33 lbs. of milk a day will exhale about 40 lbs. of moisture into the barn in 24 hours. A herd of 15 such cows would exhale about 75 gallons of moisture.

Why does a cow need plenty of water to drink? Because milk is 87% water. Also, water plays an important part in digestion, in the elimination of waste, and in the regulation of body temperature.

How much mineral substance goes into milk? In 10,000 lbs. of milk there are about 70 lbs. of minerals.

Where is the home of the Brown Swiss breed? The original home of this breed is in Switzerland where it has been developed for many centuries. It is probably one of the oldest breeds in existence and very pure. (See page 113.)

How many Brown Swiss are there in the United States? About 8,000 registered animals and 162,000 grades scattered in 25 states. The largest numbers are found in Wisconsin, Illinois, New York, Minnesota, Michigan, Iowa, Pennsylvania, and Ohio.

How has Dougan solved his milk marketing problem? 1. By producing a high quality product in sufficient quantity to satisfy the demand. 2. By advertising. 3. By giving full value for price received. 4. By having one price for all. For 6 years he has been getting 20 cents a quart. (See page 114.)

Boys and Girls

Join the Juniors. No costs to you. If some member of your family is a subscriber to Hoard's Dairyman and you are under 20 years of age use the coupon.

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JUNIOR EDITOR
FORT ATKINSON, WIS., U. S. A.
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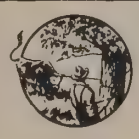


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Xenia, Ohio. Dept. C-2.

Enclosed is 15c (stamps or wrapped coin) for which please send me *at once* a copy of your illustrated booklet, "More Jobs from the Same Rope."

Print Name and Address Plainly

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NEW, 5-TUBE TUNED RADIO FREQUENCY SETS; completely assembled. Easy to tune and log far-off stations. Amazing bargains. We will ship for 10 days FREE Home Trial. Write TODAY for full particulars. $28.55
PIONEER RADIO CO., 204 Pioneer Bldg., Milwaukee, Wis.

Junior Letters

Mother's Day Poem

Hoard's Dairyman Juniors:—I received your letter. My birthday comes on Nov. 11.

Here is a poem which I think would be nice to say at a program on Mother's Day. The name of it is "Mother:"

M stands for Mother and always will,
O means no Other her place could fill,
T means she'll Tell me everything right,
H means I'll Help her with all of my might.
E means she for Eternal mother-love stands,
R means she Ruleth with Godly hands.

Well, I will close with best wishes to the Junior Club. My address is Sturgeon Bay, Wisconsin. Julius Noll, Jr.

Likes Poultry Club

Hoard's Dairyman Juniors:—I joined the 4-H Poultry Club year before last. I raised chickens and when the club show came in the fall I took a pen of my chickens, one rooster, and two pullets. I got second on pen, first on both pullets, and second on rooster. With all the prize money together I got $9. I like club work very much. I am 12 years old and like to live on the farm. My address is Mt. Vernon, Ill. Woodrow Smith.

$35 Puts it to work for you OTTAWA POWER MILKER

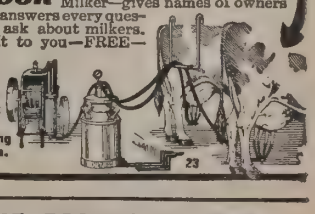
Write today for the most liberal Milker offer ever made—Saves you big money—30 Days Free Trial—10-year guarantee. Ready to milk when uncrated—No installation cost—no pipes—no special equipment—easy to use in any barn.

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2 HP gasoline engine or electric motor—milks 18 to 40 cows an hour—clean, convenient, easy to use. Endorsed by leading dairymen and farmers everywhere. Saves time and will do the work of 4 extra milk hands.

Free Book Tells you all about the Ottawa Milker—gives names of owners—illustrated—answers every question you can ask about milkers. Let us send it to you—FREE—Write today.

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DON'T WEAR A TRUSS

BE COMFORTABLE—Wear the Brooks Appliance, the modern scientific invention which gives rupture sufferers immediate relief. It has no obnoxious springs or pads. Automatic Air Cushions bind and draw together the broken parts. No salves or plasters. Durable. Cheap. Sent on trial to prove its worth. Beware of imitations. Look for trade-mark bearing portrait and signature of C. E. Brooks which appears on every Appliance. None other genuine. Full information and booklet sent free in plain, sealed envelope.


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BROOKS APPLIANCE CO., 219 State St., Marshall, Mich.



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Holsteins—Get your next Ormsby bred bull from State Institutional herd. Bred for high yearly production. Send for free bull list. Can furnish nice lot of grade heifer calves. BOARD OF CONTROL, State Capitol, Madison, Wis. 3-6

Registered Holsteins—6 cows or heifers, sired by bull whose 3 nearest dams average 1018 lbs. butter a year, $150. One young bull $75. EDWARD BREWIN, Sullivan, Wis.

One Registered Holstein cow with heifer calf. Two registered and three grade heifers, Sir Pietertje line. Priced cheap. Number 15 De Laval Separator power attachment. NED PRINDLE, Greenfield, Ill.

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

For Sale—30 head of high grade Holsteins, fresh cows and springers. E. E. LEWIS, R. R. 3, Racine, Wisconsin. 3-2

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Four Handsome Holstein heifer calves and registered male calf. First check $110. ALFAKORN FARM, Evansville, Wis. 4-2

Three handsome Holstein heifer calves, registered, $100. ALFAKORN FARM, Evansville, Wis. 2-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Grade Guernseys. Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years experience. Can also furnish grade or registered Holsteins. JOHN ERICKSON, Waupaca, Wis. 19-Spl

Guernsey Bulls For Sale. A. R. breeding, excellent individuals, nicely marked and in fine condition. Also two pure-bred heifer calves four months old. BRIAN L. RUNDELL, Livingston, Wisconsin. 4-2

My Entire Herd grade Guernseys and four pure breds. Big producers. Clean herd. Result of 20 year's breeding. A bargain. FRANK PEPIN, Chippewa Falls, Wisconsin. 3-2

For Sale—Special offering 2 registered Guernsey heifer calves and 1 bull not related. See display ad page 226. LINWOOD GUERNSEY FARM, Homer Tuttendell, Livingston, Wis. 1-*

Registered Guernsey Bulls, serviceable age. Guaranteed breeders. Accredited herd. Bargains. FRANK KLEMM, Baraboo, Wisconsin. 3-2

Guernsey Bulls for sale, 4 to 13 months. Dam's record 650 lbs. fat. Popular breeding. Write DALE E. RUNDELL, Livingston, Wisconsin. 3-3

Six Guernsey bulls, three to fifteen months old. Registered. Federally tested. BAPTIST HOME, Ironton, Mo.

For Sale—Grade Guernsey cows, fresh and close springers. M. GOLDSMITH, Genesee Depot, Wis. 4-2

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

High Grade Guernseys. Justamere Guernsey Farm is offering your choice of herd, no reactors, 60 day retest guaranteed if they go into clean place. Fresh, springing and fall cows. Prices very reasonable. CHAS. W. BLOTT, Mukwonago, Wis. 17-*

Guernseys for sale. Rock County Guernsey Breeders' Association Co-operative. Write FARM BUREAU, Janesville, Wisconsin. 2-4

Guernsey Herd for Sale—20 heavy producing, young, high grade cows, T. B. tested, free from disease. Priced reasonable. WALTER KEMP, Ogdensburg, Wisconsin. 26-6

Purebred Jersey calf herd. Two senior heifers, junior bull. Good type and breeding. Price $190 f. o. b. Ft. Madison, Iowa. Write HARRY STEIN.

Registered Brown Swiss Bulls 1 to 11 months old from high producing cows. WM. REHBERG, Tomah, Wis.

For Sale—Brown Swiss bull twenty months old, best of breeding. P. J. GLAUS, Ellsworth, Wis.

LIVE STOCK WANTED

Wanted—Bull 3 or 4 years old, son of Sir Bess Ormsby Fobes. Must be good individual from a year record dam and light in color. ALFRED HAIGH, Alma, Wisconsin.

STOCK BUYER

Dairy cattle bought on commission. W. STRAUSS, Route 5, Watertown, Wis. 4-2

SWINE

Large Yorkshire boars and bred gilts. MILTON HAND, Center Point, Iowa. 2-4

FOXES

Alaskan Blue and Silver Black Foxes—Breeder-agents wanted, who will start with our foxes, insured 12 months, express paid. Booklet free. Twenty year references, six banks. CLEARY BROS. FOX FARMS, Seattle, Washington. 20-12

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

For Sale—Pedigreed German Police pups; largest of breed, $20. GLEN HANSON, Ionia, Iowa.

Pure-bred police pups and dogs. Fine stock, peppy and bright. WALTER LEYH, Bertha, Minnesota.

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

PECANS

Selected Native Pecans prepaid, cracked 45 cents pound. E. BERRY, Ardmore, Okla.

LUMBER

Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 909S, Everett, Washington.

MACHINERY

For Sale—Slightly used 6 H. P. International gasoline or kerosene engine. Will guarantee condition. First check for $75.00 takes this bargain. L. G. JOHNSON, Box 217, Whitewater, Wis. 3-2

No More Infected Quarters. Use the Automatic Air Trap Milk Tube. Practically eliminates infection. $1.00 each, postpaid. Agents wanted. Money back if not satisfied. H. C. GLISSMANN, Jr., Patentee, Sta. B., Omaha, Nebr. 3-2

For Sale—New latest type double unit Empire milker, for $70.00 or complete with pump, tank, gauge and release valve at $150.00. BENJ. TE GROTENHUIS, Hospers, Iowa.

Wanted—Farmers, who would like to make $20.00 or more per acre by growing soybeans with the corn, to write for 36 page book. Address L. C. NOTBOHM, Rome, Wisconsin. 2-3

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

Separator Bargain for quick sale. Seven new separators in original boxes. F. J. NICHOLS, Box 355, Lansing, Michigan. 3-4

For Sale—New Page electric, two unit milker, $200.00. Cost $315.00. H. E. ANDERSON, Whitewater, Wisconsin. 3-2

Wanted—Equipment for small pasteurizing plant. Address BOX 299, care Hoard's Dairyman.

For Sale—Gearhart Knitting Machine, new model. Practically new. Bargain. MRS. R. W. PETERSOM, St. Elmo, Alabama.

Wanted—De Laval milker for engine power. De Laval separator electric drive, farm electric plant. Must be complete, perfect condition and bargain. Address BOX 297, care Hoard's Dairyman.

Milking machine units for sale. Three Pine Tree milking machine units, motor and pump. Used only 10 months. Price $290. Address HENRY M. SMITH, care George J. Sayer Farm No. 1, Mc Henry, Illinois.

For Sale—Large size Swinson Grubber with one inch long wire rope for first check of $30.00 and $20.00 in two months. NORWOOD FARMS, Mineral Wells, Texas.

For Sale—One 32 volt single unit Hinman milker. Used one season, good as new, bargain. MATHEW MICHEL, Spragueville, Iowa.

For Sale—New portable electric two-cow milker complete. Fully guaranteed. Special bargain at $75.00. FROST ENGINEERING CO., Oak Park, Ill.

Wanted—Two Surge milker units. HARRY O'CONNOR, Reedsburg, Wisconsin.

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for free samples. MADISON CORPORATION, 564 Broadway, New York. 13-19

Our New Household Device washes and dries windows, sweeps, cleans walls, scrubs, mops. Complete outfit costs less than brooms. Over half profit. HARPER BRUSH WORKS, 295 3rd St., Fairfield Iowa. 3-2

We pay $200 monthly salary, furnish car, and expenses to sell our Guaranteed Poultry and Stock Powders. BIGLER COMPANY, X352, Springfield, Ill. 4-3

SALESMEN WANTED

Salesmen wanted to sell "Waukesha Mineral Feed." Exclusive territory, good commissions. Ask for particulars now. H. J. WELSH, Box 111, Waukesha, Wisconsin. 2-8

TOBACCO

Homespun Tobacco—Smoking or chewing. 4 lbs., $1.00; 12, $2.25. Send no money, pay postmaster on arrival. Pipe free for ten names of tobacco users. UNITED FARMERS OF KENTUCKY, Paducah, Kentucky. 2-4

Homespun Tobacco. Chewing or smoking 5 lbs. $1.25, ten $2.00; cigars, $1.80 for fifty, $3.25 for 100. Guaranteed. Pipe free. Pay when received. FARMERS' UNION, Paducah, Ky. 2-4

Guaranteed Homespun Tobacco—Chewing or smoking, 5 lbs. $1.25; ten $2.00. Cigars $2.00 for 50. Pipe free. Pay when received. FARMERS' ASSOCIATION, Maxon Mills, Kentucky. 4-2

Homespun Tobacco—Guaranteed chewing or smoking 5 pounds $1.00; 10, $1.75. Pipe free. Pay when received. UNITED FARMERS, Bardwell, Ky. 3-4

CREAMERIES

For Sale—Creamery in large California city. Manufacturing 1000 to 1500 pounds of butter daily. Butter sold to local stores. Address BOX 991, Oakland, California. 1-4

MILK BOTTLE CAPS

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

MATTRESSES

Mattresses made any size, low factory prices. Catalog free. PEORIA BEDDING COMPANY, Peoria, Illinois. 3-10

PHOTO FINISHING

Amazing Trial Offer! One Kodak roll film developed; 6 fine glossy prints; only 15c. ASSOCIATED PHOTO, Box 1463-L, Cincinnati, O. 3-4

Trial Offer! Roll developed and 6 prints 25c or six prints from negatives 20c. Send 10c extra for 5x7 enlargement from best exposure. KLINKER FILM SERVICE, Dyersville, Iowa, Box 507W.

BABY CHICKS

If you want more eggs and larger profits our Accredited high-egg yield White or Buff Leghorn chicks will be your choice. Catalog free. RIVERVIEW HATCHERY, Fort Atkinson, Wis.

Pure Bred Chicks from high egg producing breeders. All breeders Hogan tested and strictly culled for correct size, type, color, and health; correctly mated for high egg production. Write for our new free "Poultry Profits" book containing valuable information for the poultry raiser. Liberal discount on all orders booked early. Pure bred chicks of all standard breeds for immediate delivery. WEDGEWOOD POULTRY FARM, Box 188, Pontiac, Ill. 3-*

Baby Chicks from culled, inspected flocks. Satisfaction guaranteed. EVERGREEN POULTRY FARM, Kewaunee, Wis. 4-6

POULTRY

Bronze Turkeys, Toulouse Geese, McCRADIE, Hendrum, Minnesota. 1-4

FARMS FOR SALE

In the San Joaquin Valley of California farming is now a paying business, feeding millions of people in towns. Dairying, hogs, poultry and fruit should yield a good income. A small one-family farm, with little hired labor, insures success. You can work outdoors all the year. Best crops to plant are well proved. Selling is done co-operatively in established markets. Newcomers welcome. The Santa Fe Railway has no land to sell, but offers a free service in helping you get right location. Write for illustrated San Joaquin folder and get our paper, The Earth, free for six months. C. L. SEAGRAVES, General Colonization Agent, Santa Fe Railway, 951 Railway Exchange, Chicago. 26-6

100 Acres and modern home. Dairy and complete equipment. Road being improved, little over an hour to Syracuse, 2 miles RR, high school, etc., bus service; can use hay loader all over the 65 acres, tillage, good alfalfa land, excellent spring brook water, 10 acres woodland, variety fruit; good 9-room house, bath, furnace, electricity, cemented cellar, hardwood floors, storm windows; 16 swing stanchions in main barn, cement floor, also ell, silo, cemented milk house, new hennery, garage, etc. $5500 takes it and for quick sale, 7 cows, 7 heifers, auto, 3 horses (2600 lb. team) 40 hens, all hay, grain, fodder, vegetables, hay loader, harnesses, grain drill, gas engine, full line machinery included; only $2000 cash. W. H. MAYNARD, Strout Agency, P. O. Bldg., Canastota, N. Y.

Dairy—Have an ideal location for a dairy close to Casper. Will sell at a sacrifice, irrigated, ditches all in, water right fully paid, gravity flow from the Platte river, bottom land, sandy loam soil, under cultivation, 320 acres—more acreage can be arranged for—5 room house, large barn, fenced and out buildings. $70.00 per acre, 1-3 cash, 5 years on the balance. Casper and vicinity ship in 75% of her dairy products. 40,000 population for a market and milk wholesales at 25c per gallon. For further particulars write J. E. NELSON, 1044 E. First St., Casper, Wyoming. 4-2

Arizona Alfalfa Land—Solid section, whole or quarters, all in alfalfa, yields seven tons per acre year. Center of dairying, winter vegetable and cotton districts. Three railroad shipping points, grade and high schools, alfalfa mill and cotton gin within one mile. On paved highway. Land bottomless sandy loam. Ample irrigation water from Roosevelt Dam. Priced for quick sale. Ideal location for large dairy outfit or group of dairymen. Home market creamery and condensery. Year-round pasture, no cold winters, no expensive barns needed. For complete data and terms address ARIZONA FARM HOMES, 715 Heard Bldg., Phoenix, Arizona.

Dairying in the Ozark Region of Southern Missouri and Northern Arkansas means 9 or 10 months open grazing—pure mountain spring water—wonderful grass—mild and healthful climate. Proximity of the great markets of St. Louis, Kansas City and Memphis makes quick delivery and good prices. Prosperous growing communities, good schools and fine hard surfaced roads. Land can be bought or farms rented at prices that insure good profits. Write for full information about this land of great opportunity. FRISCO RAILWAY, 884 Frisco Bldg., St. Louis, Missouri. 23-Spl

2000 Middle West farmers moved to Oregon in last two years, after thorough investigation. They like our mild winters, cool summers, with no severe storms to ruin a season's work and destroy property. Fine roads and schools, productive soil, good official bulletins and illustrated facts booklet, free. Land Settlement Department, OREGON STATE CHAMBER OF COMMERCE, 265 Oregon Building, Portland, Oregon. 3-4

Dairy Farms Big Opportunity: South Florida where fast growing population makes high priced markets—richest muck and prairie land grows all year forage, as well as fruit and truck crops. Good water, good transportation, two cross state highways, paved, borders property. Two mainline railroads nearby, adjacent to the fast developing, beautiful Ridge Section. One of the best dairy developments in the state adjoins this. Both east and west coast cities market available. Prices of milk very high. Cost of feed low. Large holdings to choose from. For further information write M. W. WOOLSEY, 430 South Michigan Avenue, Auditorium Hotel, Chicago. 2-3

For Sale—Stock farm, 837 acres, Halifax County, Virginia, 10 miles from South Boston, 5 miles Buffalo Lithia Springs, near Southern Railway, ¼ mile highway, schools and churches, on Dan River with fine water power undeveloped. Land slightly rolling, more than ½ open or in cultivation. 200 acres fine pasture land, well watered, several tenant houses, tobacco and cattle barns, etc. Ideal climate. Bargain price with terms to quick purchaser. C. W. TEAGUE, 311 Geer Bldg., Durham, North Carolina. 4-2

Valley-View 112-acre farm. 12 cows, horses, hay, corn, potatoes, buckwheat, vegetables, also machinery, tools, 3 calves, bull, poultry included; only 15 min. drive city over state road; pleasant 9-room house, A-1 large basement barn, spring watered pasture, wire fences, wood & timber should pay for all. Only $3400 to settle affairs quickly, part cash. Details pg. 27 big Illus. Catalog. Copy free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

Modern fully equipped dairy and stock farm in full operation near Durham, N. C. 160 acres all clear and high state of cultivation. New 7-room house, two other cottages, two large 2-story stock and feed barns, new 30-stanchion dairy barn, new brick milk house. Other necessary outbuildings. Long terms. Immediate possession. BOX 249, Durham, N. C. 4-2

120 Acre good dairy farm for sale. Level clay loam. 75 miles north from Detroit, on good gravel road. Large brick house, silo, double barn, good out buildings. Good school across road. 3 miles south east Mayville, good milk or cream markets. $75.00 per acre, one-third down, balance easy terms 6%. Address owner. E. D. CARTWRIGHT, Mayville, Mich. 4-2

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

Dairy Farms—"Davidson Plan"—160 acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 3-5

For Sale—540 acre well improved dairy farm one mile from Hettinger, the county seat—a good, live town. Good new buildings, house wired for electricity, excellent water. For terms and particulars address owner, J. A. BALSIGER, Hettinger, N. Dakota. 2-3

For Sale—Modern stock and dairy farm, 426 acres located in southern N. Y., on improved highway. Best farm buildings in county. Price $25,000. Photos and description on request. MAPLE GROVE FARMS, Lisle, N. Y.

For Sale or Rent—Highly improved dairy farm, 155 acres, located on the edge of city limits Fergus Falls, Minn. Possession Mar. 1, 1927. ULLAND LAND CO., Fergus Falls, Minn. 2-3

Fine Dairy Farms for sale, 100 to 300 acres, good dairy communities, prices reasonable. Trust Department, LAKE CITY BANK AND TRUST COMPANY, Lake City, Minnesota.

Sale or Trade—160 acre farm, level, all cultivated, good soil. Easy terms or trade for threshing machinery, tractors, automobiles, live stock, anything can use. W. T. BOSLEY, Rugby, N. Dak.

197 Acres, good dairy farm, 6 miles west Oshkosh, $25,000. Will trade for another farm nearer Milwaukee. Or will rent on usual fifty-fifty basis. P. O. BOX 789, Milwaukee.

Opportunity on Calhoun Highway all year especially Dairying Danish System. No exploitation. Eleemosynary Corporation. Address PRESIDENT HANNA, Clinton, South Carolina.

For Sale—280 acre dairy farm five miles Rice Lake, ¼ mile cheese factory. Good road. Write MRS. CHARLES Q. WHALLON, Rice Lake, Wis.

Wonderful opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Georgia.

Vernon, Monroe and LaCrosse County farms. Address T. J. THORSON & SON, Westby, Wisconsin.

120, Taylor County, Wisconsin. Sell or trade. L. J. Sichenoder, Waconia, Minn.

Equipped Farm, modern convenience. ELI A. SHORT, Georgetown, Delaware. 4-2

Will Sell or Rent choice alfalfa land. Farm on highway and railroad. DR. SPARKS, Demopolis, Ala. 3-2

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultu empire in Minnesota, North Dakota, Montana, Idal Washington and Oregon. Low round trip rates. Se for free books describing opportunities. Improv farms for rent. E. C. LEEDY, Dept. 282, G. N. R St. Paul, Minn. 2

FARMS WANTED

Wanted—Equipped farm; give price, etc. L. RAISLER, 6700 Wentworth Ave., Chicago, Ill.

Want 80 to 160 acres close to town. WALT MI MER, Carpenter Bldg., Milwaukee.

FOR RENT

For Rent—1000 acre stock ranch, located n Newburg, Phelps County, Missouri. 800 acres fenc hog tight, good buildings, near school, ranch spri watered. If interested write W. E. WALLER, Char City, Iowa for terms and full particulars.

Wanted—A good renter for a dairy farm. One w can furnish his own equipment and half of cows a hogs. WEBSTER, Hudson, Wisc.

HAY

Alfalfa Hay for Sale. Write for delivered pric ALBERT MILLER & CO., 192 No. Clark St., C cago, Ill. 1

Alfalfa, Clover Hay, Dairy Feeds, for sale. Wr or wire for prices. Weights and grades guarante J. A. BENSON CO., 332 So. La Salle, Chicago. 2

Alfalfa Hay for Sale—A. B. CAPLE, Route Perrysburg, Ohio.

Wholesale hay and straw. Write us for pric Consignments solicited. We buy straw or timot J. D. REID & CO., 79 Board of Trade, Chica Illinois.

Hay—Alfalfa and other kinds. Get our delive prices We serve you best. W. A. FERSON H & GRAIN COMPANY, Kansas City, Mo. 1

Alfalfa and all kinds hay. Ask for delivered pric HARRY D. GATES COMPANY, Jackson, Mic gan. 2

If You Want Alfalfa Hay, wire us. Government spection and grades at shipping point. PERRY LA BORN, Garden City, Kansas.

Alfalfa—Montana common 96%-plus purity, 100 l $11.00. Genuine Grimm 10 lb. sample, prepaid $3. MONTANA SEED CO., Glasgow, Montana.

Baled Alfalfa Hay $20.00 per ton, carloads, F. B., Thiensville, Wis. GEORGE F. O'NEIL, T Company Building, Milwaukee.

For Sale—Alfalfa and other hay, car lots. CHA B. WING, Box 21, Mechanicsburg, Ohio. 2

Hay For Sale—Any kind in carloads. GEO. FREDERICK, Beaver Dam, Wis.

Alfalfa Hay for sale. Get our delivered prices. H. HALL CO., Kansas City, Mo.

MINERAL FEEDS

Feed—Cow County Mineral Feed as fed by Wau sha County Dairymen. Send $2.50 for 100 pound t bag. WAUKESHA MINERAL PRODUCTS CO PANY, Waukesha, Wis.

FEED BAGS

For Seventeen years we have paid the highest pri to dairymen for their empty feed bags. Get quotations before selling. THE DAYTON BAG BURLAP CO., Dayton, Ohio.

SEEDS

Jacques Seed Corn—Grown from my own pure b select breeding stock, under my personal supervisi in North Wisconsin. Selected from standing st before frost, dried out perfectly in my new dry hou equipped with individual ear racks, furnace heat a forced ventilation. Every bushel carefully test 95-100% germination and strong vitality. Inspe and certified by Wisconsin Experiment Associati Sold subject to thirty days test. Get reliable s from North Wisconsin's largest seed corn grow Golden Glow, Cold Resistant Golden Glow, Silver K Minnesota Thirteen, Jacques' Northern Yellow De Wisconsin 25. Also the highest grade Grimm Alfa in officially labeled and sealed bags, pedigreed o and barley. Write for illustrated booklet and pri WM. H. JACQUES, Box H, Prescott, Wis.

Winter Hardy Registered-Certified fancy gr Grimm Alfalfa seed, bags free, 35c per pound. No Dakota State Seed Commissioner has inspected, te ed, sealed each sack. This Alfalfa guaranteed to c form to seed laws of your State. We still have lim ed supply Sweet Clover seed. Write for free samp and delivered prices on Alfalfa and Sweet Clover. tractive special prices on club orders. NORTH D KOTA GRIMM ALFALFA ASSOCIATION, State C lege Station, Fargo N. D. Co-operative organizat of over 500 growers.

Buy Your Grimm Alfalfa Seed direct from Introducer, and know that your foundation stock pure, pedigreed seed, bred from the original Gri strain. Acclimated to severe northwest temperatu since 1857. A. B. LYMAN, Introducer, Excels Minnesota. The home of Grimm Alfalfa.

Alfalfa Seed—Do you know why your alfalfa win killed? You no doubt did not use hardy gr WESODAK alfalfa seed. The seed we marke grown by our members who live in Western So Dakota. We market from producer to consumer. grow S. D. No. 12, Registered Grimm and Cossa and absolutely guarantee genuineness of variety. W for price and samples to THE WESTERN SOU DAKOTA ALFALFA SEED GROWERS EXCHAN Nick Caspers, President, Mgr., Rapid City, S. D.

Wisconsin grown Registered and Certified Seed Co Oats, Barley, Wheat, Clovers, Timothy, highest qu ity Grimm Certified and common Alfalfa seed. Se priced right and guaranteed to give satisfaction. W for free catalog. POPP & LANG SEED CO., Jeff son, Wisconsin.

Plant Kudzu for Hay and Pasture—More nutriti than alfalfa and yields more. Grows on well drai soil without lime or fertilizer. Never has to be planted and never a pest. Write for informati CHEROKEE FARMS, Monticello, Florida.

Pure Certified Grimm's Alfalfa Seed direct fr the man that grows it. Hardiest and best. Se postal for samples and folder for full informati TRIANGLE RANCH, Cottonwood, S. D. 2

Certified seed corn and Grimm alfalfa. Pure gr seeds, seed grains and poultry supplies. Booklet seed bargains free. Write NORTH STAR FAR Cokato, Minn.

Grow O. K. Beardless Barley. New two-row stiff straw, heavy, productive. Purity 99.36. Exc lent opportunity for first growers. Write for inform tion. LONGACRE FARM, Phelps, N. Y.

We Specialize in White Blossom sweet clover Grimm alfalfa seed. For best seed and prices w us. SEBENS BROTHERS, Milnor, N. Dak.

Alfalfa Seed—95% pure, $6.80 per bushel; Scarli sweet clover, 95% pure, $5.00; bags free. GEOR BOWMAN, Concordia, Kansas. 2

Seed Corn—Dependable, vigorous. Several va eties. Experienced growers. Satisfaction guarante Write for prices. Supply limited. JOHNSON & A NESON, Dassel, Meeker County, Minnesota.

Genuine Grimm Alfalfa Seed. White and yel sweet clover. Reasonable prices. SAM BOB Newell, South Dakota.

For Sale—Seed corn: Silver King, Golden Gl test 95%, $7 per bushel; 1 mile Wisconsin li CHESTER KEISTER, Orangeville, Illinois.

Hardy Alfalfa—Clovers and all farm or gar seeds direct from growers at money saving pri New seed book. Free. FARMER SEED & NU SERY CO., 69 First Avenue, Faribault, Minn.

For Sale—Canadian Field Peas. Write for pri FROSCH & SONS, Grimms, Wisconsin.

PRINTING

We print milk tickets, checks, shipping tags, e for farmers all over the country. Our work please you. Write us now so you will have supply on hand. HOARD'S DAIRYMAN DEPT., Ft. Atkinson, Wis.

MISCELLANEOUS

vestigate before buying harness. Send for "Wear-e" catalog. Pay $5.00 after thirty days free trial. monthly payments. JOHN C. NICHOLS CO., Erie Avenue, Sheboygan, Wisconsin. 1-4

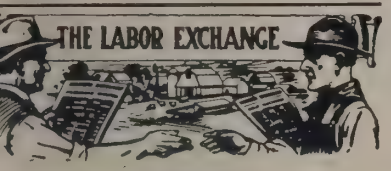
rainer Pads—Guaranteed Milk Filtering Pads, di-from manufacturer to consumer. $1.75 for Car-of 300 if remittance accompanies order. Postage if C. O. D. HEYSER MILK FILTER CO., 36 nghuysen Ave., Battle Creek, Michigan. 4-4

y one of our leather bound loose leaf pocket herd s and be able to give accurate information re-ing the animals you have for sale. Will ac-nodate 100 animals, (sketches, sire, dam, date of , records, service date, etc.). Also service record. dion table. Price $2.00, postpaid. HOARD'S RYMAN, Fort Atkinson, Wis. 24-*

TESTERS WANTED

ftteen Testers Wanted for one year in Wisconsin Testing Associations to start about March 1st April 1st. Prefer single men over twenty-one s, experienced in feeding dairy cattle and operat-a Babcock tester. Give two references of previous oyers. Write A. J. CRAMER, Dairy Records e, Madison, Wisconsin.

wa Cow Testing Associations need testers. Sal-$900 per year and up, plus board. Training ses offered. Give age, experience, references first r. DAIRY EXTENSION, IOWA STATE COL-E, Ames. 20-*



dvertising in this department is 8c per word. Remit in advance.

POSITIONS WANTED

sire connection with estate or commercial establ-ment which demands married, experienced agricul-l graduate, manager or herdsman. Either soil, al husbandry or meritorious dairy proposition. faction guaranteed. Special milk, cheeses, butter, ream, plant operation. Feeding for milk, official , (good A. R. records, fine show ring ribbons.) ime farm, crop production experience. Present four years. Desire constructive, cooperative po-n, recommends will bear strictest investigation. lable April first. J. A. GERE, Perrysburg, Ohio.

anted—Position of responsibility, by young mar-man with small family, on farm as herdsman orking farm manager. Understand breeding, feed-testing, showing, farming in every department, in-ng poultry and orcharding. A No. 1 calf man. ble of handling any proposition. Can furnish of references as to honesty and ability from past oyers. Address BOX 308, care Hoard's Dairyman.

rm and Estate Manager wishes first class propo-n preferably central west. 39, married, one child. ears practical experience, college graduate, proven tive ability. A. R. work, showing, dairy cattle, , poultry, farm and landscape work. Present oyer selling out. Address BOX 303, care Hoard's rman.

ne, 28 years, graduate Royal College of Agricul-Denmark, B. S. degree, 3 years' experience as manager specializing in dairying, hogs, poultry, raising feed for stock, open for position. Address references Edw. F. Green, Pres., Country Life ny, Star, North Carolina. E. MEYER HAN-Star, North Carolina.

rm Manager wants position by March 15th. Born reared on farm. College of Agriculture graduate, managing 640 acre dairy and fruit farm. A. R. ience. Best references, including present em-rs, on request. Address BOX 311, care Hoard's rman.

sition Wanted—In Central or Southern Wisconsin farmer, dairyman of ability, trained in breeding cows, and in raising dairy calves. Also in feed-dairy cows and in preparing them for exhibition. ess BOX 441, La Crosse, Wis. 3-2

nted—By refined, middle aged lady, position as keeper or institutional work. Life time ex-ce on farm and first-class hotel training. No 's need answer. Best of references. Address E. 11TH ST., APT. 305, Kansas City, Mo.

nted—Position, by honest, reliable, experienced successful farm manager, experienced in all lines 'n breeding, testing, showing and caring for cattle; field work and modern machinery. Ad-BOX 277, care of Hoard's Dairyman. 3-2

ition as Herdsman. College graduate. Years of ience in raising calves and feeding cows for pro-m. A. R. O. work. Produce low B. C. milk. references. Available March 15th. Address 315, care Hoard's Dairyman.

rdsman—Middle aged, single, experienced in A. ork, calf raising, feeding and general dairy work. r Guernseys or Jerseys. At liberty March first. ences. Address stating wages and particulars. 312, care Hoard's Dairyman.

irteen year old boy, strong, active, genial, pro-t, wants job as helper on farm or dairy farm. habits, willing worker. Would like permanent Am in school. Ready May 1st. Write BOX care Hoard's Dairyman.

nted on shares—Modern dairy farm, Wisconsin red, by young married man. Good caretaker. consider working by the year. References. ER CARTERON, Greenwood, Wis.

Liberty March 1st—Reliable, capable, dairyman. r, fitter, showman, any branch dairy game. A-1 nces. WM. HENDRICKS, Winwood Farms, nton, Kansas.

rm and Estate Manager skilled, capable execu-practical experience, wants position by first of Present farm of 300 acres being sold. Best nces. JOSEPH S. KUTTLER, Trappe, Pa.

nted—General farm work by year. Age 26, mar-small family. Can furnish references. State in first letter. FRANK TEETOR, Lexington, ska.

ition Wanted as manager large sheep or grain developing lands into ranches or resorts. Do wn building. Address BOX 307, care Hoard's man.

ker wants place on modern dairy farm. Am and reliable, member of Masonic fraternity. North Dakota, Minnesota. Address BOX 306, Hoard's Dairyman.

ition as manager. College graduate, thoroughly enced in dairy, poultry and hogs. A. R. O. Best of references. Available March 15th. ss BOX 314, care Hoard's Dairyman.

mer-Bookkeeper—42, single, wants position where profit wanted. W. H. VENZKE, R. 2, Boyer-Pa.

ried man wants position as farm manager. l board 6 or 8 men. Write BOX 300, care 's Dairyman.

ition Wanted as farm foreman by experienced . Married. For further particulars write GUST EL, Mukwonago, Wis.

ried man wants position on farm. Experienced lines including herdsman work. Give particu-and wages first letter. Reference furnished. S JENSEN, Livingston, Wisconsin.

ition Wanted in the West by farm hand with ng experience. Understand dairying, also team-nd handling tractors. Address BOX 301, care 's Dairyman.

ation Wanted—Herdsman on large dairy. Ex-e test cows, calf raising, etc. Age 27, married, ild. Address BOX 298, care Hoard's Dairyman.

nted—Position as cow tester or in creamery. having short course at Cornell Jan. 1927. LAWTERLEIN, Cloverdale Farm, Tully, N. Y.

nted—Position as working farm manager. Life ence. Best of reference. Can come at once. KELLER, Centerville, Indiana.

POSITION WANTED

Herdsman for unmistakably upright, first class party. Preferably staunch Catholic. Address BOX 310, care Hoard's Dairyman.

HELP WANTED

Wanted—March 1st, on 300 acre farm, working foreman, married, Protestant, past 35, thoroughly experienced with pure bred Holsteins, also hog raising and general farming. Must be able and willing to work hard, and able to handle men. Wife to board help. Give experience, size of family, and references. J. H. BURR, St. Charles, Ill.

Wanted—First class dairyman who understands handling and feeding Guernsey cows and a good calf raiser. Single man or newly married couple. Must be sober and industrious and furnish reference from former employer. Have up-to-date barn fully equipped. J. A. SIMPSON, R 1, Pleasant Prairie, Wisconsin.

Wanted—Married man with small family, for modern dairy and grain farm, near Elkhart, Indiana. Must be an experienced dairyman. Five room house, garden, milk and some poultry furnished. $65.00 per month, bonus $120.00 for year of satisfactory work. Reference required. STARR FARM, C. V. Naville, Mgr., Elkhart, Indiana.

Wanted—Married or single man to work on dairy farm with pure-bred Jersey cattle, experienced in caring for Grade A milk, operating Surge milker and general farm work, good habits. State wages and reference in first letter. W. M. KNIGHT, Eagle, Waukesha County, Wisconsin.

Wanted—Single assistant herdsman 15th of March or 1st of April with one of Michigan's best Jersey herds. Must be A 1 milker and have experience with Jersey test cows. Good wages, opportunity for right man. State age, experience and reference. GEORGE PEDERSEN, Mgr., Highland Farm, Shelby, Michigan.

Wanted—Single men for modern Guernsey Farm Northern Illinois, able to milk 25 cows, and willing to do general farm work. Only men of good clean habits. Wages: $60, board, and room. Tell all about yourself in first letter. Give reference. Address BOX 289, care Hoard's Dairyman. 3-2

Wanted—An experienced dairyman. One capable of handling a herd of 50 to 75 Holstein cows. Must be good dry hand milker and understand milking machine. State wages expected in first letter. GEO. G. McDONALD, 502 West 9th St., Sioux Falls, South Dakota.

Single Dairyman Wanted. Thoroughly trained dairyman wanted for supervising dairy work at Training School in Pennsylvania. Good character and cleanliness necessary. References required. Wages $100 per month and complete maintenance. Address BOX 304, care Hoard's Dairyman.

Wanted—Experienced single man for up-to-date creamery on farm near thriving city in Illinois. A 1 man only, steady, dependable with thorough knowledge. Good wages. Address BOX 309, care Hoard's Dairyman.

Experienced Test Cow Feeder, either married or single wanted. An excellent opportunity with one of Wisconsin's best Guernsey herds. The right man will be advanced as he demonstrates his worth. LARSENS FERN-DELL FARMS, Green Bay, Wis. 1-*

Wanted—By March 1st, married herdsman for pure bred Guernsey herd. House, milk and garden furnished. State age, experience, size of family, and wages expected in first letter. LLOYD RUNDELL, Roberts, St. Croix County, Wisconsin. 3-2

Farm Hand Wanted. Must be skilled in the use of machinery and Fordson Tractor, and of good character. Good wages and complete maintenance for single man, or house, garden, etc. for married man. Address BOX 305, care Hoard's Dairyman.

Wanted—A 1 experienced working herdsman capable of taking charge and developing a first class herd in Wisconsin. Single or married without children. Give full particulars. Address JOHN H. ALCOCK, 3460 Adams St., Chicago, Ill.

Wanted—Married man, small family, to work on dairy farm. Machine and hand milking. Must be reliable and clean habits. References required. Permanent employment. Good wages. House, garden and milk. GEO. R. CONGLETON, Route 4, Burley, Idaho.

Wanted—Single man to milk forty cows with a machine and help with barn work. Must be a hustler and a good milker; $75.00 per month, board and room. $50.00 bonus every six months of service. E. F. GENTRY, Wallace, Idaho. 4-2

Wanted—Girl to help with house work and cooking on modern dairy, family of three, four hired men. Must be good cook and clean. $30.00 per month, room and board. HORD BROS., Box 728, Mid West, Wyoming.

Wanted—An assistant manager for 400 acre ranch in northwestern Iowa. Must understand power machinery and all field operations. Top wages. THE A. W. RANCH, Box 471, Laurens, Iowa.

Railway Positions—Men, 17-40, wanting positions office or on trains, $125-$400 monthly, free passes, experience unnecessary. Write BAKER, Supt., 124, St. Louis, Mo. 1-24

My dairyman leaves March 1st to farm for himself. I need a successor, capable of developing into a managing partner. J. A. THOMPSON, Brookville, Indiana.

Firemen, Brakemen, beginners $150—$250 monthly; also clerks, railroads everywhere (which position?). RAILWAY ASSOCIATION, Desk M-10, Brooklyn, New York. 3-2

Wanted—Reliable single man for general work on dairy farm. Steady work. Give experience, age and wages. TRIANGLE FARMS, Watertown, Wis. 4-2

Farm Hand Wanted at once, year around employment for right party. Will not pay high wages. Light, power, and water systems. State wages. Can use elderly man. S. R. LEA, Melrose, Wisconsin.

Wanted—Experienced and reliable man to work in milk room, single or man with small family. Reference required. State wages. HOOKS DAIRY, Warthen, Ga.

Wanted—Married man to work in dairy. Must be A. 1 milker. References required. Wages $100.00 per month with house. Advancement for right party. SUNSET DAIRY, Winslow, Arizona.

Help Wanted—Married and single dry hand milkers, good living conditions and chance for advancement. Write HARTMAN STOCK FARM, Columbus, Ohio.

Wanted About March—Married couple for general farm work. Will pay $3 a day for a tryout. BLOODWOOD FARM, Mukwonago, Wis.

Wanted—Married man for poultry and small dairy. Machine milking. Must be capable poultryman. Commission. W. J. HALL, Powell, Wyoming.

Wanted—Man and wife, no children, for farm work. Live with family, wife to help in house. BERT TURNER, Libertyville, Illinois.

Wanted—Married man to milk 50 cows, steady work. ADOLPH WHITNEY, Chino, Calif. 3-2

Wanted—Single man for general farm work. $60 month for right man. R. J. PAULSON, Riley, Wis.

Wanted—Dependable girl to assist with housework on modern farm. Write BOX 186, Fond du Lac, Wis.

Wanted—Man for general farm work. No boozer. WARREN DEANS, Hammond, Wisconsin.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

Dairy Feed Man Wanted

Well established, reliable concern has opening for man, experienced in manufacturing and selling dairy feeds, to take charge of department. As man we want may now be employed, applications will be received in strict confidence. Splendid opportunity for ambitious man. Address

BOX 313, care HOARD'S DAIRYMAN

An Announcement—
To Buyers of Clean Dairy Cows

The Chicago Dairy Cow Exchange has been established as a market place for high quality, healthy, springing and fresh dairy cows.

It will Open at 9 A. M. MARCH 1

It is strictly a market place where buyer and seller can conveniently meet, where the breeder can send his cows to be sold and where the buyer can easily find what he wants.

We will have 100 Grade
GUERNSEYS and HOLSTEINS

for private sale at this market March 1st. Every animal is either fresh or a heavy springer. Only cows from accredited counties, accredited herds or herds that have passed a clean test are accepted at this market.

These cattle will come directly from the farms to our barn which is one of the horse barns of the International Live Stock Show. They are unloaded from the express track directly into our barn. Every shipment goes out in carefully cleaned, disinfected cars.

If you want healthy dairy cows from good herds, buy through the Chicago Dairy Cow Exchange.

Write us today for complete information. We would like to send you our booklet, "The Chicago Dairy Cow Exchange," that will explain fully the service that the Exchange can render you. It costs you nothing.

CHICAGO DAIRY COW EXCHANGE
REID MURRAY, Manager UNION STOCK YARDS **CHICAGO, ILL.**

Frost Teat Cups
for pump type milkers

Regardless of the size of the teat the patented construction of the Frost cup allows the teat to be perfectly braced during the entire suction stroke. These cups support and gradually massage all sizes of teats while the milk is being extracted. The action of the rubber liner produces the results of hand milking. Only one size necessary. Easy to clean, easy to assemble. Five-day money-back guarantee.

$5 Complete Set of Four Cups

FROST ENGINEERING CO.
OAK PARK ILLINOIS

Increase Your Soil Fertility

Raw Rock Phosphate

And ground limestone will supply in cheapest form the necessary elements.

Prices and booklets on request.
ROBIN JONES PHOSPHATE CO.
COLUMBIA, TENNESSEE

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

Minnesota Brown Swiss Breeders Meet

The annual meeting of the Minnesota Brown Swiss Breeders' Association, held Jan. 21 at University Farm, was one of the best attended meetings the association has ever had. Reports showed that the breed is constantly gaining strength in the state and the members have had an unusually good business during 1926.

The program included an excellent talk by Professor J. W. Gullickson.

Officers elected for 1927 are J. V. Segner, president; Jos. Verdick, vice-president; E. A. Ruehlke, secretary-treasurer.



Sets the Pace—

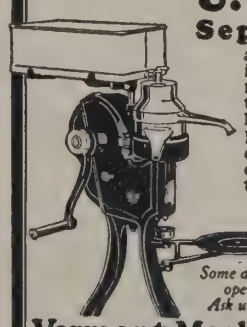
A Speed Indicator Bell on each United States Cream Separator regulates its operation.

Simple and positive in action, this device allows operators to maintain the required number of turns, only 42 or 48 per minute, and eliminates overwork and needless labor of excess speeds.

U. S. Cream Separators

are manufactured in seven sizes—motor or engine attachments for the larger sizes.

Prompt shipment can be made of complete separators or repair parts for any style.



Some desirable territories are open—perhaps yours. Ask us for terms to agents.

Vermont Machine Co. Inc.
BELLOWS FALLS, VERMONT, U.S.A.

"Holco" Ensilage Corn

Grows very tall, 14 to 16 feet, on good soil Some of our customers report having grown stalks 17 feet high. Very prolific, produces many large ears and makes the heaviest and thickest fodder. A big money maker for the Dairy farmer. Write for Catalog and prices.

Holmes-Letherman Seed Co.,
Dept. 621, Canton, Ohio

Watch our Special Opportunities Page for real farmers' bargains.

FARROW CHIX FOR SUCCESS

WINTER EGG BANKING



Buyers of Farrow Chix start banking their winter receipts sooner than raisers of unknown Chix.

Our 200 egg strain are positive winter layers

MORE WINTER EGGS

This is the cry of thousands of poultry raisers. When eggs are high and profits the greatest you need Farrow Chix to fill the egg basket. Our Star Matings White Leghorns—bred to produce 200 egg pullets—can do this for you. A few dozen eggs in winter will more than pay difference in cost of these chix and common stock.

You can't get blood out of a turnip. Neither can you expect to have laying chix from non-laying hens. Be sure of winter eggs and order our Star Matings. They are winners in egg contests. They will win for you. Tancred, Hollywood, Barron blood lines. Chix from America's Wonder Layers.

Confidence, Service, Reliability --- 3 Million Farrow Chix a Season

Quality Matings Farrow Chix March and April Delivery

	50	100	500
S. C. White and Brown Leghorns	$6.00	$11.00	$52.50
Barred Rocks, S. C. Reds, Anconas	7.00	13.00	62.50
R. C. Reds, White Rocks	7.50	14.00	67.50
Buff Orp., Wh. Wyandottes, Bl. Min.	8.00	15.00	72.50

Special Matings 3c a chick higher and Farrow famous Winter laying Star Matings Wh. Leghorns 6c a chick higher than Quality Matings.

AMERICAN CERT-O-CULD

Farrow Chix produced under "American Cert-O-Culd" rules of the American Baby Chick Producers Ass'n. There are none better. Postpaid. 100% alive delivery. Write for 80 page catalog. Free.

D. T. FARROW CHICKERIES Dept. 18 Peoria, Illinois

CARTER'S

CHAMPION CHICKS

CHAMPION CHICKS—are hatched from HEALTHY, carefully selected, heavy producing Flocks in whose veins flows the blood of the most Noted and Heavy Laying Strains of the country, such as TANCRED, MARTIN, SHEPPARD, HOLTERMAN, QUEEN BESS and many others. CONTEST WINNERS. We have the Cream of the Bred-To-Lay Flocks in the country. Birds showing extremely high records at many of the Official Egg Laying Contests are being introduced into our Breeding Pens.

OUR BIG FREE COLOR PLATE POULTRY BOOK

—shows our **CHAMPION FOWLS** in their natural colors and tells you all about them, together with detailed prices and testimonials and a great amount of information that will be of value to you. **It's Free. Order Today.**

BIG TEN PER CENT DISCOUNT allowed on all orders placed with us during the present month. Get your order in our office before midnight of the last day of this month and save ten per cent and be sure you will get your **CHAMPION CHICKS** this year when you want them. Member I. B. C. A. and A. B. C. P. A. References: Burnetts Bank or any business house in Eldorado. **CHICKS POSTPAID AND FULL LIVE DELIVERY GUARANTEED.**

AMERICAN CERT-O-CULD

CARTER'S CHICKERY, Box 298 ELDORADO, ILL.

FLOCKS BLOOD TESTED

Our flocks of Pure Bred, High Quality, Heavy Laying Fowls are annually tested **FOR BOTH WHITE DIARRHEA AND TUBERCULOSIS.** This testing is done by Assistant State Veterinary under University of Illinois supervision. 35,000 HENS UNDER TEST. **LARGEST PLANT IN THE WORLD PRODUCING BLOOD TESTED CHICKS ONLY.** Our Stock is selected especially for vigor and High Laying Qualities and Ancestry in both male and female. We are not State Accredited but eligible for Accreditation, when we call for it. We will have ONE MILLION OF THESE CHICKS for our customers during 1927. We also give a SEVEN DAY GUARANTEE on our Chicks. Our prices are moderate and from $12 PER HUNDRED and up according to variety and number ordered. We will also allow BIG DISCOUNTS on Brooders. **GET OUR BIG, FREE, COLOR PLATE POULTRY BOOK FOR 1927, before ordering Chicks elsewhere. Illustrates our Blood Tested Fowls in their natural colors and contains a great amount of information of value to you as well as detailed prices on our 15 leading Varieties. All Chicks Postpaid and 100% Live Delivery Guaranteed. Best of Shipping Facilities. Play Safe for 1927 by Buying our GUARANTEED CHICKS from fully TESTED FLOCKS.** Ref.—First Nat. Bank of Oneida.

LING'S HATCHERY, Carl Lingwell, Prop., Box 524, ONEIDA, ILLINOIS

THE CHICK OF THE HOUR

CAMPBELL'S SUPER-CHIX are hatched from bred-to-lay flocks that are real egg machines, and the Chicks have the **PEP TO LIVE** and **GROW.** Customers report Raising up to 98 per cent. Males from leading pedigree trapnested Strains such as **TANCRED, MARTIN, SHEPPARD, THOMPSON, OWEN FARMS,** etc. Flocks inspected by State Vet. rigidly culled and **HOGAN TESTED. PROMPT SERVICE** or your money back.

100 Per Cent Live Arrival Guar.--Prepaid	100	500	1000
Wh. & Br. Leghorns, Heavy Assorted	$11.95	$55.25	$105.00
Anconas	12.95	59.75	115.00
Barred Rocks, S. C. & R. C. Reds	13.45	64.75	128.00
Wh. & Buff Rox, Buff Orpington	14.95	71.75	133.00

Champion Layers Winners Trapnest Records, Contest Winners.

White Wyandot, 100, $14-95.. Columbian Wyandot, 100, $15.95. Mixed Chicks, 100, $10; 500, $47.25. Order right from this ad and save time, Free Catalog. Ref.: Schirding State Bank. **CAMPBELL'S HATCHERIES, Box S12, Petersburg, Illinois**

MINKLER'S Hatchery



MINKLER'S CHICKS Are from good, pure-bred, vigorous flocks, bred for heavy egg production, carefully selected and cared for in a manner to insure greatest vitality in the chicks.

Full Live Delivery Guaranteed—Prepaid	50	100	500	1000
White and Brown Leghorns	$6.00	$11.00	$52.50	$100.00
Anconas	6.50	12.00	57.50	110.00
Barred Rocks	7.00	13.00	62.50	120.00
White & Buff Rocks, Reds	7.50	14.00	67.50	130 00
White Wyandots, Buff Orpingtons	8.00	15.00	72.50	140.00
Heavy Assorted	6.00	11.00	52.50	100.00
Assorted Left Overs	5.00	9.50	45.00	85.00

Order from this ad. Bank Ref. Member A.B.C. P.A. & National Hatcherymen's Assn. **MINKLER'S HATCHERY, Dept. 19, Morris, Ill.**

CORN BELT HATCHERIES



LARGEST ILLINOIS ACCREDITED HATCHERIES. All our Flocks are thoroughly inspected and culled by Inspectors under State authority. Our Flocks contain the blood of the best heavy laying Strains in the country, kept on free range and properly cared for to insure Health and Vigor. **YOU CANNOT DO BETTER ANYWHERE!** 100 per cent Live Delivery Guaranteed -- Prepaid.

	100	300	500	1000
S. C. White & Brown Leghorns	$13.00	$37.50	$60.00	$115.00
Barred Rocks, S. C. Reds	15.00	43.50	70.00	135.00
White & Buff Rocks, R. C. Reds	16.00	46.50	75.00	145.00
Buff Orpington, Bl. Minorca	16.00	46.50	75.00	145.00
White Wyandottes	17.00	49.50	80.00	155.00

Choice Heavy Chicks for Broilers 100, $14; 300, $40.50 500, $65. Assorted Chicks, 100, $12; 300, $34.50; 500, $55

White Orpingtons, White Minorcas, 100, $18: 300, $52.50. Light Brahmas, 100 $19. Jersey Black Giants, 100, $22. Pekin Ducklings, 100, $25. 50 Chicks 1c higher than 100 rate. 25 Chicks 2c higher than 100 rate. Free Catalog. Ref..-First National Bank. **CORN BELT HATCHERIES, Box 35, GIBSON CITY, ILLINOIS**

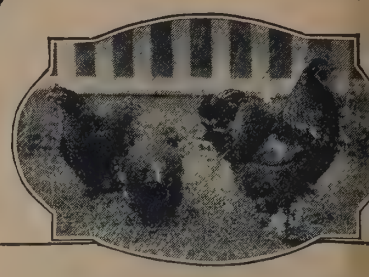
WALDBESER CHICKS~FOR PROFITS

CHICKS AND SERVICE. That is what we give. **BIG TEN PER CENT DISCOUNT** on all orders received during this month. Only one-fourth deposit required. **SAVE MONEY. BUY NOW** our Healthy, Vigorous, Pure Bred Chicks from Heavy Laying Flocks. Full Live Delivery.

Prepaid	50	100	500	1000
S. C. White Leghorns	$7.00	$13	$62.00	$120
Barred Rocks, Reds, Anconas	7.50	14	67.50	130
White Rocks and Wyandots	8.00	15	72.00	140
White and Buff Orpingtons	8.50	16	77.00	150

White Minorcas, 50, $9.50; 100, $18; 500 $88. Assid, 100, $12; 500, $57.50; 1000, $113. Order from this ad. Get them when you want them, Ref, Morton State Bank. **MORTON HATCHERY,** Chris. Waldbeser, Jr., Prop. **BOX 23, MORTON, ILLINOIS**

Poultry on the Dairy Farm



Plan Now For 1928

HOARD'S DAIRYMAN:—To get eggs during the winter of 1927—1928 we must begin to plan our work now. June hatched chicks will not give us the greatest profits next winter. If we must skirmish around for a place to put our brooder stove just before the chicks come, or if the house for the laying flock is not in readiness until December or January, we will never be able to overcome our handicap.

Our egg yield this winter was the best we ever had. Beginning early in October our pullets rapidly increased their production until in December we found them giving us a sixty per cent yield which was continued right through the month of January when this was written. This was the period when egg prices were high and our flock gave us a substantial profit. Yet the plans for this period were laid almost a year in advance.

We placed our order for chicks in December, 1925, for at that time it so happened that we were able to call on our hatchery operator and talk matters over. We then placed our order to be delivered the week of April 5th. This hatchery has been on the accredited list of the Wisconsin Department of Markets since the inspection was begun and has furnished us with uniformly good stock for several years.

By April 1st our brooder houses were cleaned, disinfected, and moved on clean ground where no poultry had ranged for several years. The brooder stoves were installed and in working order. Chick guards were in the corners and a sheet of galvanized iron fourteen inches wide and ten feet long was ready to confine the chicks close to the hover during the first few days. Feed trays and drinking fountains were ready for use. An ample supply of ground yellow corn, standard middlings, pearl grit, and bone meal was on hand ready to be used in the Wisconsin chick ration or, as it is sometimes called, the 80—20 mixture.

Early in June the brooder houses were hauled out into a sweet clover pasture where the growing chicks remained for the summer. The health, vigor, and development of the flock on this range were indeed surprising. It is better to have the hawks an occasional bird in the field to lose a greater number from wo or disease on old infected groun

The cockerels were sold as soo the market would take them. S milk was fed freely until August when a few pullets began to lay. substitution of water for the s milk and heavier feeding on w grain checked the tendency of pullets to act as if they were gr up, thus holding down the produc of half sized eggs to the minimu

We profited by an expensive le two years ago when a laying h was started in August but not ished until late in November, so the pullets were not housed unt



PULLETS AT PASTURE ON THE BRILL FARM

snowstorm had made its appeara As a result the pullets came into production a month later than should have done, and a month's p it was forever lost. Last fall an dition to the first house was built was in shape to house the pullet October 1st. At that time, over s per cent of the pullets were grown, fat, and had a good comb velopment which indicated that were ready to go to work. T weeks later the remaining pu were brought home. Less crow quarters, with good feeding du this period, had also put them in shape for winter laying, and some skimmilk, a laying mash, a floor covered with litter in which scratch feed was scattered, the soon felt at home in winter q ters.

The results have been as we shown in the beginning of this cle. What we have endeavore show is that a high winter egg y is not due to a few last minute p or preparations, but is the result complete year round program lined nearly a year in advance.

Wisconsin. WALTER C. BRI

Minerals in the Ratio

Efficient feeding seems to be foundation upon which success any kind of live stock is based. one is unable to grow the young s to maturity or feed the mature mal for economical production, venture is bound to be a failure. should in all instances try to pro for less than the selling price, the margin between cost of pro

on and market price usually indi-
tes the profit. An understanding
this is necessary since price of
e feed is not the sole index. A
eap mixture may not always give
e highest returns.

A lot of well intended information
s been offered in the past that was
ly as true as conditions at that
ne allowed. It required the estab-
hment of the importance of miner-
s and vitamins to really allow a full
derstanding of feed combinations
d flock requirements.

One can compose an interesting
iry story by using the composition
an egg as a basis for feeding.
ith a known amount of protein in
egg and the same of grain, one
n determine how many bushels of
neat are required to make a dozen
gs. That is an amusing game for
me cold winter evening but doesn't
ad anywhere. It is just about as
tional to compile a ration on that
sis as to figure the speed of a car
the size tire that is used.

When a pullet is hatched there are hundreds of minute egg yolks combined into the cluster that is called the ovary. These resemble a bunch of grapes and vary in size from those so small that they are barely distinguishable up to that of the fully developed egg yolk. The ovary is located near the back, on the left side, between the lungs and kidneys. The number of these that can mature is probably determined by breeding and those that will by feeding and management.

When, by proper feeding, the yolk reaches maturity, it breaks from the skin that encloses it and drops into the oviduct.

The first deposit by the oviduct wall is the heavy, dense albumen called the chalaza that holds the yolk suspended. Many people think that this determines the fertility or infertility of an egg. In succession the heavy albumen, the two membranes, the shell, and then the watery albumen, which passes through the shell, are formed. Protecting the entire contents is the waxy coating given to the shell surface.

One can realize from this brief description that the formation of an egg is a manufacturing process whose success depends upon all necessary materials being available at the proper time. If it was possible to determine the maintenance needs of a hen we might from that determine the excess required for the production of an egg. Hens are considered as a flock unit rather than individuals and feeding must be supplied probably in excess of demands in order to assure a sufficient amount.

Probably the most neglected and least understood part of a ration is the mineral. We have dressed hens for the table and found bits of glass, stones, or crockery in the crop and decided that a set of false teeth were required. On that account hens have been fed gravel, coarse lime rock, or other material.

When a soft shell egg was produced it was usually thought that there was a shortage of oyster shell or lime rock. Real investigational work seems to show that a lack of calcium results not in soft shells but a lowered production. A hen, when her ration is restricted in the important mineral called calcium carbonate, does not produce a part of an egg but limits her production to what the materials available will permit. Production is limited only after she has utilized the reserve which she has established during a time of plenty.

In this work at the University of Wisconsin, the hens were kept under controlled conditions. Pullets were taken from range and placed on identical rations with exception of the grit material. No record was made until after the first two months to permit the oyster shell held in the crop to be utilized.

The following table taken from University of Wisconsin Circular 141 shows the egg production from the

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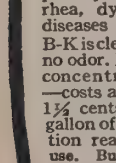
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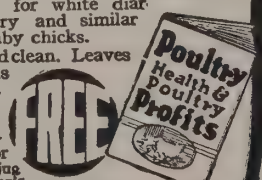
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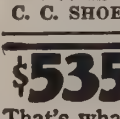
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flocks with the grit materials indicated:

Table I—Eggs Produced With Different Grit Materials

Grit material	Eggs laid* first test	Eggs laid second test	Eggs laid third test
Oyster shell	1606	557	976
Clam shell			916
Dry bone	1033	507	
Lime rock grit	948	411	879
Quartz	577	221	324
Oyster shell, lime rock, and dry bone	1530	565	1115

*In the first test, the ration contained meat scrap with consequent higher egg production than secured in later years on a less palatable ration.

It will be noted that coarse oyster shell gave the best results in the first three tests. In the last three tests an attempt was made to find whether there was any difference when minerals were fed finely pulverized. The following table shows that the finely ground oyster shell in the last three tests gave poor results:

Table II—Eggs Produced

Mineral feed	Eggs laid fourth test	Eggs laid fifth test	Eggs laid sixth test
Oyster shell (coarse)	884	761	1364
Oyster shell (pulverized)	587	590	1056
Clam shell (coarse)	780	619	1255
Dry bone	450	587	814
Lime rock	515	472	846
Lime rock and potassium iodide	532	358	714
Calcium carbonate and potassium iodide	622	513	853
Calcium carbonate	439	493	745
Calcium phosphate		475	735
No mineral addition	210	388	693

An analysis of commercial oyster shell showed the presence of some iodine, so a small amount of potassium iodide was added. In the fourth test some slight advantage was noted but in the fifth and sixth no difference could be seen.

In the last three tests the minerals were balanced as to amount of lime and fed in the mash so that each lot received the same amount. As a standard it was assumed that the average laying hen consumed about 3½ lbs. of oyster shell each year.

From a study of the table one can readily conclude that an ordinary mica grit, stones, or coarse gravel will not replace coarse oyster shell. If one is to exercise a choice between a grit and an oyster shell, it is imperative that the coarse oyster shell be used.

Table 1 shows that the best results were obtained when oyster shell, lime rock, and bone were used.

A second mineral is salt. The amount of this to be added to a ration must be limited. The usual recommended is one per cent of fine salt added to the mash mixture. An excess can cause a heavy mortality in the flock but how high the amount can be carried is rather uncertain. One per cent undoubtedly satisfies the need for this essential and is safe.

The addition of bone to a ration has been stressed more in chick mixtures than for hens.

Under certain conditions a bone addition to the ration may not be required. When animal protein is supplied by meat and bone meal or often meat scrap, the phosphates may be liberally supplied. The addition of raw bone to the ration under these conditions may not be imperative.

When, particularly, one is using milk as the one source of animal protein without supplementing from another source in the mash, it is necessary to add bone. Even though the experimental work along this line may be rather limited, it is advisable since the additional cost is rather low.

The ordinary ration is probably safer when slightly overloaded with minerals than lower in cost and le cient.

Other minerals may be found essary. At the present time it furnishes calcium carbonate or in coarse oyster shell and lime grit in hoppers; sodium chl which is fine table salt at the ra one per cent in the mash; ca phosphate—bone phosphate of —in bone, either hopper fed the mash, it will undoubtedl found that the mineral require of a flock are well supplied.

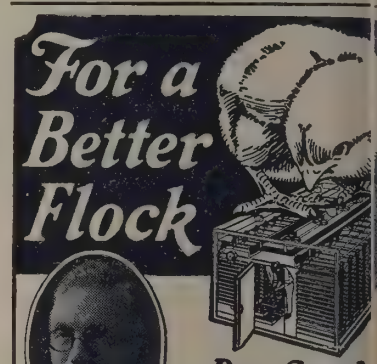
Oyster shell should be c When one finds the fine, silty ma feeding down into the hopper tr it should be removed and save the chick ration or thrown out low the hens access to the co shell.—J. B. HAYES.

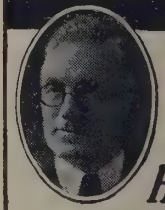
Efficiency

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Extension Work Reaches The Farmer

HOARD'S DAIRYMAN:—The extension work as carried on by the agricultural colleges, and particularly the county agent program, has come in for praise as well as criticism during the years since it has been established. Verbal battles have been waged and a good deal has been written relative to whether the county agent was of any value or simply a burden on the taxpayer. Sizing up the situation, as the writer has studied it in many states, we have concluded that the folks who never call on the county agent for assistance, and who never deign to attend either a meeting or a demonstration, are the ones who are the most insistent that a county agent is of no value in a community. On the other hand, the progressive, wide-awake farmers and their wives who are always in the forefront as regards up-to-date practices and who realize that agriculture is a business requiring brain work as well as brawn, are the people who believe that a county agent is a valuable asset.

It is always interesting to note that the people who are critical of colleges and of extension work in general, unconsciously perhaps, are often found growing a certain variety of grain, using a certain feeding practice, or using a certain practice in fighting a fungus disease or insect pest; all of which are the results of college research work. New practices come into a community slowly, and after a very few years have become a recognized procedure. Few people stop to trace the origin of practices, merely accepting them without thinking of the time and the trouble that may have been taken to test them out.

Dr. C. W. Warburton, once a specialist in cereals with the United States Department of Agriculture, but now director of extension work for the Department, gave an interesting address at the 1925 meeting of the American Society of Agronomy, relative to taking crops and soils lessons to farmers through extension work. Dr. Warburton reported that in 1923 actual statistics showed that, according to county agent reports, 70,059 farmers were following the advice of extension workers in the use of fertilizers. Farms adopting new or improved practices with crops that year were as follows: Corn, 171,000; wheat, 94,000; oats, 74,000; alfalfa, 56,000; soy beans, 80,000; sweet clover, 30,000; other clovers, 9,000; potatoes, 126,000; cotton, 86,000; and tobacco, 26,000.

For example, in New Jersey the research worker in plant diseases, the extension agronomist, and the county agents in the principal potato growing counties have co-operated for several years in a campaign for the introduction of certified seed potatoes. In 1921 only 6% of the seed potatoes sold by dealers were certified, while in 1924 85% of the seed handled by the same dealers was certified. The 1900 census in the state showed only 4 acres of alfalfa; this had increased to 1,200 by 1910 and to 19,000 acres by 1923, mainly the result of extension efforts.

In 1923 and 1924, the extension division of the U. S. Department of Agriculture co-operated with the extension forces of the states of California, Colorado, Iowa, and New York in trying to determine the effectiveness of extension work. In California, about 4 square miles were covered; in Colorado, the southern half of Logan County; in Iowa, five townships in Marshall County; and in New York the studies were made in two townships in each of three counties. In each of the counties studied a county agent and a home demonstration agent had been employed for several years. A total of 3,954 farms were studied in these areas.

Direct contacts between representatives of the extension service and members of the farm family were reported in the case of 69% of these farms. In a county where there had been a county agent for 12 years, 82% of the farms had been influenced by his work. In Iowa, 16% of all the farms had adopted a new practice in oat production and a like percentage in the production of soy beans. In Colorado, 24% had adopted new wheat varieties and 12% had changed some practice with reference to corn. In New York, smut treatment had been adopted by 25% and new practices in corn growing by 12%.

The principal methods by which people were induced to adopt the new practices were by adult demonstrations, 42%; meetings, 41.4%; indirect, 26%; news service, 10.9%; bulletins, 10%; farm visits, 9.8%; and office calls, 5.2%.

Nebraska. H. H. BIGGAR.

Limestone in Mineral Mixture

HOARD'S DAIRYMAN:—In your issue of November 25th the question was asked: "Why do cows chew wood if fed a mineral mixture?" I believe this is due to the minerals in the mixture not being in a digestible form. Wisconsin ground limestone is not digestible. Missouri or New York limestone is better. The mineral mixture I use will stop cows from chewing wood, although I have had people tell me the more mineral they feed the more wood the cows chew.

This chewing on wood will result in a sickness called "peca." Cows will get stiff and run down. The bones get honey-combed and brittle, and finally some of the bones break. A large number of cows in the northern part of Door County were afflicted this way last summer. I had five of these myself, but I saved them. The men from Madison killed one of these cows in this county and sent the bones back to Madison to be analyzed. They found a lack of phosphate. The disease seems to affect the younger cows first.

Wisconsin. CHAS. KROOGMANN.

Cows, however well bred or selected, which are unduly thin or out of condition do not make profitable returns from rations. It pays to keep cows in thrifty condition at all seasons of the year.—G. C. HUMPHREY.

AUCTION—MARCH 16

At Fond du Lac Sale Pavilion

Fond du Lac, Wisconsin

500 HEAD *Tuberculin Tested and ready for Inter-state shipment*

300 GUERNSEYS
200 HOLSTEINS
Fresh and Close Springers

These cattle will be sold in lots of one, two and three, five and ten head.

This will be the largest grade sale ever held in the world!

Cattle guaranteed to be as represented.

Sale Opens 9 A. M., — Wednesday Morning, — March 16th, 1927

CATTLE CAN BE INSPECTED DAY BEFORE SALE

For information write O. G. CLARK & CO., West Salem, Wisconsin

COMPLETE DISPERSION!

VILLAGE FARM GUERNSEYS

Tuesday, March 22d, Livingston, Wis.

50 REGISTERED GUERNSEYS

(Imported and American Bred)

Including 22 head of milking age, 8 bred heifers, 10 open heifers and 10 bulls 4 to 12 months old.

8 of the cows have A. R. records, 7 of which average above 600 lbs. fat, one a class G record of 450 lbs. fat.

There are 2 daughters of Sequel's Slogan with their descendants. The rest of the herd is mostly May Rose breeding.

There are 2 daughters and one son of Imp. Dora of Village Farm (640 lbs. fat) that sold in 1926 National sale for $1200. Also a twin sister with a record above 600 lbs. fat.

Herd is T. B. tested and in good breeding condition.

CHAS. A. WILKINS, Sale Manager, PLATTEVILLE, WISCONSIN

BRIAN L. RUNDELL, Owner, Livingston, Wis.

Blatchford's CALF MEAL



Save $10 to $20 on every calf!

1 lb. Blatchford's Calf Meal guaranteed equal in food value to 1 gal. milk! Costs only a fraction of what your milk is worth. Easy to feed. Raises big healthy calves. Used and endorsed by biggest stock farms. Most successful and economical milk substitute. Ask any user.

Send for FREE Sample

Just a bit but enough to show quality. Send now.

Blatchford Calf Meal Co. Dept. 4622 WAUKEGAN, ILL.

DISPERSAL SALE

50 Registered Guernseys

MARCH 2, 1927 — at 1 P. M.

This is a good heavy producing herd that has always made money for the owner. Many of the cows are sired by Daisy Pearl's President of A. D. F. 49357, who has proven himself a very fine sire of type as well as production. Cows and heifers are bred to City Home Good Luck's Ace 101041, out of Langwater Good Luck A. R., 628 lbs. of fat in class A and paternal grandam has 630 lbs. fat class F.

Herd Federal Accredited and free from abortion

SALE AT THE FARM.

H. E. KAETTERHENRY, Owner, STRATFORD, WISCONSIN

SALE ANNOUNCEMENTS

Feb. 25—Holsteins. Dispersion of George Fox's Holstein herd at Sycamore, Ill. R. E. Haeger, Manager.

Mar. 1-2—Holsteins. Holstein Dispersion of Walcowis—O'Connor Bros., J. W. Howard and Lauritz Larsen herds at Waukesha and Watertown, Wis. Haeger, Baird and Darcey, Managers.

Mar. 2—Guernsey Dispersal. H. E. Kaetterhenry, Stratford, Wis.

Mar. 16—Grade Guernsey and Holstein Sale, Fond du Lac, Wis. O. G. Clark & Co., West Salem, Wis.

Mar. 22—Guernsey Dispersal. Brian L. Rundell, Livingston, Wis. Chas. A. Wilkins, Sale Mgr., Platteville, Wis.

Mar. 23—25th and semi-annual sale of Registered Guernseys. Waukesha County Guernsey Breeders' Association, Waukesha, Wis., F. E. Fox, Sec'y.

Mar. 24—La Crosse County Guernsey Breeders. Registered and high grade Guernseys, West Salem, Wis. H. W. Griswold, Sale Mgr.

April 26—Holsteins. U. S. National Blue Ribbon Sale at Oconomowoc, Wis. Haeger, Baird & Darcey, Sale Mgrs.

April 27-28-29-30—Holsteins. U. S. National Spring Sale at Waukesha and Watertown, Wis. Haeger, Baird & Darcey, Sale Mgrs.

May 4—Guernseys. South western Wisconsin Guernsey Breeders' Sale at Livingston, Wis. Chas. Wilkins, Platteville, Wis., Sale Mgr.

May 9—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.

May 12—Guernseys. National Guernsey Sale at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.

May 13—Coventry—Dunwalke—Florham—Rockingham, Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sales Mgrs.

May 31—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. J. B. Wood, Sale Mgr.

June 2—Guernseys. Highlands Dispersion, W. H. Grotwick, Owner, at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.

June 2—Holsteins. National Holstein Sale at Springfield, Mass.

June 15—Guernseys. Breidablik Guernseys at Auction. Breidablik Farm, Wilmington, Del. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.

June 15-16—The National Ormsby Sale at the Minnesota State Fair Grounds, Minneapolis, Minn. Melin—Petersen Co., Sale Mgrs.

June 16—Louis Merryman's 16th Semi-annual Sale, Timonium, Md. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.



The Tight Bottom Spreader Without Gears

Equipped with the famous original "Great Western" continuous ratchet feed, beaters in an unusually advantageous position, and oscillating auto type front truck, a good job of spreading is certain under varying conditions with the—

Rock Island
Tight Bottom Spreader

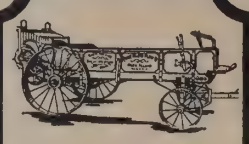
The Rock Island No. 1 spreads manure evenly its entire width—it covers the wheel tracks—its ratchet feed has been a success for over thirty years—a simple, positive, steady drive.

It is low down—easy to load—no projections above sideboards. Wide spread.

Auto-type oscillating front truck — short wheel base—close hitch—all four wheels under the load—better traction—lighter draft.

More links of drive chain in mesh when spreading—chain held away from sprocket positively when not spreading.

The next time you are in town ask your Rock Island Dealer about this spreader. Write us for free booklet describing it, and we will also send you a copy of our attractive catalog. Ask for free package C-51.



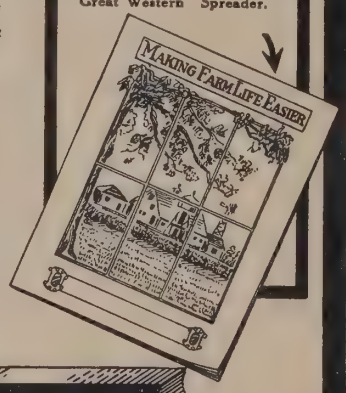
Rock Island "Great Western" Spreader

Manufactured by the Rock Island Plow Company—over 160,000 already on farms.

This is the endless apron spreader with patented end-gate and hood, beater in unusually advantageous position, and the original ratchet feed—a continuous drive used successfully for over thirty years.

Low-down — easy to load; short wheel base, close hitch, roller-bearings--all four wheels under the load—light draft.

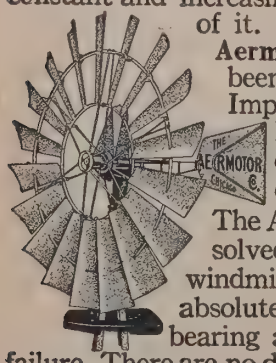
Ask us for free booklet describing the Rock Island "Great Western" Spreader.



Rock Island
Plow Company - Rock Island, Ill.

A WONDERFUL SUCCESS

"Nothing succeeds like success," they say, but where success is constant and increasing there must be some unusual merit back of it. The continued success of the **Auto-Oiled Aermotor** is based entirely on merit. It has been made better and better year after year. Improvements have been added as experience has shown the way. The **Auto-Oiled Aermotor** of today is a wonderfully durable and efficient windmill.



The Aermotor Company, more than 12 years ago, solved the problem of complete self-oiling for windmills in such a way as to make the system absolutely reliable. The oil circulates to every bearing and returns to the reservoir with never a failure. There are no delicate parts to get out of order. The double gears run in oil in a tightly enclosed gear case.

CHICAGO KANSAS CITY **AERMOTOR CO.** DES MOINES OAKLAND DALLAS MINNEAPOLIS



Fast Grinding Low Cost

This mill has greater capacity per horse power, and grinds twice as fast and at less expense than any other type. Make big money grinding your own feed, graham flour and rye flour with a

HOWELL *Roller Feed Mill*

Built like a flour mill. No buhrs, no stones to wear out. Trouble-proof. Guaranteed to get the wild oats. Gives lifetime service.
Thirteen sizes—any capacity—a size for any engine. Write for catalog.

R. R. Howell & Co., 4 Malcolm Ave. S. E., Minneapolis, Minn.

Mention Hoard's Dairyman to Your Dealer — It Helps Us

Trailing Holsteins to South America

(Continued from page 179)

have to be irrigated here, the rainfall being slight; but the soil is very fertile and with water almost anything grows in it.

The ceremonies before the fight consisted of a parade of the matadors, toreadors, and picadors. They marched before the executive box where a band played Spanish melodies, bowed, and received, officially, permission to slay the bulls. A detail of carbineros, or soldiers, were on hand to keep order.

A bugle blasted, the eyes of the 8,000 people present veered instantly in one direction, and in bounded the bull. He came out of a dark cell and it looked as if he had been thrown in. Catching his feet, he galloped forward and was met by one toreador with a gaudy mantel and then another. He partly rushed the first, forcing him behind a barrier—many of which are built around the arena, kicked half vicious and half playful at the second in passing, and snorted vehemently at the third, bringing up finally on the opposite side of the arena, the farthest distance away from his enemies.

He waited here until the toreadors caught up to him, blank with amazement, wild-eyed, and seeming to search the crowd over for a friend, and asking at same time, "What crime is mine, or why am I here?" While he was thus standing we found out that the fresh red rents on his body were inflicted while he was in a cage and that their purpose was to enrage him. The banderillas, edged like a porcupine quill, were thrust deep in his chine, and red welled around them and trickled down. And out of these darts burst explosives, resembling in report the ten-cent canon cracker of twenty years ago in Chillyville.

But there was no rest for this blue-roan with the Texas horns. They were surrounding him; he would have to try to understand what they wanted and then make the best of it, because there was no fence to hop over now, no running away. The toreadors outnumbered him 5 to 1, and, from their continued harrying and tantalizing, he suddenly began to hate them all; but which one to gore first was the question. When he started after one others interfered, and in the end he got desperately out of wind and confidence.

It was at this juncture that the bugle blew again and the matador comes forward to distinguish himself. To restore the bull with confidence in his own ability to charge, the picador comes in on a horse which is blindfolded over both eyes and led directly in front of the bull. The picador jabs the pike into the bull's crest and the horse consequently becomes the victim of the animal's rage. The destruction of the horse is grewsome, yet it is a scene in the spectacle for which the crowd seems to wait and observe with relish.

In the next act, the matador parries with the bull when the latter will parry with him, and this continues until the bull succumbs either from exhaustion and loss of blood or from the renowned stab.

There were six bulls slaughtered during the afternoon and several horses. A gang of foreign sailors were there and on one occasion when a bull flipped the matador, a rousing cheer went up for the principal with the horns, which sympathy for the principal without the horns the crowd failed to appreciate and a fight of another sort almost occurred.

It was dark when we reached the ship and on the well-deck of the Humming Bird there was the most disconsolate assembly of voices one could ever hope to hear. Little Prince of Time and Lady Della and Gene were thinking apparently that I had gone away and left them forever.

[EDITOR'S NOTE:—This is the fourth of a series of six articles by Mr. Beattie. The next will appear in an early issue.]

Oregon Cow Breaks State Record

Graymere Erdine, a full sister to Graymere Alice, the world's champion Jersey yearling in the 305-day division, has completed her second official production test with a gold medal and state championship record. Graymere Erdine is owned by M. N. Tibbles of Oregon. Erdine was started on her latest test when she was 3 years and 10 months of age, and in the following 305 days she produced, with calf, 724.26 lbs. fat and 10,732 lbs. milk.

On her first test made in junior two-year-old form, Erdine produced 657.10 lbs. fat and 9,377 lbs. milk in 365 days. Graymere Erdine's record is the second highest Jersey record in this age class.—The American Jersey Cattle Club.

"Speech was given man to conceal his thoughts."



use modern style bevel siding on your farm buildings.

Add to their appearance, long life and market value by siding them with straight, smooth enduring Western Red Cedar.

With or without paint this remarkable wood is proof against storm or sun — its unusual insulation value makes buildings sided with it warmer in winter and cooler in summer. It is light, easy to work and will not warp, swell, shrink, buckle or check.

Cut from the giant cedars of the Pacific Northwest, it is Nature's supreme outside wood — rot resisting, easy to nail without splitting.

Write for useful information about farm building.

RED CEDAR LUMBER MANUFACTURERS' ASSOCIATION
4149 Stuart Bldg., Seattle, Washington

You can tell genuine Western Red Cedar by this mark on the bundle

Western Red Cedar

Guernsey Cattle in the United States

(Continued from page 177)

cial yearly records up to January, 926, are listed below:

en Guernsey Sires Having the Largest Number of Advanced Register Daughters

Name	Number A. R. daughters
overnor of the Chene R. G. A. S.	114
eoman's King of the May	103
angwater Demonstrator	71
asher's Sequel Imp.	70
lara's Sequel Imp.	58
alaxy's Sequel Imp.	53
e Plus Ultra	48
ora's Governor of Chilmark Imp.	47
eda's May King	45
lorham Laddie	42

The offices of the American Guernsey Cattle Club are located at Peterboro, N. H.

Scale of Points for Guernsey Cow

Style and Symmetry: Attractive individuality revealing vigor, femininity and breed character; a harmonious blending and correlation of parts, an active well-balanced walk	5
Head: Moderately long, clean-cut, showing femininity and breed character; a lean face; wide mouth and broad muzzle with open nostrils; strong jaw; full bright eyes with gentle expression; forehead broad between the eyes and moderately dishing; ridge of nose straight	5
Horns: Yellow, small at base; of medium length; inclining forward; not too spreading	1
Neck: Long and thin; clean throat, smoothly blending into shoulders	2
Withers: Chine rising above shoulder blades, with open vertebrae	2
Shoulders: Shoulder blades set smoothly against chine and chest wall, forming neat junction with the body	2
Chest: Wide, and deep at heart with least possible depression back of shoulders	4
Back: Appearing straight from withers to hips	5
Loin: Strong, broad, and nearly level laterally; width carried forward to junction with the ribs	3
Hips: Wide, approximately level with the back; free from excess tissue	2
Rump: Long, continuing with level of back; approximately level between hip bones and pins. Pins well apart	4
Thurls: Wide apart and high	2
Barrel: Deep and long with well-sprung ribs. Individual ribs: Long, flat, wide apart, and free from excess tissue	10
Thighs: Incurving when viewed from side, thin, and wide apart when viewed from rear; well cut up between the thighs	2
Legs: Flat, flinty bone, tendons clearly defined; front legs straight; hind legs nearly upright from hock to pastern, set wide apart and nearly straight when viewed from behind. Pastern strong and springy	2
Skin: Loose and pliable, and not thick, with oily feeling; hair, fine and silky	3
Tail: Long, tapering, with neat, strong, level attachment, neatly set between pin bones; fine bone and hair; nicely balanced switch	2
Udder: Uniformly fine in texture; free from meatiness; covered with pliable velvety skin	3
Veins prominent	1
Attachment to body, strong, long, and wide	4
Extending well forward; extending well up behind	4
Sole; level between teats	2
Teats of even convenient size; cylindrical in shape; well apart and squarely placed, plumb	3
Mammary Veins: Long, tortuous, prominent and branching with large numerous wells	3
Secretions Indicating Color of Product: Indicated by the pigment secretion of skin which should be a deep yellow inclining toward orange in color; especially discernible in the ear, at the end of bone of tail, around the eyes and nose, on the udder and teats, and at the base of horns; hoofs and horns amber color	20
Color Markings: A shade of fawn with white markings	2
Size: Mature cows about 1,100 lbs. in breeding condition	2
Total points	100

Scale of Points for Guernsey Bull

Style and Symmetry: Impressive, showing vigor, masculinity and breed character; a harmonious blending and correlation of parts; an active, well-balanced walk	10
Head: Clean cut, showing masculinity, refined character, lean face, wide mouth and wide muzzle, wide open nostrils, and bright masculine eyes. Broad between the eyes and moderately dishing. Bridge of nose straight	6
Horns: Yellow, small at base, medium length, not too spreading	1
Neck: Long, masculine neck with moderately strong crest, smoothly blending into shoulder; clean throat	3
Withers: Chine rising above shoulder blades, with open vertebrae	3
Shoulders: Shoulder blades set smoothly against chine and chest wall, forming neat junction with the rest of the body	2
Chest: Wide and deep at heart with least possible depression back of the shoulders	4
Back: Appearing straight from withers to hips	8
Loin: Strong, broad and neatly level laterally; width carried forward to junction with the ribs	3
Hips: Wide apart, not too prominent	2
Rump: Long, continuing with level of the back, also level between hip bones and pin bones. Pin bones well apart	6
Thurls: Wide apart and high	2
Barrel: Deep and long with well-sprung ribs. Individual ribs; long, flat, wide apart and free from excess tissue	10
Thighs: In-curving as seen from side, thin and wide apart from rear; well cut-up in the twist	2
Legs: Flat flinty bone; tendons clearly defined; front legs straight; hind legs nearly upright from hock to pastern, set wide apart and nearly straight when viewed from behind. Pastern, strong and springy	2
Skin: Loose and pliable; medium in thickness; hair fine and silky	5
Tail: Long, with neat, strong level attachment; neatly set between pin bones	2
Rudimentary Teats: Teats wide apart and squarely placed and free from scrotum	2
Rudimentary Veins: Well defined and prominent; with large and numerous wells	3
Secretions Indicating Color of Product: Indicated by the pigment secretions of the skin which should be a deep yellow inclining toward orange in color; especially discernible in the ear, at the end of the bone of tail; around the eyes and nose, on the scrotum and at the base of horns; hoofs and horns, yellow	20
Color Markings: A shade of fawn with white markings	2
Size: Mature bulls about 1,700 lbs.	2
Total	100

(EDITOR'S NOTE:—This is the fourth of a series of six articles on the dairy breeds in the United States. The next will appear in an early issue.)

McCormick-Deering Tractors

Two sizes, 10-20 h. p. for 2 plows, and 15-30 h. p. for 3 plows. Fully equipped, 4-cylinder tractors, with ample power at belt, drawbar, and power take-off.



Next Spring—

Summer, Autumn, Winter—Profit with McCORMICK-DEERING Tractor Power

EVERY YEAR McCormick-Deering Tractors stand stronger with the farmers. The name McCormick-Deering has become the symbol of reliable power farming because it stands for carefully built, practical, many-sided, long-lived farm power.

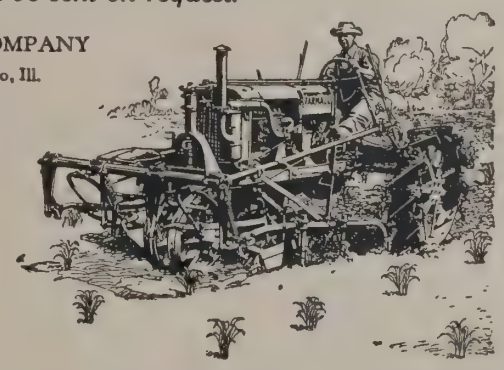
That is so in your community and everywhere. Men who have used International Harvester tractors—for months or for years—are steadfast friends of McCormick-Deering farm power. They will recommend McCormick-Deering when you come to buy. Other men, who risked using cheaper, lighter tractors, found themselves underpowered. They fell short of reaching full production with the least possible labor and in the shortest possible time. After this experience they were ready for new and better power. There are thousands like these, too, who will recommend McCormick-Deering when you make your power investment.

McCormick-Deering gives you your choice of three tractors—the McCormick-Deering 10-20, the 15-30, and the new all-purpose row-crop tractor, the FARMALL. All are quality tractors, built to last many years. Any one of them will work for you with *drawbar, belt,* and *power take-off* the year around. Any one of them will cut your producing costs and add to your profits. Look them over at the dealer's store. *Catalog will be sent on request.*

INTERNATIONAL HARVESTER COMPANY OF AMERICA (*Incorporated*)
606 S. Michigan Ave. Chicago, Ill.

The FARMALL!

The remarkable new 4-cylinder McCormick-Deering FARMALL, designed to handle cultivating and planting of row crops, as well as all other farm power work.



Most Popular — Most Profitable — Best McCORMICK-DEERING *for* 1927!



Don't Pay For 4 Months

We will send you an Olde Tan Metal-to-Metal Harness and you don't pay us a cent for 4 months. 30 days' Free Trial. Returnable at our expense if not satisfactory. You should know about this improved metal-to-metal harness construction. Metal wherever there is wear or strain.

Olde Tan Harness

Write for FREE Book

Ask for free harness book showing pictures of latest harness models and telling all about the real old fashioned Olde Tan leather.

BABSON BROS., Dept. 98-52
2843 W. 19th St. Chicago, Ill.

When—

Linseed Meal constitutes as high as 33% of the grain rations used by successful feeders, dairymen and breeders—

When these same men tell you that Linseed Meal pays as high as 100% there must be some reason for it.



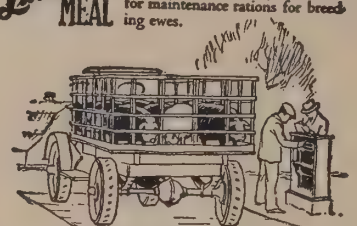
Linseed MEAL —shows a good profit when added to rations for dairy cows. Helps raise calves economically.



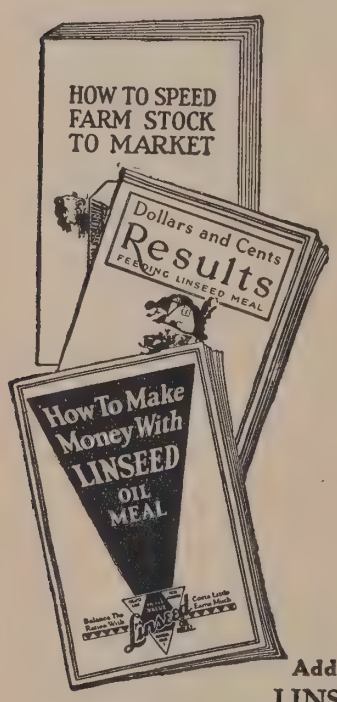
Linseed MEAL —hastens prime market condition for beef and shows a good profit on the investment.



Linseed MEAL —pays good profits when added to rations for fattening lambs and for maintenance rations for breeding ewes.



Linseed MEAL —proved worth $85.00 per ton feeding value in recent experiments, saved month's time in securing market weight of 200 pounds and solved fall pig problem by giving 2 1/2 pounds daily gain without scourage.



These books tell how and why —get any or all of them— free

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LINSEED MEAL
EDUCATIONAL COMMITTEE
1128 Union Trust Building
CHICAGO, ILL.

FEED Linseed MEAL

PAYS AS HIGH AS 100% PROFIT

Come to Headquarters
"OWL BRAND"
COTTON SEED MEAL
NUT size and PEA size cake
F. W. BRODE CORPORATION
MEMPHIS TENNESSEE

SAVE MONEY ON ALFALFA $9.90 PER BU.
Extra Hardy Tested Recleaned Seed. 98% pure. Sow Alfalfa. Much cheaper than Clover and twice as profitable. Our prices will save you Big Money. Have highest quality Clover, Sweet Clover, Timothy, Grass Seeds of all kinds. Ask for our 132-pg. catalog and special prices. Have wonderful values in Field and Garden Seeds. All sold on money-back guarantee. Samples free. Write today.
BERRY SEED CO., Box 1555, Clarinda, Iowa

For healthier, happier bulls!
For safer, surer breeding!



SAVES
— *Lives*
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DR. SPENCER'S BULL TAMER
Success in thousand dairies. No harsh feature; eat, drink, pasture and breed just the same. First all purpose control. 30 days' approval. Let us send you all facts.
THE SPENCER BROTHERS CO., Savona, N.Y.



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Wash.	King Co.	Dec.	713	743	29.6	G. G.	17	654	38.5	C. A. Funk
Mo.	Lawrence Co. 1	"	204	441	19.0	R. J.	7	519	28.0	E. W. Hillhouse
Va.	Bot.-Roanoke	"	352	594	24.0	J.-G.	12	625	34.1	P. W. Pettit
"	Leudoun 3	"	723	471	21.8	H.-G.	22	768	36.6	M. A. Ankers
Nebr.	No. Platte Valley	Jan.	411	874	34.0	H.	38	1577	56.3	O. W. Moore
Ohio	Columbiana	"	419	638	24.6	H.	10	1110	41.4	T. Bandy
Tex.	Wise Co.	"	258	526	29.9	J.	6	793	42.2	Kelly & Sons
Minn.	St. Louis Co. *	"	307	600	22.8	G.	4	721	40.1	H. Larson
Kans.	Dickinson *	"	314	774	28.5	A.	8	1041	45.8	R. E. Stark
Minn.	Pope Co. *	Dec.	243	457	19.1	G. G.	18	667	33.1	C. J. LeCount
Md.	Baltimore Co.	"	561	618	22.4	R. H.	27	859	30.9	J. M. Dennis
Colo.	Mesa Co.	Jan.	340	716	29.9	G. J.	10	802	42.0	G. Pond
Ore.	Lane Co.	"	389	704	30.3	G. J.	14	1145	47.9	J. Bertelsen
N. D.	Burleigh Co. *	"	417	594	20.9	H.	6	1005	38.4	M. Colton
Tenn.	Hamilton Co.	"	595	540	25.6	R. J.	20	632	32.0	Ashland Dairy
Wis.	Ham.-Baldwin *	Dec.	377	564	23.0	R. H.	13	1425	47.9	N. C. Lorentsen
"	Stanley-Thorp *	"	484	537	20.9	R. H.	22	1167	39.9	U. H. Krause
"	Sparta *	"	354	704	29.2	G. H.	11	887	38.3	C. Batteen
"	Union-Wap. Co. *	"	340	524	19.6	H.	10	1491	48.6	L. P. Much
"	Spring Valley *	Jan.	405	639	26.0	R. G.	13	766	37.5	Gunderson & Han
"	Richland *	"	550	658	21.6	G.	14	919	41.3	W. C. Taylor
"	Algoma	"	412	692	32.1	G. G.	10	942	42.8	J. Jacobsky
"	Westby *	"	338	503	25.6	J.-G.	7	1059	47.2	J. B. Wemmer
"	Ced.-Grafton	"	304	780	30.1	H.	12	1228	42.4	E. Wegmann
Mich.	Chippewa *	"	267	575	21.1	R. H.	4	1065	33.2	C. G. Walker
"	Macomb 3 *	"	261	566	22.0	H.-J.	13	1273	42.0	A. Fistler
"	Branch Co.	"	220	618	24.8	G.	4	896	37.9	D. W. Williams
"	St. Joseph Co. *	"	223	600	23.4	J.-G.	9	749	37.8	F. Sahrke
"	Ottawa-Allen. *	"	228	624	23.1	R. H.	11	1471	47.3	R. B. Knoodpluzer
"	Livingston *	Dec.	300	784	28.2	R. H.	9	1228	44.7	Armstrong Bros.
"	Leelanau Co. *	"	195	436	18.3	G.	6	868	41.0	J. Dobson
"	Mecosta-Remus *	"	209	568	26.9	R. J.	8	706	43.5	V. Bott
"	Freeport-Barry 2 *	"	168	782	32.2	R. H.	8	1532	50.5	A. D. Miller
"	Lans.-Ingham Co. *	"	249	757	31.1	H.-G.	7	1471	57.6	O. J. Becker
"	Kalamazoo 2 *	"	326	492	22.9	J.	8	677	35.7	R. W. Weinberg
"	Macomb 2 *	"	270	528	20.4	M.	12	875	33.5	J. Gamm & Sons
"	So. Kent Co. *	"	277	647	27.7	R. H.	9	1745	56.9	W. Harper & Sons
"	Ionia-Belding *	Jan.	389	800	31.8	G. J.	5	1087	53.4	W. L. Cook
"	Gogebic-Iron *	"	374	608	24.3	H.	5	1202	43.8	V. Ganin
"	Ott.-Jamestown *	"	243	759	28.5	G. H.	15	1249	40.9	J. Keizer
Minn.	Morrison Co. *	"	325	288	26.5	G. H.	17	1200	40.4	Swanson Bros.

* Retest rules followed.

The Herd in Good Condition

HOARD'S DAIRYMAN:—The three high herds for January in the Richland Association of Wisconsin tell a story of how good condition reduces the cost of production.

The high herd consisted of 16 Guernseys, all but one fresh before November. The herd produced 919 lbs. milk and 41.3 lbs. fat per cow, at an average cost of $9.10 for feed. The herd was in good condition. Cows were fed one pound of mixed hay and three pounds of silage per 100 lbs. live weight. On the average the cows were fed 9 lbs. daily of a grain mixture that was charged to them at $33.95 a ton. The grain mixture consisted of 25 lbs. oats, 25 lbs. corn, and 50 lbs. of a 16% dairy ration, a half pound each of linseed meal and cottonseed meal being fed in addition.

The second high herd consisted of 16 Holsteins, all but three being fresh before November. This herd was not in the best of condition, but produced 1,228 lbs. milk and 40.5 lbs. fat per cow at a cost of $11.77 for feed. This is $2.67 higher feed cost per cow with nearly a pound less fat produced. Cows were fed 3.5 lbs. silage per 100 lbs. live weight and all the mixed hay they would eat. On the average, cows were fed 12.7 lbs. a day of a grain mixture that was charged to them at $33.90 per ton. The grain mixture consisted of 25 lbs. corn and cob meal, 20 lbs. oats, 20 lbs. bran, 20 lbs. linseed meal, and 15 lbs. cottonseed meal.

Third high herd consisted of 16 Holsteins, all but two fresh before November. The herd was in fair condition and produced 1,075 lbs. milk and 38.5 lbs. fat per cow, at $8.61 for feed. Cows were fed 3.6 lbs. silage per 100 lbs. live weight and all the mixed hay they would consume. On the average cows were fed 7.3 lbs. a day of a grain mixture charged to them at $33.20 per ton. The grain mixture consisted of 20 lbs. hominy, 30 lbs. oats, 20 lbs. bran, 10 lbs. linseed meal, and 10 lbs. cottonseed meal.

By studying the figures we find the high herd, which was in good condition and fed closely to the usual requirements as to grain and roughage, made $5.97 per cow more above feed cost than the second high herd m $1.33 more than the third high h The third high herd made $4.64 m per cow above feed cost than the c ond high herd. This goes to s that overfeeding doesn't pay, and a cows in good condition produce s on less feed. Proper feeding and c make the most profits.

PETER NELSON, TESTE

Retests in Minnesota

HOARD'S DAIRYMAN:—The testg of cows by the usual cow testg method, particularly in the leadg dairy states, is rapidly passing fr the early educational and demonstr tion type to one that places a co mercial value on the records. Te value of cow test records is in dir proportion to the confidence e public places in them. To prode the kind of records that will co mand the confidence of the pub requires the application of standd rules and regulations for the condt of associations. To that end, e state supervisors of cow testing h been working the past years, gradu ly securing uniformity in the rus and their enforcement.

Unusually high records for indiv ual cows or herds for a given mon are sometimes questioned. Ts should not be, as it tends to destr confidence in the records. The bt solution of the problem lies in a t test made after the regular test t verify the original production. Ts test is made by the regular tester charge on request of the state sup visor. Preliminary reports are mad by the tester on testing day to te state supervisor who then determis whether or not a retest is necessa The application of the rule is nt compulsory. Each association decis for itself as to whether or not it esires to have the retest rule appli Statewide and local publicity will e given the fact that certain assoc tions are availing themselves of te retest privileges.

Seven associations in Minnes have officially indicated their des to adopt the retest rule. They a as follows: Owatonna No. 1, Morg Pope County No. 1, Howard Lal Montrose, Yellow Medicine, and R

ing. The officers and directors of e association may decide the ques-on of retesting in their association.

Rules of the Retest

1. Preliminary reports for cows ilked twice daily producing 70 ounds fat for the month, and for ows milked three or four times pro-ucing 80 pounds fat, and for herds which the milking cows average er 45 pounds fat are made to the ate supervisor by the cow tester.
2. From these detailed reports, the pervisor decides the advisability of retest.
3. When a retest is called for, it ould, if possible, be made within n days of the original test.
4. All tests and taking of samples d weights of milk shall be made by e tester himself. Milk samples all be kept under lock and key.
5. Cost: Each member for whom a test is made shall pay the cow test-two dollars for conducting the re-st. Note: (This charge was agreed on by the six associations men-oned as reasonable to the member d fair to the cow tester.)
6. Any member refusing to retest pay the tester for same shall have l local and state publicity on his rd withheld from date of such called r retest until the close of the test-g year. His records are entered in e herd book each month thereafter, t do not become a part of the state association annual report.
7. The state supervisor shall decide to whether or not an average be-een the original and the retest shall used for credit to the test period volved, or the retest result alone all be used. On completion of re-st the tester shall make a complete port to the state supervisor.
8. Each association should not ve more than twenty-six or twenty-ven members in order that the cow ster may have time to conduct the ests if called for.

Minnesota. E. A. HANSON.

High Cows By Breeds

Mr. E. V. Jackson of Michigan has ade a compilation of the records of gh cows appearing on this page for e last half of 1926. The averages all reports for six months are, olsteins 37.8 pounds fat, Guernseys 38.5 pounds fat, and Jerseys 38.9 pounds fat. The high period for the Guernseys was in the July 10th issue when their average was 48.6 pounds fat. Holsteins were high in the July 25th issue with 45.4 pounds fat, and the Jerseys were high in the August 25th issue with 44.1 pounds fat. It is interesting to note that the highest average records appeared during the first three months.

Different Values Secured

HOARD'S DAIRYMAN:—Many different advantages of cow testing association work are shown by a brief summary of last year's testing in the Kent—Grand Rapids Association of Michigan.

Take the man with the grade herd of 15 head. We look over his herd book and see that 10 of his cows are eligible for a Record of Performance certificate. Perhaps he wants to buy two new cows. If so, he knows just which ones he wants to sell and what he needs to buy in order to bring his herd standard up to normal again. He is pleased with his records because they meet the requirements set by the State College. Realizing the results of a successful year's work, he strives for a 100 per cent R. O. P. herd next year.

The next farmer strives for heavy milk production the year around. When cows fall off in production, he must get rid of them because his milk supply must be constant. By selling these cows on their C. T. A. records of five or six months, he is able to get far better prices than if no records were made. The use of a pure-bred bull for the breeding of these cows pays for itself many times over. He now buys a new milk cow. He has her tested to see that her milk is up to standard. By this method and shrewd dealings a very businesslike dairy is carried on.

The farmer whose herd consists of pure-bred cattle benefits greatly by C. T. A. work. He watches the milk production, feed costs, and economical production of milk or fat with great eagerness. He feeds to improve his breeding stock along production lines. He takes great pains in the balancing of his rations and is ever on the job. His C. T. A. records are the foundation of his sales on a production basis.

Then, as in almost every other walk of life, we have the man who joins the association because his neighbor does. He goes through a year's work half heartedly, receiving the tester and what help he offers in an indifferent way. Of course he listens to suggestions, but when next month rolls around and things are just the same it is evident he doesn't care.

Cow testing work can be made the most of by the farmer taking a real interest in the work.

Michigan. WM. BURTON TAYLOR.

Valuing Cows

"We appraised our cows last November," writes a Minnesota member," on basis of what each brought in above feed cost during previous year. We would be pleased to know the views of others as to values in a dairy herd taking them as they run, young and old; also, values based on age and production."

None In Sight

Traffic Cop: "Say, you. What do you mean speeding along the road like a madman? You'll kill somebody. Why in blazes don't you use your noodle?"

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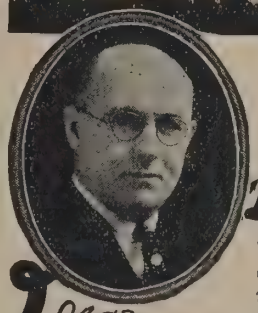
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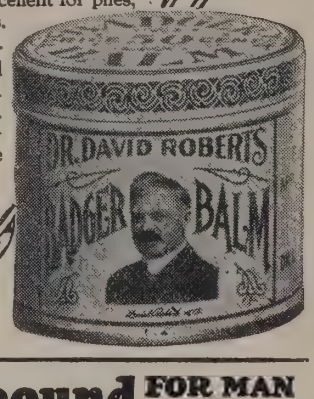
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We Needed One and So Do You

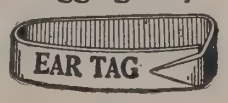
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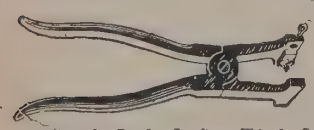
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Mysterious Lameness

When a cow or other bovine beast gradually becomes lame or stiff and a careful examination fails to disclose the cause, it is, in our experience, always well to apply the tuberculin test for the reason that tuberculosis not infrequently causes just such symptoms. It does not always attack the lungs, and tuberculosis of the udder is comparatively rare; but it may locate in unexpected places. Of these, the bones, joints, and skin must be taken into account. Skin lesions, in fact, are sometimes the unsuspected seat of the disease and may account for some of the unsatisfactory cases in which reactors fail to show plain evidences of the disease at the time of slaughter and expert examination. The vertebrae or segments of the backbone, at the loins, occasionally become affected with tuberculosis, although the disease, in such cases, may also be present in other parts of the body. When the bones of the loins are affected, the animal has difficulty in rising and may also walk stiffly and possibly sway more or less during action. We have seen such tuberculous disease keep a cow from rising after calving and it is doubtless present in some of the supposed paralysis cases of the cow before calving, or at some other time. It is, of course, incurable and the possibility of its presence and immediate detection by the tuberculin test saves misdirected treatment, time, and expense.

Another apparently favorite place for the disease to locate is the fetlock or ankle joints. The affected animal is slow in gait, sluggish, or listless. The joints are swollen, but they are not hot, sore, or much puffed. Evidently, there is hidden or occult disease of the bones forming the joints and tuberculosis is insidious in its character and progress and the cause of what are sometimes called "cold swellings." In one instance, where two veterinarians had made a careful physical examination of several hundred cows in a certified milk dairy and set out the cows they suspected might be infected with tuberculosis, a third, who made a final examination of the remaining cows, noticed that three of them showed swollen fetlocks and stiffness or slight lameness. These cows were also set apart and when the tuberculin test was applied two of them were found to be tuberculous while all of the other suspected cows failed to react. The physical examination was simply made to determine how correctly tuberculosis may be detected in that way. The setting apart of the three mysteriously lame cows was merely an afterthought; but the discovery that tuberculosis was the cause of the swelling and lameness of the fetlock joints was an "eye-opener" to the three experts.

When mysteriously lame cows do not react to the tuberculin test the likelihood of "self-robbery" or resorption of lime salts should be considered as a possible explanation of the trouble. That, often, is the true cause, especially in pregnant cows, and immediate provision of needed minerals and a generous balanced ration, including legume hays, will be likely to prove remedial. When the lameness follows a difficult labor and the cow is not a reactor and has been correctly and completely fed, the possibility of an internal injury should be considered and a careful exa tion made. In one case such was for two months treated fo lameness, failed to recover, and Post-mortem examination dis an internal injury as the cause

Drying Up Cow

HOARD'S DAIRYMAN:—The expressed by J. R. C. Jones of tralia in his comment on page January 10 issue regarding "D Up a Cow," are radically dif from those that I have formed my years of dairy experience.

While I was in charge of a consisting of forty-five head of it was my practice to dry cattle the following manner:

First, I gradually reduced the ration; and after a few days t entirely away until after the co dry.

Second, I lessened the milkin about the third day started m only once, and then did not str the milk out of the udder. Aft other few days, I commenced m every other day, so that in ten or two weeks the cow was abso dry.

Every month I prepared son or seven cattle for parturition encountered very little trouble ing the above method. It is co knowledge among farm hands the best way to dry up a cow neglecting to milk her clean. should take advantage of the ance that Nature offers us in th spect. If we leave a little milk udder at one milking, Nature ge ly provides that at the next m the quantity will be reduced—



When Bag Balm comes into the cow out goes all the annoying, costly troub the udder and teats. No more loss of through nervous, restless cows.

Bag Balm heals, with marvelous spe cuts, chaps, cracked teats, teats stepp or bruised in any way. The healing is us effected between milkings. Just a dab o Balm assures the complete rebuilding c injured tissues. For Caked Bag, Bun Cow Pox—any inflammation or conge Bag Balm gives prompt, effective relie

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the milk is not used, there is no need for it; then why go on producing it.

I shall welcome any criticisms on the above opinion.

Connecticut. W. SHORR.

For Self-sucking Cows

HOARD'S DAIRYMAN:—I note in a recent issue an inquiry for a method of preventing self-sucking in cows. Some years ago you published a method which I have since used, and it always works well although it is horribly disappointing to the cows.

Cut a piece of ¼-inch gas pipe long enough to make a bit for the cow, and drill holes in the ends for the wires to which attach the strap to go over the head. Then drill 6 or 8 small holes in the pipe and between the straps, half at right angles to the others. The cow will suck air and will soon quit sucking while she wears the bit. It is well to run a wire through the pipe occasionally to keep the holes effective, although I have never seen indications of sucking while the bit was worn. This does not interfere with eating or drinking, and is absolutely effective with our cattle.

Minnesota. F. E. MARSH.

For Choked Cattle

HOARD'S DAIRYMAN:—I think I have a better remedy for choked cattle than any given in the Jan. 25th issue of Hoard's Dairyman. I take a wire hoop, or any stiff wire will answer, and bend it around a round stick, making a loop as large as will readily slip down a cow's gullet, twisting the rest of the wire tight for a handle. Crowd the stoppage up and slip the loop down throat until you feel the loop slip over stoppage; then pull out. Ninety-nine times out of 100 you will have it the first time.

Connecticut. S. D. NEWELL.

Enlarged Hock Joint

Can you tell me any remedy for the enlargement on the hock of a cow caused by lying down on the stable floor. Sometimes it comes on the knee and dairymen call it "Big Knee." While they are bedded down with straw it becomes displaced so that they come in contact with the floor, which is wood.

Manette, Wash. H. K.

Enlargement of the hock, if the swelling is soft, is caused by distension of the joint capsule with synovia (joint oil). When the knee is swollen from bruising the liquid present in the sac or cyst is serum, not joint-oil, and it may be liberated by lancing. The hock joint cannot safely be treated in that way. Move the cow into a well bedded pen or box stall where bruising will be less likely to occur. Twice daily rub into the swelling some 10 per cent iodine vascogen or petrogen to stimulate resorption of the fluid. That may do some good, but such synovial distensions tend to persist, despite treatment.

Blood in Milk

I have a pure-bred Holstein heifer that has been fresh six months and for the last month she has been giving bloody milk out of one quarter. Her udder doesn't seem to be inflamed; it's just normal, but the milk is full of clots and at times I could hardly get the milk out,

Thornton, Idaho. H. E. S.

A growth in the teat probably bleeds from irritation at milking time. By rolling the teat between the thumb and fingers you may be able to feel the growth. If it is just inside the outer opening of the teat the veterinarian can remove it by means of a teat tumor extractor (Hug's) or by amputating a small portion of the tip of the teat and then reaming out the growth with a small scalpel. After the operation apply a little yellow oxide of mercury ointment (ophthalmia) 2 or 3 times daily. If the growth is located high it would be best to let a calf nurse or to dry off the secretion of milk in that quarter of the udder.

Breeding Cow

We have a valuable show cow that is due to calve shortly. Since we would like to have her heavy in calf for the shows next fall, do you think it would be O. K. to breed her again the first time she comes in heat?

Barneveld, N. Y. W. T. McR.

As you have a special reason for wishing to have the cow become pregnant as soon as possible after calving, she should be bred the first time she comes in heat. That will probably be about 28 days after calving. Ordinarily, it is better not to breed a cow so soon after calving.

Lice on Cattle

Please give me a remedy for lice on cattle.

Worthington, Minn. A. O. F.

Freshly powdered sabadilla and pyrethrum are effective against lice of cattle. Use a mixture of one part of each of them combined with three parts of flowers of sulphur. Dust freely upon infested parts and then blanket cow. Groom thoroughly the following day and repeat the treatment as often as is seen to be necessary. Grooming the skin with a brush dipped in linseed oil is also effective, but it fouls the coat.

"Frosted" Teats

Kindly tell me what is the best remedy for frosted teats.

Garrison, Mont. A. M.

Severe freezing of the teats may cause sloughing of the affected parts and in that case the cow will have to be fitted for the butcher. Twice daily apply a mixture of ½ part of pure turpentine, 1½ parts of compound tincture of benzoin or balsam of Peru, and 8 parts of lanolin (sheep's-wool fat), or vaseline.

A Decade of Co-operative Dairy Endeavor

(Continued from page 175)

tion of price and production statistics. In the matter of intelligent price determination, this information has been most valuable.

"Orderly production," says President Allebach, "is most generally conceded to be the only basis upon which an orderly marketing plan can be built."

The further development of the selling plan, the main feature of which is balanced supply and demand, was the program in 1926. Emphasis has been placed on the elimination of seasonal changes in the supply.

"The production of surplus in the whole territory has averaged less than ten per cent during the first nine months of 1926. It shows that farmers can regulate their supply and by so doing can have a ready and stable market during the entire year," says Mr. Allebach.

In summarizing the work, Mr. Allebach stated that "the association during the ten years of its existence has returned to its members a price as satisfactory as that of any similar marketing association and at the same time has co-operated in economic and business practices that enable the consumers to purchase milk in the Philadelphia Milk Shed at a consistently lower price than in any other metropolitan area in the East.

"We view the future with confidence, realizing that we are in a position to market our members' milk to their great advantage, to surround the marketing of our members' milk with the maximum amount of protection with regard to proper weighing and testing of milk consistent with good economy. We are in a position to speak with a united voice in legislative and other matters dealing with the welfare of the dairy industry. We are confident and determined that dairying in this district shall be an occupation offering those who engage in it a standard of living and advantages equal to that enjoyed by any other group in society.

No More troubles at Calving



STOP dreading the time when your cows freshen! The troubles you've looked upon in the past as part of the hazard of dairying are no longer a menace to your profits. Dairymen without number are now using Kow-Kare at freshening because of its marvelous invigorating action on the reproductive organs.

Kow-Kare is a concentrated tonic-medicine that has no other function than the building up of the digestive and genital organs. By using this famous cow medicine with the feed for two or three weeks before and after freshening you are assured a healthy cow—and a strong, vigorous calf. Retained Afterbirth and the other disorders you have learned to dread have no terrors for you if Kow-Kare is your reliance.

Kow-Kare, used sparingly with the feed helps your cows fill the pail under the most adverse conditions of winter feeding—when dry, heavy feeds put an added burden on digestion and assimilation. Try Kow-Kare when troubled with Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Lost Appetite, etc. Its health-building action will give you a convincing demonstration of its money value to you in the business of dairying.

Dairy Asso. Co., Inc., Lyndonville, Vt.

Makers of Kow-Kare, Bag Balm, Grange Garget Remedy, American Horse Tonic, etc.

KOW-KARE
FAMOUS CONDITIONER OF MILCH COWS

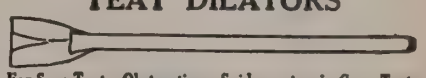


Feed dealers, general stores, druggists have Kow-Kare — $1.25 and 65c sizes (six large cans, $6.25). Full directions on the can. Mail orders sent postpaid if your dealer is not supplied.

Write for free book, "The Home Cow Doctor"

6

PURPUL MEDICATED WAX TEAT DILATORS



For Sore Teats, Obstructions, Spiders, etc., in Cows Teats
Sold by Dealers or Mailed Postpaid. 25c doz. or 5 doz. $1.00

TESTIMONIALS

The greatest thing ever invented for cows' teats.
E. Stafford, R 3, Little Falls, N. Y.

Did not have much faith at first. Thoroughly convinced they are the remedy.
J. C. Noble, Enosburg Falls, Vt.

FREE Let us prove the merits of Dilators by sending you a package by mail, Free.

MOORE BROS., Dept. H. ALBANY, N. Y.

The Best Railway Service in History

The freight service rendered by the railways in 1926 was the best in history.

Traffic was the largest ever handled, the increase over the previous high record being the greatest that has occurred in any year since 1917.

The movement of this enormous traffic presented many difficult problems, but was accomplished without the delays and "car shortages" that used to cause farmers and other shippers such trouble and losses.

This great improvement in transportation service has been made possible by the investment of *five billion dollars* of new capital in the railways since they were returned to private operation in 1920. This new capital has provided 15,000 larger and more powerful locomotives, and 830,000 larger and better freight cars. It has added tracks, enlarged terminals and made many other kinds of improvements.

The average return earned by all the western railways on the total investment in their properties in 1926 was only 4.6 per cent. During the last five years the return earned by them has averaged only 3.7 per cent.

The large investment of capital in the railways within recent years has been made with the hope and expectation that, in the long run, they would be allowed to earn, on the average, a fair return. It cannot be continued unless a fair return is earned.

If the present good service is to be maintained the facilities of the railways must continue to be enlarged and improved. Good and adequate freight service is of vital importance to farmers and all other producers and shippers.

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS

740 Transportation Building, Chicago, Illinois



Blue Streak
"New Method" FARM MILL
CUTS-GRINDS-PULVERIZES
TRADE MARK
Operates with Fordson or equal power. Grinds all grain and roughage. Runs at about half the speed of others. Grinds faster and finer. No screens—no burrs—no gears—no friction—no heating. Even nails and wire won't damage. Easy to operate. Catalog Folder Free.
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BOWSHER FEED MILLS

(Sold with or without elevator)
Crush ear corn (with or without husks) and **grind** all kinds of small grain. Have conical-shaped grinders. *Different from all others.* Handiest to operate and **Lightest Running** (Our circular tells why)
Ten sizes, 2 to 25-horsepower
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Mark your Calves early
Use the C. H. Dana system to mark your calves as soon as dropped. Identity of ownership prevents confusion and loss. Easily applied, cheap and permanent. Send for free samples. Also herd books, bull rings, and complete line of breeders' supplies. Write for catalog.
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AL-WUZ-ON LIVESTOCK EAR TAGS
The strongest Ear Tag on the market. Easily attached in one operation. Sufficient space for name, address and number.
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240 East 2nd So., Salt Lake City, Utah.

Mention Hoard's Dairyman to Your Dealer—It Helps Us

The Feeding of Dairy Cows

(Continued from page 176)

variety of feeds into a ration that will meet the requirements of a given cow. It is enough to set down the steps necessary in fitting the ration to the cow. These steps are as follows: (1) determine how much roughage and how much concentrates an average cow in the herd needs, using the simple rule for quantity feeding as given in article 4 and also repeated in this article; (2) set down the per cent of digestible protein needed in the concentrates mixture to properly balance the ration with the roughages to be used as, for example, silage and alfalfa hay require a mixture containing from 10 to 12 per cent of digestible protein; silage and red clover hay, 13 to 14 per cent; silage and mixed hay, 16 to 17 per cent; silage and timothy hay, 18 to 20 per cent; legume hay alone about 10 per cent; carbonaceous roughage alone, 18 to 20 per cent; (3) mix the home grown feeds and such supplementary feeds as are necessary in such proportion as to contain the right percentage of digestible protein for the roughage it is to be fed with; (4) determine the amount of digestible protein and total digestible nutrients in the amount of roughage and concentrates to be fed; (5) calculate the requirements of the average cow according to the Haecker feeding standard; (6) compare the nutrients in the ration with the requirements as indicated by the feeding standard; (7) make such changes in the proportions or kinds of concentrates as are necessary to make the nutrients in the ration check fairly closely with the feeding standard requirements.

The details for each of these steps are all given in articles 4, 5, and 6 of the series.

Remember that a correct balance or proportion of nutrients is not the only factor in a good ration. The ration *must* be palatable; it should contain some succulent feed; it should be reasonably bulky; it *must not* injure the cow nor impart undesirable flavors or odors to the milk; it *must* be cheap enough to be fed to good cows and leave enough margin to cover other costs and a reasonable profit.

A well balanced ration is not the only factor that has to do with making the most money from a given amount of feed when fed to cows. Some of the other more important factors are: (1) eliminating scrub cows; (2) producing a combination of crops best suited to the needs of the herd to the end that milk production is measured in terms of amount per acre of crops grown for feeding purposes; (3) having cows in good condition when they calve; (4) being regular in feeding and milking; (5) making cows comfortable; (6) having the barn conveniently arranged and the feeds handy to get at; (7) keeping the herd free from disease.

It is difficult to realize the needs of a herd of cows in winter quarters for plenty of good air, because one cannot see the air a cow breathes nor the by-products of respiration which are exhaled. It is also difficult to measure the influence that a lack of plenty of good air has on the production and health of cows. In spite of this we know that a properly ventilated barn is a better place for cows to work in than a poorly ventilated one. Good air is important.

Supplying water to a herd of cows is largely a matter of making it convenient for them to drink as often as they like and of making the supply such that they will want to drink all they need. Dairy cows in production require more water than any other class of live stock. Anything that causes cows to get or drink less water than they need is just as bad as cutting down the feed. Water is comparatively cheap; feed costs more; don't cut down on water.

The mineral needs of dairy cows and the conditions under which they are best supplied and utilized are not fully understood. It is thought that the mineral needs of cows of average production are met when liberal amounts of legume hay are included in the ration, together with salt.

The rations of cows whose production is more than average should have the ration supplemented with mineral substances containing sodium and chlorine as in common salt, with calcium and phosphorus as in bone meal and with calcium as in finely ground limestone. Equal parts by weight of these mineral carriers make a good mixture. In addition to this, cows should have a dry or rest period during which time they are so fed as to bring them up to good condition for calving time.

Two or three vitamins are of some importance in feeding cows. Vitamin A which promotes growth in young animals and effects a certain measure of health protection in adults, is found in yellow corn, in silage, in green pasture grass, and in legume hay that has not been considerably exposed to direct sunshine. It is thought this vitamin is usually present in sufficient amount to meet the needs of the herd.

Vitamin D which promotes the assimilation of bone forming minerals (calcium and phosphorus) is found in green pasture grass, in legume hay that has received considerable direct sunshine, in butterfat, in cod liver oil, and is also known to be influenced by direct sunshine. Under certain conditions, as in closely housed cattle during winter and with feed low in this vitamin, there may be detrimental effects due to a lack of this vitamin. More knowledge concerning the sources of this vitamin and its effects in cow nutrition is needed before a more positive statement can be made.

A fifth vitamin, known as X temporarily and not yet definitely named has something to do with reproduction of young. More knowledge is needed concerning this factor in nutrition.

Dairymen need not be unduly concerned about vitamins for cows as long as they feed good rations and properly manage their cows. They may well observe care until further facts are discovered about the source and functions of these unseen influences.

This series is concluded with the opening statement of the first article: "Anything that has to do with converting the feeds grown on dairy farms and those purchased into higher values and greater net returns strikes at the very heart of the business of dairying." To this we would add, "He who feeds right will get the most milk and he who gets the most milk will profit thereby, provided he doesn't waste his feed on scrub cows."

Carnation Heifer Breaks State Record

Avon Echo Daisy, a 4-year-old daughter of Avon Pontiac Echo owned by Carnation Milk Farms, Wisconsin, has completed a year record of 28,664.4 pounds of milk containing 899.9 lbs. butterfat. (1,124 pounds of butter), the largest milk record ever made by a 4-year-old in the state of Wisconsin. This is the fourth daughter of Avon Pontiac Echo under full age to produce over 1,100 pounds of butter in a year.

Experience With Rock Phosphate

(Continued faom page 178)

nd the deep blue green color of the nore robust plants.

Meanwhile I have made some trials vith heavier than one-ton applica-ions. Apparently it will pay to use t least a ton per acre, thus adding bout 260 pounds of the element hosphorus to the acre. This is as nuch as is removed by twenty big rops, but it should be remembered hat there are only 1,100 to 1,200 ounds of phosphorus in an acre of lowed soil and profitable crops can ot be grown without assistance if he natural supply falls below 1,000 ounds per acre of plowed soil. As n experiment to see if there are bad ffects from extra heavy applications, gave an alfalfa plant a dose equal o 500 tons per acre. After two ears the alfalfa plant has shown no njury and has survived almost com-lete destruction when the chickens te it leaf, stem, and crown.

Other plants have responded to ex-ra heavy applications; one rose, an Ophelia, last season gave us seven ozen cut flowers.

Bulb plants like tulips and gladi-li respond but they first store their lant food and the full benefits are ot apparent the first season. This is rue, also, with blackberries. Among ne vegetables, tomatoes have re-ponded noticeably in six weeks, so lso carrots, peas, and beans.

JERSEYS

BUY ENGLISH JERSEYS

Good Cattle — Moderate Prices

FOR SALE. Bull and heifer calves from hardy and heavy milking strain. We will also sell some very good cows. Inspection invited.

HON. MRS. LIONEL GUEST, Ferring, Goring-by-Sea SUSSEX, ENGLAND

For Sale

EGISTERED JERSEY BULL ready or service, out of high production ock; ALSO REGISTERED JER-EY BULL CALF.

y herd of a little over 100 regis-red Jerseys is one of the best in e country today. A herd sire from will increase your production.

A. CURTIS, Jamestown, N. Y.

Write For

SALE-LIST

of bred daughters of Xenia's Sultan and You'll Do's Volunteer. Breed up QUALITY TYPE AND PRODUCTION in your Jerseys with an ELM HILL BULL.

ELM HILL JERSEYS,
LEE BOYCE, MGR.
Brookfield, Mass.

HEAVY PRODUCING

JERSEYS

Serviceable bulls and younger for sale, from herd that averaged 505.01 lbs. butterfat in C. T. A. past year. Accredited herd, no abortion. Prices reasonable. Write or call and see herd.
W. H. EDDY HOWARD LAKE, MINN.

BURN BRAE JERSEYS

Ibsen's Chief—herd sire. Serviceable bulls and younger from high producing dams including the state champion in the 305-day division. We now have 16 cows on R. of M. test, and a choice lot of young stuff, both sexes for sale.

Federal Accredited herd and no abortion.
CHAS. A. PETERSON, Rosendale, Wis.

Easton Farm

-- AN ACCREDITED HERD --

Of Representative Jerseys

Golden Fern's Noble and Fauvic's Prince Breeding.

H. W. DAY, Mgr. LA CROSSE, WIS.

JERSEYS

MAJESTY'S and SYBIL'S — of Quality

Offering 6 well grown heifers of excellent type and quality—ready to breed.

CEYLON COURT FARM, G. D. GILBERT, Manager
LAKE GENEVA, WISCONSIN

JERSEY HEIFERS

University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.
AMBERG FARM, Hillsboro, Wis.

BELSWOOD JERSEYS

FOR SALE—Bull calves sired by THE CID'S FONTAINE, from dams with good Register of Merit records. Good type. Priced right.
A. F. BLOCK, R. F. D. No. 5, Waukesha, Wis.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
H. S. HAGER, PRAIRIE DU SAC, WIS.

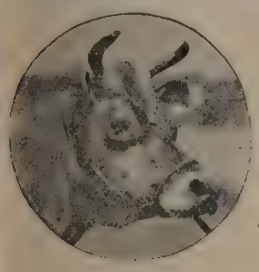
FINANCIAL KING JERSEYS

Our bulls of serviceable age have been sold but we have a few excellent calves from R. of Merit cows. Prices reasonable.
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Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

Traded a Team and Wagon for Jerseys



A few years ago the Thornleys of Oregon determined to start with pure-bred Jerseys. Conditions made it necessary for them to trade some equipment, harness, a wagon and a team, for foundation stock.

Last month one of their young cows completed an official test with a record of 913 lbs. of fat and 18,867 lbs. of milk; another produced over 850 lbs. of fat and 14,513 lbs. of milk. Confidence in the Jersey was not misplaced.

Write for a free copy of JERSEY FACTS.

THE AMERICAN JERSEY CATTLE CLUB, Dept. B,
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Jersey Bull Calves

are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son t out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of ve La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. terfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by rling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, first Jersey cow to make 1000 lbs. butterfat.

IE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

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is worth money to you. Have the story of your herd with you at sales and meetings.

PRICE $2.00

HOARD'S DAIRYMAN
FORT ATKINSON WISCONSIN

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Foundation FEMALES - BULLS

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Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

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AVON, CONNECTICUT

— OFFER —

Grandson of the World's Champion Mistress Thistle of South Farm.

Sire—McAllister Betty's Son.

Dam—Barclay's Thistle. R. of H. record, 9159 milk, 4.02% fat, Class EE.

J. J. ANDERSON, SUPT.

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COWS, HEIFERS and HEIFER CALVES.
Accredited Herd
SPINNEY RUN FARMS, Gurnee, Illinois

PROFITABLE — PRACTICAL

AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us.

Federal Accredited Herd.
SYCAMORE FARMS, Douglassville, Berks Co., Pa.

Penshurst Ayrshires

HEALTH—PRODUCTION—QUALITY

Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.
PENSHURST FARM, NARBERTH, PA.

A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.
GLEN FOERD FARMS TORRESDALE, PA.

South Farm Ayrshires

Will sell a limited number of Young HEIFERS and BULLS.

Let us know your wants.

SOUTH FARM, Willoughby, Ohio

AYRSHIRE COWS

FULLY ACCREDITED

300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

Registered Ayrshire Cows

We are offering for sale a number of choice young cows bred for fall freshening. Several are bred to Aldebaran Victor, he a son of that great cow, Highland Polly. Others are daughters of "Victor" bred to a son of Bargenoch Gay Cavalier. Priced from $175 up. Herd under federal supervision.
ALDEBARAN FARM, E. J. Nelson, Mgr., RACINE, WIS.

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,230 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

AYRCROFT FARM

is offering some good bargains in Ayrshires. Write for what you want. Herd Federal Accredited.
B. B. SIMMONS & SONS, PEWAUKEE, WIS.

With This End in View



— You Can't Resist the Ayrshire!

For the "business end" of the Ayrshire is a model of beauty and usefulness. — A long level rump, clean-cut thighs, sturdy feet and legs, and an udder with every ideal characteristic are constantly before those farmers fortunate enough to have this end in view.

These farmers have learned that Ayrshire udders are built to produce and wear for the life of the cow. With ample size, perfect shape aud strong attachments, Ayrshire udders also possess that mellow, elastic quality that means heavy production year after year.

With This End In View The Ayrshire Is The Most Profitable Cow.

Write for booklets or let us help you get a foundation.

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Ayrshires

—are a plain business proposition. "Profit" is always the biggest possible return from the least possible outlay. That is "AYRSHIRES" in a nut shell.

Let us give you the official figures covering Pinehurst Farm Ayrshires. They are of value to every one who farms to make money. Address



PINEHURST FARMS, Mr. J. S. Dunlop, Pinehurst, N. C.
AYRSHIRE CATTLE AND BERKSHIRE HOG BREEDERS

Shoveling Snow With a Scythe —

There's a man in your neighborhood who is trying to make a few dollars by milking a few cows. Ordinarily, his intelligence is above the average, he is a hard worker, and he tries to be a good farmer, but—

He's just neglected to consider the business side of dairying. He still uses a scrub bull, and he doesn't keep record on his cows. He might just as well try to shovel snow with a scythe. We could tell him about some farmers who are making *real profits* from Guernseys. Tell him to write for

"THE STORY OF THE GUERNSEY"

THE AMERICAN GUERNSEY CATTLE CLUB

8 Grove St. — PETERBORO, N. H.

H-O-L-L-I-S-T-O-N

SPELLS

PERSISTENT PRODUCTION and REAL ANIMALS

Build up your herd by using a bull calf whose sire and dam come from *persistent* producers and real individuals. Our prices will interest you if you want a REAL sire.

D. G. TENNEY, 15 West Fourth St., NEW YORK CITY

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

BUY LADYSMITH CHERUB BLOOD

Shorewood Farm offers the bull, SHOREWOOD HERO, a double grandson of Ladysmith's Cherub whose 19 A. R. daughters average 600 lbs. fat. Dropped April, 1926, solid fawn, good individual. Sire—Cherub's Royal Leader of Shorewood (senior herd sire) whose dam, Pearl of Pomeroy, has 777 lbs. fat in AA., full sister to Pearl's Dot, 965 lbs. fat AA. Leader's first three daughters on test are doing exceptionally well. Dam—Cherub's Procris of Shorewood, undefeated 2-year-old and grand champion at 3 large shows, 1925. A. R. record 10,500 lbs. milk, 540 lbs. fat Class G. while on show circuit. Her dam, Ma Chere Procris, National grand champion 1921, A. R. record 17,900 lbs. milk, 831 lbs. fat, Class A. A wonderful combination of Ladysmith Cherub, May Rose and Jardinere Masher blood. Write for pedigree and price.

SHOREWOOD FARM, CRYSTAL BAY, MINNESOTA

Select One of These Cherub Bulls to Head Your Herd

Your choice of three grandsons of Ladysmith's Cherub 30760 out of A. R. Cows, at prices astonishingly low for the quality of the individuals and blood lines they represent.

HENRIETTA'S CHERUB OF HIGHCROFT 123828,	11 mos. old, price	$200
MAY QUEEN'S CHERUB OF HIGHCROFT,	9 mos. old, price	150
BEDA QUEEN'S CHERUB OF HIGHCROFT,	3 mos. old, price	75

Come to see them — Write today — Don't pass up this opportunity

HIGHCROFT FARM (A 15-mile bus ride from Minneapolis) **C. E. MUNNS, Supt. Wayzata, Minn.**

High Production Guernsey Bulls -- Ready for Service

FARMERS' PRICES—We Offer Three Sons of Langwater Mary's Royal (82716), grandson of Gerar Pearl & Langwater Hope (8th Class A—6th Class F). Sire:—Gerar Pearl's Royal. Full brother to five class leaders. Dam:—Langwater Mary. 12,681.8 lbs. milk, 688.03 lbs. fat. **ABBIE'S ROYAL OF POMEROY (104876)**—Born:—August 3, 1924. Dam:—Abbie of Pomeroy (139441). Dam's record:—Milk, 10,231.9 lbs.; Fat, 448.7 lbs. (Class GG). **HOPE'S ROYAL OF FERN-DELL (115935)**—Born:—September 27, 1925. Dam:—Hope of Pomeroy 3d (77031). Dam's record:—Milk, 11,808 lbs.; Fat, 609.8 lbs. (Class DD). **ETHEL'S GERAR ROYAL OF FERN-DELL (106745)**—Born:—January 14, 1925. Dam:—Ethel of Maple Shade (131123). Dam's records:—Milk, 9,360.7 lbs.; Fat, 510 lbs. (Class GG). Milk, 11,379.1 lbs.; Fat, 601.9 lbs. (Class C—unofficial).

FERN-DELL GUERNSEY FARMS, A. W. FOX, MGR., GREEN BAY, WISCONSIN

LINWOOD GUERNSEY SIRES

COMBINE TYPE AND PRODUCTION

PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. **CINDERELLA'S FAME OF MOUND CITY 78385.** Dam: Cinderella's Josephine 909 lbs. fat.

2 REGISTERED BRED HEIFERS also **4 FINE BULLS** with A. R. dams, records 740—669—634 and 624 pounds fat. Write for prices and pedigrees.



SOLD FOR $22,000.00

LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.

Homer Rundell Federal Accredited Herd

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

BULLS—HIGH CLASS FEMALES

SHOW TYPE—PROFITABLE PRODUCTION

We have for sale a few first class bulls, serviceable and younger from A. R. dams, and can also offer some good, young, registered cows and heifers. For several seasons our herd was successfully exhibited at the larger midwest shows. Cherub breeding. Write us or come to the farm.

L. P. MARTINY, Chippewa Falls, Wisconsin

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS *(In Waukesha Co. on Highway 61)* **Lloyd L. Dewey, MUKWONAGO, WIS.**

BULL CALVES

No. 1—born 5-30-26, light fawn and white, C. T. A. dam.

No. 2—born 6-28-26, fawn and white, dam 553 lbs. fat class A.

Typy bull calves at farmers' prices F. O. B. Athens. Herd Federal Accredited and free of Abortion.

HELENDALE FARM, Athens, Wisconsin

BULLS

A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.

GEO. E. LARSON, Amherst Jct., Wisconsin.

Buy from Hoard's Dairyman advertisers. They are reliable.

200 GUERNSEYS

The Old Reliable

La Crosse County Guernsey Breeders' Ass'n

WILL SELL AT

WEST SALEM, WIS., MARCH 24

75 Registered COWS, HEIFERS and BULLS of the best families of the breed. A. R. cows and sons and daughters of A. R. cows. Also Murne Cowan's King 52375 whose dam and sire's dam average 1027.78 lbs. fat highest for the breed.

125 HIGH GRADE SPRINGING GUERNSEY COWS and HEIFERS. Many with large C. T. A. records. The choice of many herds.

All from Federal Accredited Herds or just tested. Sold in the heart of an Area Tested County.

Send for Catalog and full information at once

H. W. GRISWOLD, Sale Manager, West Salem, Wis.

REGISTERED

GUERNSEY CATTLE

— At Sales Pavilion —

WAUKESHA, WIS., MARCH 23

Consisting of A. R. cows and heifers of excellent type. Also a few males serviceable age, and heifer calves suitable for club work. Many of the cows and heifers are fresh or due to freshen soon.

All animals have been carefully selected. We are sure you will like them. Watch next issue and write for catalogue. It gives details.

It is our 25th and Semi-annual Sale!

Auctioneers—Love and Benjamin

Waukesha County Guernsey Breeders' Ass'n

F. E. Fox, Secretary, Waukesha, Wisconsin

OAKLAND GUERNSEY FARMS (SINCE 1890

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING O FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Al five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) **MUKWONAGO, WI**

Do These HEIFER CALVES Appeal to You ?



They are daughters of Anton's King Confidence, our senior herd sire. He has many more like them. Our younger sires, King Harvester of Prospect and Mixter Claimant, are also getting very desirable individuals. Write us for pedigrees of our sires then you will know what it means to have a bull at the head of your herd from our farm.

Square Udders—Deep Bodies—Dairy Temperament Combined with Persistent Production for Generations

Our bull calves sell fast, consequently we have none of serviceable age to offer. Write us for our reasonable prices on bull calves up to six months of age.

HOARD'S DAIRYMAN FARM Fort Atkinson, Wis.

GUERNSEYS

FARMERS' PRICES
—OUTSTANDING!
—SERVICEABLE!
BULL CALVES

We have calves old enough to use right now, and they will improve your individuality and production.

LOMA FARMS, Marquette, Michigan
W. W. BLAKE ARKCOLL, Mgr.
(Formerly Bay Cliffs Herd)

LUXERIN GUERNSEYS
(SHERIDAN'S)
Fond du Lac - Wisconsin

70 VERY HIGH CLASS YOUNG BULLS, born Feb. 9th and Feb. 10th, well-grown, good color, very good type (show bid) sired by Saugerties May Rose King 5143 A. R., one of Wisconsin's best sires. Dam's records 677.13 fat A. A. and 652.8 fat respectively. Accredited herd. Blood tested.

GUERNSEYS
Registered and High Grades of Any Age For Sale

Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our terms, service, and prices will suit you. Write me.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
J. FOX, Sec'y WAUKESHA, WISCONSIN

A Real Guernsey Bull

combining production with type. Born Nov. 10, 1925. Sire's 3 nearest dams average 760 lbs. fat, his daughters producing 20 to 30% better than dams. Dam's record 667 lbs. fat A. She has 746 lbs. fat daughter. A show bull. Best breeding. Herd accredited abortion free. Write

MAPLE CREST FARM
Sandom Lake, Wisconsin

GUERNSEYS FOR SALE
Registered and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling bulls and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

GUERNSEYS! GUERNSEYS!!
SEE and PURE-BRED, compare our price, type and quality before buying. Now is the time to buy bulls and springing cows.
FOND DU LAC GUERNSEY BREEDERS' ASS'N.,
H. Newlin, Sec., FOND DU LAC, WIS.

Young Bulls $100 to $125
Write for sale several good young bulls from A. R. dams priced to move at once. Their breeding will suit you. The herd is clean. Write for sale list.
C. HARVEY, R. 2, Waukesha, Wis.

HOMESTEAD FARM GUERNSEYS
Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Also bulls 2 to 13 months old. Can also spare a few females. Visit us or write.
NELSON BROS. APPLETON, WISCONSIN

BUTTERGOLD GUERNSEYS
BUTTERGOLD CHARMER born October 12, choice individual, light fawn and white, good conformation, high quality. Dam now on test, both grandams A. R. and Champion breeding. Fed. Accd. No abortion.
BUTTERGOLD BROTHERS, NEW AUBURN, WISCONSIN

GUERNSEYS! GUERNSEYS!
Herds of pure-breds or grades. Prices are right. Come or write.
LACROSSE COUNTY GUERNSEY ASSOCIATION,
CHAS. S YOUNG, Sec., West Salem, Wis.

BULLS 6 to 10 Mos. Old From A. R. Cows
Prices to Suit the Present Times

Herd are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

H. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

FOREMOST GUERNSEYS

We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Heifers
FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

MAYOWOOD FARMS
GUERNSEY BULLS
DO YOUR GUERNSEY SHOPPING EARLY

We are sold out of bulls of serviceable age, but still have a number of younger bulls from some of our best producing dams, which we are offering at attractive figures. Buy One and Develop Him Yourself.

O. C. JENSEN, Supt., ROCHESTER, MINN.

FOUNDATION GUERNSEYS
FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

PENNCREST FARMS
ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pronounced by authorities as the best son, individually, of Ne Plus Ultra, whose offspring, for a number of years past, have invariably topped the sales of major importance. Near descendants of this great sire are becoming harder to secure, and in the near future will be valuable acquisitions. Breeders desiring the best there is in this blood will do well to investigate, as we are offering stock at the right price. Address inquiries to

WM. P. SMEDLEY, MGR., MEDIA, PA.

Bargains in Bull Calves
A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD LINES—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, Pa.

PRODUCTION BULLS--*Righto*
When they sire daughters which produce
A TON OF MILK A MONTH

Brookmead's Banner, sold as a youngster (Sight Unseen) for a reasonable price, is the sire of Silverwood's Diana:
December, 1925—2,158 lbs. Milk—ONE TON
January, 1926—2,187 lbs. Milk—ONE TON
Our present sales list carries equally good ones.

BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

OAKWOOD FARM
ALGONA - - IOWA

To make room for our young stock we are offering 10 cows, some with A. R. records, at prices to move. Also 4 bull calves with A. R. backing. Also 11 good pure-bred Duroc Jersey gilts bred for March and April farrow to a son of Sensation King.

QUARTON & BOSWORTH W. H. Bosworth, Mgr.

BROWN SWISS
Breed Brown Swiss Cattle



SWISS VALLEY GIRL 7th No. 4678

They prove their superiority over other breeds when subjected to trying conditions on the farm, by keeping in good flesh and filling the pail while other cows grow thin and reduce their yield. You can prove this to your satisfaction.

BROWN SWISS CATTLE BREEDERS' ASS'N.
IRA INMAN, Secretary, Beloit, Wis.
A. E. BOWER, Pres., Union Stock Yds., Cleveland, O.

LEE'S HILL FARM
MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

HOLSTEINS

HIGH GRADE
HOLSTEIN HEIFER CALVES FOR SALE!

These calves are sired by pure-bred sires and are from one week to four weeks of age. Good, thrifty calves $25.00, tuberculin tested, crated, f. o. b. Columbus, Ohio.

HARTMAN STOCK FARM
COLUMBUS OHIO

OHIO HOLSTEINS
Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
10509 Euclid Ave., Cleveland, Ohio.

High Grade Holstein Springers
If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

WINTERTHUR FARMS
HOLSTEINS
HOME OF THE
SPRING BROOK BESS BURKE 2d FAMILY
BULL CALVES FOR SALE

Born since March. Write for price list. Herd under Federal Supervision for Tuberculosis; negative to Blood Test for Abortion.

WINTERTHUR FARMS, Winterthur, Del.

UNITED STATES SOLDIERS HOME DAIRY
WASHINGTON, D. C.

OFFERS FOR SALE at reasonable prices from the first accredited herd in the United States, PURE BRED HOLSTEIN-FRIESIAN MALE CALVES from one month to seven months old, from yearly tested dams and sons of General Piebe 323266 H. B. One of the richest bred sons of the well known K. P. O. P. whose descendants have in the past eight seasons won no less than 553 first prizes. His five nearest dams, all have 1,200 lbs. butter in 265 days. Also sons of Grahamholm Colantha Pauline Lad 297377 H. B.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

SHEBOYGAN COUNTY FOR HOLSTEINS

85% of all cattle in county are Holsteins. Over 200 fine Federal tested herds to select from. Full time field man is at buyers' service. Write or come if you want good Holsteins.

SHEBOYGAN COUNTY HOLSTEIN ASSOCIATION
Arthur V. Jensen, Fieldman PLYMOUTH WISCONSIN

STATE and FEDERAL TESTED HOLSTEINS
BUY FROM AN AREA TESTED COUNTY

The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.

Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

DICMERE HOLSTEINS
SHOW TYPE—PRODUCTION

We have for sale bull calves 4 to 10 weeks old sired by Walcowis Ollie Abbekirk, a 968-lb. son of that grand champion, Iowana Sir Ollie. They are from 23-lb. to 25-lb. 3-year-old dams. $150 to $200 and bargains at that price. The herd is federal accredited. Write if you want a bull with type, backed by proven production.

H. E. DICKINSON, Oconomowoc, Wis.

Springers and Fresh Cows
HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

MILFORD MEADOWS
Where long-distance records and high test counts

Our daughters of King Bess Burke Ormsby (1164 butter) and Marathon Aaggie (1,250 butter) are most all bred to
SIR TRIUNE PANSY (1,317 lbs.)
First to freshen in January. You will be pleased with this combination of type and production.

W. W. KINYON, Mgr., LAKE MILLS, WIS.

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

HOLSTEIN Bulls - Females

YOUR PICK OF 150 HEAD. Abortion tested and T. B. free. First prize National Dairy Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.

F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

2 FIRST CLASS BULLS
SHOW TYPE — YEAR RECORDS

HIGHLAND FARM, LAKE GENEVA, WIS., offers for sale 2 very toppy young bulls, 9 and 10 months old, sired by a good grandson of Iowana Sir Ollie. One is from a daughter of Count Walker Homestead Segis that produced 11,855 lbs. milk, 459 lbs. butter in 305 days at 24 months. The dam of the other produced 25.8 lbs. butter in 7 days. 967.95 lbs. in a year as a 4-year-old. If you want a bull with type and breeding, backed by best of production, write

JOHN H. ALCOCK, 3460 W. Adams St., Chicago, Ill.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

SERVICEABLE BULLS — FOUNDATION HEIFERS
Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.

BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins
have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

REGISTERED HOLSTEIN HEIFERS
We offer several bred heifers due in March and April. All are sired by a 1,040-lb. Homestead sire and all are bred to a 990-lb. grandson of Iowana Sir Ollie. Accredited herd.

CHAS. HUGHES & SON, NEENAH, WIS.

Quality Holsteins

Jefferson County Holstein-Friesian Breeders Association has them. Over 1000 herds to select from. Write your wants to our field man

BERT ANTHES, Fort Atkinson, Wisconsin

4 of Wisconsin's Best Herds

IN ONE DISPERSION SALE!

MARCH 1-2, 1927

— at —

Waukesha and Watertown

[200 PUREBRED HOLSTEINS]

Never Before Have 4 as Good Foundation Herds Been Sold in One Sale!



THE WALCOWIS HERD

Owned by Louise H. Dickinson, Lake Geneva, Wisconsin

65 REGISTERED HOLSTEINS

Including 12 mature daughters of Iowana Sir Ollie Grand Champion National Dairy Show 1919. They have records up to 900 lbs. butter in a year as 2 year olds. 50 granddaughters of Iowana Sir Ollie; among them: 10 daughters of Sir Ollie Mooie Watson, 36-lb.-son of Iowana Sir Ollie. 22 daughters of North Star Gift Champion, a Son of Johanna Bonheur Champion, from that former worlds record cow Little Gift of Spring Valley. North Star Gift Champion, the herd sire, and six other bulls from six months to a year old will be sold. You know the Herd. It has long been one of the best in the State.

J. W. HOWARD'S HERD

Genesee, Wis.—30 REGISTERED HOLSTEINS

Including—8 daughters of Pabst Champion Hartog, a 26-lb.-son of King Pontiac Champion. 4 granddaughters of Terracelawn Hengerveld Segis, whose daughters twice won the get of sire class at the National Dairy Show. 5 granddaughters of Woodcroft Perfection, the 40-lb. bull. This is a high class herd of producers, cattle that should interest those who want to add some of the profit making kind to their herds.

O'CONNOR BROS. HOLSTEINS

Watertown, Wis.—60 HEAD

40 purebred cows and heifers—3 milking age

This herd was built entirely on a Homestead foundation. It is one of the oldest and best herds in Dodge County. It includes:
26 daughters of Carnation Johanna Matador, a son of Matador Segis Walker. 20 daughters of Colantha Walker Segis, a son of Carnation Segis Prospect. One expects good cattle from such breeding and this is a herd of good ones.

THE LAURITZ LARSEN HERD

From Elroy, Wisconsin — 35 GOOD HOLSTEINS

A herd that includes: 15 good cows, 5 two-year-old heifers, 6 yearling heifers, 8 heifer calves.
These are practically all daughters and granddaughters of semi-official record cows and among them are 2 daughters of a 900-lb. cow. These are the kind of cattle every good dairyman likes to have. The entire herd is largely of Admiral Walker Prilly breeding.

AITKEN BROS.—Waukesha, Wis.

are consigning 15 head. 8 are daughters of King Bess Johanna Ormsby, whose dam is the only four times 40-lb. cow, also the only three times 1,000-lb. 305 day cow. Their dams are largely daughters of Terracelawn Hengerveld Segis and bred to Dodge County Homestead Boy, ages from 1 to 7 years.

All Herds Federal Accredited and sold on a 60-day retest.
For Further Information, write —

Waukesha Sale & Pedigree Co., Waukesha, Wis.

WALCOWIS and HOWARD HERDS At WAUKESHA, MARCH 1

O'CONNOR and LARSEN HERDS WATERTOWN, MARCH 2

R. E. HAEGER, J. E. MACK, Auctioneers

There Was Never Anything Like This Before

SIX 2-year-old heifers have completed year records at Carnation Farms recently. The average production of the six is 1061.82 pounds of butter from 24,451.3 pounds of milk.

The lowest producer of the six broke the world's record by producing 18,448.7 pounds of milk containing 900.27 pounds of butter on *3-time-a-day* milking as a 2-year-old.

One of these 2-year-olds produced 28,967 pounds of milk and 1177 pounds of butter in a year. No other 2-year-old of any breed ever did that.

Another produced 1220.26 pounds of butter and 25,000 pounds of milk as a junior 2-year-old. No other 2-year-old (junior or senior) of any breed ever did that.

Three of these heifers produced over 1166 pounds of butter in a year. In no other herd in the world are there three such 2-year-olds.

The first time it happened people said it was luck, but when it keeps happening right along on one farm — and when the first heifers that produce at such a rate represent a certain combination of breeding — any thinking man recognizes that an ideal combination of breeding has been discovered and this is the result of it.

"The Lazears" of Cheyenne, Wyoming, asked us to pick out the most reliable bull we could get for them. We selected a bull of this same combination of breeding. The first two daughters of that bull to complete year test average 22,093 pounds of milk and 934 pounds of butter as junior 2-year olds.

WHY GUESS WHEN YOU CAN KNOW?
LET US TELL YOU ABOUT IT!

Address all correspondence to

211B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Come to Hollyhock Farms For Your Herd Sire!

Although we seldom have a bull of serviceable age, we always have some very good younger ones sired by Sir Bess Ormsby Fobes or by Creation out of Sir Bess' daughters. We have a few good ones right now with the right type and from good record dams. Write us or come to the farm.

HOLLYHOCK FARMS (Waukesha County) P.O. DOUSMAN, WISCONSIN
GUSTAVE PABST, OWNER F. J. SOUTHCOTT, MGR.
A Clean Herd Under State Supervision



A Real HOMESTEAD BULL CALF

Born: Nov. 8, 1926

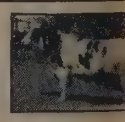
SIRE: Prince Mooie Fobes No. 458471—son of a 1 two year old. A grandson of Iowanna Sir Ollie, great show bull.

DAM: Milcoaggie Pauline Homestead No. 82177 daughter of our Senior Herd Sire, King Canary Ho stead Segis, an 1123 lb. bull. This dam made lbs. of butter fat during December, 1926 in C. T work.

Do not let this opportunity slip. Priced to sell qu ly. Inquire of

MILWAUKEE COUNTY INSTITUTIONS FARM, E. C. THOMPSON, Farm Mgr., WAUWATOSA, W

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

JOHN H. PULS ALLENTON, WISCONSIN

GRAMLING FARMS HOLSTEINS King Pontiac Inka Lunde Korndyke, our se sire is a son of King of the Pontiacs, a do grandson of Pontiac Korndyke. Bell Farm Chancellor, junior, sire, is a grandson of Bessie Fobes Oak Ho stead from a 34 lb. 4-year-old daughter of Carnation King Sylvia.
These bulls are being bred to our herd of Homestead females. We have sons and daughters of our se sire for sale. The herd is clean.

GRAMLING BROS. DOUSMAN, WISCON

HOLSTEIN BULL

Offering a light colored March calf si by a 1215-lb. Bull and out of a 24 — year-old that averaged over 80 lbs. of milk a day. PRICE $225.00.

THE NORRIS FARM *Federally Accredited* **Mukwonago, Wiscons**



Ona Bulls For Sale

Ours is a business herd of over 250 registered Holste headed by King Ona and one of his good sons. Our co must be profitable producers and the young bulls we of are out of that kind of dams. We have several go youngsters from A. R. O. cows for sale at present. Th are priced to move quickly. Write

The Rieck Certified Dairy Farms Co., Rootstown, O

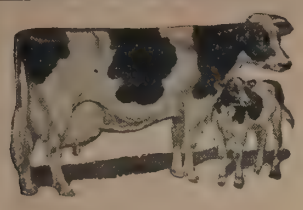
Choice HOLSTEIN-FRIESIAN (Registered)

Cows and Bulls For Sale

These cows hold high A. R. Records. Two score to select from.

CLAPBOARD HILL FARMS CO., Inc.
Office at New Canaan, Connecticut

FARMS AT NEW CANAAN, M DLEBURY, and GOSHEN, CO



Write for Holstein Literature and Facts

HOLSTEINS

—Producers of Cash!

Holsteins stand supreme as butterfat producers. Holsteins in most instances are leaders in cow testing associations, both in individual and herd records. Under official test the important records for butterfat are all held by Holsteins. Their ability to produce butterfat, milk and calves economically, make them consistent producers of cash.

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN

230 E. Ohio St. *Association of America* **CHICAGO**

Room 601

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

RVICEABLE 30-LB. BULL and BULL CALVES

P. O. P. breeding. Sons of Rival King Ormsby ercedes, his dam world's champion in Class C. der Federal Supervision. If you want show type, e and production write

E. FERGUSON, LAURENS, IOWA.

FOR QUICK SALE

000-lb. serviceable show son of Man O'War, hat Son of 37th." Dam—beautiful individ-l, straight top-line, square udder. 1,000 . year, 30 lbs. 7 days; very royally bred, blanks. Calf—Nicely marked, a real flashy, raight show bull. Pedigree and pictures on quest. Price $500.

EMPIRE STOCK FARM.

M. SCHMIDT'S SONS, ST. PETER, MINN.

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lorthfield Holsteins

oduction and type—Prices right. Regis-ed cows, heifers and bulls, calf club calves, st of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB

NELS PARSON, SALES SEC.,

ORTHFIELD, MINNESOTA

A GOOD BABY BULL

Sired by **ST. OLAF ORMSBY SENSATION** No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

---

ll we can ffer in .. BULLS

r tag 575. Born December 1, 1926, evenly arked. Dam, a show cow, daughter of 1,227-bull. Sire proven son of "Piebe." Get is calf for next year. Price $75.00.

Federal Accredited.

CARLETON COLLEGE FARM.

rthfield, Minnesota

. Frost Spaulding Farm Co.

ers choice Bred Bulls from good record dams and d by **KING PEITERTJE MERCEDES ORMSBY,** of whose daughters has just broken the World's ord in the senior two-year-old class with 1,119 lbs. ter in a year. This sire is a son of Sir Pietertje nsby Mercedes from an 1,100 lb. daughter of a 00 lb. cow and is one of the few sons of Sir . O. M. backed by two generations of 1,000 lb. dams. our prices.

L. SPAULDING, MGR., Warren, Minn.

AKONA HOLSTEIN FARM

FEW REGISTERED HEIFER CALVES

sale. Sire's dam 1,016 lbs. butter in year. ms have good records. Prices $50 to $75. credited herd.

A. NORRIS, Anoka, Minn.

Healthy Holsteins

If you are in the market for grade or registered Holsteins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.

608 S. Dearborn, St., CHICAGO, ILL.

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3 GOOD BULLS

9 to 12 Months Old

All three are by Segis Prospect Eminent, a 30-lb. 1,165-lb. grandson of Matador Segis Walker and Segis Pietertje Prospect.

No. 1, born Feb. 8, '26, is from Piebe Homestead Ormsby Fobes, 25.7-lb. 4-year-old that has produced over 500 lbs. fat each of past two years in C. T. A. Price $175.

No. 2, born Feb. 20, '26, an excellent individual, from De Kol Netherland Homestead, 25.19-lb. cow. Price $200.

No. 3, born May 7. A good, straight, well bred calf, priced worth the money at $150.

The herd is clean. Write today.

THE W. T. RAWLEIGH COMPANY

Props. Rawleigh's Ideal Farm

FREEPORT • ILLINOIS

Do You Look Ahead?

We have a choice selection of Bull Calves on hand that will be ready for service before next winter. Their prices NOW represent a handsome profit for raising them. The selection is greater. Herd five years in Ogle County C. T. A. Federal Supervision and Blood Tested."

Rock River Farms, Byron, Ill.

YOUNG BULLS

Priced to Sell!

I am sold out of serviceable bulls but have some excellent bull calves 2 to 4 months old, priced right. They have the type and breeding that will suit you and are from A. R. dams. Write today.

HARRY M. WOOD, Delavan, Ill.

BUFFALO CREEK FARM HOLSTEINS

38-POUND BULL—

A six months calf, light in color and a good individual. His 38-lb. dam also has 970 lbs. yearly record. His sire is a grandson of S. P. O. M., from a 926-lb. two-year-old. Write for pedigree and price. Federal Supervision.

BINGHAM BROS., Arlington Heights, Ill.

WARWOOD FARM HOLSTEINS

YOUNG BULLS FOR SALE

These youngsters are sired by a 1000 lb. grandson of Sir Pietertje Ormsby Mercedes 37th and are from our best producing cows. Write today if you want a bull with type and backed by productive breeding.

FRED LANDORF, GLEN ELLYN, ILL.

YOUNG BULLS FOR SALE

We have some real good bull calves from one to three months old. They are real straight calves and from our highest record cows. They are priced reasonably, quality considered. Our herd is under federal supervision.

ELLWOOD & NELSON, DE KALB, ILL.



READY FOR SERVICE

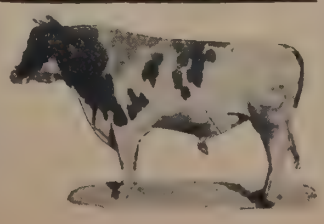
A Show Bull From a 1155-lb. Dam

DEAN INKA SEGIS ORMSBY, born Jan. 13, 1926. **SIRE:** DEAN COLANTHA SEGIS ORMSBY, a richly bred ORMSBY show bull of 1000-lb. breeding. **DAM:** LASHBROOK INKA SEGIS, a 30-lb. cow who just finished with 1155 lbs. butter from 27,335 lbs. milk in 365 days. This bull is a top notch individual, a prize winner at the 1926 Iowa and Minnesota state fairs. HIS EIGHT NEAREST YEARLY TESTED DAMS AVERAGE 1130 LBS. BUTTER. Send for pedigree, photo and price.

A. J. LASHBROOK, NORTHFIELD, MINN.

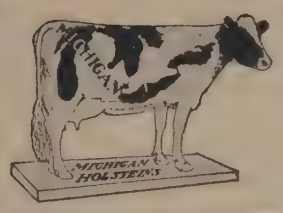
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ons and Grandsons of Dutchland Creamelle Colantha Lad



We have several excellent youngsters for sale, a very few ar serviceable age. Most of them are from good record ms and many carry the blood of Grahamholm Colantha gis Maid, world record daughter of "Dutch." Write today r sales list.

RAHAMHOLM FARMS, D. G. Twentyman, Mgr., Rochester, Minn.



Now is the Time!

Michigan's pure-bred Holstein cows are right in heavy production. Don't have to rare all over the back forty;—stuff is all in the barns. Owner isn't far off, either—his chores won't permit him to ramble far. He has time to show you his Black and White wares. What do you want in the pure-bred line? Tell me, so I can ask our 16 County Sales Managers to quote you.

J. G. HAYS, SECRETARY

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION

P. O. Box 1018, East Lansing, Mich.

KENT COUNTY A Modified Accredited Area. Six Cow Testing Associations proving about 800 Holsteins. Inquiries for Purebred stuff solicited.

JOHN C. BUTH, Sales Manager, R. No. 2, GRAND RAPIDS.

Serviceable 30-Lb. Bull

SERRADELLA CANTRILLA FAYNE was born Jan. 1926. He is a growthy fellow backed by the best of production. His dam produced 30.56 lbs. butter as a 10-year-old and has two 29-lb. daughters, one with 828.5 lbs. butter in a year. Write us today for price and pedigree.

SERRADELLA FARM, Federal Accredited Herd, OSCODA, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

A Grandson of "Fobes 6th"

A dark colored calf of excellent quality, born June 3, 1926. His seven nearest dams average 32.37 lbs. butter in 7 days.

His sire is a son of Marathon Bess Burke and the famous "Fobes 6th" that topped the Erickson Sale at $6,800. She is a 38.5-lb. cow with 1105 lbs. butter in a year and one of the best individuals of the breed.

His dam is a 27.29-lb. Jr. 4-year-old daughter of Echo Sylvia King Model from a 31.27-lb. cow with a 365-day record of 989.69 lbs. butter in a year.

SEND FOR PEDIGREE OF TAG NO. 661

"MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Department B, Lansing, Mich.

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. **We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.**

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.

Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

INTRODUCING—

THE FEMCO HOLSTEIN HERD

OVER 200 HEAD OF PURE BREDS, largely of Ormsby breeding. Practically every cow has an official or C. T. A. record. Eight members have year records over 1000 pounds butter and up to 30,000 pounds milk. Shown at leading Central and Western fairs last fall, the herd captured 11 Grand Championships and 47 Firsts.

PRIDE OF SIR PIETS, who is from the highest record daughter of Sir P O M 37th, heads the herd.

A NUMBER OF CHOICE BULLS FOR SALE.

WRITE US FOR PEDIGREES AND OTHER INFORMATION.

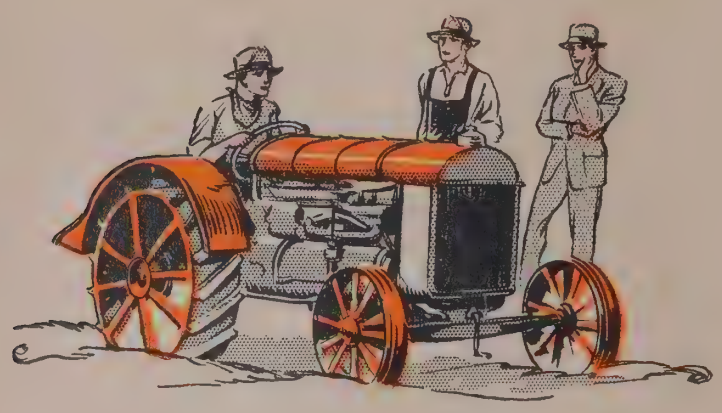
FEMCO FARMS, F. E. Murphy Co., BRECKENRIDGE, MINNESOTA

Why their alfalfa was killed last winter



Last year about 100 farmers of Buffalo County, Nebraska, set out to determine what killed their alfalfa during the winter. The conditions on a farm in Shelton are typical of what they found. This farm has two fields of alfalfa, side by side, which were sown with two different kinds of seed. One field showed a perfect stand while the other was badly thinned out. *The cause of the winter killing was directly traced to poor seed.*

Poor seed is like poor lubricating oil



Neither cheap seed nor low-priced lubricating oil is a profitable investment. Farmers who turn to Gargoyle Mobiloil are often astonished by the many ways in which Mobiloil returns its small extra price. Less time out for repairs. Fewer stops with a tractor because of overheating or thinned-out oil. Less carbon. Better compression and valve action. And Mobiloil frequently cuts oil consumption from 10% to 50% —saving more than its few cents extra cost per gallon right there.

Do you realize the importance of these facts?

Make this CHART *your guide*

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars are specified below.

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc"), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

Follow winter recommendations when temperatures from 32° F (freezing) to 0° F (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford Cars, use Gargoyle Mobiloil "E").

If your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors.

NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac	BB	Arc	BB	Arc	A	Arc	A	Arc
Chandler Sp. 6	A	A						
" other mods.	A	Arc	A	Arc	A	Arc	A	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chrysler 4	A	Arc	A	Arc	A	Arc		
" other mods.	A	A	A	A	A	A	A	A
Dodge Brothers	A	Arc	A	Arc	A	Arc	A	Arc
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc
Jewett	A	Arc	A	Arc	A	Arc	A	Arc
Jordan 6					Arc	Arc	Arc	Arc
" 8	A	Arc	A	Arc	A	Arc		
Lincoln	A	A	A	A	A	A	A	A
Moon	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Nash	A	Arc	A	Arc	A	Arc	Arc	Arc
Oakland	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile	A	Arc	A	Arc	A	Arc	A	Arc
Overland	A	Arc	A	Arc	A	Arc	A	Arc
Packard 6	A	Arc	A	Arc	A	Arc	A	A
" 8	A	Arc	A	Arc	A	Arc	A	Arc
Paige	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Pierce-Arrow	A	A	A	A	A	A	A	A
Star	A	Arc	A	Arc	A	Arc	Arc	Arc
Willys-Knight 4			B	Arc	B	Arc	B	Arc
" " 6	A	Arc	A	Arc	A	Arc		

GARGOYLE

Mobiloil

Make the chart your guide

(1) Mobiloil is the favorite oil with automotive engineers. (2) Mobiloil is asked for by 3 out of every 4 motorists who buy oil by name. (3) Mobiloil was used in such famous flights as the U. S. Army Round-the-World flight, Byrd's flight to the North Pole, and Lieut. Maughan's Dawn-to-Dusk flight across the United States. (4) The Mobiloil Chart has the approval of 609 automotive manufacturers.

The full economy of Mobiloil will be yours this year if you follow the recommendations in the Mobiloil Chart for your car, your truck, your tractor, your farm lighting engine and your stationary engines. 42 Mobiloil engineers made a careful study of all automotive engines before this Chart was made. Your engines were included.

The Chart is shown at the left in brief form. Your nearby Mobiloil dealer has the complete Chart. Ask him what grade of Gargoyle Mobiloil to use in each of your engines.

The Mobiloil dealer will supply you with the correct grades of Mobiloil—at a substantial saving if you buy in barrel or half-barrel lots. It will be a wise move to see him now about your season's requirements.

VACUUM OIL COMPANY

MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas.*

Other branches and distributing warehouses throughout the country

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 5 Fort Atkinson, Wisconsin March 10, 1927







JOHN KOCH

Rawleigh Ideal Farms, Freeport, Ill.

EVERY RAISER of pure-blooded Poland China hogs has heard of Rawleigh Ideal Farms. Here is the home of Sun Ray No. A5, a boar that sired two two-ton litters. He is shown in the photograph, with Mr. Koch, the only man on the Rawleigh Farms who dares get into a pen with him without a hurdle. "Looking after 1000 head of pure-blood hogs," says Mr. Koch, "requires a lot of footwork in all kinds of weather and over all kinds of ground. I find the Ball-Band heavy dull sandal the most convenient overshoe for all-round farm wear. It is heavy enough for most wet weather outdoors and yet light enough for work in the hog house. It keeps my feet off the cold concrete floors, and yet keeps my shoes dry when I have to step in the mud or wet. I always ask for Ball-Band rubbers and look for the Red Ball trade mark because experience has taught me it pays to do so."

GEORGE H. PARKER

R. R. 9, Fort Wayne, Indiana

MR. PARKER says: "I have worn Ball-Band rubber footwear for twenty years, so when the Mishko Shoe came out I thought I would see if the Red Ball on work shoes meant as much as it does on rubbers. It does. I used to have to resole my shoes two or three times, at a cost of 50 to 60 cents each time if I put the soles on myself, or $1.00 or $1.25 if I had them resoled in town. I don't have to bother about resoling at all with the Mishko Shoes, because the Mishko sole lasts as long as the uppers and at the same time outlasts two or three ordinary soles. I pay a little more for the Mishko Shoes to begin with, but that isn't the way to figure it. Look what I save in resoling costs, not to mention the time lost in doing it and the discomfort of walking around on rough ground in soles getting thinner and thinner. No, sir, unless I see a Red Ball on the heel of a shoe, I don't buy it."

HENRY MARTIN

Clinton, Mass.

"I BOUGHT a pair of Ball-Band Moccasin Work Shoes about 18 months ago, and the original soles have not yet worn out.

"I am a line inspector employed by the New England Power Co. and my work takes me through the hardest of walking through swamps, woods and all kinds of hard, rough going.

"They are the best wearing shoes I have ever had, and will continue to wear them and tell my friends about them."

They have solved the work shoe problem

These men, whether working around the house, in the barn or on the job, say that the Mishko Shoe gives them more comfort and longer wear than any other shoe they've ever worn.

TENDING market, raising hogs, or stringing telephone wires is work that puts footwear to severe tests. Millions of outdoor workers all over the United States, like those quoted here, have found from years of experience that the one sure way to get not only foot comfort but also *more days wear* in rubber and woolen footwear is to ask for Ball-Band and look for the Red Ball Trade Mark. They also get the same long service out of work shoes that are now a part of the Ball-Band line. These are known as Mishko Shoes. The soles are a special Ball-Band product and outwear two or three ordinary soles. You can have them either nailed or sewed on. Mishko Shoes are also made with high lace tops.

TRADE MARK

They are sold by most Ball-Band dealers, and there are Ball-Band dealers everywhere. If you have any difficulty getting what you want, write us for the name of a nearby dealer who can fit you. Mishawaka Rubber & Woolen Mfg. Co., 313 Water St., Mishawaka, Ind.

BALL-BAND

RUBBER - LEATHER AND WOOLEN FOOTWEAR

BOOTS · LIGHT RUBBERS · HEAVY RUBBERS · ARCTICS · GALOSHES · SPORT AND WORK SHOES

After Two Thousand Years

CALUMELLA, writing in the first century A. D. concerning ways and means of maintaining the productiveness of land and of feeding live stock, recorded some things that bear repetition even after nearly two thousand years of seed time and harvest.

He wrote: "Some of the leguminous plants manure the soil and make it fruitful, whilst other crops exhaust it, and make it barren. Lupines, beans, peas, lentils, and vetches are reported to manure the land.

"The best forage plants are alfalfa, fenugreek, and vetches. Alfalfa may be placed in the foremost rank of such plants; for when once sown it lasts ten years, fattens lean cattle, and has a salutary action on sick cattle."

It is interesting to note this Roman agricultural writer recording his observations of soil and of cattle feeding problems 2,000 years ago.

His observations were correct. He, perhaps, understood little of why legumes enriched soil with nitrogen and why alfalfa was a better forage than any others grown at that time.

After 2,000 years, legumes continue to play an important part in soil productivity and alfalfa is queen of the legume forage crops. This is true for the farmers who practice what Calumella knew 2,000 years ago. Unfortunately, however, there are altogether too many farmers whose methods preclude the application of this fundamental agricultural knowledge.

If Calumella could make some observations today in many sections of this country, noting the thousands of acres of land hungry for legumes and the hundreds of thousands of dairy cattle fed non-legume hays, he would probably record his observations something as follows, addressing his remarks to the Congress of the United States:

"I have been about some in these states which the members of Congress represent, observing the practices of many of the constituents of the senators and representatives particularly concerning soil improvement and cattle feeding. I find altogether too many of these men growing either no legumes at all or very small acreages with the result that their soil is impoverished and their cattle poorly nourished.

"I observe also that some farmers are much more prosperous than others and on inquiry of these men I find that they attribute part of this prosperity to their practice of growing and feeding legumes, particularly alfalfa. What these men are doing for themselves other men might well consider.

"By inquiry and by reading I find that the Congress is urged to pass legislation in the interests of farmers largely on the basis that agriculture is discriminated against by reason of certain legislation heretofore granted to labor, capital, and industries.

"My sympathies are aroused for the men who produce the vital essentials for the people of the states represented by this Congress. Whatever it may be that is unjustly preventing the fair and full exercise of the efforts of farmers to make agriculture stand successfully on its own foundation, it ought to be removed.

"I observe also that there is much difference of opinion among farmers as to what is best for the Congress to do; and there is a like difference among the members of this body both as to how far the government should go in assuming the burdens of agriculture and as to a method of giving aid.

"It may be that out of the unlimited controversy over ways and means of giving agriculture a square deal, the Congress may be able to place the government in such a position that its services will enable farmers to gain for themselves a position in which there is no unjust discrimination as to opportunity as compared to labor, capital, and the industries.

"In the meantime, while farm leadership is becoming better acquainted with what the government can and cannot do for agriculture, while the senators and representatives are learning some of the same and also jockeying for political preferment, might it not be a good thing to encourage farmers to help themselves in a number of ways over which there can be little difference of opinion?

"To my own personal knowledge it has been known for 2,000 years that legumes were good for the soil and that they made the best hays. On inquiry from the Department of Agriculture, I find that everything possible is being done through the Extension Service of the various states to increase the acreage and use of legumes and that there is a very good response among farmers, particularly during the past five years.

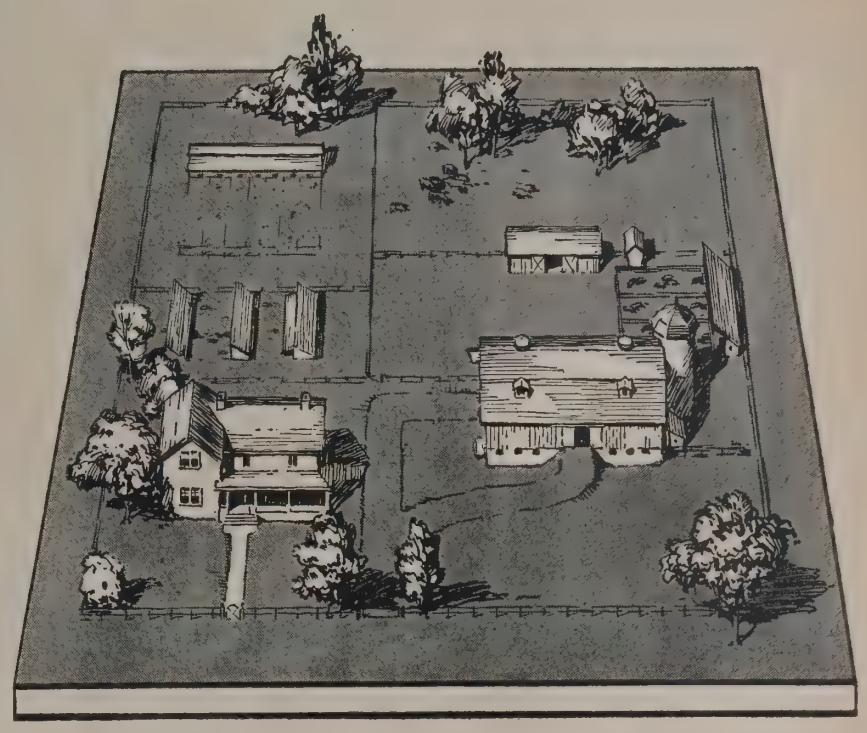
"I hear some farmers say that this increase in acreage and use of legumes will increase production and thereby cause a surplus of products. In dairying, the remedy for this is to eliminate the poor producing cows thereby removing the unprofitable surplus.

"It is not sound business to subsidize a scrub cow or a poor acre of land; to do so offers false hope to the owner thereof. Let him eliminate the poor cow and improve the ration of the good cow by growing and feeding legumes of which alfalfa is the best. This will improve the land. It is a practice—a remedy—about which neither statesman nor farmer can have but little difference of opinion."



USING THE BUCK RAKE IN STACKING ALFALFA HAY IN NEBRASKA

LOW-COST Protection *for* Home and Stock



Protection from fire—from winter's wind and cold and damp—from summer's heat—from destructive vermin:

All these you get at low cost when you make the walls and ceilings of your farm home, barns and other buildings out of Sheetrock.

FIREPROOF . . INSULATING . . VERMINPROOF . . NON-WARPING . . TIME-TESTED . . TAKING ANY DECORATION . . EASY TO PUT UP AND PUT UP TO STAY

Sheetrock is made from pure, unadulterated gypsum, 3/8-inch thick and specially surfaced for strength.

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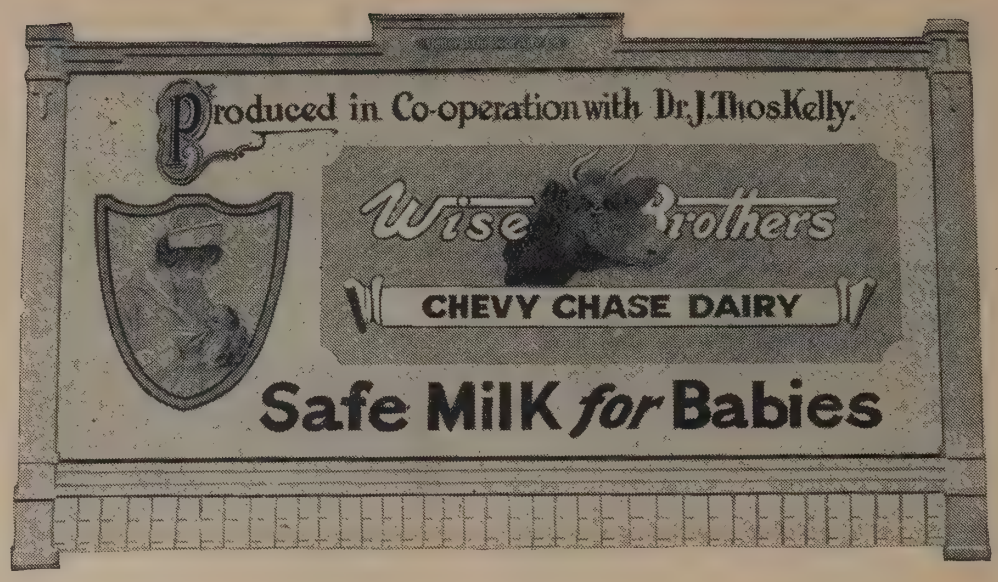
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Please send me booklet, "Sheetrock Walls."

Name .....

R. F. D. ..... *Town* .....

State .....

The Chevy Chase Dairy employs signs like this one to tell the people of Washington that their milk is "Safe for Babies."



As stated on the sign, this milk is produced for them by Dr. J. Thomas Kelly, on whose Pleasant Hills Farm at Germantown, Md., the De Laval Milker is considered a tremendous aid in the production of clean milk.

75 Per Cent of Washington's Grade A Milk is Produced with De Laval Milkers

DE LAVAL Milkers produce approximately 75 per cent of the Grade A, Certified and Special Nursery Milk consumed in Washington, D. C., at the present time. In the Washington milk shed, as in other sections, dairymen have found the De Laval Milker a material aid in making clean milk of low bacteria count.

However, the sanitary feature of the De Laval Milker is only one of the many advantages that combine to make the De Laval Milker a necessity to every milk producer. The fact that the oldest users of the De Laval Milker are its strongest boosters is perhaps its finest recommendation. At the right are nine facts based on a report on the De Laval Milker made by 1844 users in the United States and Canada. Read them.

Facts About the DE LAVAL MILKER

1. 650,000 cows now milked the De Laval Way.
2. De Laval Milkers now in their eleventh year of use.
3. 83.27% of the users report average saving of 2 1-5 hours* per day—saves half the time in milking.
4. 97.13% of the users say it agrees with their cows.*
5. 99% of the users say they get as much or more milk with the De Laval as they did by hand milking.*
6. 9.49% average increase in production per cow is reported by those who claim the De Laval Milker increases production.*
7. 94.80% of De Laval users say their milker is easy to keep in a clean and sanitary condition.*
8. Average bacteria count of all reporting, 14,542—62% report counts of 10,000 and less.* 28% report counts of 5,000 and less.
9. 96.45% of De Laval users say their milker is "the best," "one of the best," or a "good" investment as compared with other farm equipment they own.

*Based on reports from 1844 De Laval Milker users in all parts of the U. S. and Canada.

THE DE LAVAL SEPARATOR COMPANY

NEW YORK
165 Broadway

CHICAGO
600 Jackson Blvd.

SAN FRANCISCO
61 Beale Street



Part of the Guernsey herd at Green Hill Farm, owned by Mr. E. F. Riggs of Hyattsville, Md. The De Laval Milker installed at this farm is likewise proving its value in the production of Grade A Milk.

Below. On Ashley Farm, owned by W. W. Mobley of Derwood, Md., the De Laval Milker is considered a necessary piece of equipment for the farmer making Grade A or Certified Milk. Six of the De Laval units which milk the purebred Guernseys kept on this farm are shown in the foreground.





The interior of the splendid barn at Pleasant Hills Farm, owned by Dr. J. Thomas Kelly. A sign which is used by the Chevy Chase Dairy to advertise milk from this farm is shown at the top of the page.

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

l at Fort Atkinson, second class matter.

Semi-monthly

Three Years $1.00

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DAIRYING IN THE DESERT

GUY A. PETERSON, WISCONSIN

HAT a difference a little water can make was strikingly impressed upon us last sumhen we crossed the Utah desert way to Salt Lake City. Just we reached the border line of id lands at Mack, Colorado, we driving through an irrigated where alfalfa stacks dotted ndscape with their air of pros. Beautiful dairy cows grazed tedly in the rich green pastures prang up on the fertile, windsoil that had lain unused for ies until a few years ago when nd of man built ditches to supwith moisture. As we stood on ge of the water line and looked ve could see a valley filled with rous looking farms, well bred cattle, and comfortable homes. West lay a boundless expanse ing land almost devoid of vegt. Even the sage brush was d, shrivelled, and weather-



A TYPICAL ALFALFA HAY STACKER IN THE IRRIGATED SECTIONS OF THE INTER-MOUNTAIN STATES

This was one of the stackers we saw before we went into the desert at Mack, Colorado.

Storm Clouds Appear

n we stopped to fill our water reparatory to taking the windad that led into the barren an old, wrinkled, and grayd man told us that we would o hurry if we expected to Cisco, the next town forty miles before the storm hit us. He e road would probably be imle inside of four hours as the would be filled with muddy, en water, but he thought we be able to get ahead of the del we were traveling Southwest he clouds were coming due He advised us never to stop in m bed because water somecomes down so quickly and unedly that cars have been away by the wall of water. here are no trees and little vegof any kind in a stream's ge shed there is nothing to re- flow of the water, so the gulat carry raging torrents one ay be bone dry before the day found many of the bridges had washed out by a freshet some before so we often had to drive down the streams for some distance in order to cross them. The road bed washes so easily and the gullies fill so quickly that the problem of straight road building and maintaining bridges is a great one in this country.

Cisco Has One Cow

The possibility of getting drowned in a desert had never occurred to us before so it was a novel experience to be racing with a storm. In spite of our hurry, however, we always took the precaution to take the dips across the gullies in low gear. Our ride was full of thrills, but we pulled into Cisco just before dusk. The air was filled with dust, the wind was blowing a gale, and some rain was falling.



HOMER AND JOHN THAYN STANDING BESIDE AN ALFALFA STACK

Their farm is bordered by scrubby sagebrush on two sides, but thanks to the application of irrigation water the land is beginning to "blossom as a rose."

After we had decided to stop in the postmaster's log cabin over night, we were agreeably surprised to find that Henry Hansen, the custodian of the mails for the village, had come there from Waupaca, Wisconsin, sixteen years ago. For years he had owned the sole dairy cow in the village of fifty inhabitants but this honor is now held by the storekeeper, as Mr. Hansen sold his cow and is now having his milk brought in on the train. We went out to see this lone cow and found her tied in a log barn eating alfalfa hay that had been shipped in from Grand Junction, Colorado. We were not so fortunate as to drink any of her milk, however, as her entire production was used by the storekeeper and his family. The cow wasn't much to look at but she was gentle, and since Mr. Hansen told us that she was the only milch cow in forty miles, we led her out and took her picture just the same. We were surprised to find that her stall was lighted with electricity, but upon investigation we found that the residents can have this convenience even though they do live in a desert, because a stationary lighting plant has been installed by the innkeeper.

Why Not Irrigate

In the course of the evening's conversation we asked Mr. Hansen why the surplus water that comes rushing down those gullies could not be impounded and used for irrigation purposes. He told us that it had often been tried but the water is so full of silt that the storage reservoirs fill up in a short time, so he does not believe that the desert around Cisco will ever be conquered for intensive agricultural purposes, although the tufts of bunch and sand grass that make a sparse growth in the moisture-lacking silt do make fair winter sheep feed, so thousands of sheep are wintered there and are either loaded on trains or driven back to mountain pastures in the spring.

We got an early start next morning because the storm cloud had proved to be only a windy one so nothing serious had happened to the roadbed ahead of us. We could not help but think that it would be profitable for at least one man to develop a dairy herd because hay and grain can be reasonably purchased at Grand Junction, Colorado, a distance of less than a hundred miles away; water for cooling purposes can be pumped from the wells that were sunk in the hope of finding oil; and it would seem that a good market could be developed because thousands of tourists pass through the village every year, as it is located on the PPOO highway.

Our ride that morning was uneventful. For mile after mile we traveled through a land which, save for an occasional oasis, was uninhabited by man. In spite of the barrenness, however, the scenes were not oppressive because there were a few tumble down homesteader shacks to show where families have tried or were still trying to make farms on land that never had and never will have enough water to make them profitable for general farming. Farther east, in the sections where nature fashioned the land for range grazing purposes, we came upon many and many an example of unsuccessful attempts to make a living on 160 acres of semi-arid land that had no access to irrigation water. There are thousands of iron stoves rusting away on the western plains. Often they are the only things that remain to show that a family once lived on these spots, because the little shacks have burned to the

(Continued on page 271)



Berglund's dairy barn and farm shown here are typical that one sees in the dry land sections of Nebraska and



E. H. Thayn's herd of 29 grade Holsteins is the largest in Carbon County, Utah, and was the first dairy herd we saw after we had crossed the desert.

What I Am Trying To Do On My Farm

By Taking The Gamble Out Of Farming

W. J. DOUGAN, WISCONSIN

THE farmer is a notorious gambler. He takes desperate chances on the weather. He puts his all into planting and tilling the crop. It is thrown out to the mercy of the weather. With favorable weather, the farmer wins. A drought or flood, a storm or frost can turn his wheel of fortune to partial or total loss. The farmer guesses on crops. He may guess this crop or that will be the best pay this year, and then throw all his energy into getting the crop. If his guess were lucky, he wins; if unlucky, he losses.

The farmer gambles on prices; and with the speculation in farm produce and our present marketing system, he is, too frequently, trying to win on the other fellow's game.

We hold in contempt the gambler who pawns his wife's jewels and clothing to get money for the game. The farmer does worse than this. He puts up as stakes the very life of his wife, the education and future of his children, and his own strength to the limit. His all goes into the pool. If he loses, he loses opportunity for life for himself and his whole family; but if he wins, he wins but a pittance, —a mere existence for himself and family. The odds are always against him when he gambles in the farming game.

I am taking the gamble out of farming first by diversified farming. I raise clover, alfalfa, corn, small grains, potatoes, vegetables, and fruits. A season may be good for clover and poor for alfalfa, or vice versa. It was a surprise to me when I discovered this fact.

A few years ago we had a heavy April freeze. It more than halved the clover yield but had no serious effect upon the alfalfa. By using both crops I lessen my chances of being left without a hay crop. Corn is a sure feed crop with me. I have silage room to store a frosted crop, and by rotating crops keep my soil so it can force growth and maturity of the corn. In both of the recent off-corn years, 1924 and 1926, I had better than a 100% of normal crop. By rotation and diverse crops I can count on an 80% or 90% crop almost any year.

I diversify in live stock. My place carries eighty head of cattle, nearly one-half of which is growing stock; one hundred hogs, seven horses, besides poultry for family use. I will not let my place become merely a milk cow farm, even with milk at 20c per quart. Thus, by diversifying in crops, in stock, and in operations, I am lessening chances of loss—taking the gamble out of production.

I am taking the gamble out of farming by controlling my income and expenditures. The year 1911 was for me a low year. Professor Otis, then of the University of Wisconsin Department of Farm Management, told me I must cut down expenses or cut up income. I cut up both, and have since that year shown a good net profit. I control my income, first, by having a say in the price of my milk; second, by controlling the volume of product; and third, by controlling the cost of production.

I control my expenditures by the budget system. I plan my year ahead. If heavy expenditures are necessary in one department, such as new machinery, I cut down on expenditures in building, repairs, or expansion in some other line. I know I will have so much to expend, and I divide it so as to keep the whole work progressing. This is only possible where one keeps comprehensive accounts.

The farmer can no more do successful business without a complete and comprehensive accounting system, than can any manufacturer or business man.

Are these ideas of soil improvement, marketing, and handling of labor, which I have been emphasizing in this series of articles, practical? The practical, open-minded farmer insists on putting the question, "Will it pay?"

I must again refer to my own experiences to justify my ideals. The year 1924 was normal on my farm in most respects, and a fair example of the working of these ideals.

For several years the interest on the investment has ranged around 8%. While this is not high, when we consider that the farm has given a good living to a large force of workers; a nominal cash salary to the ator and a considerable indir towards his living; and kept u pairs and improvements, I feel satisfactory.

The detailed financial stateme as follows:

Total net investment, Jan. 1, 1924		$
INCOME		
Crops	$	381
Live stock		
Cattle		1,422
Hogs		1,544
Dairy products retailed		25,435
Rents (tenant houses)		467
Increase inventory		312
Total income		$
EXPENDITURES		
Permanent improvements	$	733
Live stock purchased		1,075
Labor expense		7,439
Repairs		906
Machinery		536
Feed		2,254
Supplies		3,445
Taxes and office expense		1,066
Milk purchased for separating		4,632
Miscellaneous		209
Total		$
Net farm income without deducting interest		$
Operator's cash salary, besides supplies furnished him from farm		
Total interest on investment		$

$5,466 is 8¾% interest on $62,418.



MR. DOUGAN'S TON LITTER OF 1924
Diversified live stock takes the gamble out of farming.



TAKING THE GAMBLE OUT OF FARMING BY DIVERSIFIED CROPS

Joe Guesser Is Converted—A Dairy Play

R. E. HARMAN, NEW JERSEY

Cast: Joe Guesser, a sort of a dairy farmer.

Katrinka Guesser, Joe's wife.

Boaz Guesser, Joe's son, classmate of Jack.

Jack Bookkeeper, son of Bill, classmate of Boaz.

Bill Bookkeeper, an up-to-date dairy farmer.

Isabel Bookkeeper, Bill's wife and Jack's mother.

Paraphernalia: Bill Bookkeeper, prosperous looking in dress, cane, shine, press, etc.

Jack Bookkeeper, golf suit and well mannered.

Boaz Guesser, old clothes as worn working about the cows and barn.

Joe Guesser, clothes somewhat dirty and torn, overalls, etc.

Katrinka Guesser, very old clothes, torn apron, etc., (loud talker and excitable.)

Scene I

Katrinka starting the wash in the Guesser kitchen, the man and son finishing breakfast; milk buckets, cans, bottles, overshoes, and other things found in the dairy farm kitchen to make it untidy. Table unkempt, paper tablecloth, etc. Washtub on box entirely too low; washboard.

Katrinka: "This living on the farm is getting on my nerves. All I do day in and day out is work, work, work. (Shoves milking utensils out of the way.) Joe Guesser, if you don't get a bustle on you and get a milk house built, I'll go crazy! You don't see Isabel having a part of the barn in her kitchen. These pesky milking utensils are aging me fast. I only hope not many farm wives have to nigger and slave as I have to!"

Joe: "I told you we don't have money to build no milk house. You can't build milk houses with feed the way it is and milk 7c a quart!"

Katrinka: "Well, I know we have no money or I wouldn't be bending over no washtub rubbing all these tarnal clothes out by hand. I start washing Mondays at six o'clock and finish some time in the afternoon. Isabel starts at 9 o'clock and with her electric washer she is finished and gets a rest before she gets lunch for Bill. Seems funny we can't even have electric lights when the line goes right past the house. No wonder young people want to leave the farm."

Boaz: "Mr. Bookkeeper even milks and clips his cows by electricity. The milk tester persuaded him to put water into his barn so the cows could get more to drink. He says milk is made up largely of water."

Joe: "Boaz, you're too young a fellow to be telling your old Dad what to do. Better get out and start cleaning the stables. Monday, you know, is the day we clean out. Last week we didn't get it done till Wednesday."

Katrinka: "Boaz, don't step in that water and track it all over the house. You'll soon be as bad as your father." (Boaz goes out.)

Joe: "If this boy doesn't stay home from those blamed club meetings he'll drive me mad. He even brought home a book to mark down the weight of each cow's milk. That would have meant a pair of scales. Our cows don't give so much milk that I don't know how much they give."

Katrinka: "Joe, why don't you go to one of those meetings and see what goes on. Mr. Bookkeeper never misses one. Jack even bought a pure-bred heifer and joined the club. Jack used to keep a milk and feed record of their cows. Now I hear they are so high toned they hire a man to come around and do it for them. He's a cow tester, I think."

Joe: "I'd like to know where Bill and Sallie get their money. I don't know of any relatives what died. I know about all the crops he raises are stuffed into his cows and Lord knows there's no money in producing milk nowadays."

Katrinka, as Joe starts for the barn: "Now, mind you, we've got to dig up some mone groceries pretty soon. Th time the grocer came he we'd not get another worth until we paid some on our bill. We owe him over already."

Katrinka to self: "Seems th some farmers' wives are for wash, sweep, cook, and wash, s cook. No money for clothes a time for nothing. I have a that it would do Joe and me g visit some of our neighboring men who are making money a how they do it. That record Boaz brought home looks good but Joe only laughs at it."

Scene II (In the Barn)

Boaz to Joe: "Dad, I wis wouldn't have destroyed that book and barn sheets which th agent gave me. What will I te happened to them?"

Joe: "Tell him the truth young fellow is coming aroun farm persuading my boy how this business. There were dai before we had any county age this county."

Boaz: "Mr. Bookkeeper sold cows soon after Jack star weigh their milk. Now he has a cow testing association an tester figures out both the mi feed for each cow. They onl the calves from the best cows."

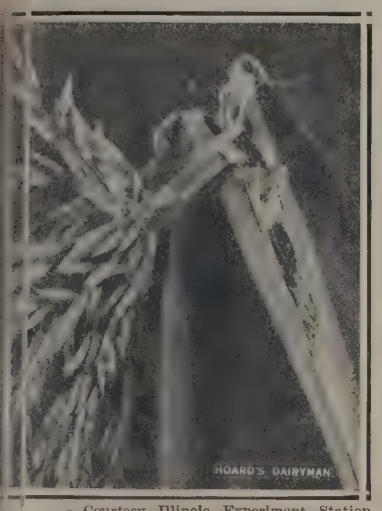
(Continued on page 281)

Corn Borer Threatens The Dairy Industry

O. A. HANKE, ILLINOIS

WITH the discovery of the corn borer in Illinois and its positive identification early in anuary, comes an increased interest n th spread of this seemingly uncon-rollble insect, which is now half ay across the corn belt despite the igi quarantine which has existed nd been vigorously enforced in the fe ed area.

T o years ago, in travelling rough Indiana and Ohio, I first be-m acquainted with the quarantine



—Courtesy Illinois Experiment Station

CN TASSEL BROKEN OFF WHERE NJURED BY THE CORN BORER LARVAE

eavily infested fields show very few tels after midsummer. The breaking off he tassels is frequently the first evi-de e the casual observer will see of the r ence of the corn borer.

g ations, for I was stopped and sk l, "Carrying any corn, are you?" y haki officers stationed on Ohio g ways. Every car leaving Ohio for he West had to undergo this inspec-on.

I spite of this apparently careful u antine and the other measures re ribed by the government, the or borer has yearly advanced west-a , until now an advance guard has e hed almost the center of the corn el

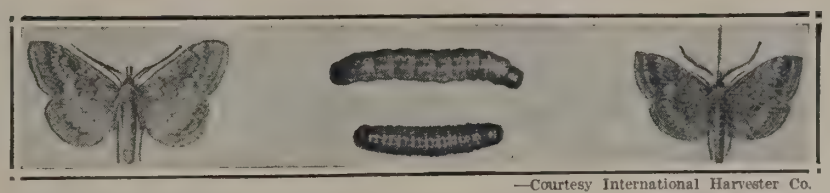
Destruction Very Complete

T ese insects, which came from u pe about ten years ago with a sh ment of broom corn, lay complete sa le to the corn fields which they t k. Today the most severely in-



—Courtesy Illinois Experiment Station

E CORN BORER LARVAE WORK NSIDE THE COB AND SHANK, AS WELL AS INSIDE THE STALK



—Courtesy International Harvester Co.

FEMALE MOTH BORERS (about natural size) MALE MOTH

To Control Corn Borer

1. Do not buy seed corn on cob.
2. Use latest machinery to cut corn low.
3. Put as much corn as possible in silo.
4. Shred the remainder.
5. Plow all stubble and stalks under before May 15.
6. Before May 15 shell all corn remaining in cribs.
7. Burn all fence rows and refuse before May 15.
8. Keep cornstalks out of manure which will not be plowed under by May 15.
9. Educate your neighbor.

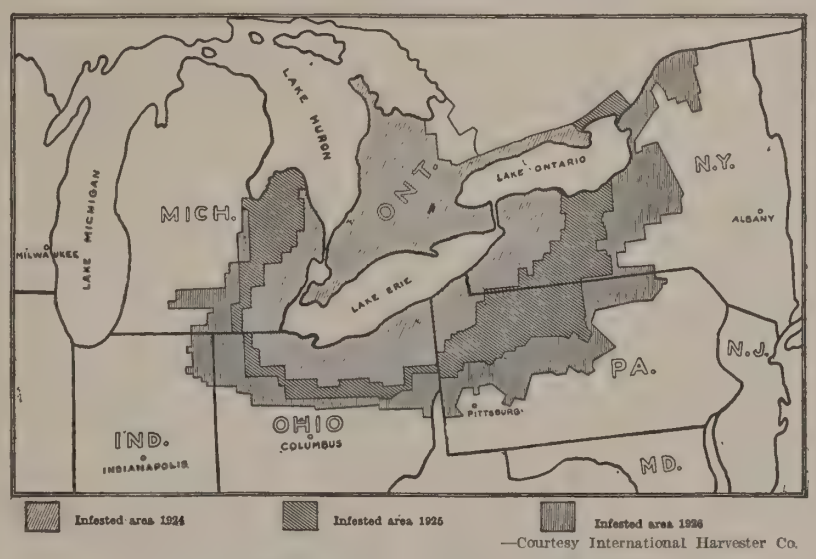
fested area in America is in Sussex and Kent Counties, Ontario, about forty miles east of Detroit.

According to the report made by Lawson Caesar after a trip made through this region in 1925, "most of the fields there have an average of over 20 borers to the plant. In these fields practically every tassel has been broken off; every leaf has been killed and either fallen or hangs close to the stalk; the ears have broken down, about one-third of them have rotted, the remainder are stunted and most of them riddled by the borers; the stalks are punctured by borer holes, having numerous castings on the outside and are tunnelled on the inside in all directions. The result is that almost every plant dies long before it is mature and many of them break over, forming a tangly, filthy mass almost worthless as feed for cattle, and fit only for hogs to run in and feed upon whatever ears have escaped destruction."

Such a description of the existing condition in the infested area does not lend a very cheerful aspect to future conditions in the corn growing sections.

The infestation, which is spread through the corn belt, is a result of the Canadian condition. The corn borer was introduced simultaneously at three different locations, Boston, Massachusetts; Schenectady, New York; and St. Thomas, Ontario.

The Boston infestation has spread until it now covers quite a portion of New England. The Schenectady area has increased but slightly. The insects implanted in the Ontario region seem to have been most virulent and they have spread east into western New York, while the moths have blown across Lake Erie and infested many counties in Northwestern Pennsylvania, about one-third of Northern Ohio, the eastern part of Michigan, and the eastern portion of Indiana.



—Courtesy International Harvester Co.

THE ADVANCE OF THE EUROPEAN CORN BORER

The fast spread of this new infestation is particularly alarming. In addition to the territory shown above there is considerable infestation in Connecticut, Massachusetts, New Hampshire, and Maine. The most recent infestations have been found in Kankakee County, Illinois, and Berrien County, Michigan, both located near the southern end of Lake Michigan.

The present Illinois infestation is a jump of more than 100 miles.

Insect Baffles Scientists

Perhaps before we discuss the proposed control measures of the government, it is well to take up the life history of the insect and to note how control measures need to be adapted to its living habits.

The European corn borer is a larvae or worm which bores in the stalks, ears, and tassels of corn. Beginning with the adult moth, which starts its egg laying activities early in June, the insect has a complete life cycle. The adult, a yellowish brown moth with an irregular dark line running across the wings, begins its activities early in June. This moth can

(Continued on page 284)



—Courtesy Ohio Experiment Station

THE SMALL WHITE BLOTCHES ON THE CORN LEAVES INDICATE THE FIRST EVIDENCE OF CORN BORER INJURY

The newly hatched larvae feed upon the leaves first.



CORN FIELD IN ONTARIO ATTACKED BY CORN BORER

Photograph taken in September by S. B. Fracker of Wisconsin Department of Agriculture

Holstein-Friesian Cattle in the United States

THE cattle from which our present Holstein - Friesian breed has descended were developed in Northern Holland, especially in the Province of Friesland, and in the neighboring provinces of Northern Germany. The time of their origin as a recognized distinct breed is unknown, but it is probable that they have been selected for their dairy qualities for about 2,000 years.

Before 1885 there were two associations furthering the interest of this breed in the United States. One maintained a Holstein herd book, and the other a Dutch-Friesian herd book. In 1885 the two associations were combined into the Holstein-Friesian Association of America. While the official name of the breed is Holstein-Friesian, the single word Holstein is more common in ordinary use.



SIR INKA PRILLY SEGIS, LEADING HOLSTEIN SIRE OF YEAR-RECORD DAUGHTERS, 74 DAUGHTERS HAVING COMPLETED SEMI-OFFICIAL YEARLY RECORDS

Importations and Distribution

Cattle from the Netherlands were first imported into the United States by the Dutch settlers in what is now New York between 1621 and 1664 and at irregular intervals after the Revolutionary War.

The first permanent introduction of this breed was made by W. W. Chenery of Massachusetts, just before the Civil War. Since then, these cattle have been imported in larger numbers with the heaviest importations between 1879 and 1887. Thereafter a few were imported up to 1905 and since then, because of the prevalence of the foot and mouth disease, none have been brought to this country.

Well over a million and a half Holsteins have been registered in the American herd book and the 1920 government census showed 528,621 head in addition to 10,500,000 grades of the same breed on the farms of this country. Holstein cattle are found throughout all the 48 states, though by far the largest number are in New York, Wisconsin, Pennsylvania, Ohio, Michigan, and Illinois. These six states contain more than 60 per cent of all the pure-bred Holsteins in the country.

General Characteristics

The Holsteins are the largest of the dairy breeds. They have large frames but are not ordinarily very heavily fleshed. Calves weigh from 70 to 105 lbs. at birth. Mature bulls should weigh not less than 2,000 lbs. and a weight of 2,200 to 2,400 lbs. in good breeding form is desirable. Mature cows will weigh from 1,100 to 1,750 lbs. with a desirable average of from 1,200 to 1,350 lbs.

The color is black and white with the colors sharply defined rather than blended. They may be nearly all white or quite dark, but no solid color animal can be registered.

Production

Holsteins produce a larger quantity of milk with a somewhat lower butterfat content than any other dairy breed.

According to Advanced Registry records complete to April 1, 1926, 25,431 Holstein cows of all ages have finished long time tests with an average production for the entire number of 15,720.4 lbs. milk, 532.75 lbs. butterfat and an average test of 3.39 per cent. Two-thirds of these were heifers and since these records include both 365-day and 305-day test periods, the average length of test is 331 days. One hundred nine Holstein cows have produced over 1,000 pounds of butterfat each in a year's time and no less than 74 have year records above 30,000 lbs. of milk.

Leading Holsteins in Each of the Yearly Production Classes for Year 1925—1926

Age	Class	Name of cow	Owner	Milk lbs.	Fat lbs.
Ten Months Butterfat Records (Class A)					
Mature		Traverse Colantha Walker	Traverse State Hosp., Michigan	24006	924.0
Sr.	4-year	Steilacoom Inka Pontiac	State Hospital, Washington	23195	846.3
Jr.	4-year	Steilacoom Eloise Fayne	State Hospital, Washington	24605	803.9
Sr.	3-year	Chimacum Gerben	State Hospital, Washington	24698	792.7
Jr.	3-year	Steilacoom Prilly Ormsby Blossom	State Hospital, Washington	23250	933.0
Sr.	2-year	Dutchland Creamelle Denver	F. F. Field Hol. Trustees, Mass.	18861	696.9
Jr.	2-year	Ohio Maudine Ormsby	Ohio State University	19405	682.0
Yearly Butterfat Records (Class A)					
Mature		Dutchland Pietertje Creamelle	F. F. Field Hol. Trustees, Mass.	27820	1148.5
Sr.	4-year	Redfield Segis Johanna	So. Dak. State School & Home	31061	1182.9
Jr.	4-year	Prilly Lyons Vassar May	Detroit Creamery Co., Michigan	24669	947.2
Sr.	3-year	Max View Model Fayne	A. A. McDonald, Ohio	23838	972.8
Jr.	3-year	O. K. P. Cornucopia	Julius Schmid, New York	19576	834.8
Sr.	2-year	Berk's Spring Farm Pontiac	A. S. Deysher, Pennsylvania	26360	1044.5
Jr.	2-year	Pauline America Shadford	Carnation Farms, Washington	26485	932.2

One of the most re
able of these pro
is Adirondac Wie
Dairy Maid that
successive years
made 4 records
31,000 lbs. of mil
1,000 lbs. of butt
Her total producti
4 years was 129,4
milk, 4,192.5 lbs. b
fat.

The Wisconsin
stein Association h
proved a "Her
provement Test,"
provides for a
test on *all* cows
herd. It is urgi
national associati
establish a class
A. R. for records
under this plan,
holds this metho
be highly effecti
weeding out poor
ducers, establishin
real merit of a sir
tend to greatly in
the breed. Cow t
records are accept
der this plan.

The 10 highest
fat and milk pro
among Holsteins a
ed below. The highest of these,
Plus Segis Dixie, while owned i
ada is registered in the herd bo
the Holstein-Friesian Associati
America:

Ten Highest Butterfat Produce

Name	Fat lbs.
De Kol Plus Segis Dixie	1349.31
May Walker Ollie Homestead	1218.59
Hollywood Lilith Palmyra Abbekerk	1206.79
Duchess Skylark Ormsby	1205.49
Bess Johanna Ormsby	1198.09
Redfield Segis Johanna	1182.93
Finderne Pride Johanna Rue	1176.47
Segis Pietertje Prospect	1158.95
Dutchland Pietertje Creamelle	1148.54
Grahamholm Colantha Pauline Segis	1141.4

Ten Highest Milk Producers

Name	Milk lbs.	Fat lbs.
Segis Pietertje Prospect	37381.4	
Helm Veeman Woodcrest	36217.7	
Kolrain Marion Finderne	35339.3	
Kolrain Findern Bess	35085.4	
Nooksack Lunde Oregon De Kol	34510.9	
Queen Carlotta De Kol	34430.3	
Adirondac Wietske Dairy Maid	34401.9	
Grahamholm Colantha Pauline Segis	34291.8	
Princess Aaggie Polka-dot De Kol	34070.5	
De Kol Plus Segis Dixie	33464.7	

The 10 Holstein-Friesian sir
ing the largest number of yea

(Continued on page 292)



DE KOL PLUS SEGIS DIXIE, WORLD'S RECORD HOLSTEIN COW WITH 33,464.7 LBS. MILK, 1,349.31 LBS. FAT



SIR FOBES ORMSBY HENGERVELD, GRAND CHAMPION HOLSTEIN BULL AT 1926 NATIONAL DAIRY SHOW



HOLLYHOCK PIEBE FOBES, GRAND CHAMP N HOLSTEIN COW AT THE 1926 NATIONAL DAIRY SHOW

TRAILING HOLSTEINS TO SOUTH AMERICA

The Log of Their Keeper

JAMES G. BEATTIE, WISCONSIN

JANUARY 12. Ah! at 4 P. M. the strike of the Peruvian stevedores at Callao is settled. But the day is irretrievable. We have locomotives on the foredeck which are too big for our booms to lift, so we are ordered to the dock and the shore crane. We had to pass through two bottlenecks, one within the other; the Humming Bird being 400 feet in length scarcely scraped through. We moved perhaps 1,000 feet to get there, and it took the whole afternoon.



CUTTING GREEN CORN FOR THE COWS AT CAPURRO DAIRY

January 13. My milk stool was stolen last night. "Fawncy that!" said Percy, a sailor, who sleeps in the forepeak along with Tony. Now I suppose some dark-eyed senora has a new appointment in her boudoir. It is really too much to be a novice on a tramp ship and have to contend with these organized bands; but the bananas are ripe so I sat down beneath the stalk tonight and ate and high-hatted my troubles.

Some cargo was discharged this morning; then, when we began to unload the locomotives, the crane broke. So that makes it bad. The strike broke, the crane broke; what could be more demoralizing! The port captain chased us out in the bay, or until the crane is repaired. There is a bad swell in this harbor and large ships are hard on the docks when anchored to them. The Humming Bird broke four lines last night, the 6" in diameter kind, which is not good, not good for the fellow who has to buy them anyway.

January 15. The Humming Bird is asleep in her berth on the bay. We are always waiting for the dock. Visited the dairy of Senor Risso, near Lima, and was surprised at the excellent methods with which it is operated. Grade A milk, unpasteurized, brings about 20 cents per quart. He has an extensive hacienda, and with irrigation raises fine crops of corn, cotton, grains, alfalfa, etc. Help is cheap and they have no winters, so conditions are very favorable for dairying. Risso has 250 cattle in his herd, milking 100 at present. He has Holsteins from Wisconsin, Fribourgs from Europe, besides many native cows.

Land, irrigated and near Lima, is expensive; $150 per acre and up. But over the mountains homesteads, good land, can be had together with other inducements to settlers. A colony of 80 Scotch homesteaded here recently and are getting along fine. Peru is wealthy in natural resources, every phase of agriculture offering good opportunities.

January 16. The Humming Bird is still in berth 6, Callao, so I visited another hacienda—Camacho Limited. It is similar to Risso's, being a little larger if anything. Here were many fine Holsteins, Fribourgs, and Simmenthals. The latter are red and white; otherwise they resemble Holsteins, some being very good milkers. Camacho Limited retails its milk in Lima at a high price, has an excellent herd, and maintained under good management.

January 17. A heavy swell kept us away from the dock today. Last night Tony tried to absorb too much Italian cognac and the result was a night in the Callao hoosegow. If he had only remained with the sour wine, he would have escaped difficulties. But Tony had too much Peruvian money on his hands, too many big sols; and then he tried to convince four policemen all at one time, and four really are too many for one. An agent of the constabulary brought him aboard before noon and asked for a five dollar fine.



A PERUVIAN DAIRY BARN

This dairy is owned by Senor Capurro near Lima, Peru, where he maintains some 250 cows. One of the most unusual sights is to see the irrigation water running through the stone gutters at the rear of the cows. No litter carriers or manure spreaders; water does the work of both and leaves the stable always clean and sanitary.

Then there was more debauching last night; there seems to have been an epidemic of it. Wing and Wong, until now regular in habit and duty, stepped out. In some mysterious manner they found out that another ship, the Ben Hur, had arrived. They get no mail, these fellows; they could not see the Ben Hur from the decks of the Humming Bird because there were too many berths in between and each was occupied, yet they knew. How? Nobody knows.

On the Ben Hur were many Wings and Wongs, all shrewd fantan players, and so it came about, in the evening, after the dishes were washed and the bread set, that my pals of the davit hired a boaty man to row them to the Ben Hur. In their pockets were rolls that a size 14 collar wouldn't reach around (the ox, choked so many times, is dead now). They paid the boaty two prices to return for them at 5 A. M., but Mr. Boaty did not come, neither was he seen again. Wing and Wong got back eventually but their late arrival made the breakfast late and incidentally started gossip on its rounds regarding the Chinamen. Wong came back with marvelous profits for his night's effort and smiling plenty; while Wing got "cleaned" and smiled also. There's no figuring a Chinaman.



THREE "LICE" EATERS IN CALLAO HARBOR, WING, WONG, AND THE AUTHOR

Wong lost all his money at fantan when he visited fellow countrymen on another vessel, and he does not smile as does Wing.

January 19. We got the other engine off this A. M. The skipper went to the consul and cleared the ship and, tonight, we are on our way to Arica, the place where Pershing is scratching his head, trying to settle a little argument regarding Tacna and Arica.

January 20. The boat deck on the Humming Bird needs caulking. The sailors washed it down this A. M. and water leaking through soaked my bunk. We have steamed all day at 9.1 miles per hour. One sees many sharks in these waters, their sinister dorsal fins cutting through the water and rising above it as they cruise along by our side.

January 22. We arrived at Arica before noon, seeing it hours in advance of our arrival. Arica has no bay, it is more or less a bight, just an easy indentation in the Andes coastal range where the sea follows in a little way a giant coulee which forms an opening in the mountains for a railroad to come down to the ocean from the interior. The road runs back to Tacna and Bolivia.

The Denver and the Cleveland, escorts of Pershing, lie at anchor under a wilting sun, their decks sheltered with white awning. We had only 5 tons of cargo for Arica so, at 5 p. m., we are departing, dipping our flag to these Men-of-War as we go, and they dipping theirs in return. Nobody envies the boys their sojourn in Arica.

We have a big tramp cat on the Humming Bird whom, I believe, has not been mentioned before. He tramps it all over the world, members of this crew having seen him on many ships and in many ports. He goes ashore when he feels like it and comes back under the same conditions. And if he misses this ship, he waits his chance and catches another. He responds to the name of Lindy. He has a great knack of keeping his fur spick and span, is stylish, and permits no man to touch him. He is a prince of rat killers, but seldom eats them. He hopped up on the bulwarks and took one glimpse of Arica and then hopped down again. Evidently things didn't look good to him.

January 23. One sees not a sign of life or vegetation, as we steam down the Chilean coast. I used to think a whale, because of his size, was immune from all danger; but after seeing a thrasher shark kill one, perhaps 1,000 yards to starboard, I

(Continued on page 280)



THE PRESIDENT OF PERU AND SENOR CAPURRO



THE HELP ON A PERUVIAN DAIRY FARM

SWEET CLOVER TELLS ITS OWN STORY

Dairymen in Manitowoc County, Wisconsin, Have Seeded 10,000 Acres to Sweet Clover for Cow Pasture. This Story Tells What They Think of It and How They Do It

SIX years ago when R. R. Smith moved his family from Minnesota to Manitowoc County, Wisconsin, he took with him a well founded faith in sweet clover as pasture for dairy cows. Up to that time, Manitowoc County dairymen, and that means nearly every farmer in the county, had not learned much about this crop nor had many ever given it a trial.

Smith, anxious to demonstrate that a county agricultural agent could earn more for a county than was being paid him, started to preach sweet clover for cow pasture. He believed in it so much that he preached it at every opportunity—yes, he even created opportunity; he preached it fearlessly and with a zeal that bespoke his confidence in it. He told us about the first meeting of farmers at which he fared forth on his conquest for better pastures. It was at a winter institute. No one had ever talked sweet clover in that community before.

"After I get through," said Smith, "and the crowd had broken up a little, a big farmer walked down in front where I was and in a voice that left no uncertainty about the temper of the speaker, said, 'Young man, we don't want you to come around here wasting your time and ours talking about sweet clover. What we farmers want is something practical, something that will help us make some money.'"

The going was pretty tough for a year or two until Smith could get some evidence produced in the county. He found out that persuading a farmer to do a thing on faith is not as easy as getting him to do it after he has seen with his own eyes what it will do and heard a few of his neighbors give testimony of their experiences.

Smith kept pounding away and after awhile sweet clover began to tell its own story in a language that everyone could understand.

Today Manitowoc County dairymen are growing 10,000 acres of sweet clover for cow pasture and the end is not yet. More is grown there for this purpose than in any other county in Wisconsin and more for this purpose perhaps than in any similar sized area in the United States. Because of this, we went up there last July to find out just what dairymen think about this crop and to persuade Smith to tell Hoard's Dairyman readers about the best ways of growing and utilizing the crop for cow pasture.







Top: Typical sweet clover pasture scene in Manitowoc County. Oval: R. R. Smith who, as county agent, has helped sweet clover tell its own story. Bottom: Good fall pasture is frequently secured from seeding sweet clover with oats or barley.

We were there in July, a time of year when native pastures were closed up for the annual midsummer vacation. We drove with Smith all over the county from east to west and north to south. We saw many good sweet clover pastures and by comparison we saw why Smith had waged such a hard fight to give cows something better than they had been getting. On one side of the road we saw cows contendedly resting in sweet clover after they had grazed what feed they wanted; on the other side of the road we saw cows up and working away diligently at native pasture in hope that they might find enough to satisfy their desire for feed. In many such pastures it would have taken a lot of leg work and mouth action to get enough.

What do these dairymen think of sweet clover after they have tried it?

August Schnell says, "I found five acres enough for fifteen cows. I always feed a little grain. I like sweet clover because it is early. I turn my cows on when the clover is about four inches high and before they have a chance to graze any other kind of grass. In this way I find the cows learn to eat the sweet clover readily. Later I can turn them on other pasture. I never allow my sweet clover pasture to get more than six inches high. Besides being a good cow pasture, sweet clover is an excellent soil builder. It will grow on some low land where native grass will not do so well."

George Prince has had sweet clover for three years and has twenty acres for 1927. He provides one-half acre for each cow. He does not feed grain while cows are on sweet clover pasture. He seeds the white biennial kind and would not do without it.

Joe Svacina says, "I had sweet clover in 1925 and 1926. Last year I had five acres for seventeen cows but I fed some grain. The milk flow was very good. I would not farm without it."

In 1925, O. R. Wiegand had fifteen acres for 24 head and they could not handle it. He says, "In 1926 I had ten acres for 21 head which was just about right. I fed some grain and silage but cows would not eat much silage. Milk flow held up fine on sweet clover. Would not advise sowing sweet clover alone for pasture. Put in a little timothy, red and alsike clover."

C. M. Madison says, "I have used sweet clover for the past six years and would not be without it. I provide 1½ acres per cow without summer feeding and one acre per cow with summer feeding. I have grazed my cows on sweet clover with and without supplying some grain. The milk flow holds up very well in either case but of course the cows are kept in a little better condition when some grain is fed. I have found that sweet clover gives me the earliest pasture and it holds up well until about August first. The last two years I have sown a little timothy and alsike clover with it and this provides some pasture after the sweet clover is spent. Sweet clover sown with grain in the spring makes a good fall pasture besides coming on again the second year when it makes its greatest growth. I keep some bees and the sweet clover helps me to kill two birds with one stone."

In 1926, Elton Morgan provided one-half acre for each cow but it was not sufficient, partly because of unfavorable growing conditions. In 1925, he fed some grain but not in 1926. He thinks some grain should be fed. He says, "I am all for sweet clover pasture. I have ten acres for 1927 and wish I had two or three more. I never had pasture that stood up so well or gave as much feed per acre."

Bernard Fetzer says, "I had sweet clover pasture in 1925 and 1926. Last year I had five acres of sweet clover and seven acres of red clover and timothy for 24 head. I did not feed any grain and the production of my cows was good. I am strongly in favor of sweet clover pasture."

Tesarik Bros. have had sweet clover pasture for two years and are well satisfied. They had eleven acres for 21 cows. The milk production was very satisfactory.

There are thousands of dairymen who know they need better pastures. They have not had a Bob Smith to lead the way and get some evidence in the communities where they live. They are on the fence—afraid their cows won't eat it, or that if they do it will taint the milk, or that they can't get a stand, or even that if they do seed it they will never be able to eradicate it from their farms.

We have purposely given the testimonials of these Manitowoc County farmers to make these "on the fence" farmers want sweet clover pasture just a little harder—enough so they will begin to lean in the right direction.

We have asked Bob Smith to finish this article telling how to get a good stand of sweet clover and how to utilize it to the best advantage. We know of no one better qualified to do this than he because of his work in Manitowoc County:

"In Manitowoc County we have certain set rules in mind as to the rate of seeding, use of lime, acreage provided per cow, and the time at which to turn in the cows for the first time in the spring. We fully appreciate that these rules must be adjusted to meet weather, soil conditions, and other factors.

"The above testimonials from this county tell the story. Our farmers have had very good success by seeding sweet clover in the spring with oats, barley, or canning peas as a nurse crop, with the plan to pasture light that fall in some cases and heavy the following year. The rate of seeding for best success varies all the way from ten to eighteen pounds per acre. We have found the scarified seed of the white biennial kind best. On comparatively rich, well drained soil we find that ten to twelve pounds of seed give very good results and on the poorer, sandy types of soil fifteen or sixteen pounds per acre prove most satisfactory. We find that best results with pasture are obtained where the plants do not stand so close together that the lower leaves and limbs smother out as is the case with too thick a stand.

"We further appreciate that it is to advantage to have the correct acreage provided per cow if possible. On heavy, fertile soil in Manitowoc County an average of two-thirds of an acre per cow is plenty if the stand is good. We have some cases when seasonal conditions were favorable; where one-half an acre was sufficient per cow, while in other cases when soil was rather sandy and low in fertility it took as high as one acre.

"The time of letting the cows on for the first time in the spring is also a big factor. In most cases putting cattle on sweet clover pasture for the first time in the spring when it is six to ten inches in height is advisable. If the weather is warm and there is plenty of rain at this time it may prove detrimental to allow the plants to get as high as ten inches, especially if the acreage is rather large for the size of the herd. This precaution may be mentioned simply because sweet clover grows so fast in the spring that a small herd on a large acreage

ould not be able to keep it down. eeping it down to less than a foot in ight is necessary for best results.

"As to the use of lime we find it ential on acid soils. Applying lime cording to the amount indicated by e acidity test of the soil is a fairly pendable guide. Where sweet clo- r or alfalfa has not been grown, in- ulation is essential.

"Sweet clover for pasture has prov- a remarkable success during the st four years in Manitowoc Coun- and it is reasonable to believe that e present acreage will be doubled ny times over within the next few ars."

Roughage for Wintering Southern Dairy Heifers

HOARD'S DAIRYMAN:—That dairy ifers can be wintered in the South roughage only without serious ecking of skeletal or body growth indicated in a trial recently con- cted at Clemson College by J. P. Master, Chief of the Dairy Divi- n.

Eight dairy heifers whose average e was 381 days were fed on a ra- on consisting of roughage only for period of 90 days. These heifers ere kept in a one-acre lot with an en shed as the only shelter. An- ther group of eight heifers, with an erage age of 382 days, was fed for similar period on a ration consisting roughage and grain and housed ring the night in the regular dairy rn. Both lots of heifers were ighed and measured at regular in- rvals to determine their respective tes of growth.

The roughage fed consisted of soy bean hay and corn silage for the first sixty days, and oats and vetch hay and sorghum silage the remaining thirty days. The silage was fed in the morning and the hay in the afternoon.

Lot No. 1 on roughage only, averaged 90.4 per cent normal weight and 96.4 per cent normal height at the beginning of the trial. At the end of ninety days they were 91.7 per cent normal weight and 97.4 per cent normal height.

Lot No. 2, with an initial average for weight and height of 88.0 per cent normal and 97.9 per cent normal respectively, at the end of the ninety days had increased their weights to 93.8 per cent and heights to 100.7 per cent normal. The heifers receiving the grain ration gained .39 lb. more per day than those on roughage only. The daily difference in height growth was .009 inch for the entire group in favor of the grain-fed heifers. Normal skeletal growth in immature animals is of more importance than body weight.

South Carolina. A. B. BRYAN.

(EDITOR'S NOTE: Readers should bear in mind that the above experiment was carried on for only 90 days and that these heifers were nearly normal to begin with. While it is important to grow dairy heifers as cheaply as possible, it is likewise important to secure full normal growth when the growth stimulus is at its greatest intensity. The experiment indicates that *good* roughage will produce normal growth, at least for a short period. One should *not* attempt to grow dairy heifers on poor roughage.)

The Testin' Club

A while back in our domain
They started up a big campaign
To make a testin' club er two
To show us what our cows would do.
The county agent give a speel
That helped to consummate the deal,
And finally some of us give in
And said we'd try it, lose er win!
'Twas quite a step fer us, I guess,
Because they had it in the press,
And business men from here and there
Commended us on the affair.

They got the tester right away
Who guaranteed to come and stay
Once every month a day or so
For which we antied up the dough.
We got some high falutin' scales
On which to estimate the pails
Of milk we got from every cow
At every bloomin' milk pow-wow.
And then we had to write that in
A little book they give us men
And keep it choice agin the day
The tester happened round our way.

Well, when he got around to us,
Mari and I both liked the cuss
And thought it pleasant-like of him
To help us in our dairyin'.
He went out to the barn that night
And told me what he 'lowed was right
In feed and such to make a cow
Produce the most from bin and mow.
He weighed the milk and weighed the feed
Each special critter seemed to need,
And in the morning did the same
Accordin' to the testin' game.

Well, afterwards he figured how
The records stuck on every cow;
Which struck Mari, she'll always hold
The same as gettin' fortunes told.
Well, when I saw my cow display
On paper, in the tester's way,
I sorta figured in my head
It sure was like Mariar said.
For some of them had given back
Their feed and quite a little jack;
And others, in the figures failed
Producing what their feed entailed.

Well, all of this was news to me,
But yet it all soaked in, by gee,
And I decided then and there,
I'd put an end to that affair,
And since I've tried the testin' way
I've made the rule, each cow'll pay
So much to me to milk and stew
And fuss around her like I do.
And when I contemplate the day
I doubted testin' worth its pay,
I see I missed the big idee
Because the testin's payin' me!

(Copyright, 1925) —I. A. KIMBLE.

"How long did it take your wife to learn how to drive an automobile."

"It will be ten years in September."

ARM work annot be done without machines.

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Thousands of farmers are doing it better, with less effort and less expense with Case machines.

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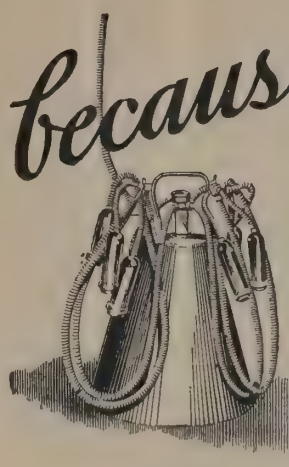
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– milks like a sucking calf

BECAUSE Empire Milking Machines reproduce the calf method, cows give down milk in greater quantity each day and for more days—pay bigger milk dividends.

One person easily does more milking than two or three expert hand milkers. You get clean milk with a low bacteria count—easy to operate, easy to keep clean.

You bank the cost of wages and keep of a hired man whose work the Empire does. Sold on easy payment plan. Makes dairying a better, more profitable business. Send for booklet—mail the coupon today.

◆ ◆ ◆



The new B B Marvel Cream Separators get all the cream all the time—and last longer

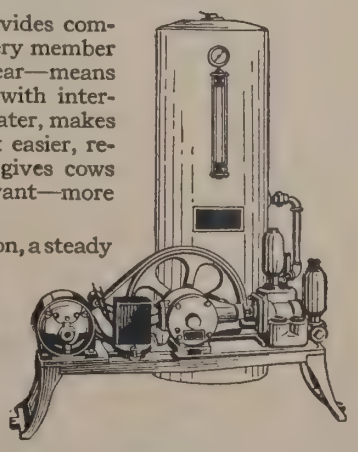
The improved and permanently balanced bowl of the new B B marvel represents the greatest separator improvement in a quarter of a century. Troublesome neck springs and bushings have been eliminated. The bowl is mounted on an automatically oiled ball bearing spindle, supported by a stationary shaft. Perfect, permanent balance, freedom from vibration and tilting, which waste cream, practically frictionless operation—guarantee *all the cream all the time.*

Run skim milk from any other separator through a B B Marvel and you will want the extra cream it separates. A right size for every herd. Sold on easy-payment plan. Mail the coupon today.

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Running water in house and barn for a few cents a day

The Empire Water System provides comfort, saves work and time for every member of the family, every day in the year—means bathroom comforts, does away with interminable pumping and lugging water, makes kitchen, laundry and dairy work easier, reduces fire insurance premiums, gives cows and hogs all the water they want—more milk, heavier hogs.



Easy to install, silent in operation, a steady flow at any faucet, motor, pump and tank equipment with 300 gallons an hour capacity—comforts and conveniences only running water can supply for about a nickel a day. Sold on easy payment plan. Mail coupon today.

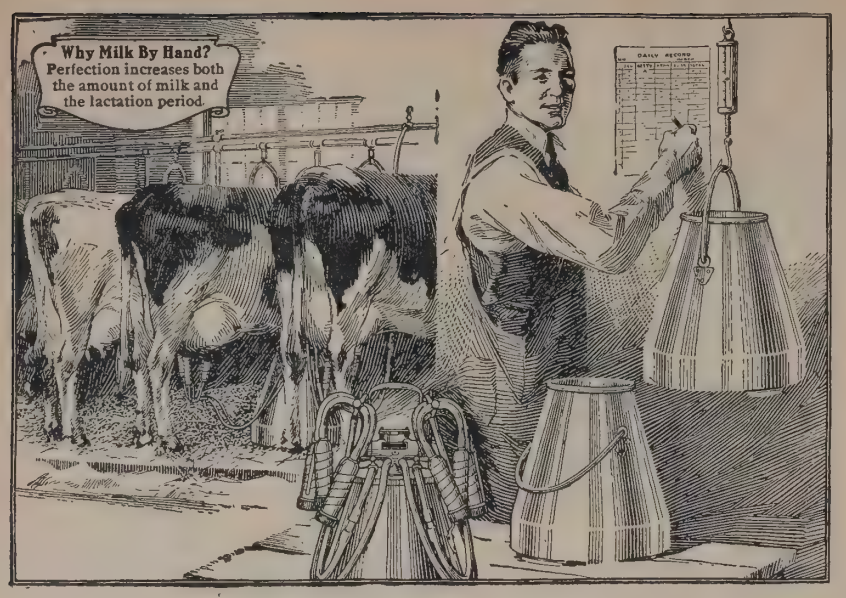
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☐ "How to Milk for Bigger Profits"
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Increase Your Milk Check

"THE first month after I gave up hand milking and began to use the Perfection my cows gave 501 pounds more milk. The second month I got an increase of 525 pounds", writes a Perfection user.

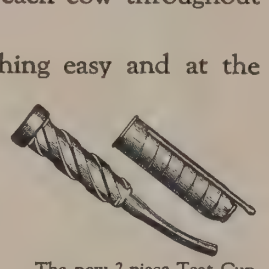
This is what the Perfection Milker has been doing month after month, year in and year out, for fourteen years. It not only increases the size of your milk check on your present herd because of increased milk flow, but relieves drudgery, saves time and allows you to increase your herd without additional labor.

Two of the reasons for these remarkable increases in milk production are the exceptionally low vacuum and the fact that you can regulate the milking action to suit each cow throughout the entire lactation period.

The new two piece teat cup makes washing easy and at the same time milks faster, cleaner and with less vacuum.

The Perfection is said to pay for itself more quickly than any other milker and we will arrange terms of payment to suit you.

Send for our new catalog and learn how to increase your milk check at once.



The new 2 piece Teat Cup. One Pull and it is all apart for quick and easy cleaning.

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Minneapolis, Minn.

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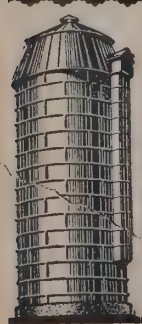
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News from Washington, D. C

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, D. C., Feb. 24—With Congress adjourned and gone home, probably to stay at home until December, Washington settles down to routine business. Most of the business of the government is handled through the administrative departments and it is a noticeable fact that when Congress is in session this activity slows down and then speeds up after congressional adjournment. Of course, this observation does not apply to the field work, which after all is the real basis of the service work of the government, as different from the purely administrative work, such as is represented by handling the revenues, carrying on Department of Justice activities, etc. In the Bureau of Dairy Industry there has been very little change this year due to the business of Congress, only that incident to the proper presentation of its budget and the hearings relative to this budget and the appropriation bills. In general, Congress has paid less attention to Department of Agriculture matters than usual, indicating that the routine and service work of the Department meets approval and has not resulted in investigations or interruptions.

President Coolidge signed the Lenroot—Taber Milk and Cream Import Bill after a very brief period of consideration, holding it up long enough to give Health Commissioner Harris an opportunity to present objections. After hearing Dr. Harris, the President also heard Senator Lenroot explain the bill and its purposes, and he signed it the following day. The Budget Bureau approved a request for $15,000 appropriation to set up the inspection service necessary under the bill, and this item is included in the final deficiency bill passed by Congress just before adjournment.

The next big dairy event in Washington will be the annual Dairy Pilgrimage, under the auspices of the American Dairy Federation, April 26, 27, and 28. This date is a week later than originally announced, the change having been made to avoid the big Easter week crowds which flock into the national capital.

The American Dairy Federation announces that special rates have been granted on all New England, Central Passenger Association, and Trunk line railroads for the Dairy Pilgrimage.

Preliminary announcements have been received here for the eighth World's Dairy Congress to be held in Great Britain in July, 1928. The preliminary announcement of the general committee of the Congress states that sessions will be held in London, Reading, Edinburgh, and Belfast. The meeting will be under the patronage of His Majesty, King George.

The progress of tuberculosis eradication is strikingly indicated by two announcements which have come almost simultaneously from two different divisions of the government, one announcing the results of a survey which shows that 874 cities now shut milk out which does not come from tuberculosis-free cattle, and the other which announces that 19 additional counties were declared to be free from tuberculosis and placed in the accredited class in January. Besides the 874 cities requiring T. B. free milk, there are 375 more which require either T. B. free milk pasteurization. This makes 1,2 communities in which there has b definite action along this line.

So much has been said in the da press about the McNary—Hau Bill that there is not much more say about it, except that it raised an acute political issue wh seems to overshadow the agricultu questions involved. The votes the bill very nearly lined the East against the West, with the south vote nearly evenly divided. O one congressman and one senator Wisconsin voted against the Voight and Lenroot. One lone c gressman from Minnesota vo against, Newton of Minneapo Both Iowa delegations were solid the bill. The dairy industry seer to play no part in the vote, as da states to the eastward went as soli against the bill as the dairy st to the west went for the bill. dairy interests were frequer brought into the debate, and a s ous argument started as to the fluence the bill might have if worked as expected on the matter the price of dairy feed. Congr man Dickinson contended that as wheat feeds it would not incre them, feeds having no relation wheat prices, but rather being termined by the amount of milk done in this country, which wo probably be increased. Other spe ers insisted that corn would be creased in price. Southern congr men did not think that even a cessful carrying out of the prop of the bill would increase the p of cotton seed.

Reports are received at the o of the National Dairy Union strong efforts to get better anti-o margarine legislation in Iowa Missouri this winter, and of an ef in Pennsylvania to weaken the o margarine law in that state by e inating the provision for a retail license. This effort in Pennsylvia is a repetition of one made a yea so ago, and defeated after a fight by the dairy interests. It is in Pennsylvania that the only wa keep an accurate check on whe or not the buyers are deceived a what they are buying, is by clo checking up the retail sales pla and that this can not be done u they are registered so the inspec know where to go to make ins tions. Indications are, accordin reports here, that a new law wil enacted in Iowa. There are no reports from Indiana.



J. D. Hull of Indiana, again won sweepstakes at the Indiana Corn Show held during the Purdue University Agricultural Conference. He won on ten ears of Johnson County White. His prize winning sample was selected from a 40-acre field which averaged nearly 90 bushels per acre.

A FARM AFLOAT

GEORGE CECIL, FRANCE

THE owners of Greek steamers having experienced a difficulty in retaining the services of the crew, a most happy thought has occurred to the captain of a tramp vessel, the "Nicholas Athanassoulis." This farseeing mariner, perceiving that a well nourished stomach is the basis of contentment, suggested to the firm which he serves a means of persuading the officers, engineers, and able seamen under his command to sign on for an indefinite period. "Salt pork and canned goods," he said, quickly prove uninteresting. Fresh meat, fresh vegetables, and new-laid eggs must take their places. And tinned milk is not to be compared with that which is drawn straight from the cow."

The owners, while agreeing with the benevolent-minded skipper, could not find a way out of the difficulty. But the captain was equal to the situation. "We ought to carry a farm aboard," was his solution. At first the firm was aghast at the idea, for Greek shipowners invariably abominate anything in the way of an innovation. Finally, upon it being pointed out to them that proper food meant a cheerful and healthy crew, they sanctioned the experiment. The captain went on his way rejoicing.

A few days later, the "Nicholas Athanassoulis" left her moorings, every face wearing a smile. And from the lower deck there issued the sounds of mooing, clucking, and baaing. The black cook's honest countenance was positively alive with a wide grin.

The farmyard freight includes roosters and hens, the productive birds being accommodated in a miniature fowl-run amidships. In a pen, near the forecastle, there are fifteen sheep or, rather, were fifteen for during a two months' voyage the ship's butcher has accounted for twelve of them. The fowls also have diminished in number, several having clucked their last cluck. The cook, however, is under instructions to cut short the lives of those which have proved themselves disappointing layers. The hens are spared provided they do their duty, the crew being extremely partial to omelets. Sambo exercises discrimination.

On Sundays, fowls always figure in the officers' menu, for the Greek sailors almost look upon them as game. Boiled, cut into tiny pieces, and served on a bed of rice slightly flavored with cinnamon, the dish is known as pilof. A small cask of the national wine also is broached in honor of the festal occasion. Chicken and white wine may be thought an expensive luxury aboard a tramp steamer, but the owners, recognizing that Sunday comes only once a week, have bowed to the inevitable.

Three cows are carried, for though two are sufficient, the captain, like a wise general, believes in "supports" in case of accident. Meanwhile, the crew revels in milk puddings.

The vegetable garden, which is decidedly a success, is in the quartermaster's special charge, he being an expert kitchen-gardener. Unfortunately, limitations of space prevent the expansion after which his soul craves; the huge boxes, which take the place of beds, rather get in the way. Beans make a brave show, as also do the carrots and parsley border.

Reports of the success achieved by the farm afloat having reached Greece, there is a talk of other steamers being fitted out in the same manner. So much the better for the crews.



SILVERWOOD DIANA—WORLD'S RECORD GUERNSEY

THE recently completed record of 20,006.4 lbs. milk and 974.8 lbs. fat made by Silverwood Diana makes her the world's highest producing Guernsey cow in class AA. She began her test at the age of eight and one-half years, and carried a calf for 281 days of the testing year.

This great cow is owned by William H. Williams of New York, and was bred by S. H. Fessenden of Massachusetts.

She is the fifth cow of the breed to produce over ten tons of milk in a year, and she displaces the former world's champion in this class by just six pounds fat. Incidentally, the former champion is Golden Coronet of Jean Du Luth, her own stablemate. Diana averaged a ton of milk a month for her first six months, and her highest day's milking was 76.5 lbs. As a senior four-year-old, she made a record in 1922 of 16,092.0 lbs. milk and 733.79 lbs. fat, so her present record was not unexpected. She is the mother of five daughters, of which one is on test, two more will be tested at their next freshening, and another was junior champion female at the 1926 Eastern States Exposition.—The American Guernsey Cattle Club.



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This brief picture of opportunity is told more fully in an 84-page booklet published by Californians, Inc., a *non-profit* organization of citizens and business institutions interested in the development of the state. Send the coupon today for your copy of this interesting book.



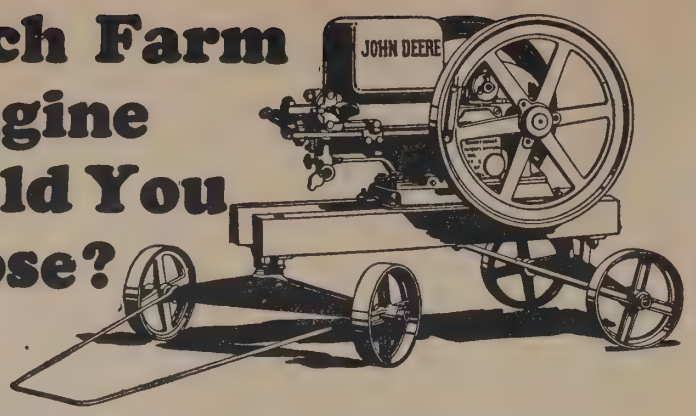
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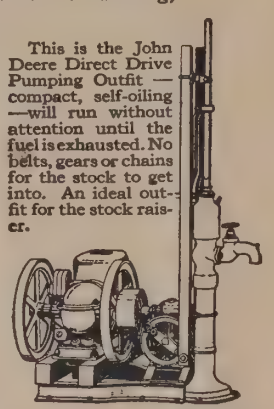
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Opinions, Brickbats, and Bouquet

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative. destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page and the most effective editorial is short and to the point. Hoard's Dairyman assumes no responsibility for opinions expressed.

What Should Education Mean

HOARD'S DAIRYMAN:—What should education mean in our homes? Being a teacher myself I have tried to find out whether or not education is bettering our home conditions. I find that it does and does not!

By the term education I do not merely refer to the three R's, "reading, 'riting, and 'rithmetic." Education today should mean far more than this—but does it? Seeking knowledge and learning from books are only a part of the task of educating. When the results of education are knowledge *plus* outward and inward cleanliness, politeness, respect for law, order, and authority, a desire for the things that are right and worth while in this world, a cheerful and willing attitude, high ideals—then and only then shall education have a direct influence in making the home a better place to live in.

Randall J. Condon, president of the Dept. of Supt., N. E. A., says: "Teach that which gives intelligence and skill, *but* forget not soul culture, for out of this comes the more abundant life bringing forth the fruits of the spirit. These are the real fundamentals in education, for character is higher than intellect and the soul shall never die."

Henry Ward Beecher says: "It is not work that kills man; it is worry." It is true. Very few people work themselves to death, but many die from worry. Education should also teach us to work more and worry less. The best place to teach this is in the school room.

And so I shall close this article with the question—What does education mean in your home?

Wisconsin. L. G. THOMPSON.

Favors McNary—Haugen Bill

HOARD'S DAIRYMAN:—In your editorial of January 25, opposing the McNary—Haugen bill you state, "Manufacturers whose products are protected by a tariff would not be benefited by it if they overproduced, and we do not comprehend how agriculture can expect to receive protection from a tariff when it overproduces."

On the contrary, years ago I was told that American made steel rails sold in Canada for four dollars a ton less than in the United States Mr. Howard, when president of the National Farm Bureau, was quoted as saying that he could buy in Russia a binder made in Chicago, Ill., and pay the freight back to his Iowa farm for less money than he could buy a binder of the same make in Iowa shipped direct from Chicago. My information concerning steel rails is supported by testimony given two years ago before the Agricultural Committee of the House of Congress on the McNary—Haugen bill hearing.

The U. S. Steel Corporation recently declared a stock dividend of two hundred million dollars. This is 40 per cent on stock which was one-half water when corporation was organized in 1901. The Fair Tariff League says that the tariff added to market control by the corporation makes the American price equivalent to the English price, plus the duty of 27 per cent, plus the freight to New York, plus 16 cents a pound for good measure!

I recently read, I think in Hoard's Dairyman, that in Australia, whose surplus butter is shipped to Engla at a cost of 7 cents a pound whi acts like a tariff, the creameries paying a bonus of 7 cents a pound all butter shipped to England we able to raise the price of the great bulk of butter consumed at home such a degree that the average pri of all butter manufactured was rais six cents or one cent under the En lish market, though previously it h been 7 cents under.

Congressman Brigham's arti seems concerned with the fear th the McNary—Haugen bill will ra the price of western foodstuffs f by Vermont dairymen. My fath was born in that part of Vermo where Mr. Brigham lives and oft as a boy climbed Brigham Hill grandfather, Nelson Kellogg, w born on same farm in 1800. Comi west from Vermont I hope I ha acquired a wider and more natio view than Mr. Brigham, bred for g erations and reared inside th stone walls which seem not only confine and burden the fields but t mental powers as well. Western w fences permit a wider view. Consi Congressman Haugen of Iowa a Senator McNary of Oregon.

California. R. D. KELLOGG

Equalization Fee Will Control Production

HOARD'S DAIRYMAN:—Your resu of the McNary—Haugen measu I think, overlooks the vital f tor, viz., the application of the equ ization fee to control producti As Representative Adkins of Illin said, that is its "soul and life."

The Curtis—Crisp—Fess—Jarde and other measures that leave ts feature out are open to the objecti you raise because of failure to c trol production. We have ordinary a domestic consumption of 600,00 000 bushels of wheat and expt 200,000,000. Inflated currenc and lower standards of living a prices abroad make the 25% export determine price of the 75% co sumed.

The U. S. has a higher standard wages and yet objection is made o any plan for an American agricultural price scale on this advanced industrial wage. The equalization would, with adequate loans on standard products, store the surpl until needed for export or domes consumption and as the equalizat fee would proportionately advance as the surplus accumulated, it would e nalize overproduction. A carry-ov of an additional 100,000,000 bus would add 25 cents per bushel o the preceding years' equalization in all probability There is exa the point of a reasonable contro production, viz., it allows the pro ducer at least a year to get "in a justment" to demand and is so notice to the consumer that the ad justment will be made for the fu but not at the expense of the pro already produced. Assuming an intelligent attitude by the produc the corporation in charge of th product would increase the equa tion fee to cover the carrying char of two crops instead of one penalize the units that came to ma ket.

The mathematics of this is tha the surplus approached one-half o the annual consumption it wil negative any possible gain. Sinc the fee is collected as marketed it

ould restrain forcing the market ith products ahead of demand. Any ite of insurance depends on the loss atio. Market price stability depends supply not forcing itself on de- and and this is just as effective by ell financed storage and a reason- ble acreage control as by an actual mitation of product.

Those who advocate an actual lim- ation of crops are assuming a more angerous position and really not ossible in practice. Nature simply oesn't work that way. A 10% over- upply or the same percentage below ur needs is possible from the same lanted area. Capital is the result of roducing above consumption and the roblem is to conserve this surplus ntil needed. History has shown that w staples are in excess over a period f three years.

There is no such law as supply and emand but some relation thereof. supply was always kept untram- elled by any laws and demand al- ays constant, these relations would ore nearly equal. Supply and de- and are but two viewpoints of the me thing from different stand- oints. The McNary—Haugen bill is o make a more constant flow to con- mption demands by reservoiring the rplus and supplying as demanded. here is no price fixing by the U. S. y Congress or anyone in anyway fferent than organized industry oes at the present time. The ommodity body on wheat, corn, or otton would be a constant factor nd would take the surplus off the arket and would probably establish minimum price. As state market rector in Michigan in 1916, I draft- d the plans for the Michigan milk producers' organization, an account which appears in your issue of Jan. 25, page 70. This is a collective bargaining body of producers who collect a fee for administration purposes and establish a basis for surplus products at a lower level than that for milk used in the fluid trade.

The plan has worked for 10 years. It has this merit—the small surplus is segregated and its weight not allowed to depress the whole market. This fact has been a great factor in adjusting production to fluid milk demand. The producer has an equal right in fixing prices as does the distributor. What he lacks is the effective machinery. Surplus control is that piece of machinery. The weakness is the great number of units in production and no method of unity in action without compulsory co-operation, which is, after all, a government function. The unharmonious administration of our railways was coordinated under the control of the Interstate Commerce Commission and a measure of price fixing obtained. The Federal Reserve Board unified the national banking system including indirectly all banks. Discounts are raised or lowered. The tariff was raised on butter to prevent the products of a lower waged product from other countries. It was but a few years ago, when the butter tariff was lower, that a few ship loads of butter from the Antipodes broke the whole butter market of the U. S. This shows how a small surplus with no reservoir to restrain reduces the whole body of product in price. The dairy interests of the U. S. could have well afforded to have bought these cargoes and destroyed them if necessary. The remedy came by government action and not by dairy organization.

One may well ask why the dairy industry objects to allowing effective restraints on foreign price making of American products in our domestic markets. The dairy interests were granted this protection on butter without protest from those producing the great staple cereals, meals, and textiles. Do you want the southern cotton grower and the western grain grower to change and become dairymen and produce a domestic surplus?

Michigan. J. N. McBRIDE.

Rigid Selection

HOARD'S DAIRYMAN:—I was reading the article, "Failure of the Pure-bred Business," in the current issue of Jan. 25. It seems to me the situation of the pure-bred business is summed up by Mr. Prentice in those few words, "Through rigid selection based on profitable production."

When I went to buy a registered sire two years ago I was amazed to learn that a Jersey cow was only required to produce 250 lbs. of fat to enter the Register of Merit. The man who wanted to sell me a bull boasted that his dam had produced 290 lbs. of fat in her first lactation period. That was on three-times-a-day milking and all her feed carried to her on a scoop.

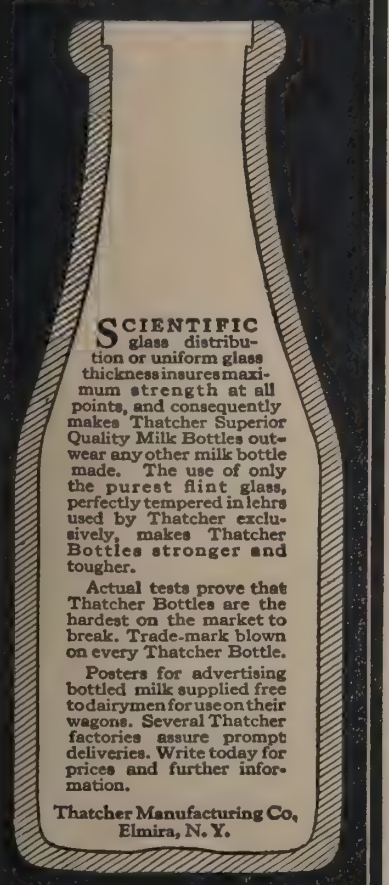
At that time I had a grade Jersey that produced 340 lbs. of fat in her first lactation period under common ranch conditions and on twice-a-day milking. During the pasture season she rustled her living in a brush pasture.

When the pure-bred breeders raise their standards and insist on "rigid selection based on profitable production," they will have made a big step forward. And that applies to all of the dairy breeds.

Washington. RALPH C. GREEN.

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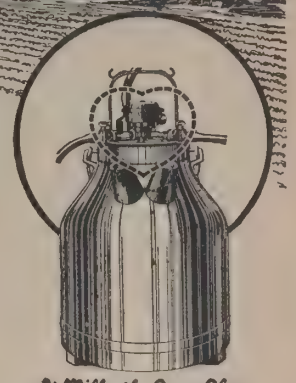
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A scene sketched from a photograph taken on the farm of Charles Scothan, Lee Center, N. Y.

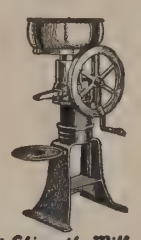
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For many years, the wonderful Link Blades of the Burrell-Simplex Cream Separator have made it famous as the *closest skimmer*. It has a greater capacity for the size of its bowl, for the speed at which it is operated, and for the power required to run it than any other separator. It is simple, light and easy-running. But, above all, *it skims the milk clean*—and that's what you want in a cream separator. Four sizes—350, 500, 750, 1000 lbs.—hand or power driven.

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There are four exclusive features which make the Burrell the *perfect* milking machine. The first three are interdependent—each increases the efficiency of the others. (1) The *Automatic Controller*, which regulates the suction to suit exactly each individual cow; (2) the *Air-Cushion Teat Cup*, which supports and compresses the teats by air alone; (3) the *Positive Relief Pulsator*, which gives complete rest between pulsations and assures natural circulation; (4) the *Sanitary Moisture Trap*, which entirely prevents contamination from the pipe line.

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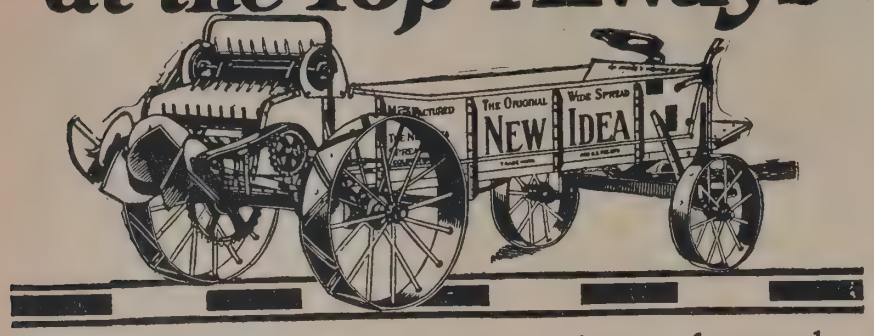
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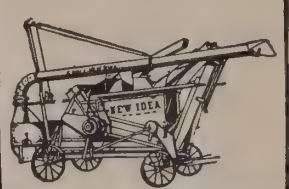
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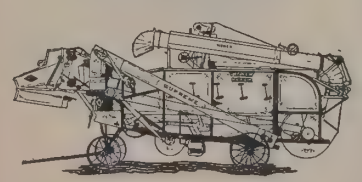


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THE STORY OF SEAMAN

FRANK M. CHASE, ILLINOIS

THIS is the story of Seaman. It is the story of a teacher, of the school that he built, and of the community which they, together, transformed. I have written this story a half dozen times and discarded each draft. In my previous attempts I failed because, I think, I tried to emphasize the teacher, the school, or the community. The story is not of one of these, but of all of them. I also tried to draw conclusions, to point out lessons. That is unnecessary, for the things which have been done in this community speak for themselves. So I shall set down, as simply and as truthfully as I can, the facts about this teacher, this school, and this community, and leave you to draw your own conclusions.

It all began about ten years ago, when Fred A. Seaman became principal of a district school along the outskirts of North Topeka, Kansas. The school was just an ordinary four-room school, in an ordinary rural district. But Seaman was, and still is, no ordinary teacher, and to him this school spelled opportunity.

About him boys and girls were leaving school at the end of the eighth grade, some because they could not go to the city schools and others because they could not obtain the kind of schooling they should have. This should not be, Seaman thought, and, he himself being able to teach several high school subjects, added two years of secondary work to the elementary instruction under him.

The patrons liked this move, and Seaman felt encouraged to go on. For a while he entertained the idea of consolidating the schools of four districts. A rural high school seemed to offer a greater measure of community service, however, and presently he was at work to make this a reality.

During most of his thirty-five years of teaching experience, Seaman has farmed as well as taught; and at that time he was living on, and operating, a farm of several hundred acres within the area which would be taxed to build the proposed high school. The fact that he was asking no farmer to shoulder a tax burden which he himself was unwilling to carry added force to his argument. Other conditions were favorable and, in due time, in 1919, bonds for an $85,000 school plant were voted.

While the building was under construction, the year following, Seaman, believing that his work in the community was over, accepted a position in the office of the state superintendent of schools. When it came time to select a principal for the new school, however, the choice fell upon Seaman, and he was besought to take the place.

He hesitated. As a state official his ideas on rural education were having a wide scope. On the other hand, he knew the power of example. Moreover, as a teacher and farmer, Seaman had dreamed ever since boyhood of the kind of a rural school he would have if he could build it. And here was his chance to do so.

Not without reason was Seaman recalled to direct the high school which he had built. In the course of his labors in the community he had won a secure place in the hearts of the people, and they sincerely wanted him back. The depth of their affection for him perhaps is best indicated by the fact that the school now bears his name.

It happened this way. Seaman had been principal but a short time when, one day, the board asked if he would not get up a list of possible names for the school. This he did and, through the pupils, submitted them to the patrons whose wishes were to be voted by the pupils.

At the assembly called for this purpose the names were again presented and a discussion of them invited. The youngsters didn't have much to say for a moment, but finally the principal was asked if he would not leave the room. In a few minutes he was called back.

"Mr. Seaman," said the pupils' spokesman, "it is our unanimous wish



FRED A. SEAMAN

as well as that of our parents, that t school be called the Seaman Hig School."

The slender, gray-haired man at t front of the room almost broke dow It was a struggle to keep the tea back. Pulling himself together, ho ever, he protested with all his migh But it was no use. The pupils kne what they and their fathers and mot ers wanted, and nothing the principl could do would change their minds.

Far from giving Seaman an exa gerated idea of his own importan this evidence of faith in him only i creased his desire to serve the co munity. He *has* given his best to and in doing so has turned, perha a bit of new ground in rural educ tion.

Within the forty-eight sections co prising the high school district we grain farmers, stockmen, potato gro ers, truck gardeners, dairymen, g farmers, and little farmers. The d trict also included city as well s rural residents, with the high schl students dividing about equally t tween town and country. To meet te educational needs of a population o diverse was indeed a problem. Nev theless it has been met.

"From my acquaintance with e people," Mr. Seaman explained, I knew that few of their children wo d go to college. On the other hai most of them would end their sch ing in the community in which th began it. The purpose of Seam High School, therefore, as I saw t was to prepare them for citizenship the work-a-day world about them.

"For this reason vocational w has a rather large place in our cu culum, and we try to make this struction as practical as possible. a part of it, the boys carry out act production and marketing projects their fathers' or other farms. Of these projects yield financial as

educational profits. One boy, example, made $800 in a year antaloupes. Another made a pro- f $400 on a registered cow, while ugh failure to dig and market his toes at the right time another boy $200.

We also give laboratory instruc- in agriculture. To accommodate demand for this and shop practice ecial building had to be erected. he shop work practical things, not kknacks, are made. Dozens of hog troughs, milk stools, wagon s, and wagon boxes now in use on wnee County farms are the work ur students. They have also re- ed machinery and tested milk for y farmers.

For the girls there is training in ing, sewing, and other household s which they may be expected to fter they leave school. Each year can a thousand or twelve hun- l jars of fruit. This is used in the ol cafeteria which they operate r the direction of the instructor ome economics. If they so desire, may also study stenography and e work."

erhaps the practical nature of the tional work at Seaman is no bet- illustrated than in the manage- t of the cafeteria. This supplies heons to from eighty-five to one dred persons each school day, at st of twelve cents a meal. Despite low price there is a profit of t $200 a year, which is used to hase supplies and equipment for school. One of the school's pianos esents the surplus from this ce for one year.

Naturally all our students will not armers," Mr. Seaman said. "Some hem will seek careers in the city, largely for their benefit we have blished a course in accounting. s by business and professional ers of Topeka supplement this se. Through a membership in ury, I also maintain some contact these men and their interests. these means the pupils not only a view of commercial life, but business men are made aware of existence and work of the school.

One day a banker, who had spoken he school and found out what it doing, asked me if I could recom- d some former student for a posi- in his office. It happened that I d. The young man made good, within a short time five of our ner pupils were employed in the e bank. Calls upon us from busi- concerns in search of help have e been of frequent occurrence.

While vocational work is stressed, ecognize the need for other train-

For the students intending to n to college, we offer a course de- ed to prepare for higher educa- . There is also a general course, courses for those wishing to ialize in normal training, home omics, and music. Though we not supply the exact educational ls of every pupil, we have tried to e the needs of the principal ips found in our community."

When the Seaman High School opened in the fall of 1920, seventy-six pupils and six teachers, including the principal, climbed the fire escape and crowded into one room of the uncompleted building. Within four years the enrollment tripled, and there has since been a steady growth. Instead of six, the school now has twelve teachers. Students are drawn from a radius of fifteen miles, and among the 236 pupils enrolled last year were thirty-five from other high school districts.

The foregoing facts indicate that Seaman High School is meeting a real educational need. Nevertheless its full service cannot be measured by the instruction given within its doors. Thanks to the vision and leadership of its principal, it reaches out and meets and serves the life about it at many points untouched by the ordinary school.

Because of the facilities at hand, as well as the willingness of the school to participate in community affairs, the building has become a social and recreational center. Many meetings of an educational nature and for entertainment are held there. The school's motion picture projector, a gift of the students, serves both to teach visual lessons and to bring an occasional evening of pleasure to the people of the neighborhood.

On Sundays the auditorium, which seats 600 people, is used for religious services. Before the school was built the community was short on church facilities. Now, through the addition of a parsonage, which stands near by, the people are enabled both to have a resident pastor and to attend church in their own community.

Though not under the direction of the high school, a very successful growers' market had its inception there. This market is at Seaman Corners, as the junction of the paved highways near the school is now known, and consists simply of a number of booths which are rented to farmers and truck growers for their use in selling produce direct to consumers who drive out from the city.

Each spring a community fair is held at the school. At the fair, programs of music and speaking combine with displays of agricultural products, live stock, school exhibits, and handwork to make a pleasant and profitable event. A night school for adults and employed young people, and a community newspaper are other means by which this high school has touched the life about it.

While serving useful ends in themselves, these various activities centering about the school have contributed to one larger and common end. This is the building of the Seaman community.

Before the Seaman High School was built, the district of which it is now the center possessed as little individuality as the average rural region. Without a common interest, the people were prone to be kept apart by petty jealousies, mistrust, and antipathy. They grouped largely along racial and family lines. Theirs was a community with the unity left out.

Now that rural high school, rising among these formerly dissociated elements, has bound them together and made unity where division existed. Out of fields and farms and people a new entity has been created. They call it the Seaman community now. As such it lives and breathes. It has a soul. Need the lessons of such an experience be pointed out?



SEAMAN HIGH SCHOOL

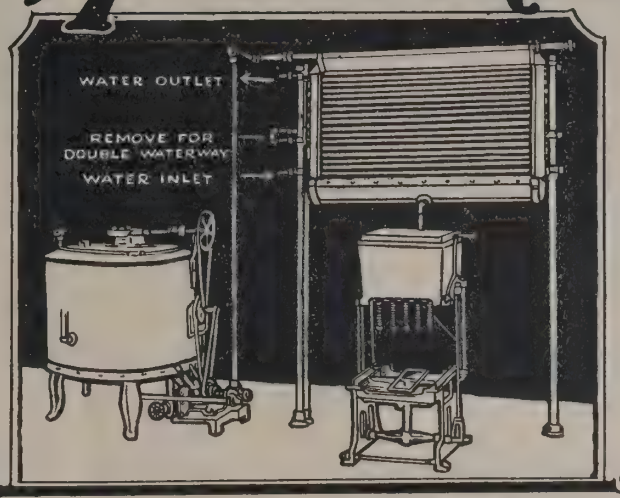
Proper Method

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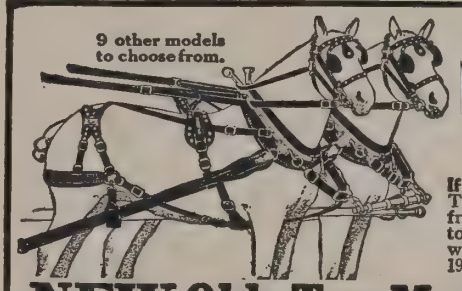
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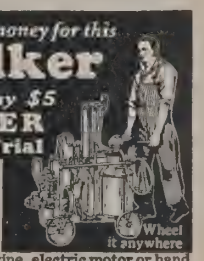
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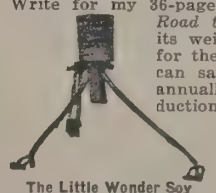
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EDITORIAL COMMENT



THE Board of Health of New York City has made a ruling that all butter sold within that city must contain at least 80 per cent fat and not more than 16 per cent moisture. We have looked upon this standard for butter as being fair and just to both producers and consumers. We have not been insistent that this double standard be adopted but we do insist that no butter appear on the market containing less than 80 per cent fat. It is well established that when butter contains more than 15 per cent moisture there begins a lowering of its quality. It seems to us this is reason enough not to incorporate much over 15 per cent of moisture in butter. There is no advantage to the producer, manufacturer, or dealer to incorporate more moisture than this or to have butter contain less than 80 per cent fat. We know the sooner we direct ourselves to the manufacture of dairy products by the right standards that quality will be improved and a greater income will be obtained for the producers of milk and cream.

FEWER COWS

The United States Department of Agriculture reports that we had on January 1, 1927, 21,824,000 dairy cows and heifers over two years old. This is 324,000 less than on January 1, 1926. It is the second year in succession that a decline in dairy cattle has been found.

We do not look upon this with any degree of alarm, but on the contrary consider it a splendid indication. The cow testing association, which to us is one of the strongest agencies in the development of profitable dairying, is to a large extent responsible for this. The facts are that our dairy cows are decreasing in number but there is a constant increase in milk production. Our dairy cows average to produce yearly about 160 lbs. fat. It is plain that if they averaged 250 lbs. that the number could be decreased by several million and we would still produce all the dairy products we need. If this were done, the profits from dairy cows would be increased many times, and the dairy farmer would be in much better financial circumstances.

Let the poor cow march to the butcher, for this is one of the ways to solve the dairyman's problem.

LAND VALUES

An incident was related to us recently which shows that the value of land does not depend wholly upon its richness in fertility. About 120 miles from New York City a farmer owned 135 acres of land and six years ago he mortgaged it. Each year he paid the interest and some on the principal until a year ago he had reduced the mortgage to $800. The banker who held this mortgage considered it good, and was surprised to be advised that the farmer had left the land and had turned the deed of the farm over to the bank.

This unusual situation caused the banker to investigate. He found six neighbors had abandoned their farms and were working in a factory some miles away. They received a wage of $7.00 a day for seven hours' work. This banker also found that no system of agriculture had been developed in this section that was profitable and these men who had abandoned their farms could make more in the factory and have more time to themselves than by operating their farms. The banker offered this 135 acres of fertile land, only a short distance from one of the greatest markets in the world, for sale and received the munificent sum of $250 for the farm.

This bank holds mortgages on land in several New England States and, becoming curious about their value, made an investigation in Maine. Here the bank found land selling for $200 an acre that was of no better quality than the farm in New York that sold for less than $2.00 per acre, but a diversified agriculture was being followed. These Maine farmers have made progress and have been unwilling to give away their farms for a job in the city.

It is a well known fact that dairy sections have not felt the pinch of the present depression in agriculture as much as other branches of farming. The cow not only brings them a constant income but she invariably causes the farmer to diversify. She is a great stabilizer of land values and is the most potent factor in establishing diversified agriculture.

IMPROVED METHODS

Many farm practices which were considered good twenty years ago are obsolete now, and the same can be said of practices in other industries. This has brought difficulties. No change is ever made without producing inconvenience and very often necessitates severe struggle before complete adjustment is made. We are such creatures of habit that when we become accustomed to doing a thing in a particular way it is difficult for us to change our method. In the first place, we do not desire to adopt new practices. We are all naturally lazy both mentally and physically, but since the world does not stand still we, of necessity, must change even though it produces pain and much weariness.

What are some of the things that have become obsolete in farm practices? We all agree that the cradle for cutting grain is no longer useful. Still, in our country, grain is being cut with a cradle and bound by hand. The farmer who follows this method of reaping cannot compete with the farmer who uses a self-binder or a combine which cuts and thrashes the grain in one operation. We still have the one horse and one man unit used for plowing and cultivating the fields. This combination cannot compete with the four-horse hitch or with a tractor capable of drawing at least three plows. A great many farmers still grow timothy hay which produces about one-tenth as much protein per acre and less than one-half as much total nutrients as alfalfa hay. These farmers cannot compete with those who grow legumes and neither can the man who owns cows averaging but 150 pounds of fat a year compete with the farmer whose herd averages 300 pounds of fat per cow per year.

There is no more reason to believe that the farmer with the cradle and the single horse hitch and who grows timothy hay and keeps the low producing cow can hope to compete with modern ways than to expect the local shoemaker who makes shoes by hand to compete with the manufacturer who makes them by machinery. Machinery is at the bottom of much of our agricultural trouble and we should recognize this and change our methods of farming accordingly.

ALFALFA FOR HUMAN FOOD

"Have you had your alfalfa today?" Who knows but what this may soon become a popular slogan for both man and beast!

Recently the daily press quoted Dr. Sherman L. Lewis, professor of chemistry at Indiana University, as telling the American Dental Association, "Human beings should display horse sense and eat horse food—alfalfa. Alfalfa is the richest of all leaf top vegetables in vitamins and iron.

"The American people should eat 15% more vegetables," he added, "and one of the greatest services a man might render the world today would be a recipe for an appetizing dish of bone marrow. Next to this would be the introduction of alfalfa as a common human food."

The merits of alfalfa as feed for dairy cows and other live stock have been loudly proclaimed and are well known. If it's good for cows why isn't it good for humans? Some years ago alfalfa candy was put on the market. Alfa Chocolates, they were called, and they are both delicious and nutritious.

We have a friend, hale and hearty at the age of 86, who eats linseed meal. Every day he sprinkles a spoonful or two on his cereal just like sugar. He claims that it is as good a condition for man as for cows. Is it any more unreasonal to presume that alfalfa would make a good fo for man? Our bodies need iron and other min als, vitamins, and protein, and all are found in falfa.

As for eating more vegetables, it is an esta lished fact that we should. Nutrition expe agree on this and have for years. It's a go thing to have this brought to our attention occ sionally though, lest we forget. Vegetables a an important part of the health diet advocated Dr. E. V. McCollum, one of the discoverers of v amins, who says, "The keynote to successful n trition is the proper selection and combination foods," and he suggests that proper selecti should include vegetables, dairy products, me fruit, and bread.

We live in a wonderful age. When you c turn a dial and hear voices and music coming tho sands of miles through the air it can almost said, "nothing is impossible." Some one may c vise a way of preparing a delicious alfalfa sal or perhaps we may be eating alfalfa as a cere on the breakfast table. Or, how about eating with vinegar as we do spinach?

How would you like your alfalfa today?

GOOD ROUGHAGE CHEAPLY GROWN

The importance of good roughage cheaply pr duced in the economy of producing butterfat forcefully illustrated in a feeding experiment co ducted at Huntley Experiment Farm in Montar

In this experiment, 7 cows were fed for a ye entirely on roughages consisting of alfalfa h corn silage, roots, beet pulp, and pasture. Th consumed on the average 7,112 lbs. of hay, 10,1 lbs. of silage, 2,186 lbs. of roots, 137 lbs. of be pulp, and were on pasture 130 days. These co averaged 12,454 lbs. of milk containing 453.7 l of butterfat.

These same cows were fed for a year on the roughages plus grain. They consumed on t average 9,179 lbs. of hay, 7,174 lbs. of sila 4,078 lbs. of roots, 5,558 lbs. of grain, 49 lbs. beet pulp, and were on pasture 95 days. They a eraged 16,366 lbs. of milk containing 558.7 lbs. butterfat.

If we charge these feeds against the butter production, the feed cost per pound is found to 21.6 cents for the roughage fed cows and 3 cents for the roughage-grain fed cows. Arbitra prices applied are: hay, $15 a ton; corn silage, $ roots, $4; grain, $30 a ton; beet pulp, $40 a t and pasture 10 cents a cow a day.

It is not wise to be hasty in conclusions wh only 7 cows have been fed for only a year un two methods of feeding. For example, the rou age-grain fed cows gained in weight which in cates they received more feed than could be us to produce milk. They were somewhat overf a factor that contributed to the higher cost p pound of fat. Further, it is not known whet these cows would stand up under such hea feeding year after year. They consumed an av age of 26,038 lbs. of feed plus 95 days past during the year.

On the other hand, it is not known whether t roughage-fed cows would continue to stand year after year on roughages alone and maint the production they made for one year. T fact that they lost weight indicates that for a ti in the lactation they did not get enough nutrients to supply their full needs.

To us the valuable lesson taught in this expe ment is the very good production that was ma on roughages alone. The roughages fed were the very best kind and the combination with p ture would be difficult to improve. It indica s that good roughages cheaply grown have an i portant bearing on the economy of milk prod tion. This brings us to our time worn but soun suggestion of feeding good roughages to the lim of appetite.

Hydrated Lime in Mineral Mixture

I wish to make the mineral mixture suggested in the Dairyman two months ago. Our dealers do not have lump lime or air slaked lime. All they have is "Limate," hydrated lime that masons now use instead of lump lime. Can I use this in place of air slaked lime?

Galesville, Wis. L. P. W.

Professor E. B. Hart of the Wisconsin College of Agriculture has given us the following reply to this inquiry:

"I do not know what 'Limate' is, but if it's used by masons, I should judge it was burned lime or calcium oxide. If it is, it is not suitable for animal feeding because it would heat up on contact with water. Your correspondent might determine whether it heats up on contact with water and, if it does not, then he could use it. Or he might throw some of it into a pile and let it air slake for a time; then it would be suitable to use provided there was no warming on suspension in water."

Herd Needs Cow Tester

We are milking 20 cows and feed them 850 lbs. of alfalfa hay daily and about 8 pounds to each cow of ground oats and barley with a little bran. These 20 cows give about 37 gallons of milk daily. It seems to us this is not nearly enough milk for the amount of feed the cows eat. What is wrong with our feeding? How shall we remedy the difficulty?

Williston, N. D. E. D.

If these cows are actually eating the quantity of feed indicated we are inclined to the opinion that they are now giving about all the milk that is possible to get out of them. A cow weighing 1,100 to 1,200 lbs., capable of making use of all the nutrients in the quantity of feed being fed, should produce at least 50 lbs. of 4 per cent milk daily. There are enough nutrients in the alfalfa alone for a cow of this size to make 30 lbs. of 4 per cent milk daily.

Alfalfa hay, ground oats, and barley and bran are not a bad ration. There is an excess of protein because of the excessive amount of alfalfa hay being fed, but if the hay is comparatively cheap one can sacrifice protein in a feed like alfalfa hay where there is little danger of injury because of the excess protein.

These cows average less than 2 gallons (16 lbs.) of milk a day. This being the average, there are some cows considerably below this. We are not advised of the stage of lactation. If nearly all the cows are quite near the close of their lactation periods the production could be justified because of this.

It is important to bear in mind that no amount of skill in feeding will cause a cow to give more milk than is governed by her inheritance. Her potential ability to produce is fixed by inheritance. How nearly she approaches the maximum of this ability is governed by feeding and by the factors of good cow management.

We think the remedy in this case, assuming the cows are healthy, is to use the milk scales and the Babcock test on each cow and eliminate every cow that cannot at least pay for her feed, some consideration being given to the stage of lactation of each cow. Continue to feed all the alfalfa hay the cows will clean up. Feed the concentrates mixture of ground oats, barley, and bran at a rate of 1 pound for each 3 lbs. of milk produced daily.

Fat in Holstein Milk Produces More Cheese

Take two cheese factories with identical conditions as to market and overhead. One factory receives 5,000 lbs. 4 per cent milk daily; the other receives 5,000 lbs. 3 per cent milk daily. Will both factories be able to pay the same price per pound for butterfat?

Clear Lake, Wisconsin. SUBSCRIBER.

One hundred pounds of 3 per cent milk will make on the average from 8.3 to 8.8 lbs. of cheese, while 100 lbs. of 4 per cent milk will produce about 10.6 lbs. of cheese. In other words, one pound of fat in 4 per cent milk will produce 2.65 lbs. cheese, and one pound of fat in 3 per cent milk will produce from 2.77 to 2.93 lbs. of cheese. With cheese at 25 cents a pound, this would make the pound of fat in 4 per cent milk worth 66.25 cents, and the pound of fat in 3 per cent milk worth from 69.25 to 73.25 cents.

The above figures indicate that although the higher testing milk produces more pounds of cheese per hundred pounds milk, yet because the solids not fat do not increase in the same proportion as the fat, the price per pound fat in milk will be lower for the high testing than for the low testing milk. Figured in another way, the 5,000 lbs. of 4 per cent milk would produce 530 lbs. of cheese, which at 25 cents a pound would amount to $132.50, and each patron would receive at the rate of 66.25 cents for each pound of fat delivered. The 5,000 lbs. of 3 per cent milk would make from 415 to 440 lbs. of cheese, which at 25 cents a pound would amount to from $103.75 to $110. As the 5,000 lbs. of 3 per cent milk would contain 150 lbs. of fat, these patrons would receive from 69.25 to 73.25 cents per pound of fat.

Bottles Check in Washing

I use a small room for sterilizing my bottles and milk utensils with live steam from a boiler. I have some trouble with the bottles checking with white specks in the glass especially around the bottom and top edges. I thought possibly some one else may have had the same trouble and had discovered a remedy.

Stevensville, Mont. M. D. F.

The proper washing and sterilizing of milk bottles is one of the large unsolved problems of the milk industry. A great deal has been written on this subject yet often some one raises a question that is not so easily answered. In your case bottles are checked with white specks in the glass especially around the bottom and top edges. To diagnose this case and locate the cause without seeing the patient is not so easy when one knows that there are so many factors that might play a part in producing these white specks.

First. The bottle itself may be at fault. The glass may contain small air pockets that open up when sterilizing heat is applied, yet, why should the specks appear more around the bottom and top edges? The damage may be done before the bottle reaches the sterilizer and not apparent until heat of high degree has been applied. If the damage has been done in the washing process, the construction of the bottle may be at fault. If the checking is at that point of the bottle surface that very largely comes in contact with other bottles in handling, the specks or checking is caused by the rather sharp edge left by the two halves of the mold in which the bottles were made. Such edges at the top and bottom of each bottle should not be left at the so-called high points of contact but should be underneath the bottom and over the top surface towards the cap seat. These sharp edges are capable of doing a great deal of damage, resulting in checks or scratches when bottles are placed in large numbers in the washing tank. These checks will not appear until the bottle is dry and taken from the sterilizer.

Second. There is a possibility that your water supply may have something to do with the checking or the formation of the white specks. Future investigation will tell us, "Know your water. See to it that it is properly softened; thus, the cost of washing will be greatly reduced and the resulting bottles will be clear and sparkling."

If your water is very hard, a slight deposit may remain on the bottles when placed in the sterilizer. When the heat is applied, the solid material carried by the bottles from the washing tank to the sterilizing rack may be lodged in the check or scratches as a white substance. Naturally, the bottles will have the appearance such as you find.

Third. Mention has already been made of the part that water plays in the washing of bottles and unless one knows the make-up of the water, not a great deal can be said about the cleansing material that is to be added. Ordinary laundry soaps are out of the question for many reasons. There are many standard washing powders on the market. The manufacturers of these cleansers should give you information as to what best to use when your water has not been softened before being placed in the washing tank. If the bottles are hand washed, one cannot use cleansing material that will attack the hands of the men doing the work. In many dairies ordinary sal-soda has given excellent results. In your case, if the make-up of the bottle is not the underlying cause, try the following experiment:

Wash a number of bottles by the usual method followed in your dairy and divide them into lots A and B. Wash a second lot using rain water, using some cleanser and divide into lots C and D. Place lots A and C in the sterilizer and do not permit the temperature in the sterilizer to exceed 160 degrees F. for not less than 20 minutes. Place lots B and D in the sterilizer and turn on steam as usual. When the four are taken from the sterilizer, examine carefully.

It would also be a good plan to make a similar comparison, using new and old bottles. Great care should be exercised in preventing scratching of bottles in handling. Thorough rinsing before placing bottles in the sterilizer is also required.

Wisconsin. C. E. LEE.

Private Versus Official Records

I should like to have your opinion of the comparative merits credence among breeders of dairy cattle and value in selling of production records by means of, first, daily weighing of milk and monthly fat test by the dairyman himself; second, cow testing association; third, Advanced Registry Official.

Mechanicsburg, Pa. E. H. H.

Private records are valuable to the owner of the cow but they will be considered with some distrust by those who do not know intimately the man who certifies to these records. They are primarily private herd records and have relatively small value in assisting in the sale of dairy cattle. They are probably of more value when the buyer actually visits the farm than where the attempt is made to sell by mail. They may assist a man's judgment very materially when he has an opportunity of seeing the cows himself.

The Advanced Registry test is generally held in most high esteem by breeders and by general purchasers of dairy cattle. It is made under well supervised conditions and all details have been carefully scrutinized by capable men. There is some criticism of these records because some have been dishonestly made, but we believe actual dishonesty is avoided almost entirely through the careful supervision that is given. There is, however, one criticism that is growing concerning Advanced Registry records and that is that they do not represent the actual productive ability of the cow. They are usually made under extreme conditions of feed and care, with the result that under normal herd management these cows will not produce anywhere near what they have been credited with under the Advanced Registry test. They also are likely to represent the cow under her highest peak of production.

Cow testing association records are coming into increasing respect in the minds of many breeders and purchasers of cattle. This is because a record is kept of the entire herd and not merely the exceptional animals in the herd. Under this system all the cows of a certain family are likely to have a record and this gives a better measure of the value of their breeding than merely to consider the record of an exceptional member of that family. Then, too, as a rule the cow testing records are made under more nearly normal conditions and it is fairly reasonable to expect that these cows given good care will produce equally as well in the new herd as in the old. This results in less disappointment. The disadvantage of these records is that they are not as carefully supervised and there is larger opportunity for error and for actual dishonesty. This has been overcome in part in some associations by the adoption of retest rules which provide that where a cow is making an exceptional record, the tester must stay at that farm the next day and keep her record for a complete 48 hours. This serves as a check upon early and late milking as also on other factors that might tend to increase the estimated production of the cow out of line with what her actual production might be.

Taken as a whole, we believe that in the sale of pure-bred cattle, the Advanced Registry record is probably still considered the most authoritative and most reliable. A good Advanced Registry test will probably be of larger sale value than will the other two forms of test referred to. We are not here speaking of what we believe should exist, but as to conditions as they do exist today.

We are inclined to the opinion that the day is not far distant when cow testing association records will be the primary record of production and it is possible they may eventually become the basis for a preferred registry in the pure-bred associations. There will doubtless be some development and some changes in methods of cow testing associations, but in general the present plan will be continued so that costs will not be unnecessarily increased. We believe at least that the testing of the entire herd as is now provided in cow testing association work is the sound and solid basis for breed improvement.

It is estimated by Professor Eckles that a cow test association record will be from 55 to 60 per cent of the record the same cow would make under the A. R. conditions. In other words, he would expect a cow making 300 lbs. of fat under ordinary conditions to produce 500 lbs. of fat under Advanced Registry conditions.

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President Coolidge Vetoes McNary-Haugen Bil

AS was expected, President Coolidge vetoed the McNary—Haugen Bill. It was generally known that he considered this measure unsound in principle and that if it became effective it would be injurious rather than beneficial to agriculture.

The President could have been less sincere with farmers and signed it under the pretext of giving it a trial and letting the Supreme Court assume the responsibility of informing farmers that it is in conflict with the constitution. He chose, instead, to give his reasons why the McNary—Haugen Bill is unsound and unworkable.

We regret we cannot give the full text of the President's veto message, for it completely exposes the fallacy of the measure as helpful to agriculture. We give below, however, such quotations from his message as we believe will give our readers a fairly comprehensive understanding of his message:

"No one can deny that the prices of many farm products have been out of line with the general price level for several years. No one could fail to want every proper step taken to assure to agriculture a just and secure place in our economic scheme.

"Reasonable and constructive legislation to that end would be thoroughly justified and would have the hearty support of all who have the interests of the nation at heart.

"For many years—indeed, from before the day of modern agricultural science — balanced and diversified farming has been regarded by thoughtful farmers and scientists as the safeguard of our agriculture.

"The bill under consideration throws this aside as of no consequence.

Bill Bestows Special Favors

"The measure discriminates definitely against products which make up what has been universally considered a program of safe farming. The bill upholds as ideals of American farming the men who grow cotton, corn, rice, swine, tobacco, or wheat, and nothing else.

"These are to be given special favors at the expense of the farmer who has toiled for years to build up a constructive farming enterprise to include a variety of crops and live stock that shall, so far as possible, be safe, and keep the soil, the farmer's chief asset, fertile and productive.

"So far as the farmers as a whole are concerned, this measure is not for them. It is for certain groups of farmers in certain sections of the country. Can it be thought that such legislation could have the sanction of the rank and file of the nation's farmers?

Government to Pay Losses

"This measure provides specifically for the payment by the federal board of all losses, costs, and charges of packers, millers, cotton spinners, or other processors who are operating under contract with the board. It contemplates that the packers may be commissioned by the government to buy hogs enough to create a near scarcity in this country, slaughter the hogs, sell the pork products abroad at a loss, and have their losses, costs, and charges made good out of the pockets of farm taxpayers.

"The millers would be similarly commissioned to operate in wheat or corn and have their losses, costs, and charges paid by farm taxpayers.

"It seems almost incredible that the producers of hogs, corn, wheat, rice, tobacco, and cotton should be offered a scheme of legislative relief in which the only persons who are guaranteed a profit are the exporters, packers, millers, cotton spinners, and other processors.

Federal Price Fixing

"Clearly this legislation involves governmental fixing of prices. It gives the proposed federal board almost unlimited authority to fix prices on the designated commodities.

"Nothing is more certain than that such price fixing would upset the normal exchange relationships existing in the open market and that it would finally have to be extended to cover a multitude of other goods and services. Government price fixing, once started, has alike no justice and no end. It is an economic folly from which this country has every right to be spared.

Denies It Would Help Farmer

"The chief objection to the bill is that it would not benefit the farmer. Whatever may be the temporary influence of arbitrary interference, no one can deny that in the long run prices will be governed by the law of supply and demand. To expect to increase prices and then to maintain them on a higher level by means of a plan which must of necessity increase production while decreasing consumption, is to fly in the face of an economic law as well established as any law of nature.

"Experience shows that high prices in any given year mean greater acreage the next year.

"Under the stimulus of high prices, the cotton acreage increased by 17,000,000 acres in the last five years.

Broad Powers of Board

"A board of twelve men are granted almost unlimited control of the agricultural industry, and can not only fix the price which the producers of five commodities shall receive for their goods, but can also fix the price which the consumers of the country shall pay for these commodities. The board is expected to obtain higher prices for the American farmer by removing the surplus from the home market and dumping it abroad at a below-cost price.

No Restraint on Price Boosting

"The law fixes no standards, imposes no restrictions, and requires no regulation of any kind. There could be no appeal from the arbitrary decision of these men who would be under constant pressure from their constituents to push prices as high as possible. To expect moderation under these circumstances is to disregard experience and credit human nature with qualities it does not possess.

Administrative Pitfalls

"The administrative difficulties involved are sufficient to wreck the plan. No matter how simple an economic conception may be, its application on a large scale in the modern world is attended by infinite complexities and difficulties. The principle underlying this bill, whether fallacious or not, is simple and easy to state; but no one has outlined in definite and detailed terms how the principle is to be carried out in practice. How can the board be expected to carry out after the enactment of the law what can not even be described prior to its passage?.

"Some conception of the magnitude of the task may be had when we consider that if the wheat, the corn, and cotton crops had been under operation in the year 1925, collection would have been required from an aggregate o 16,034,466,679 units. The burea states that it will be impossible to co lect the equalization fee in full.

No Curb on Production

"In trying to find a solution fo this fundamental problem of the sur plus, the present bill offers no cor structive suggestion. It seeks merel to increase the prices paid by the cor sumer, with the inevitable result o stimulating production on the part o the farmer and decreasing consump tion on the part of the public. It ig nores the fact that production i curbed only by decreased, not in creased, prices.

"In the end the equalization fe and the entire machinery provided b the bill under consideration wi merely aggravate conditions whic are the cause of the farmer's presen distress.

Guaranty to Packers

"With the limited number of farm co operatives with whom contracts ma be made for surplus disposal and th fact that farm co-operatives are no likely to be engaged in meat packing flour milling, or cotton spinning, i appears certain that the larger par of these contracts must be made be tween the board and the processor and other agencies.

"In actual working this is a com plete guaranty of the profits of thes concerns without restraint or limita tion on profiteering against Amer can consumers, of which the farme himself is a very large element. I is not a guaranty to the farmer. Th implications of this were pointed ou in significant remarks in the minorit report of the house committee on ag riculture.

"The proponents of the bill at th hearings conceded that it could no operate as to animals except under contract with the packers.

Burden But No Benefits

"The bill would impose the burde of its support to a large degree upo farmers who would not benefit by it The products embraced in the pla are only about one-third of the tota American farm production.

"There are several million farmer who do not produce any of the des ignated products, or very little o them, and they must pay the prem ums upon the products designated i the bill. In some commodities, suc as corn and mill feed, the farmer are practically the sole consumer It is proposed to increase the pric of corn and mill feed to America farmers, and therefore the costs t the dairy and cattle feeding indus tries whose products are omitte from the bill.

"Beyond this, it means that b dumping the American feeds abroa at lower prices than those charge under this plan to the America swine, cattle, and dairy farmer, w should be directly subsidizing foreig production of pork, dairy, beef, an other animal products in competitio with our own farmers in the market of the world. We shall send chea cotton abroad and sell high cotton a home.

Peril of Increasing Surpluses

"The effect of this plan will b continuously to stimulate America production and to pile up increasin surpluses beyond the world demand We are already overproducing.

"It is said that by the automati increase of the equalization fee t meet the increasing losses on en larged dumping of increasing surplu that there would be restraint on pro duction. This can prove effective or

after so great an increase in production as will greatly enlarge our exports on all the commodities except cotton.

"Several of our foreign markets have agriculture of their own to protect and they have laws in force which may be applied to dumping and we may expect reprisals from them against dumping agricultural products which will even more diminish our foreign markets.

Would Build Up Bureaucracy

"The bill means an enormous building up of government bureaucracy to fit and inspect the billions of dollars of contracts with all their infinite variety of terms covering different goods and their different grades and qualities. In turn, all of the contracts of resales by these institutions must be examined and checked to determine the losses made.

"Parallel with it another bureaucracy must be built up to collect and distribute the equalization fee. It all adds for an aggregation of bureaucracy dominating the fortunes of American farmers, intruding into their affairs and offering infinite opportunities to fraud and incapacity. It does not replace any middlemen or manufacturers; it means that thousands of officials are set to watch them and the farmers to see that they do not evade the requirements.

Adds to Cost Spread

"One of our difficulties today is the great spread between the farmer and the consumer. All these increased processors' profits and this cost of bureaucracy must simply add to this spread without bringing to the farmer any return on such items. In fact, as he is a large consumer, he also pays this.

"There is no reason why other industries—copper, coal, lumber, textiles, and others—in every occasional difficulty should not receive the same treatment by the government. Such actions would establish bureaucracy on such a scale as to dominate not only the economic life, but the moral, social, and political future of our people.

"The suggestion often made that the scheme should be tried, and if it fails be repealed, loses all force. This suggestion is faulty in another respect—namely: that failure would be demonstrated only by the accumulation of a huge surplus in storage. The discontinuance of operations while a vast supply remained in storage would result in a prolonged depression of price through the surplus being fed into the markets or through fear of its sale.

Majority Escape Fee

"It is no answer to say that the farm producers would induce their advisory council and the members of the board from their land-bank districts to exclude corn from the operation of this bill, because the people who do not pay an equalization fee and on whom the burden does not fall are 80 to 85 per cent of the producers of the corn.

"It may be contended that since there is to be an equalization fee on swine that the feeders would be taxed, but the swine and corn are separate units and have a separate stabilization fund and under the law the fees on swine cannot be turned over to the stabilization fund for corn.

Reversal of Policy

"The main policy of this bill is an entire reversal of what has been heretofore thought to be sound. Instead of undertaking to secure a method of orderly marketing, which will dispose of products at a profit, it proposes to dispose of them at a loss. It runs counter to the principle of conservation, which would require us to produce only what can be done at a profit, not to waste our soil and resources producing what is to be sold at a loss to us for the benefit of the foreign consumer."

Attorney General Condemns Bill

According to Attorney General Sargent, the McNary—Haugen Bill is in conflict with the constitution in the following respects:

Because it would limit the President in the selecting members of the farm board, requiring that he name men recommended by a nominating committee.

Because it would delegate price-fixing authority to the board without laying down any rule under which the prices shall be determined.

Because the fixing of prices itself never has been found by the courts to be within the powers of federal government.

Because it compels citizens to contribute, through the equalization fee, to a certain process from which they may or may not profit, amounting to the taking of property without due process of law.

Admits There Is Farm Problem

"That there is a real and vital agricultural problem is keenly appreciated by all informed men. The evidence is all too convincing that agriculture has not been receiving its fair share of the national income since the war. Farmers and business men directly dependent upon agriculture have suffered, and in many cases still suffer from conditions beyond their control. They are entitled to and will have every consideration at the hands of the government.

"Surely a real farm relief measure must be just and impartial and open the way to aid for all farmers. Surely it must not contemplate, as this measure inescapably does, that farmers in some regions should be penalized for the benefit of those in other regions. Surely it must be aimed to promote the welfare of the community at large.

Denies Unanimous Support

"What the farmers want, and what the Amercian people as a whole will approve, is legislation which will not substitute the governmental bureaucracy for individual and co-operative initiative, but will facilitate the constructive efforts of the farmers themselves in their own self governed organizations.

Regrets He Can Not Approve Bill

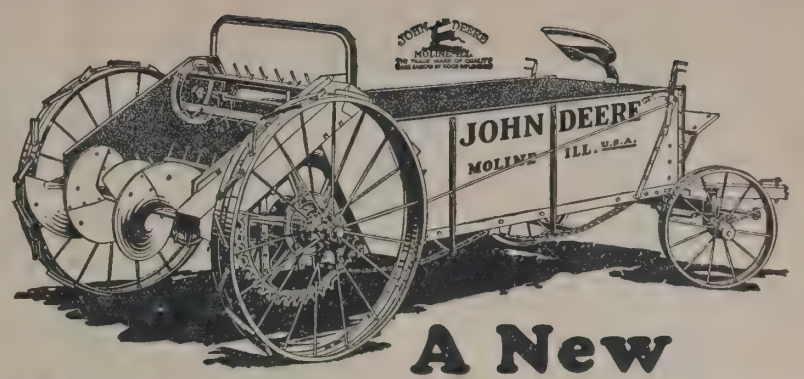
"It is a great regret to me that I am unable to come to the conclusion that the bill would help agriculture, be of benefit to the country, and be in accord with the constitution.

"Other plans have been proposed in congress for advancement in this recovery, which plans offer promise of sound assistance to the farmers without these unconstitutionalities, invasions of executive authority, this contracting with packers and flour millers and other manufacturers, this overproduction with its inflation and inevitable crash, without this indirect price fixing, buying and selling, this creation of huge bureaucracies.

"They are, on the contrary, devoted entirely to the principle of building up of farmer-controlled marketing concerns to handle their problem, including occasional surplus production, and applicable to agriculture and not to a minor fraction. I have frequently urged such legislation. I wish again to renew my recommendation that some such plan be adopted."

Salesman—"Yes, sir, in this car you'll feel as comfortable as if you were at home."

Mr. Henry Peck (promptly)—"Er—have you no other kind?"



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Now you can get a tight-bottom New John Deere Spreader with the same distinctive features that have made the John Deere the leading endless-apron spreader.

This new spreader with **the beater on the axle** and **the box roll turn** gives you the four essentials in a spreader that are really important: **It saves work in loading; it is easier pulling; it does better work; it lasts longer.**

Its lower box saves from 15 to 25 per cent of the labor in loading. The energy required to load 100 loads of manure into the ordinary spreader will load from 115 to 125 loads onto the New John Deere.

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Better work follows the low-down beaters. Manure is not thrown high in the air. A wide, even blanket of manure is spread beyond the drive wheels before winds can cause drifting and unsatisfactory spreading.

For years to come the New John Deere will give you profit-making, labor-saving service. It is built to the John Deere high standard of quality.

See it at your John Deere dealer's—compare it with others. You are sure to want its exclusive advantages.

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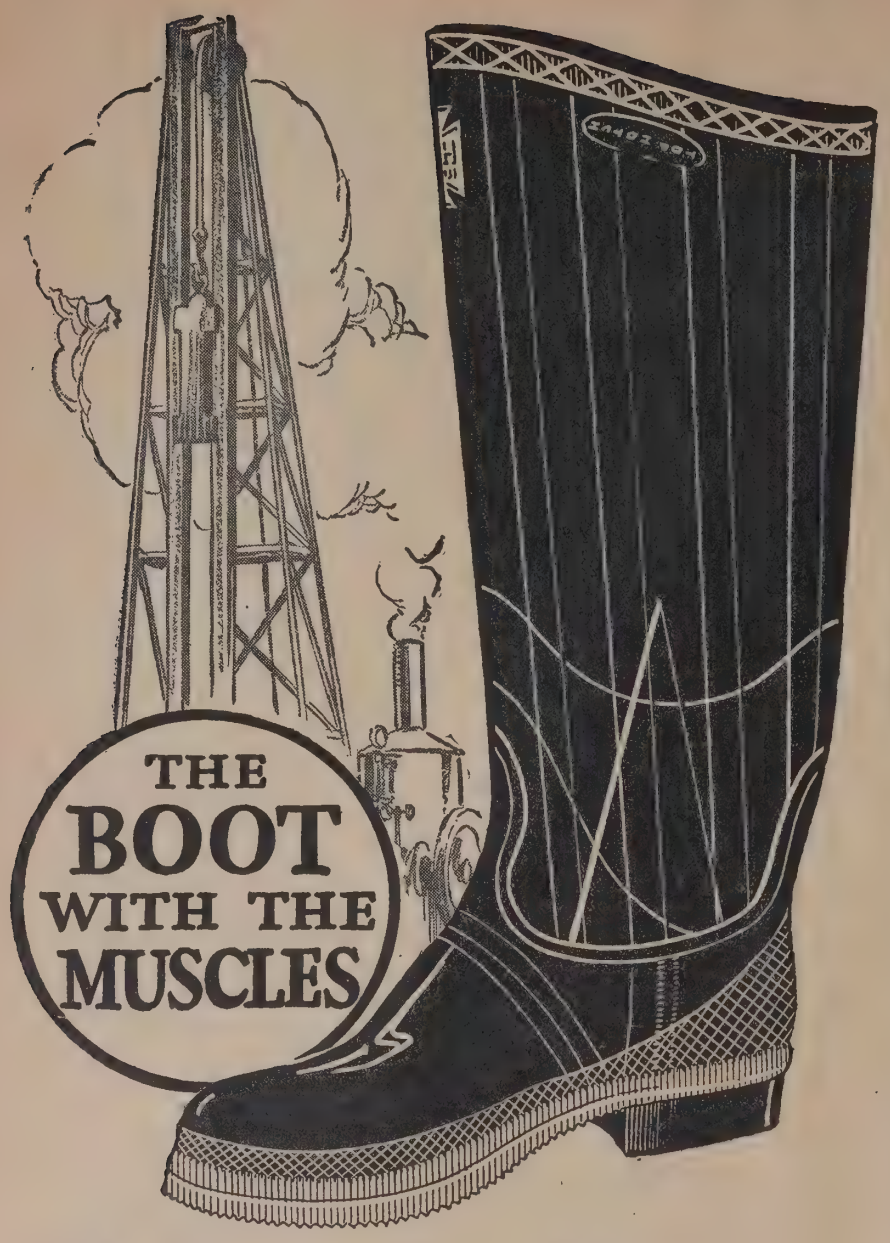
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BOOTS, arctics, heavy and light rubbers, all styles and sizes for men, women and children. Made with unusual care to safeguard our 26 years' record for building durable, distinctive footwear. Ask for Top Notch Rubber Footwear by name and look for the Top Notch Cross. The best stores carry it or will get it at your request.

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Makers of Top Notch Rubber and Canvas Rubber Sole Footwear
Beacon Falls Connecticut

TOP NOTCH
A GUARANTEE TOP NOTCH OF MILEAGE

The First Silo in Americ

ALTHOUGH Dr. Manly Meyers erected two experimental silos in 1875, it remained for Francis Morris of Maryland in 1876 to build the first silo to be used as a storage for winter feed for a herd. By 1878 he is reported to have fed a thousand head of cattle on corn silage as their winter ration.

"I made use of Indian corn as winter feed as long ago as 1876," wrote Mr. Morris in 1880. "I cut it into short pieces about three-quarters of an inch long and put it in silos prepared for it. The advantage of this crop is so great that it must change the agriculture of every corn-growing country. Cattle and sheep will be raised on every farm to an extent heretofore not thought of. Bury your feed in silos, and when winter comes feed your stock upon it, and when you have tried it once you will never allow yourselves to be without it. I have used it four seasons, every time with complete success, and I know it has multiplied the value of our land three or fourfold. It will require one ton a month for each cow, and all animals will thrive and do well on it."

"Thirty years ago," says a writer in the Country Gentleman of July, 1880, "I visited Europe. Being in the neighborhood of a French agricultural school, I had the curiosity to visit the farm. One of the first things I saw was a silo of beet leaves that was opened to give the fodder to some working oxen. It was in May, and the leaves had been put down the previous fall. The leaves came out a brownish color, with a peculiar but agreeable smell, and as they were forked over to the cattle, they were eaten with evident relish. The practice is nothing new, only of late it has become a 'boom.'"

Writing in 1880 Mr. O. B. Potter of New York says, "I have practiced the system of silage for three years. He was probably the first New York man to build a silo. The same year J. J. B. Brown of New York repo "Mr. Mills of New Jersey, Mr. Pot of New York, and Mr. Bailey Massachusetts all unite in their te mony as to the success of this exp ment. Mr. Goffart, of France, long ago as 1876, received the d oration of honor for the preservat of maize as green fodder by ensila which is today a solved probl thanks to his persevering and succe ful experiment."

The first publication on silage issued by the U. S. Department Agriculture in 1876, upon read which Mr. Levi Gilbert of Wisco dug and filled a trench silo with c the following year. The first ab ground silo in Wisconsin was built stone and grout in 1880 by Dr. L. Weeks of Oconomowoc and he imm diately became a strong advocate silage. The same year Mr. J Steele of Waukesha County used of his root cellar for a silo and so well pleased with it that he bui silo the next year that saw conti ous service until as late as 1921.

G. R. Frampton in his opening dress at a meeting of the Califo Dairy Council, outlined the hist and growth of California dairyi "California dairying is 230 years this year," said Frampton, "for was in 1697 that Father Kino, a Je it Priest, brought into California first cattle for breeding purpo Early laws forbade the killing cows, and the cattle belonging to missionaries multiplied rapidly. day California's milch cows al number 603,000. Scientific meth and the importation of pure-b stock have combined to make Cali nia renowned throughout the cou for its marvelous herds. Last y California cows produced an aver of 220 lbs. of fat per cow and c tributed $126,000,000 to the econ ic life of the state."



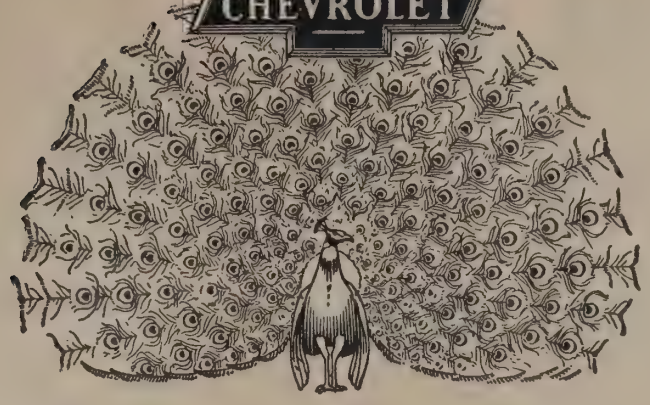
BESS JOHANNA ORMSBY, AN UNUSUAL COW

BESS is a 12-year-old daughter of the Holstein bull, Sir Pietertje Ormsby Mercedes, and has just completed her fourth 7-day record above 32 lbs. of butterfat (40 lbs. butter). In addition to these four short time records and three others that are very good ones, she has six long time records as follows: 17,801 lbs. milk, 705.8 lbs. butterfat in 365 days as a 2-year-old; 21,380 lbs. milk, 834.9 lbs. butterfat in 305 days, as a 4-year-old; 21,518 lbs. milk, 829.54 lbs. fat in 305 days as a 5-year-old; 19,791 lbs. milk, 802.34 lbs. fat in 305 days at 6 years; 30,143 lbs. milk, 1,198.09 lbs. butterfat in 365 days as an 8-year-old; and 17,023 lbs. milk, 774.79 lbs. fat in 305 days at 9½ years. During her 305-day records she carried calf from 193 days to 233 days of the record periods.

Bess Johanna Ormsby was bred by E. C. Schroeder, Minnesota and is owned by Winterthur Farms of Delaware. She has dropped ten calves.

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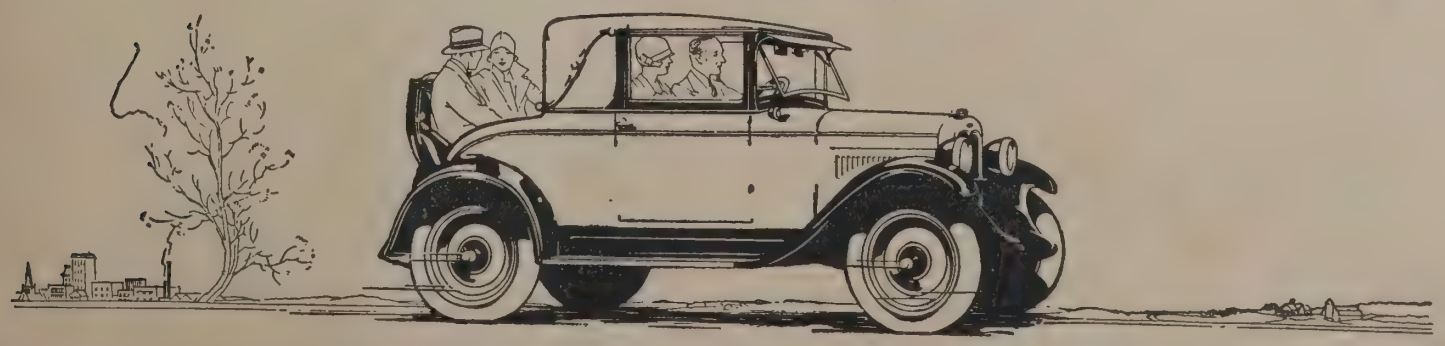
The Touring or Roadster .	$525
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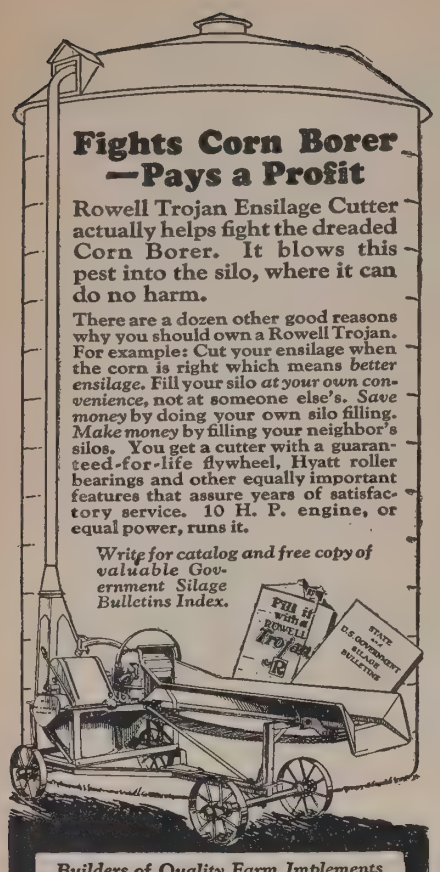
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Rowell Trojan Ensilage Cutter actually helps fight the dreaded Corn Borer. It blows this pest into the silo, where it can do no harm.

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Better Ignition



but no *increase* in "Z" engine *prices*

The ever-reliable "Z" Engine has been made better than ever by the high tension rotary magneto illustrated above. This magneto—built by Fairbanks-Morse and fully guaranteed—assures a fat, hot spark and makes easy starting a reality. It is a magneto that is self-oiling, dust-proof and waterproof—the only rotary high tension magneto ever installed as standard equipment on an engine of this type. It has been proved in use on 65,000 "Z" Engines.

Under ordinary conditions this type of magneto would be too costly for installation on a small engine. But by manufacturing our own magneto on a volume production basis we are able to equip the "Z" Engine with this magneto at *no increase in price.*

Remember that this is only one outstanding feature of many in an engine that would still be second to none even if not so equipped!

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Why Not Grow Some Wheat Instead of All Oats?

E. J. DELWICHE, Wisconsin Experiment Station

WISCONSIN, at the present time, is not a wheat country. It is not the purpose of this article to make it one. That is, we certainly do not want to go back to the days when wheat was grown year in and year out without any rotation. That kind of a system of farming with wheat, or with oats, corn, or potatoes, cannot last. All crops, including wheat, should be grown in rotation and in Wisconsin, in the main, with the purpose of feeding the bulk of them to our flocks and herds. It is said that the feed bill which the Wisconsin farmer pays for purchased feeds on which he has to pay the freight and at least one dealer's profit is something tremendous, that it amounts to something like $40,000,000 annually.

Good feeding implies a range of feeds, for this is not only necessary to balance up the ration but to furnish a variety as well. Recent experimental tests in the state and elsewhere have shown that greater attention should be paid to the mineral content of the feeds that we supply to our live stock. Feeds that are low in lime or low in phosphorus are likely to bring disastrous results if fed exclusively. Bran, for years and years, has been a mainstay in making up rations for dairy cattle. Its high protein content and relatively high percentages of lime and phosphorus make it a feed that is hard to beat. Bran prices in recent years, however, have been and continue now to be somewhat prohibitive. Because bran has been selling from $28 to $35 per ton, farmers in recent years have not fed this feed to any great extent, the reason being that they cannot quite see how to pay the feed bill and still have a profit. Now, then, what can be done in the matter? The answer to this is that the farmer can, at the present time, grow his own bran; at least he can grow wheat which will make a good substitute, either ground up whole and mixed with oats, barley, or corn, or to be fed after the flour has been extracted and used at home, or sold on the market. Probably, under present conditions in the state, for some time the wheat grown will be fed by mixing as mentioned above.

In 1911 a new strain of wheat was originated that changes the spring wheat growing situation very materially. Reports we have on file give yields for fields ranging in size from five to ten acres of from 25 to 40 bushels per acre. Please bear in mind that such yields of wheat correspond with yields of oats of from 50 to 80 bushels. Were these reports for one year only, not much significance could be attached to them. This new wheat which was named Progress, because of its being a decided advance over other varieties grown in the state, is strongly resistant to rust. That explains the fact that it yields well year in and year out. It is subject to fluctuations in yield, just as oats or barley are, but chiefly due to a lack of moisture or a lack of fertility, not because of its being subject to rust. Rust has been the chief cause why Wisconsin wheat yields have remained low. Progress wheat has proven to be at least 50 per cent more resistant to rust than such varieties as Marquis, Fife, Bluestem, or Durum. It is also a high protein wheat and in this respect being somewhat superior to Marquis. That makes it a very fine feed, indeed.

Progress wheat which was first disseminated from the northern branch stations where it originated, is now grown quite extensively in several Wisconsin counties, both north and south. We now have wheat areas where this variety is grown in Douglas, Bayfield, and Ashland Counties in the north; in Door, Brown, Kewaunee, and Manitowoc Counties in the eastern section of the state; in Marathon and Wood Counties in the central section; in St. Croix, Polk, and Burnett in the western section, and in Winnebago, Fond du Lac, Jefferson, and Grant Counties in the southern section. Thus, farmers wishing to grow wheat need not send any great distance to secure seed stock. The names of farmers and seedsmen who have seed of this variety to sell can be obtained by sending to the experiment station for a list.

Wheat and oats make a very good mixture from the standpoint of grain produced, both in quantity and quality. This Progress wheat is stiff-strawed, not at all subject to lodging and for this reason, alone, we believe that it is desirable to grow as a mixture with oats. Farmers in the western section of the state who follow this practice report some very good results. We suggest sowing one bushel of wheat to one or one and one-half bushels of oats per acre. Progress wheat ripens about as soon as our early varieties of oats. It can be sown, however, with later varieties as it is not subject to shattering and can stand for a few days after ripening until such oats as Ped. No. 1 or even Swedish Select are ready to cut. It makes a good combination to mix with such oats as Forward for the northern and northeastern sections of the state, with No. 1 in all sections and with Wis. No. 7 (Kherson) in the more southerly localities.

Whether Wisconsin will some time in the future come back as a large producer of wheat and to the extent of selling wheat on the market, is not so sure at the present time. That the farmers who are working go grades of loam and clay soils miss opportunity by not growing spri wheats, seems plain to the writ There is no question at all but th the home-grown wheat kernel can made to supply the needed phosph us in our dairy rations. In view the fact that we now have a spri wheat that can be grown successf ly with very little loss from the fects of stem rust, it seems that t culture of this valuable crop sho be increased. For the immedi present at least, we shall probal want to limit the growing of wh for live stock, and principally as f for dairy cattle. The future will t whether Wisconsin farmers some will become self-sufficient to the tent of growing wheat to supply th own tables.

Silo Filling Easy

HOARD'S DAIRYMAN:—We wo suggest to Emet H. Hobson that if wants to find an easy way to fil silo, adjust the blower so that the lage drops into the middle of the s He can then send the men hunt gophers, if he has nothing else them to do. Unless the goats wanted for flavoring purposes, he feed them on tin cans, fly nets,

For the past two years we h filled our two 16-foot silos with having anybody in the silo. One m in the silo is a nuisance, and two worse, and we would not board best man for that work.

Filling silos is one of the eas jobs on our farm. The engine dr the filler which cuts up the corn the field, and in heavy corn a loa ready to be taken to the silo in 1 15 minutes. A crew of five men boys and three teams is large enou to do this work. I know of one c where two farmers with the help their wives filled two large silos.

Wisconsin. HENRY A. OCHNSE



"ONE OF THE BEST THRESHING FLOORS IN AMERICA"

At least it was so-called about the year 1750 by its owner, John Beale Bordele lawyer and planter of Maryland. The illustration is from a pictorial history of th United States issued by the Yale University Press under the title, "The Pageant America." Five of the proposed fifteen volumes have been issued.

Kansas Students Hold Dairy Show

HOARD'S DAIRYMAN:—Members of the student Dairy Club at the Kansas State Agricultural College decided several weeks ago that they wished to start an annual fitting and showing contest of dairy cattle. The result of their decision and united efforts was the Agg-K-ies Dairy Show held February 9 at Manhattan. The date selected was especially appropriate in that many cattle breeders and



Dick Stumbo holding B. M's Bangora Melrose with which he won sweepstakes award in the recent fitting and showing contest at the Kansas State Agricultural College.

other visitors were present for Farm and Home Week at the College.

This first Agg-K-ies Dairy Show was decidedly successful. Only eleven days previous to the final showing 52 contestants drew animals of the college dairy herd by lot and started the work of fitting, yet when these same contestants lined up their entries for the judges' final approval it was almost necessary to consult registration papers to identify some of the original entries. The improvement was decidedly beyond the judge's expectations and the crowd of spectators voiced their approval of the contestants' intensive efforts by frequent applause.

For convenience in showing, the entries were grouped into twelve classes, three of each of the four major dairy breeds. The winners of the breed classes competed for champion showman of the breed and the four breed champion showmen came back for sweepstake honors and a silver cup offered by a local creamery and the Dairy Club. Many other small breed and cash prizes were awarded in addition to ribbons. The awards were based 50 per cent on improvement in condition and 50 per cent on showmanship.

Dick Stumbo, showing the French cup winner, B. M's Bangora Melrose, was champion showman of Ayrshires and later received the sweepstakes award over all other contestants. Stumbo is a Sophomore in college and claims Iola as his home town. George Carls, a short course student, was a close contender for high honors having previously been acclaimed champion Holstein showman with a splendidly fitted two-year-old heifer. A granddaughter of the late Fern's Vexford Noble helped Hugh Richwine to win premier honors in the Jersey classification, while Fred Schultis showed a Guernsey cow to the final award in that breed.

Judges for the contest were Clem Young, well known Holstein breeder; L. W. Linn, extension dairyman; and Professor H. W. Cave of the dairy department.

Kansas. R. H. LUSH.

Wisconsin Holstein Meeting

This year for the first time the Holstein-Friesian Association of Wisconsin made of their annual meeting a two-day affair and a very satisfactory meeting it proved to be. The attendance was good,—33 counties of the state were represented,—the program was both entertaining and instructive, and a majority of the breeders who came not only stayed both days, but seemed to enjoy themselves all the time they were there.

The meeting was held Feb. 15—16 at Oconomowoc, Wis., with the Waukesha Co. breeders acting as hosts.

At the business meeting, following the reports of the officers, there was quite a discussion of the public sale question with the final result that the president was instructed to appoint a committee to study the question and to formulate public sale policies which are to be later presented to the association for adoption.

A plan of selective registration for bulls based on the Canadian system was endorsed and a resolution was passed favoring an increase in the tariff on cheese.

The breeders voted unanimously to invite the National Association to Milwaukee for its 1928 meeting.

John D. Jones, Jr., S. H. Bird, Chas. Vander Schaaf, and Ellsworth McKinney were elected directors. The officers elected for 1927 are F. J. Southcott, president; Chas. Vander Schaaf, vice-president; Jno. Wuethrich, treasurer; and L. L. Oldham, secretary.

Food for Newlyweds

The bride and the goom were visiting in San Francisco. They stopped at a restaurant where a flip young waitress served them.

"Would you care for some honeymoon salad?" she asked.

"What is it?" asked the confused groom.

"Just lettuce alone," replied the waitress.

Get these facts firmly in mind

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The *Whippet* is the only light car nationally equipped with 4-wheel brakes.

The *Whippet* is the most economical car on the market.

The *Whippet* has all the speed you will ever want.

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The *Whippet* has established a new National Economy Record, averaging 43.28 miles per gallon in a 3,559 mile coast-to-coast trip.

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Now at these remarkable reduced prices, the Whippet is more than ever the leader in light car value.

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THE regular Kelly-Springfield tire is built now, as it always has been, for the man who is satisfied with nothing short of the best the market affords.

For those who do not need the extra durability of the regular Kelly product, but who do want to get real value in a lower priced tire, Kelly builds the Buckeye, a sturdy, full-ply, full-size tire that compares favorably with many other tires offered at higher prices.

Whether you want the very best, or whether you simply want good honest tires at a modest price, you can purchase any tire marked "Made by Kelly-Springfield" with the fullest confidence that your money can't buy anything better.

The regular Kelly tire costs no more than any of the well-known makes. The Buckeye costs less. You can't go wrong on either.

"Kelly dealers everywhere—there must be one in your town."

KELLY-SPRINGFIELD TIRE CO.
NEW YORK

KELLY SPRINGFIELD PNEUMATIC TIRES

One Lever Locks 2 to 50 Cows



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Foot and Mouth Disease Commission Gives Results

THE highly infectious nature of foot and mouth disease virus, the extremely small size of its active agent, and its ability to escape identification as to its true nature are the outstanding results of the year's study by the American commission which went to Europe in 1925 to study foot and mouth disease and is now preparing its official report.

The commission comprises Dr. Harry W. Schoening of the United States Bureau of Animal Industry, Dr. Jacob Traum of the University of California, and Dr. Peter K. Olitsky of the Rockefeller Institute for Medical Research. By a special act of Congress the commission was empowered to conduct studies of foot and mouth disease abroad with the hope of obtaining information to be used in suppressing most effectively any outbreaks of the malady that may occur in the United States. The dangers of experimenting with the foot and mouth disease virus in the United States were considered too great to permit studies in this country. On the other hand, officials in European countries where the disease is constantly present welcomed the investigations of the American commission and gave assistance.

Virus Extremely Active

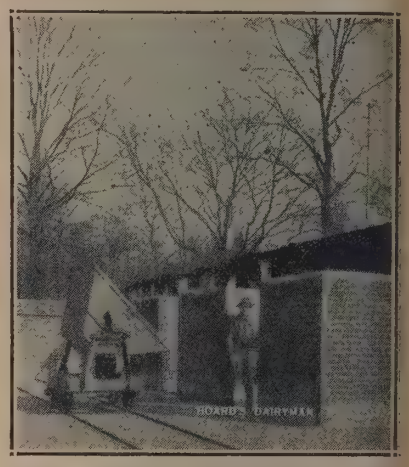
Though highly technical, the findings of the commission show briefly that the virus of foot and mouth disease is extremely active and dangerous. It produced the disease experimentally when diluted as much as one part in ten million. The organism is too small to be seen by the most powerful microscopes. As further proof of its minuteness, the investigators found that centrifugal force for two hours at from 2,500 to 3,000 revolutions per minute failed to throw the organism out of solution.

The resistance of foot and mouth disease virus to strong antiseptics also proved to be surprisingly great. Whereas 60 per cent alcohol kills ordinary bacteria within a minute it failed to destroy the virus of foot and mouth disease in 26 hours. The virus also showed abnormal resistance to other antiseptics, such as acetone, bichloride of mercury, and cresol.

Reporting that "foot and mouth disease is one of the most contagious diseases known," the commission further notes that in hay or in garden soil it remained living for at least 25 days and the infective agent may persist for longer periods under favorable conditions for its protection.

The commission's work included studies of immunity and the susceptibility of many kinds of experimental animals. The causative agent of foot and mouth disease appears to be separate from any of the known kinds of bacteria of the ordinary species and has baffled artificial cultivation by any means now available. The commission's attempts to produce an active artificial immunity against foot and mouth disease were unsuccessful.

Highly technical studies showed that the electric charge of the virus is positive and that the electric charge influenced the passage of the virus through certain types of filter materials. This group of studies, though showing the active agent of the virus to be extremely small, indicated that it is not of a fluid character.



EXPERIMENTAL PENS BUILT FOR INVESTIGATIONS OF FOOT AND MOUTH DISEASE AT ALFORT, FRANCE

The carrier shown is used for removal of manure. Other containers are used for feed and necessary supplies.

Carriers of the Disease

In cattle studies, active virus was found in the saliva before any lesions of the disease were observed. Other workers also have reported the ability of animals in the fever stage to infect others before external signs are seen. The earthworm could not be implicated as a carrier.

In many respects the virus of foot and mouth disease was found to resemble that of vesicular stomatitis and both produced similar signs in guinea pigs, cattle, and swine. Horses, however, are resistant to foot and mouth disease but are susceptible to vesicular stomatitis. Hence, the horse can be regarded as the best test animal on which to make a diagnosis when either disease is suspected.

The American commission performed most of its work at Strasbourg, France, where Dr. Louis Boez of the Institut d'Hygiene, acted as collaborator. Other studies were made at Alfort, France, with the valuable assistance of Professor Vallee. These and other officials supplied experimental animals and aided the American scientists in studying the most promising methods and results of European investigators as a basis for the commission's experiments. In addition to experimental work the commission made special studies of the extent of the disease and methods of control in a number of the countries of Europe. Countries visited were:



FOOT AND MOUTH DISEASE INVESTIGATORS AT STRASBOURG, FRANCE

Left to right: Dr. Louis Boez, French collaborator; and the American commission: Dr. Peter K. Olitsky, Dr. Harry W. Schoening, and Dr. Jacob Traum.

France, Germany, England, Denmark, Sweden, Holland, Belgium, Switzerland, Italy, Austria, and Hungary.

Slaughter Method Most Effective

A close scrutiny of methods used in Europe for controlling foot and mouth disease by rigid quarantines showed that even the severest form of quarantine is relatively ineffective compared with the prompt slaughter of diseased and exposed animals, as practiced in the United States. European officials with whom the American scientists discussed methods of combating foot and mouth disease agreed that, when its extent is limited to a small percentage of the animals, the slaughter and clean-up method is the only effective one, besides being the most economical.—U. S. Dept. of Agriculture.

English Costs of Producing Grade A Milk

Producers of clean milk in England are having a hard time to convince consumers that the prices being paid are not enough to cover the extra costs of producing such milk, according to a new 60-page book by V. Liversage of the Agricultural Research Department of Oxford University. The data included in the discussion, while of English origin, may be of some interest to producers of good milk in the United States. The purpose of the author, however, is in defense of producers and directed to the consideration of consumers. In so many words the author says that if consumers demand good milk either they will have to pay more money for it or producers will have lower production costs.

The book sells for 70 cents a copy and may be secured from Hoard's Dairyman Book Department.

Equity Women's Auxiliary

We feel more publicity should be given to the work of the Women's Auxiliary to the American Society of Equity, Co-op., as it is of vital importance to all farmers. Their slogan is, "Profitable Prices for Farm Products," which means better living conditions and happier homes, better clothes, recreation, music, and good books for the members of the home.

Our aim is that *all* farm families shall enjoy the same privileges. We ask no favors other than other workers do, through finding cost of production on farm products, based upon an eight-hour day, the same as other industries, and that the farmer's dollar now having only 83c purchasing value may have the same value in buying power that other business has. Our agricultural colleges should work along this line of finding cost of production. To this end we urge organization and co-operation—more direct co-operation between the farmer and consumer—in this way making both their dollars go further by saving the middleman's profit. Also, by co-operative buying in large quantities of staple products used on the farm, such as coal, flour, feed, salt, etc., farmers can buy more cheaply, thereby again making their dollar reach further.

Unity and co-operation should begin in the home of every American family, for there rests the foundation of our nation, for "the farmer feeds them all."

We feel our Women's Auxiliary is doing a worthy work and more auxiliaries should be organized. Every local A. S. of E. should have one in connection, for they are a power and strength for good by standing behind their husbands in their efforts to organize. They help to make the local meetings interesting by taking care of the social end—arranging programs, serving lunches and doing all in their power to help make farm life broader, richer, and happier and more worth while in their respective communities, as well as trying to benefit all agriculture nationally.

Wisconsin. (MRS.) F. MEVILLE.

Too Much Protein

I intend to feed to Guernsey cows a grain mixture composed of 400 lbs. of corn and cob meal, 200 lbs. each of ground oats and barley, 200 lbs. each of cottonseed meal and gluten feed. This mixture is to be fed with good alfalfa hay. Will it make a properly balanced ration?

Sparland, Ill. C. L. M.

The grain mixture contains more protein than is necessary when fed with alfalfa hay as the only roughage. A mixture containing not over 10 per cent of digestible protein supplies plenty of this nutrient. Such a mixture may be made of 400 lbs. of corn and cob meal, 200 lbs. each of ground oats and barley, and 50 lbs. each of cottonseed meal and gluten feed. In fact if liberal amounts of the alfalfa hay are consumed, 20 to 25 lbs. per head daily, a mixture of equal parts of corn and cob meal, ground oats, and barley will supply enough protein to properly balance the ration.

Flax With Small Grain

HOARD'S DAIRYMAN:—Tests with flax and small grain seed together show that in Canada, as well as in some states in the Northwest, it is possible to get larger yields of grain than from small grain alone. But such results can not be expected everywhere, as three years of testing in Ohio indicate. The table gives results of the tests which were started in 1923.

The varieties of barley and oats used in this test are the ones that have given the highest yield in variety tests at the Station. Fulghum oats and Oderbrucker barley ripen at about the same time and, therefore, are ideal varieties for growing together. Marquis spring wheat is used because seed of this variety is readily available on the market and is likely to be the one that Ohio farmers would secure. The flax used is Linota, a high seed-yielding variety from North Dakota.

In this test, oats outyielded barley, and spring wheat yielded much lower than either oats or barley. This is in agreement with previous tests on the station farm at Wooster and on nine outlying test farms in the state. Oats alone produced more grain, more digestible crude protein, and more total digestible nutrients than any other crop grown singly or in combination. The yields of grain were in the following order: oats, oats and flax, oats and barley, barley and flax, barley, barley and spring wheat, spring wheat, spring wheat and flax, spring wheat and oats, flax.

The yields of total digestible nutrients in order were oats, oats and flax, barley and flax, oats and barley, barley, spring wheat, barley and spring wheat, flax, wheat and flax, wheat and oats.

Although three years may not be long enough on which to base conclusions, the indications are that a high yielding variety of oats will give a larger return to the acre under Ohio conditions than any mixture of cereals and flax.

New Jersey. E. A. KIRKPATRICK.

Flax and Cereal Mixtures, Wooster

Seeding rate per acre	Yield per acre Grain	Yield per acre Straw	Digestible nutrients Crude protein	Digestible nutrients Carbohydrates and fat x 2.25	Grain Wheat	Grain Barley	Grain Flax	Grain Oats
	Lbs.	Lbs.	Lbs.	Lbs.	%	%	%	%
Oderbrucker barley, 2 bus.	1,482	2,352	133.4	1,043.3		100.00		
Oderbrucker barley, 1 bu. Fulghum oats, 1 bu.	1,607	2,560	149.5	1,063.3		56.37		43.63
Oderbrucker barley, 1 bu. Marquis spring wheat, 1 bu.	1,342	2,358	121.9	947.0	42.65	57.35		
Fulghum oats, 2 bu.	2,150	2,663	208.5	1,303.9				100.00
Marquis spring wheat, 2 bus.	1,340	2,373	123.3	948.7	100.00			
Fulghum oats, 1 bu. Flax, ¼ bu.	1,720	2,800	185.9	1,079.9			10.18	89.82
Oderbrucker barley, 1 bu. Flax, ¼ bu.	1,498	2,478	150.1	1,068.9		91.21	8.79	
Marquis spring wheat, 1 bu. Flax, ¼ bu.	1,081	2,222	118.3	782.4	84.74		15.26	
Marquis spring wheat, 1 bu. Fulghum oats, 1 bu. Flax, ½ bu.	1,057	1,632	99.3	705.6	59.97			40.03
	950	2,710	195.7	781.4			100.00	

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AUXILIARY TRANSMISSION
FOR FORD TRUCKS

ADDS SELECTIVE GEAR RANGE TO PLANETARY CONVENIENCE





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This unit also gives you 80% more pulling ability, enough to take 4,000 pound loads without overstraining your truck.

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Four Speeds Forward—Two Reverse.
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Built by Fuller; Largest Manufacturer of Truck and Bus Transmissions in the World.
Fully Guaranteed for 90 Days Against All Defects.
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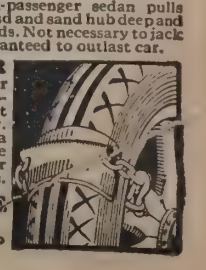


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COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk Lbs.	Ass'n. Report Ave. fat Lbs.	High Herd Breed	High Herd No. of cows	High Herd Ave. milk Lbs.	High Herd Ave. fat Lbs.	Owner
Utah	Cen. Cache Co.	Jan.	561	812	28.5	H.	6	1497	52.6	V. Perkes
"	Wells.-Coll. Ward*	"	575	656	25.0	H.	12	1244	44.3	K. Murray
Va.	Loudoun 2	"	614	479	22.8	M.	24	836	38.0	Myers Bros.
"	Loudoun 3	"	666	531	23.5	H.-G.	21	774	36.5	M. A. Ankers
"	Prince Co.	"	575	698	24.7	H.-G.	18	1015	38.3	W. Kline
Wash.	King Co.	"	701	805	31.1	H.	42	1259	39.4	Pleasant Hill F'm.
Ida.	Weis.-Pay.-Gem Co.*	"	1109	541	24.5	G. J.	9	880	39.6	J. Fisher
Mont.	Lake Co.*	"	295	560	22.6	G. J.	10	769	39.5	C. H. Gordon
S. D.	Day Co.*	"	385	548	21.8	H.	10	987	38.4	L. A. Philbrook
Nebr.	Lancaster	"	426	720	27.9	G. H.		1198	40.6	C. E. Olmsted
Ill.	Ogle Co.*	"	465	708	25.3	R. H.	8	1400	51.0	J. Hemingway
Minn.	Howard Lake*	"	391	782	33.3	G. G.	16	994	49.3	A. Mellin
"	No Pine Co.*	"	287	509	20.2	G. H.	6	902	37.3	A. Anderson
"	Montrose*	"	394	812	30.0	H.	13	1463	50.5	W. A. Douglas
"	Kandiyohi*	"	333	755	27.2	R. H.	23	1256	40.7	D. Swenson
"	Watonwan Co.*	"	417	663	26.7	A.-S.	16	990	39.1	W. L. Tate
Ohio	Wayne Co.*	"	305	851	34.2	R. H.	7	1358	57.3	O. L. Thomas
Ind.	Wayne*	"	398	558	25.8	R. J.	13	693	39.2	E. Walker
"	Elkhart Co.	"	312	497	22.7	J.	8	646	38.5	E. Garner
Penn.	Indiana Co.	"	337	560	22.8	R. H.	12	1038	34.1	H. O. Kimmel
Ia.	Sac Co.*	"	352	677	27.1	R. G.	10	811	43.4	W. Bath & Son
Colo.	Johnstown	"	353	721	27.8	H.	13	1078	44.8	T. A. Reiser
Md.	Carroll Co. D. D.	"	452	644	25.1	R. H.	18	1081	35.3	L. Devilbiss
Ohio	Licking Co.	"	303			H.	23	1463	48.5	Dr. A. E. Best
Wis.	Glenwood	"	522		24.7	G. H.	15	1013	37.2	M. Olson
"	Cicero-Bl. Creek*	"	395			G.	10	937	41.9	A. Brusewitz & Son
"	Sparta*	"	446	702	23.5	G. H.	11	950	36.8	C. Batteen
"	Cornell	"	426	377	15.8	G. H.	9	956	36.3	G. Schild
"	Union-Wap. Co.*	"	343	620	23.0	H.	10	1596	50.1	L. P. Much
"	Montana-Wau.*	"	461	542	21.4	G.	18	717	33.4	C. C. Smith
"	Oak-War.-Tomah*	"	615	651	26.8	H.	8	1647	52.2	N. S. Wakefield
"	Ham.-Baldwin*	"	395	681	27.5	R. H.	13	1277	43.9	N. C. Lorentsen & Son
"	Denmark*	"	464	482	20.0	H.	16	814	30.7	Jensen Bros.
"	Cleg.-Eleva	"	421	451	19.4	G. G.	10	643	30.2	P. H. Pederson
Mich.	Cheboygan	"	273	459	18.7	G.	7	814	37.8	H. J. Bonnett
"	Lenawee 2*	"	282	680	23.0	H.	4	1380	46.3	W. Kindschy
"	No. Wexford*	"	186	396	19.0	G.	5	632	38.3	S. Tud
"	No. Eaton	"	268	826	31.3	R. H.	14	1503	49.5	J. T. Chaplin
"	Elsie-Ovid*	"	273	759	27.7	R. H.	9	1356	47.4	J. Coleman
"	Cass*	"	199	524	27.2	R. G.	7	727	38.5	Sunnyside Farm
"	Hillsdale 2*	"	163	609	28.6	R. J.	6	673	42.8	G. S. Bailey & Sons
"	Genesee 2*	"	225	709	26.6	H. J.	4	1217	44.7	J. Copeland
"	Barry Co. 1	"	253	592	24.2	H.		1055	41.9	A. C. Clark
"	Kalamazoo 2*	"	328	542	24.7	J.	8	853	45.7	R. W. Weinberg
"	Kent-Alto*	"	193	665	30.6	R. J.	7	983	53.8	D. J. Dinsen
"	Lans.-Ingham*	"	263	778	32.0	H.-G.	7	1417	55.1	O. J. Becker
"	Missaukee Co.*	"	264	468	20.2	R. H.	5	1272	45.4	J. Finkbeiner
"	So. Newaygo*	"	255	593	24.8	H.-J	7	910	34.9	J. Meyer
"	Macomb 1*	"	339	685	25.5	H.	10	969	34.8	W. Kidd
"	E. Oceana*	"	265	519	26.3	J.	7	977	47.4	F. Bunnell

* Retest rules followed.

Cull Beans Good Feed

HOARD'S DAIRYMAN:—In your January 25th issue, you published an editorial in which you stated that cull beans were not commonly fed to cows, and their value was doubtful. Perhaps it is so in Wisconsin, but in Michigan the supply of cull beans during the past two seasons has been so abundant that they are being fed in considerable quantities to dairy cows. At first they were fed ground, but, being unpalatable and causing scours in a number of cases, they were not fed to any extent. Cooking, however, removes both these objections.

At present ten of the twenty-five members in the Potterville Association of Michigan are feeding cooked beans. They show good results, both in more economical production and, in most cases, increased production. For instance, here are two herds where cooked beans were added to the grain ration. Silage was fed for roughage, with alfalfa hay in one case and timothy hay in the other.

The first herd, during December, had a feed cost of milk per cwt. of $.98, and an average of 943 lbs. milk for cows in milk. In January the feed cost of milk was $.75, and the average production was 1,184 lbs. milk for cows in milk. The second herd of 10 cows had the milk cost reduced from $1.20 to $.99, and the average production of milk was increased from 760 lbs. to 801 lbs. milk for cows in milk.

So we may conclude that beans, when cooked, are worth more than half as much as cottonseed meal or linseed oil meal as a source of protein. R. D. PARTRIDGE, Tester.

Mixing Feed

HOARD'S DAIRYMAN:—When I took over the work of the South Newaygo Association of Michigan a year ago most of the members were feeding corn and oats, supplemented in some cases with cottonseed meal, some with oil meal, and many with nothing at all. Several were feeding a commercial 24 per cent feed straight and some as a supplement to corn and oats.

As soon as advisable I tried to get the members to mix up a home mixture that would compare favorably with commercial mixtures. There are several advantages in this. First, it is a saving of labor and time to feed a cow a given number of pounds of one grain mixture rather than dishing out several different kinds of grain. Second, every cow in the herd gets the same kind of a mixture, that is the same per cent of protein, etc., whereas they would not if fed separately of the various feeds under ordinary farm conditions. Third, the feed may be made up of a greater variety than would otherwise be practical, thus also making for palatability.

Many of the members are feeding a ration made up of corn meal, ground oats, bran, cottonseed, oil meal, and gluten feed in different proportions according to their individual needs and prevailing condi

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	No. of ass'ns. Reporting	No. of cows*	Ave. fat per cow* All cows	Ave. fat per cow* High ass'n.	Ave. fat per cow* High herd	High cow fat	No. of separators Tested	No. of separators Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
Vermont	Dec.	21	19	8,797	20.6	30.1	44.1	84.5			
Michigan	"	101	73	18,726	22.8	36.0	†57.6	†100.4			195
Idaho	"	9	9	3,559	26.8	31.0	68.3		160	17	34
Indiana	"	30	27	8,646	20.7	26.0	48.7	85.1			
New Jersey	"	10	8	4,000	22.5	26.0	43.3	89.8			50
Iowa	Jan.	77	73	26,243		29.4	56.8				449

*Includes dry cows. †Retest rules followed.

tons, such as corn and oats available, sage available or not, kind of rough-ge available, etc. This ration can be ade up from 10 to 30 cents per ndred pounds cheaper to supple-ent corn and oats, and is 40 to 70 nts cheaper than feeding the com-ercial feed straight. This mixed ed seems to give equally as satis-factory results as any other feed. nce the members get used to feed-g it, they would much rather mix is home mixture than feed the sev-al feeds separately.

CLARENCE PRENTICE, Tester.

Write the C. T. A. Editor, Hoard's Dairyman, for our prize offer to testers for monthly and annual reports.

The Cows Were Prepared

HOARD'S DAIRYMAN:—There was unusual increase in production ring January for cows in the Eleva Cleghorn Association of Wisconsin. many of the new herds the in-ease was better than 25 per cent on e same cows that were milking the nth before. This was largely due better feeding.

Among the old herds, those that re producing butterfat at a feed st of over 40 cents per pound during e winter months a year ago, are now oducing it for 28 to 30 cents. This chiefly because these herds are in tter condition now than they were year ago. Last summer these herds re fed grain while on pasture.

Every herd is being fed a balanced tion according to butterfat produc-n this winter. Continuous culling d good management are also play-g a large part in this improvement er a year ago.

Every cow, including dry ones, is ured in our association averages cause this is the only true average yway. Herd averages including ly certain cows of these herds that ppen to be milking then are not ry reliable when one is comparing ords and herd feed costs.

JOHN J. TAYLOR, Tester.

Cows as a Market for Feeds

HOARD'S DAIRYMAN:—The dairy-n does not like to buy feed at one ce and pay $2.50 per bag for it en he can buy the same just across street for $2.00. For this very son there have been 105 cows led from the Hamilton County ennessee) Cow Testing Association ich finished its first year's work cember 31, 1926.

The average yearly production of association per cow year was 12 lbs. milk and 249.1 lbs. fat, while average of the cows sold was 27 lbs. milk and 174.1 lbs. fat.

This happens to be an association ere whole milk is sold, so we will eak in terms of whole milk. As ted, the cows sold produced 1,685 . milk less than the average of the sociation which, if valued at 30 its per gallon, the prevailing price, uld mean that these cows would ng in $58.80 less than the average w.

The milk produced by these cows led cost the dairymen 26 per cent re in feed cost than did that pro-duced by the cows kept. In other words, when the cows kept were given enough feed to produce 100 lbs. milk, they produced 100 lbs.; but when the same amount of feed was fed to the cows culled, they produced only 78 lbs. instead of 100 lbs.

C. R. HART, Tester.

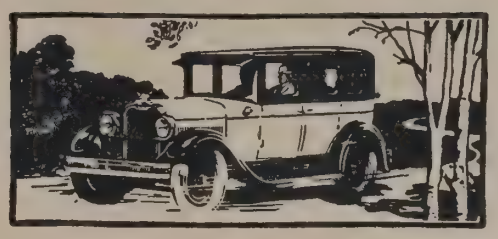
Annual Association Reports

o.	Association	Year ending	Total cow years	Ass'n. Milk	Ave Fat	Cows culled	300-pound Cows	300-pound Herds	Fat records High cow	Fat records High herd	Tester
				Lbs.	Lbs.				Lbs.	Lbs.	
a.	Hamilton Co.	Dec.	473	5,412	249	105	80	3	476	366	C. R. Hart
	Connecticut Val.	Aug.	380	6,850	303		29†	12	488	427	E. H. Loveland
	Central Orange	Oct.	352	6,564	320		62†	13		467	E. H. Loveland
n.	Moose Lake			6,751	301		132	22	646	415	H. Christensen
	Mower Co. 1	Jan.		7,093	289	46	31		561	421	L. W. Madden
	Pope Co.*	Nov.	362	6,251	249	75	73	4	437	359	R. G. Walter
a.	Hillsdale Co. 2		196	6,971	312			14	631	450	L. Anderson
	So. Delta	Sept.	299	6,520	267			13	495	389	J. W. Knauf
	Freeport-Barry	Dec.	224	7,570	308			11	697	406	T. Larsen
	Denmark*	Nov.	526	8,756	322	71	244	21	609	408	M. H. Nelson
	W. Fond du Lac	Jan.		6,556	312	69	199	15	557	403	W. C. Henderson
	Richland		405		280		23†	12	541	381	P. Nelson

No. of 400-lb. cows. * Retest rules followed.

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$1095



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Any Two-Plow Tractor Runs a No. 17 **GEHL** SILO FILLER

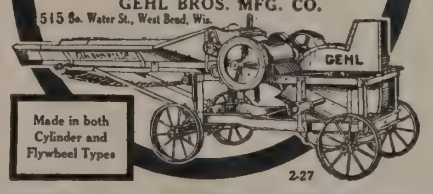
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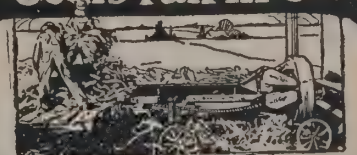
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LICENSING FACTORY OPERATORS

J. W. WHEATON, ONTARIO

DURING the manufacturing season of 1926, cheesemakers in Ontario, Canada, were on trial. This was undertaken with a view to testing the qualifications of makers for certificates under the licensing plan which comes into effect this year.

Among others there were four main tests which decided the fate of makers so far as licensing and receiving certificates are concerned. These may be defined as follows:

1. How his cheese grades.
2. The kind of milk he accepts.
3. Sanitary conditions of factory and equipment.
4. Makers' appearance or, if you will, his own sanitary condition and that of his assistants.

The first one is important and at the same time clear and definite. With cheese grading in force the quality of the produce each maker turns out can be accurately ascertained and this quite independently of those who have the granting of licenses under their control. Cheese grading comes under the jurisdiction of the Dominion Department of Agriculture, whereas the licensing of makers will be a provincial matter. All that is necessary for the provincial authorities to do is to obtain from Ottawa the exact grading of each maker's cheese and award the certificate accordingly.

The Milk Supply

The second test is linked up closely with the first. In fact the two cannot be separated very well. How a maker's cheese grades depends in no small degree upon the kind or quality of milk he accepts for cheese making. This responsibility he must take upon himself. If he accepts milk that he knows will not make first grade cheese, the onus is upon himself. A maker's ability to make first class cheese is dependent in a large measure upon his ability to judge the quality of the milk he receives.

Sanitary Condition and Cleanliness

The sanitary condition in which the factory and its equipment is kept is a definite and clear-cut test. Whether a factory is kept in a cleanly and sanitary manner or not there can be no two opinions. It is either kept clean or it is not kept clean. Any well informed and experienced instructor or inspector should be able to size this up pretty accurately.

They are judged upon the sanitary and cleanly condition in which they keep the factory and equipment and not upon the factory itself or its equipment. There are today old, worn-out buildings with inferior equipment kept scrupulously clean and in first class sanitary condition in so far as it is possible for the maker to do so under such circumstances. On the other hand, there are new, up-to-date factories with proper equipment kept in anything but a cleanly or sanitary condition. It all depends upon the man.

The Maker's Appearance

The maker who keeps his factory and its equipment in a cleanly condition will keep himself and his person in a cleanly condition also; and, likewise, those who work with him. This may not hold true in all cases but it will in at least nine out of ten cases. As a rule, however, the maker, clean and tidy in appearance at all times, will have clean and tidy surroundings where he works and the tools he works with will correspond. And the rule works the other way, too. A slovenly, untidy maker whose everyday wearing apparel is greasy and filthy will have his factory and its equipment in the same state of untidiness and lack of cleanliness.

Cheesemaker's Certificate

A first class certificate may be granted to a cheesemaker who has in the previous year manufactured 93 per cent or over of first grade cheese; who keeps himself and his assistants clean and tidy, his factory and its surroundings in a clean, tidy, sanitary condition; who can properly operate the Babcock Test; and who holds a Dairy School Diploma, or in lieu thereof has had experience of two years or more as maker in a cheese factory prior to 1927.

A second class certificate may be granted to a cheesemaker who has in the previous year manufactured not less than 88 per cent first grade cheese, and who keeps himself and his assistants clean and tidy, and his factory and its surroundings in a clean, tidy, sanitary condition.

Two important provisions in the regulation governing certificates are as follows:

The holder of a certificate who knowingly accepts milk that is tainted, partly sour, or delivered in rusty or unclean cans may have his certificate cancelled or suspended on the recommendation of the Director of Dairying.

The holder of a certificate who accepts milk which has been rejected by any other holder of a certificate for being tainted, partly sour, or delivered in rusty or unclean cans, or who knowingly within ten days accepts milk or cream from a patron whose milk has been so rejected, may have his certificate cancelled or suspended on the recommendation of the Director of Dairying.

Buttermakers' Certificates

A first class certificate may be granted to a buttermaker who has in the previous year manufactured 95 per cent of his butter in a first workmanship manner—who grad supervised the grading of cream isfactorily—who keeps himself his assistants clean and tidy an creamery and its surroundings clean, tidy, sanitary condition, can properly operate the Babcock and who holds a Dairy School D ma, or in lieu thereof has had ex ence of two years or more as mak a creamery prior to 1927.

A second class certificate ma granted to a buttermaker who h the previous year manufacture per cent of his butter in a first workmanlike manner, who grad supervised the grading of cream isfactorily, who keeps himself his assistants clean and tidy an creamery and its surroundings clean, tidy, sanitary condition, who can properly operate the Bab test.

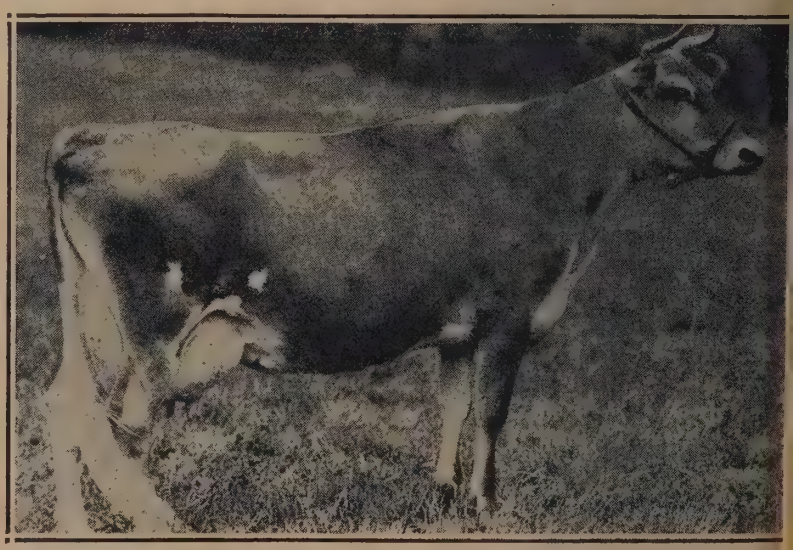
One provision in the regulati worth noting here and it is this:

A holder of a certificate who k ingly accepts cream which has previously placed in its proper g by any other holder of a certi may have his certificate cancelle suspended on the recommendatio the Director of Dairying.

Provision is made for the gra of permits to makers unable to q fy for a certificate but who, i opinion of the Director of Dair has had sufficient experience training to act as a temporary m Permits will not be issued to any son for more than a total of two endar years.

The licensing plan, of co means that no person can act as er in any cheese factory or crea unless he holds a certificate o granted a temporary permit to able him to qualify.

Water in abundance, not c than that from a deep well, is as essary for milk production as is —G. C. HUMPHREY.



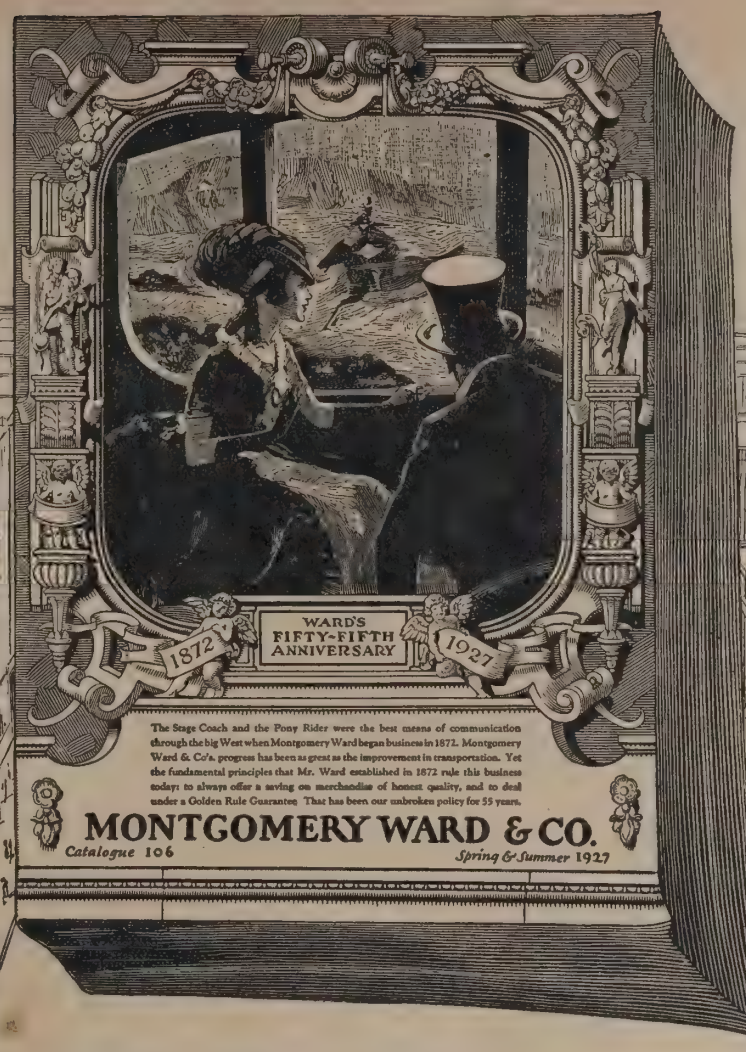
NEW YORK JERSEY, SOPHIE'S EMILY, IS PHENOMENAL PRODUCER

IF all the milk which the New York cow, Sophie's Emily, produce on official test in seven years was placed in quart bottles set en on end, these bottles would reach a height of 7⅛ miles. In h seven successive tests Emily has produced 110,193 lbs. or 51,252 quar of milk and 5,424 lbs. of butterfat. This gives her an average of 7 lbs. of butterfat and 15,742 lbs. of milk for the seven years. In h latest test, which is her highest, she yielded 838.93 lbs. of fat a 17,393 lbs. of milk in 365 days.

This superb Jersey cow is owned and was tested by W. R. Kena Jr., of New York. Emily is a daughter of the Gold and Silver Med bull, Pogis 99th of Hood Farm, and a granddaughter of Sophie 19th Hood Farm, the world's champion for lifetime production.—T American Jersey Cattle Club.

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Ball-Bearing

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Seasonable Live Stock Notes

IN this issue is a story of what dairymen in a Wisconsin County think of sweet clover for cow pasture after they have given it a trial. It should make many dairymen think about cow feed for this fall and next spring. The only dairymen who are going to have good sweet clover pasture next spring are the ones who put seed in the soil within the next six or seven weeks. It does not take long to make up one's mind to seed sweet clover but it does take some time to get some good seed, find out if lime is needed, and get the lime hauled in case it is needed. The most important seasonable live stock note we can think of for our March 10 issue is sweet clover for cow pasture.

Alfalfa for Cow Hay

To be consistent with what has been said about sweet clover for cow pasture we are reminded that alfalfa for cow hay is a timely topic. Spring seeding prevails in the northern states and signs of spring and the calendar tell us spring is just around the corner. Experience and observation tell us that one does not feed home grown alfalfa hay until the crop is grown and harvested. Likewise one does not grow a crop unless it has its beginning months in advance of the time it is needed. We know of no better way to make money from cows in 1928 than to seed some alfalfa in the spring of 1927, and that time has just about arrived.

Teaching Colts to Work

Many a green colt is now learning how to apply its power to a load. The common term used to designate this new experience for beginners is "breaking" but we prefer to think of it as "teaching" or "training" the awkward, untried, inexperienced, potential brain and power of the animal so that it will not only understand what is to be done but also how best to do it. To do this nothing is better than to hitch the green colt with a steady, dependable, patient horse that seems to understand the ignorance of youth well enough to know what to do to help the colt find itself. We have seen such horses that, at times, demonstrated better headwork than their drivers. If one has such a horse give the green colt the advantage of its training ability.

Care of The Feet

We have seen a good many bad feet in mature horses that could have been, at least, partially prevented had sufficient care been given at the right time when, as colts, they were getting ready to earn a place in the barn in front of half a set of harness. These yearlings and two-year-olds have been roughing it all winter over frozen ground and jagged ice. Their feet should be inspected at this time—before they go on pasture. Smooth the feet up with a rasp and help them to develop properly, for as the Scotchman says "no feet and legs, no horse," so is it true.

Water Must Be Hot

The McLean system of preventing parasites and certain diseases in pigs has its many advantages and it has some disadvantages. One of these has to do with the requirement of scalding the floors and partitions of the farrowing pens with boiling water in which lye has been placed, one pound to thirty gallons. The boiling water is necessary to kill the eggs of worm parasites and that is specifically why it is used so hot. It is an advantage in results obtained but somewhat of a disadvantage in its application. It is a weak place in the system because in many instances the water applied will not be hot enough. We caution farmers to apply water that is just as near the boiling point as possible when it is actually applied.

To Warm Chilled Pigs

Keeping newborn pigs dry and warm is an essential part of swine husbandry. To do this it is sometimes necessary to resort to artificial means. One of the best ways we know of is to line a large basket with burlap, place a jug of hot water in the center, and around this enough burlap to keep the pigs from being burned. Place the pigs in the basket around the jug. Heated bricks covered with burlap are also good for this purpose.

Sunshine for the Calves

Of all the live stock on farms during the winter months, dairy calves probably receive less direct sunshine than cows, pigs, or even poultry. We are inclined to the opinion that the lack of direct sunshine for extended periods during the winter is partly responsible for some of the ills and unthriftiness sometimes found among dairy calves. The sunshine is better now, there is more of it, and it is more penetrating. We believe it worth while to make some kind of arrangement to give these calves the advantage of at least two hours of midday sunshine every day it is available. We believe it will help them to ove



It Pays to Produce Clean Milk!

PRODUCING *clean milk* is a matter of *good business* as well as *good health.* Any milk—whether it's Certified, Inspected, Grade "A", or just plain milk, must be low in bacteria count, to find a ready market.

For this reason farmers and dairymen producing Certified, Inspected and Grade "A" Milk, do their milking with *Universal Milking Machines.*

Not only does the Universal Milker produce *cleaner milk* than can possibly be obtained by even the most careful hand milking, but it also cuts milking time and labor in half—and then some! Write for free catalog that tells all about this better way of milking.

THE UNIVERSAL MILKING MACHINE CO.
Department H, Waukesha, Wisconsin



Two types: Double and Single Units

Univerral
natural milker

come some of the effects of influences accompanying winter housing.

Keep The Hen's Feet Dry

There is a great temptation at this time of year or even earlier to turn the hens out of their winter quarters. This has its advantages and then again there may be disadvantages. There can be no harm in turning hens out on a nice warm day if the snow is gone and the ground fairly dry. The trouble comes when one fails to keep them in when a typical March snow storm comes along. The production of a flock may be checked quite a little under these conditions. If one keeps a hen's feet dry and warm and gives her the proper feed she will fill the egg basket—that is if she has the right kind of ancestors.

Rats Hard on Baby Chicks

A boyhood experience prompts us to suggest that a good insurance policy for baby chicks is to be purchased with an effective rat poison or any other method that will protect baby chicks from this hazard. Before the time of incubators and brooders, mother hatched our chicks with hens and brooded them in little home-made coops that were not always rat-proof. One morning there was a lively call from the chicken yard and the men of the farm assembled. Mother had found that where one coop contained 2 hens and 33 chicks the night before nothing remained in the morning but the hens. Mother was angry. Armed with spades we proceeded to investigate a nearby pile of rails. It was nearly dinner time before we got the marauder and then we were not certain we had the right one, but mother felt better anyway. Get the rats before they get the chicks.

Dry Skimmilk For Calves

Raising calves by the "minimum milk method with dry skimmilk" makes it possible to improve the dairy herd without seriously curtailing the monthly milk check.

There is no substitute for milk in raising good milk producers. Its high cost in territories where whole milk is sold has forced many dairymen to resort to purchased cows to replenish their herds. This practice does not permit a control of the herd quality but tends to lower the quality of the herd.

Now that dry skimmilk (powder or flake) is increasingly available for calf raising, a dairyman can raise his own calves and gradually improve the production of the cows in his herd. Remixed skimmilk costs about half as much as whole milk.

According to experiment station records, normal growth was produced for calves consuming 70 to 80 pounds of dry skimmilk and 150 pounds of whole milk.

Detailed feeding practice using the minimum milk method with dry skimmilk is contained in this issue of "Better Calves," Bulletin 301 of the American Dry Milk Institute. By this method, whole milk is fed during two weeks, then replaced gradually—a pound a day—by remixed skimmilk until the whole milk has been entirely replaced by the remixed skimmilk at the age of three weeks. A recommended grain mixture and hay are fed beginning at two weeks of age.

At six or seven weeks the calf should be doing well, and the remixed skimmilk may be gradually reduced until at two months the calf is getting only hay and a grain mixture containing dry skimmilk.

Three successful grain mixtures are given in the bulletin which also has a convenient mixing table for dry skimmilk, a table of normal weights for calves, and a helpful set of general rules for calf raising.

These rules, given below, are worth the attention of every calf raiser:

1. The price of success is cleanliness, regularity, common sense.
2. Calves differ in appetite, amount required, and ability to stand changes.
3. Rules are only a starting point. The feeder must see the calf, see if it is "off feed," if it "scours," if it "grows," and change the rules if necessary.
4. Never overfeed.
5. Always weigh the feed. A spring balance in daily use is a most profitable investment on a dairy farm.
6. Clean feed box every day.
7. Supply fresh, clean drinking water.
8. Calves do better in separate pens, or at least stanchioned or tied at time of feeding milk and grain.
9. Watch the condition of the calf's bowels. If scouring, reduce the milk to one-fourth and give a dose of castor oil. Work the calf back gradually to full feed.
10. Cold milk, irregular feeding time, unclean pails are common causes of sick calves and underdeveloped calves.
11. Remixed skimmilk will sour just like fresh skimmilk if allowed to stand around. Mix fresh; feed warm (98°). Scald pails daily.
12. Dry skimmilk does not sour. It will keep for long periods in tight containers. Keep it covered.
13. Transportation and storage of dry skimmilk are both cheap and convenient.
14. Dry skimmilk is the 9 pounds of food left after 91 pounds of water have been removed by heat from 100 pounds of fresh, sweet skimmilk. When remixed, the calf cannot tell the difference.

A copy of Bulletin 301 may be had without cost from the American Dry Milk Institute, 160 North LaSalle Street, Chicago.—H. E. VAN NORMAN, President American Dry Milk Institute.

Officer of the Law: "Here, you must accompany me."

Drunken Banjoist: "A'right. What chu wanna shing?"

PUBLIC *preference chooses the inimitable Chrysler "60"*

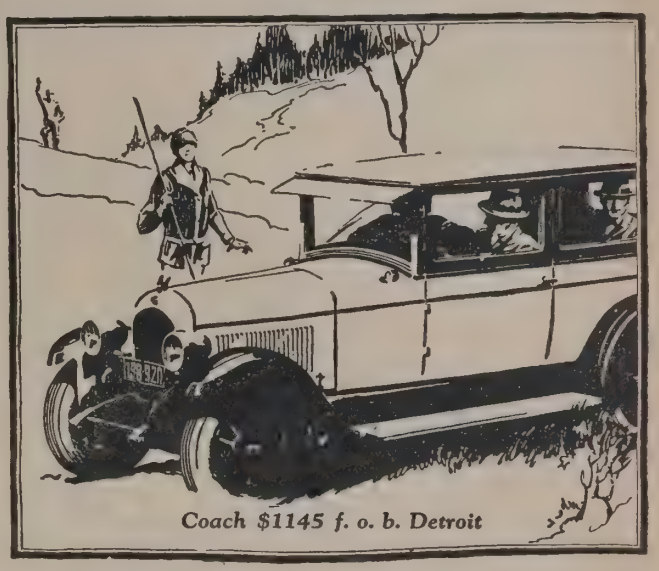
ONE of the most convincing proofs of Chrysler "60" superiority is trying to match its features in any other six of its type and price.

7-Bearing crankshaft;
Impulse neutralizer;
Oil-filter;
Air-cleaner;
4-Wheel hydraulic brakes;
Full pressure lubrication;
Manifold heat control;
Levelizers front and rear—

These, with many other features that cannot be imitated, have been embodied in the Chrysler "60" ever since its introduction.

These typical features of the Chrysler "60" were harmonized into the car's original engineering design—*and are thus uniquely Chrysler*—insuring that flashing speed of 60 miles and more per hour, enviable acceleration of 5 to 25 miles in 7¾ seconds, with the almost magical handling and operating ease that are typical of every Chrysler, and endure throughout its long life.

It is for this fundamental reason that the Chrysler "60" has been accorded a public preference that has contributed substantially



Coach $1145 f. o. b. Detroit

to Chrysler's dramatic rise from 27th to 4th place.

Chrysler "60" prices—Touring Car, $1075; Club Coupe, $1125; Coach, $1145; Roadster (*with Rumble Seat*), $1175; Coupe (*with Rumble Seat*), $1245; Sedan, $1245.

F. O. B. Detroit, subject to current Federal excise tax.

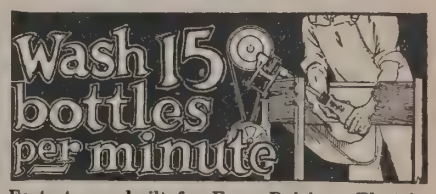
All Chrysler cars are protected against theft under the Fedco System.

Chrysler dealers are in position to extend the convenience of time payments. Ask about Chrysler's attractive plan.

CHRYSLER SALES CORPORATION, DETROIT, MICHIGAN
CHRYSLER CORPORATION OF CANADA, LIMITED, WINDSOR, ONT.

CHRYSLER "60"

CHRYSLER MODEL NUMBERS MEAN MILES PER HOUR



Fastest ever built for Farm Dairies. Electric, Belt, Hand operated styles. Also Speed Bottle Fillers, Coolers, Water Heaters. Easy Payments. Mail this ad for booklet.

THE DANA CO., Dept. H, Platteville, Wis.

FILTERING **STERLING** PADS

FOR MILK

These disks will positively remove sediment and bacteria from milk, that no other straining medium can reach.

SIZES TO FIT ALL STANDARD STRAINERS

Free—If dealer can not supply you send dealers name to us and we will mail you free sample.

SANITARY COTTON CO., 1415 Jackson Blvd., CHICAGO, ILL.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.



Neighborly Notes

Country people have a degree of friendliness and neighborly love that cannot be known or appreciated by the people living in cities. Go into a city to visit and your cousins will not know who lives in the same house with them, either above or below or on either side of them. Perhaps they will not know anyone within several blocks of them. And they suspect everyone. They would not think of speaking to anyone that they had not been properly introduced to. Not so in the country. Here we know everyone for miles and miles around. We not only know them, but we trust them. We know and share all of their joys and all of their troubles. We would not think of suspecting our neighbors, for we love them all; they are our friends.

In the city, you and your family are insignificant. You are only one atom among hundreds of thousands of others. In the country, you and your dear ones are just as important and of as much interest as any one else that is living.

Our cousins in the city go down to shop. They lock up their houses, hang on to their pocketbooks tightly, and speaking to no one, board the street car or elevated. Here, jerking along with the mass, knowing no one, with eyes glued at the tooth paste signs overhead or staring at the dirty children playing in the streets, with smoke and dust obscuring the sunshine, they ride for an hour or more down to the business section. Every block the car jolts and stops. People digging their elbows into each other crowd off and on to the car. Many have to remain standing. The air becomes unfit to enter human lungs. After a long time our cousins reach the loop and with a breath of relief climb out of the car. But their relief is only momentary. Almost at once they are swallowed up by the crowds and pushed and rushed along. Crossing streets is a peril we know nothing of. At night, worn and weary after a day of bargain hunting, they return home having seen no one they knew all day.

How different the tale in the country! We start off gayly for town in our car. Most of our cars are closed nowadays and comfortable, regardless of the weather. Probably we stop twice along the way to pick up a friend who wishes to accompany us or someone we find walking by the roadside. The sun is shining, the birds singing, the flowers and grasses waving by the wayside. In the distance the beautiful green hills rise to meet the soft white clouds in the blue sky. In ten or twenty minutes we are in town. Here everyone that we meet we know and stop to chat with.

When a new baby arrives at one of our homes all sorts of pretty gifts are sent in for the new arrival and broth and flowers for the mother. Each day the neighbors call up to see how they are getting along and give you a few suggestions for naming it. And when someone is seriously ill everyone turns in to help. The women come in and wash and iron; others send in all you can eat. Even the men come to help with the chores or husk corn if necessary. And when all that can be done has been done to no avail, these same dear friends come again and do those things that must be done. Oh, the love that I have for my neighbors and they for me, and how a time of sorrow proves it!

Did you ever hear the story of the two families who were such good friends that they even shared their dinners? These two families loved each other very dearly and were always running back and forth from one home to the other. One Sunday the Coons had company come very unexpectedly just before dinner. Now Mrs. Coon had been very busy all week cleaning house and she had not baked a thing. She had just planned to have a lunch that day. In despair she ran over to Mrs. Mark's and said, "Oh, have you any salmon I can borrow? I haven't a thing in the house for dinner but bread and tea and company has just come."

Immediately, Mrs. Marks replied, "Why, my dear, we'll change dinners. I really have a nice dinner ready for today and you can have it."

And so they carried forth the Marks' dinner for the Coons and their company, and the Marks dined on toast and tea.

Many of us share our cars and radios and some even share their clothes. How very often one neighbor keeps the children of another so that they may go to something that they have planned on for a long time. I have a friend and a neighbor who is so very dear to me. I know that I can always count on her for anything I want done. I have only to suggest it and she will carry it out, whether it is at club or at home. Many of my plans I could not carry out were it not for her; she is the force that makes them possible. And is it not always so? I believe that the neighborly attitude that exists in the country is very largely responsible for that love that we all hold for country existence.—ETHEL MORRISON MARSDEN.

Contagious Health

"Contagious Health" may sound like a paradoxical expression but it could be just as much an actual experience as contagious disease is. We think of catching diseases from others by physical contact either with the person or with the air or some other agent that is contaminated. We do not catch health and happiness in exactly the same way, but it is very true that we do catch both through the mental impressions that we allow to enter our minds.

Spreading contagious health is an individual responsibility. That means unless we get it for ourselves, we will not be able to spread it. So we must first know how to get it. To do this it will be necessary to look into our subsconcious mind and see what happens there.

We know in a sort of abstract way that we have a subconscious mind which takes care of the normal activities of the body without our worrying very much about them. We also know, if we stop to think about it for a moment, that the subconscious mind takes into its maw everything that happens and chews it for a cud. This it does without any encouragement on our part and we are never sure when the idea that once got into the mind will pop up again.

Another curious thing about the subconscious mind is that it is most impressionable just about the time we are going to bed. Every woman, I know, has dozens of experiences that will demonstrate this theory. I had one myself recently. We went out in the evening and returned rather late. I wanted to do the dishes before going to bed because I had a full day's work planned for next day.

Just as I was about to put my hands into the water it occurred to me that I should take my ring off. At the same moment I thought that my apron pocket was not a safe place for it. I cannot tell even at this moment whether or not I took my ring off, but I remember that I woke up in the night several times with the thought that my ring was not on my finger and that it was not in a safe place. But I was so sure it was in my apron pocket that I went off to sleep again.

Next morning I woke up with a feeling that there was something I should be worrying about and then suddenly the thought of the ring occurred to me. Next thing I knew I

(Continued on page 269)

Do You Want —



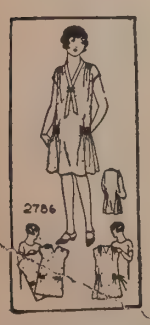
A Morning Dress?



Or an Afternoon Frock?



Perhaps It Is Lingerie?



Or Some Cute Styles for the Kiddies?

No matter which it is, you'll find it in our Spring and Summer Dressmaking Book. Send for your copy today. Just send 10 cents to Fashion Dept., Hoard's Dairyman, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 2982—Bolero Frock. The pattern cut in sizes 16, 18 years, 36, 38, 40, and 42 inche bust measure. Size 36 requires 3¾ yards 40-inch material with ⅜ yard of 36-inch co trasting.

No. 2968—Suitable for Stout Figures. Th pattern cuts in sizes 36, 38, 40, 42, 44, 46, an 48 inches bust measure. Size 36 requires yards of 40-inch material with ⅝ yard of 2 inch contrasting.

No. 2972—Coat Dress. The pattern cuts i sizes 16, 18 years, 36, 38, 40, 42, and 44 inche bust measure. Size 36 requires 2⅞ yards 40-inch material with 1½ yards of 27-inch co trasting.

No. 2866—Girls' and Misses' Apron. Th pattern cuts in sizes medium and large. Th large size requires 1¾ yards of 36-inch m terial.

No. 2922—For the Smart Matron. The pa tern cuts in sizes 18 years, 36, 38, 40, 42, 4 and 46 inches bust measure. Size 36 requir 3⅜ yards of 40-inch material with ⅝ yard 32-inch contrasting.

No. 2243—Bloomers. The pattern cuts sizes 24, 28, 32, and 36 inches waist. Si 28 requires 3 yards of 36-inch material.

No. 2718—Junior Frock. The pattern cu in sizes 6, 8, 10, 12, and 14 years. Size 8 r quires 1⅞ yards of 36-inch material with yard of 36-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap co carefully) for each pattern ordered. Se your order to Fashion Department, Hoard Dairyman, Fort Atkinson, Wis. Every pa tern is seam-allowing and guaranteed to perfectly. Do not fail to state size.

Our patterns are made especially for us the leading fashion designers of New Yo City. No stock of patterns is carried in o office and, since all orders are forwarded the factory, kindly allow a reasonable ti for delivery of any pattern you order.

Look up your December 10 issue a see the color page advertisement the beautiful articles to be embroi ered. We are sure you will be pleas with them. Let us have your orde



Compare a Radiola 20 with any competitor – at any price

COMPARE it in quality of musical reproduction! Tune in, yourself, and listen! Test it as the experts do . . . listen at least ten minutes to the Radiola 20, with an RCA Loudspeaker 100. Then switch to another set, and your ear—trained to the clearer music—shows up the difference in an instant! Radiola 20 has challenged any competitor, regardless of price, to this comparison of tone. And thousands of tests have proved it finer.

Compare it for performance, too! It is twenty times as selective as the ordinary radio set—and has the distance reach of larger sets that have more tubes. A special form of "amplification" makes this possible. On near stations, it is single controlled. And on far stations, two verniers add sharp accuracy to distance tuning.

And look into its reputation for dependability! If there's one thing about radio that is most important for the farmer, it is that. Will his set work every time he tunes in?



Radiola 20, with Radiotrons, . . $115
RCA Loudspeaker 100, ... $35

Will it stand up under daily use without servicing and tinkering? The Radiola 20 —with all the skill of RCA, General Electric and Westinghouse behind it, has *proved* its sturdy quality. It is no experiment—but thoroughly tried, tested and perfected.

What a big place in the farmer's day this Radiola fills! It brings in the weather and market reports so clearly—and the helpful lectures from the agricultural colleges. There are talks, lectures, news and stories for Mother and the children. Fun and entertainment every evening. The best dance music. And the world's finest singers and musicians. And with broadcasting getting better and better, the Radiola 20 is replacing thousands of other sets—to match the finer programs with finer reception!

Buy with confidence Authorized Dealer RCA *where you see*

RADIO CORPORATION OF AMERICA

RCA Radiola

MADE · BY · THE · MAKERS · OF · THE · RADIOTRON



At peace with the world

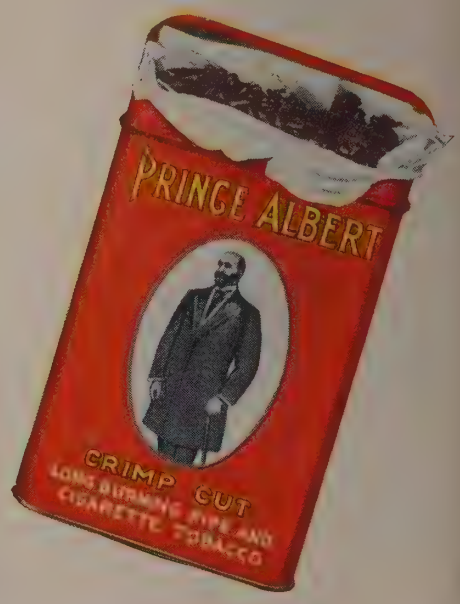
PEACE and contentment, I say, are not a matter of how much money you have accumulated. They come with a clear conscience, good health, and the right companionship. No comrades mean more to me today than my trusty pipe and good old Prince Albert.

I start the day with a pipe in my mouth and a song in my heart. It has been like that for a good many years now. Before I settled upon Prince Albert as the one and only tobacco for me, I had "played around," as you young fellows say, with many brands.

I think it was the rich, rare fragrance of P. A. in the tidy red tin that spurred me to try a load of it in my pipe. I found the taste more than matched that wonderful aroma. It was cool. It was sweet. It was mild . . . mild, yet completely and delightfully satisfying.

Perhaps a leaf from my book of experience will set you on the road to peace and contentment. I tell you, in all seriousness, that you don't know . . . you simply can't know, how much your pipe can mean to you until you have filled it with Prince Albert!

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



PRINCE ALBERT

—no other tobacco is like it!

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

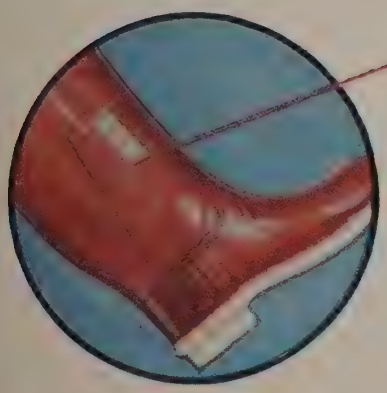


In the dairy barn—*and everywhere the farm job takes you—these "U.S." Blue Ribbon boots will keep you dry-shod and comfortable. And they are as husky as they look!*

Farm tested . .

This "U.S." Blue Ribbon Boot *stands the hardest wear . .*

"U.S." Blue Ribbon Boots
come in red or black—sturdy gray soles—knee to hip lengths



Stretches five times its length!

If you cut a strip of rubber from a "U.S." Blue Ribbon boot or overshoe—you'd find it would stretch more than 5 times its length! This rubber stays flexible and waterproof—long after ordinary rubber would crack or break

75 YEARS of experience in boot-making by the largest rubber manufacturer in the world—that goes into every "U.S." Blue Ribbon boot. This boot is *built* to stand every farm test.

It's just as husky as it looks—extra strong, every inch of it. You can't kick through that thick, oversize sole—it's as tough as the tread of a tire.

And the uppers — they are made of the finest rubber — rubber so elastic that you can stretch a strip of it more than five times its own length! No wonder, where inferior rubber splits and cracks, "U.S." Blue Ribbon boots stand up!

And at every vital point where wear is hardest, from 4 to 11 separate layers of tough rubber and fabric are anchored in behind that strong surface—to give *extra* strength. Only "U.S." Blue Ribbon boots and overshoes have so many!

, , ,

We know you will like the plus farm value in "U.S." Blue Ribbon boots and overshoes.

Every pair is built by master workmen—and built *right*. They fit better, look better, wear better. Get a pair and notice the difference.

United States Rubber Company

The "U.S." Blue Ribbon Walrus
slips right on over your shoes. Its smooth rubber surface washes clean like a boot. Made either red or black—4 or 5 buckles



"U.S." *Blue Ribbon*

BOOTS · WALRUS · ARCTICS · RUBBERS

Trade Mark

Genuine Cork Linoleum Rugs in NEW–DIFFERENT–PRETTIER *Patterns*



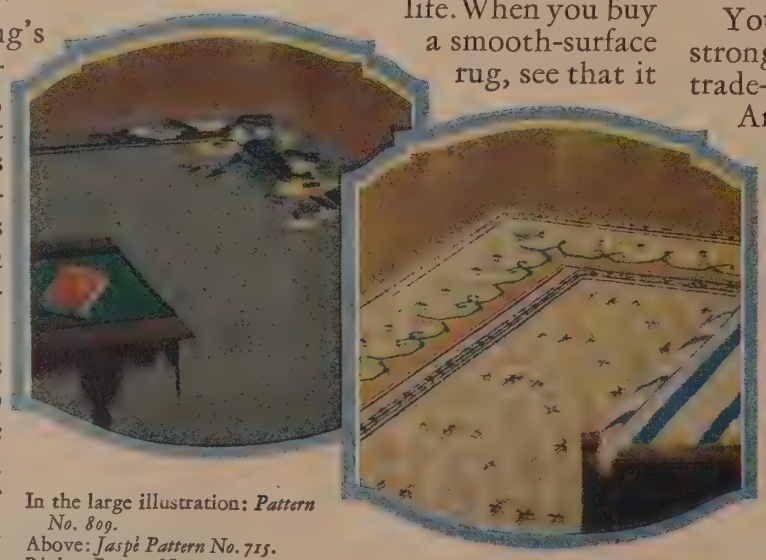
These lovely new patterns come only in the New Armstrong Rugs!

EXCLUSIVE DESIGNS, brand-new ideas of coloring and pattern—the new Armstrong Rugs instantly appeal to your love of the beautiful when you see them in home or store! Picture a daringly colorful border enclosing a two-toned field of small-figured carpet pattern—a rug that will "fit in" with the furnishings of 'most any room.

Picture, too, a rug of Armstrong's Jaspé Linoleum in rippling soft-toned gray, green, blue, or brown, with a decorative border of unit design . . . nothing prettier has ever been created in a smooth-surface rug. These fascinating rugs you will find in the stores if you make sure to ask for the new *Armstrong's* Linoleum Rugs.

You can hardly believe that rugs so unusually handsome can be so inexpensive. They are genuine Armstrong's Cork Linoleum with the burlap back . . . no other smooth-surface rugs offer so much in texture, beauty, wearing quality.

Soft and flexible, an Armstrong's Linoleum Rug can be rolled and moved from place to place. Its sturdy burlap back keeps it whole and gives it longer life. When you buy a smooth-surface rug, see that it is real linoleum—resilient, quiet, springy to the tread, and long-lasting. A rug of Armstrong's Cork Linoleum will wear and wear and wear!



In the large illustration: *Pattern No. 809.*
Above: *Jaspé Pattern No. 715.*
Right: *Pattern No. 931.*

You will know the genuine Armstrong's Linoleum Rug by the Circle A trade-mark on the burlap back. These Armstrong Rugs come in the larger room sizes, 12 ft. by 15 ft. and 12 ft. by 12 ft., as well as in the usual smaller room sizes.

"RUGS OF PRACTICAL BEAUTY"

This booklet, printed in full colors, showing a fascinating array of these new rugs, will help you select the new pattern that will just fit your room. It is free. Send for it. Address Armstrong Cork Company, Linoleum Division, 1013 Jackson Street, Lancaster, Pennsylvania.

Armstrong's Linoleum Rugs

they wear and (A) *wear and wear*

Look for the CIRCLE A *trade mark on the burlap back*

Pump Hot Water



from your kitchen pump

TURN a small handle. Steaming hot water gushes forth at every stroke of the pump. Turn the handle back and pump cold water.

Easily Installed

The Perfection Kerosene Water Heater and tank are connected with your kitchen pump by our simple, new method. In 10 minutes enough hot water for dishes, in 30 minutes for a bath, and in 5 minutes for shaving or washing up. No smoke. No odor.

The heater works equally well if you have running water instead of a pump.

Four Models

Choice of four models. Two have thermostats which put out the flame when the tank is hot. One has a 30 gallon "Stay Hot" storage tank. This keeps the water hot for 3 hours after the flame is out. All burn kerosene—the cheap fuel.

Free Booklet

Ask your plumber or write for full description and prices.

PERFECTION STOVE COMPANY
7609 Platt Avenue
Cleveland, Ohio
Made in Canada by The Sheet Metal Products Co. of Canada, Ltd., Toronto, Ontario



Hot water for "washing up" in 5 minutes! Model 411

PERFECTION Kerosene Water Heaters

had a headache, and then I found the ring was lost. I searched for hours. I did not know whether it got into the stove or into the garbage or whether I had thrown it out with the dish water. Later in the day I found it on the living room floor, and I honestly do not remember having gone in there. My memory failed me, but my subconscious mind held on to the idea that I did not put a thing in its proper place. It would have carried the idea of safety and security for me all night had I taken my ring and put it on my dresser. The idea of safety would immediately defeat the idea of insecurity and the subconscious mind would have been chewing on that all night. I suppose I would have awakened in the morning with a glad sense of everything-is-all-right instead of a headache.

The happy person is likely to be the well person. Have you ever met a real happy-go-lucky person that did not make you feel the same way? You can do like that happy-go-lucky person and infect everybody you meet with a feeling of health and radiance if you will just keep in mind that you must constantly suggest health, the good, the beautiful, and the happy thought.

You may meet a friend today. You might say, "My dear, you need a rest. I am telling you this for your own good." She will go home, look into her mirror, and think: "Isn't it the truth? That woman is right. I must lie down at once." Next time you meet her, say, "My dear, you are looking wonderful. Is it a new gown or did you have your hair bobbed or something." It will truly leave her in an entirely different state of health.

Doing the natural and simple things are always the ones which lead to normal health. An evening with music, with a good book, cheerful conversation, or the reading of such passages from the Bible as the Twenty-third or the Ninety-first Psalm will be exactly the right things to put one in the right frame of mind before going to sleep at night.—S. K. ORMOND.

Accepting Favors

"Why, Mary," said Hazel, "I wouldn't rush right over there with a loaf of bread just because she brought you a few cookies!"

"Well, I don't care if you wouldn't; I would," retorted Mary. "I believe in being independent. Anyway, you know it's more blessed to give than to receive and I intend to hold up to that."

"Yes," protested Hazel, "but how about Mrs. Jones when she gave you the cookies? Isn't it more blessed for Mrs. Jones to give than to receive, too, and shouldn't you let her get a little of the blessing before you rush back and give her something just to satisfy yourself?"

Mary was irritated at her sister and refused to see the point but she confessed the next day that she had never thought of it that way; she was, as she said, the independent sort. It's nice to be independent; that is, most of the time it is nice but once in a while you meet a person who makes a god of being independent and when I see one of that sort I give up. Looking around I feel somehow that it is the women who overdo the matter of being independent, but maybe I am wrong. There's the type like Mary, whom we all know. If her neighbor runs in with a few doughnuts, she can't rest until she has taken back an elaborate pie. If Mrs. Smith gives her a lot of outgrown baby dresses, she must immediately make Mrs. Smith an elaborate center piece in spite of the fact that Mrs. Smith had absolutely no use for the baby clothes and took a joy in giving them. Nevertheless, Mary has that uncomfortable feeling that she is "under obligation" to Mrs. Smith.

Deep down in most of us there is something that prompts us to get part of our pleasure in life by giving to others and doing for them and if we are robbed of this we feel that something is wrong. If we reason back far enough we can convince ourselves that this desire to give is just a form of selfishness. We want to be happy; giving makes us happy so we give in order to get happiness—selfishness proved! But what's the use in going around Robin Hood's barn like that with our reasoning? Let's be independent enough, yes. But let's not have so much pride as to spoil the pleasure of others in simple giving. There is just as true a graciousness about accepting as there is about giving and real independence involves our knowing how to do both. —LUCY THOMPSON.

Alphabet Macaroni

Amusing a sick child—or one that has been sick and must be kept quiet for a complete recovery—is no small task and most mothers will welcome a new idea along this line.

One mother whose child was convalescent but still had to stay in bed, sent to town and got a package of alphabet macaroni which is nothing but regular macaroni cut up into letters of the alphabet. Into each dish of the soup which the little boy needed every day she put the letters to make a certain word. Of course they went to the bottom and the child had to eat the soup before he could find his word. The first day it was his own name, then the name of the dog, then the name of the man who carried the mail, and so on. A sick child will quickly wear out most any form of entertainment but this one lasts unusually well. It is fun at a children's party, too, and when they are too small to spell out words they still enjoy identifying big A, little a, and all the rest.—LUCY THOMPSON.

Father and Child

"The child's appetite is trained just as its habits are formed," states Miss Grace Pollock, National Dairy Council specialist in Pennsylvania. "If left undirected, he will imitate the ones about him in the foods he learns to like and dislike.

"I always wish I could have an opportunity to speak to the fathers, for I am convinced that the father can do more harm in one remark about his dislike for a certain food than weeks of training by a mother can do

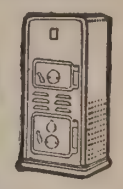
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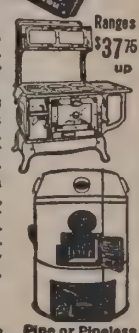
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good. It is the ambition of all small children to grow big like 'daddy' and if 'daddy' grew without carrots, of course the small progeny will see no good reason for learning to eat carrots. There is a brighter side to this, however, for by virtue of the same adoration that most fathers justly receive from their little children, the father can be an invaluable help in training the child to eat all foods that are given him.

"I know some of you are wishing you could see me try to coax your small son or daughter to take some of the essential foods, such as vegetables, fruits, and sometimes milk," adds Miss Pollock. "But what worth while lesson is not hard to teach? A child cannot be trained to be polite in one lesson. Appetite for all good, wholesome food cannot be cultivated all in one day, one month, or one year, perhaps, but constant effort and rewarding, if necessary, will some da repay in sturdy, healthy, and happ children."



No. 2973—Two-Piece Dress. Cuts in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 3¼ yards of 40-inch material with 1⅛ yards of 27-inch material for camisole.

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No. 2770—Men's and Boy's Shirt. Cuts in sizes 12½, 13, 13½, 14, 14½, 15, 15½, 16, 16½, 17, 17½, 18, 18½ 19 inches neck. Size 15½ requires 3½ yards of 36-inch material.

No. 2190—A Play and Sunday Frock From One Pattern. Cuts in sizes 2, 4, and 6 years. The 4 year size requires 2⅛ yards of 40-inch material.

No. 2929—Dress of Plaid Woolen. Cuts in sizes 6, 8, 10, 12, and 14 years. The 8 year size requires 1½ yards of 40-inch material with ⅜ yard of 27-inch contrasting.

No. 2650—Juniors are Wearing Flares. Cuts in sizes 6, 8, 10, 12, and 14 years. The 8 year size requires 2⅛ yards of 32-inch material. Emb. No. 712 (blue or yellow) is 15c extra.

No. 2716—Frock With Slenderizing Lines. Cuts in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 3½ yards of 40-inch material with 1¼ yards of 18-inch contrasting.

No. 2967—Sports Dress. Cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 3¼ yards of 40-inch material.

No. 2825—Coat Frock. Cuts in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 3⅝ yards of 40-inch material.

No. 2980—Box-Plaited Dress. Cuts in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 2⅜ yards of 40-inch light georgette with 2⅞ yards of 40-inch dark georgette.

To order any pattern illustrated, send 10 cents to our Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Be sure to state number and size and write your name and address plainly.

Hand Lotion

Here is our family recipe for har lotion: Buy a 25-cent bottle each glycerine and bay rum—mix the two liquids if you wish by turnir both into a large bottle and shakir well. Use a small quantity of this hands before retiring each night a after dish washing, if possible. R well into the skin—it may feel qui gummy but will be absorbed quickl I hope you may find desired result

Minnesota. M. E. GRIFFITH.

The best hand lotion I have ev found is bay rum, glycerine, and le on juice, equal parts. Wash the han with warm water and then apply.

(MRS.) F. L. JACKSON.

North Dakota.

Grease hands well in the eveni with Mentholatum and put on cle canvas gloves. In the morning th will be nice and soft.

Wisconsin. EVELYN HOYUM.

Get from your druggest a 10c pie of slippery elm bark, 4 ozs. glycerir and about 5c worth of rose wat Boil the bark in a quart or six-pi pan in water to cover. When cook enough the water will be thick a slippery and should be about a cu ful. Now put the glycerine and e water, in about equal parts or a lit more of the water, in a large bot and shake well, adding rose water f odor. This keeps indefinitely and also beneficial after shaving and f chapped lips and cheeks.

(MRS.) CHAS. A. SWANSON.

Indiana.

We are boosters for Hoard's Dai man at all times. My hand lotion ca be beat: 6 tablespoons vinegar, tablespoons glycerine, 2 tablespoo bay rum. Shake well in bottle and u while hands are damp. Fine for co huskers.

Illinois. (MRS.) S. L. BELSLY

The Toy Bank

Said a little iron pig:
"I'm not very big
And I never, no never, shall grow;
My diet is funny,
I live upon money,
Because I'm a bank, don't you know?

"I sing clinkety-clank,"
Said the toy pig bank;
"Whenever a girl or a boy
Gives me money to eat
To me it's a treat—
Helping children to bank is a joy."

—MAUD WOOD HENR

It is in this way that many b and girls get their start for colle One dislikes seeing a child too terested in saving money for fea may lead to penuriousness, but healthy desire to make and save p nies is a good sign.

Of course there is never much tra money to pay out to children the form of wages but where it be done, a little reward for work h estly done is very stimulating.

—LUCY THOMPSON.

Likes Kitchen Range Bes

In a recent issue there was an ticle on "Furnace Cookery." We h a furnace but give me my kitch range. Once, when I was a youngs in town, the gas was shut off for pairs so we baked potatoes in the f nace. That was a lark!

But think of the time and ene expended going down cellar to wa carefully whatever you are trying bake. Surely we farm mothers more worth saving than a few ce worth of fuel.—GLADYS B. MILLI.

Dairying in the Desert

(Continued from page 235)

ground, leaving the stoves to a longer process of decay.

Get Milk At Green River

We reached Green River, a village of possibly 500 inhabitants, at noon. The town had been so named because of the sluggish stream that flowed through, but we concluded that the river must have gotten its cognomen from the green trees that grew along its banks rather than from the color of the water which was not unlike that of the "Big Muddy." We anticipated no difficulty in getting our thermos bottle filled



THE ONLY MILCH COW IN THE DESERT VILLAGE OF CISCO, UTAH
She is owned by the storekeeper but her milk is not for sale.

with milk in a town of this size because we had seen a few cows in an irrigated pasture nearby. After trying at all the grocery stores and the two butcher shops, however, we found that the only place we could buy milk was at a private home. We called there and got the last quart they had. For this we paid fifteen cents but we were glad to get it at any price. We then drove out of town and ate our lunch in the shade of a railroad bridge.

Find Profitable Dairy

Toward the end of the afternoon we passed out of the land of perpetual desert into an irrigated section where alfalfa fields again gave the landscape a note of cheer. We had never appreciated green grass and beautiful trees so much as we did these after our long ride through a sun colored country. Perhaps the herd of grade Holsteins that first met our eyes did have their faults, but the sight was so unusual that we decided to stop and visit with the owner, E. H. Thayn.

The senior Mr. Thayn was not at home but his two sons, Homer and John, were glad to show us around and give us an account of their dairy experiences. They were milking 29 cows at the time so their herd was the largest in Carbon County, Utah. Up until three years ago, when they purchased a 320-acre farm in the Price River conservation district, they had kept their cows in a barn at Wellington and had purchased all their feeds. Before that they had run range cattle but neither Mr. Thayn nor his sons liked beef cattle very well.

The Thayns sell their milk wholesale to a distributor in Wellington for 25 cents a gallon on a 3.8 per cent fat basis or 22 cents on 3.4 per cent basis. They get about 23 cents a gallon as an average all the year around. The distributor then sells the milk to residents of Price and to miners in the coal camps of Spring Canon. The milk checks for last year totalled $5,720 and the feed bill was $1,734, so the profits on their year's business was quite satisfactory.

Only forty acres of the farm were capable of being watered at the time. The remainder was sagebrush and desert land but as soon as the Price River reservoir is completed they will be able to irrigate most of it. The 40 acres under water were entirely in alfalfa pasture except what was cut for hay. So far no trouble has been encountered with bloat, but the cows are in the pasture all of the time and the land is comparatively dry. This may account for their freedom from this trouble. We talked with many in the irrigated sections of the West, however, who had not been so fortunate with alfalfa pasture. The boys expect to try some sweet clover for pasture as soon as they get more water so they can increase their farming acreage. When we asked what kind of records the cows had made they could not give any yearly ones because no cow testing association has started there yet and they had not thought to keep records of their own accord. Their best cow, however, made an average production of 7 gallons a day for 31 days last spring and they estimated that the average production per cow would be about 3 gallons a day for the entire herd. They feed a grain ration of 50 per cent ground corn and 50 per cent bran at the rate of one pound to four or five pounds of milk. They still buy their concentrates from grain growers farther down the valley, but they expect to grow their own just as soon as possible.

Both of the boys have been active in club work and owe much of their interest in dairying to this. Homer is now a boy scout leader so he is doing all he can to make rural life more enjoyable for the neighbor boys. It was a pleasure to listen to these young dairymen of tomorrow tell of their plans for conquering the desert on their farm and developing a better herd of cows at the same time.

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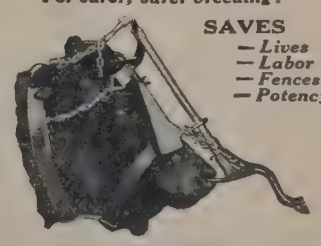
Note closely these other quality attractions that are included in the price as standard equipment: Gabriel snubbers at the front; 4-wheel brakes of special Nash design, lightning fast in operation, and equalized perfectly to all four wheels; and five disc wheels.

In addition to this Special Six Sedan Nash builds 22 other models in three series—*Light* Six, *Special* Six and *Advanced* Six—and 4 wheelbase lengths. Every model is powered with a 7-bearing motor and the price range is from $865 to $2090 f. o. b. factory.

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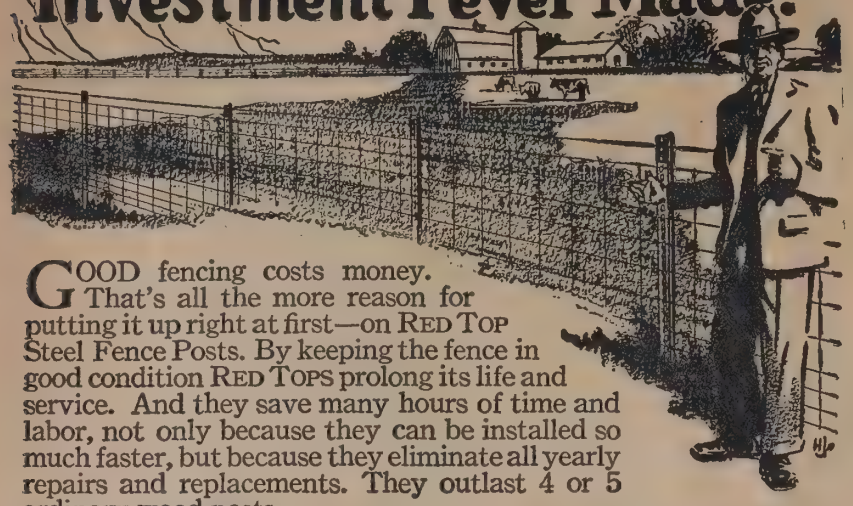
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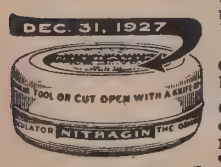
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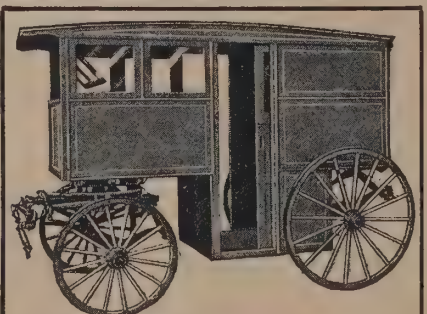
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These pigs are at the fighting age. Sore mouth may be partially prevented by removing the sharp ends of the tusk teeth. In cutting these, care must be exercised not to break the gums. To do so makes an ideal place for "necro" infection.

It's Good and Bad for Pigs to Fight

Most of us enjoy watching a scrap and no doubt all of us who have watched the antics of little pigs would rather see two evenly matched rascals have it out with each other than to send them about their business. If this fighting went no further than affording exercise for the combatants and amusement for the spectator it would be fine but the battles frequently draw blood and right here is where the dirty work gets in.

These skin abrasions about the gums, lips, and face frequently become infected with disease germs, by name, *bacillus necrophorus*, causing what is commonly known as "sore mouth," "necro," or "dermatitis." Even the teats and udders of sows become infected. If the condition is not watched closely and treated immediately it will progress within a few days to a stage that is almost impossible to cure.

The question comes up frequently as to whether the little sharp tusks used so fiercely in the fighting should be removed, thereby depriving the pigs of a means of cutting each other. One well known authority on swine diseases is of the opinion that these tusks had better be left in than be broken off in such a way as to cause sores at their base and thereby invite infection in places not easily treated. If anything at all is done to these teeth it should be merely that of snipping off the sharp ends just enough to curb their cutting. Care must always be taken to prevent any breaks in the gums at the base of these teeth.

In treating "sore mouth" the chance for success is very much increased if done early. The dead or necrotic tissue of the sore should be removed and tincture of iodine applied. A badly infected litter should be separated from the other pigs. The disease is less likely to occur where proper sanitary precautions have been taken.

How Many Pigs Per Acre

In planning pastures for hogs the question of the number of hogs per acre that a given pasture crop will carry successfully is of some importance in the economy of the use of land.

The three pasture crops that stand out best and produce the most pork per acre are alfalfa, rape, and red clover in the order named. In prime condition these three crops will carry about the same number of hogs per acre though the alfalfa furnishes good grazing for a longer period. These crops will carry from 20 to 30 spring pigs per acre and from 15 to 20 mature hogs per acre.

Rye seeded in August furnishes good grazing during a part of September and October and also early pasture the following spring. It will carry up to 15 spring pigs and 8 to 10 mature hogs per acre.

Spring seeded oats will carry 9 to 10 mature hogs for about 6 weeks. Oats and rape will carry 10 to 12 mature hogs per acre for a longer period, depending somewhat on how the rape comes on after the oats are spent.

A seeding of four pecks each of oats and field peas per acre combined with 4 or 5 pounds of rape will carry 12 to 18 mature hogs per acre. The pasture season may be extended by seeding the mixture at 10-day intervals for two or three seedings.

Soy beans, while furnishing excellent forage for a limited period, do not have enough "come back" to warrant being recommended. The crop is too easily damaged by the wear and tear of grazing.

Best Pig Rations Low in Fiber

In feeding pigs the factor of the amount of fiber in the ration is frequently overlooked though it has an important bearing on the rate and economy of gain.

The cow, sheep, and horse have digestive tracts suitable for handling large amounts of coarse, fibrous feeds; this is not true with pigs.

Experiments have shown that alfalfa hay, though containing a high quality of protein, other nutrients, minerals, and vitamins, will barely maintain hogs if fed as a sole ration. Alfalfa hay contains about 28 per cent of crude fiber.

Other experiments have shown that such feeds as wheat bran containing 10.2 per cent of crude fiber; barley shorts containing 10.1 per cent of crude fiber; oats bran, 18.3 per cent; barley bran, 19.3 per cent; oat hulls, 29.2 per cent; oats, 10.9 per cent, when fed alone are too high in fiber and poor results are obtained.

Some experiments conducted at the Oregon Experiment Station indicate that the fiber content of a grain mixture for pigs must not be over 5.5 per cent if good results are to be expected.

Pasture Alone Not Enough

That it is not profitable nor advisable to attempt to grow pigs on pasture without grain is shown by some work done at the Kentucky Station a few years ago. Some pigs weighing 63 pounds each were turned on rye pasture on March 19 and kept there for 42 days, no grain being fed. They did not maintain their weight, in fact they lost 5 lbs. during the time. Some other pigs weighing 82 lbs. each were turned on clover and bluegrass pasture on May 13. On July 4 these pigs averaged 90 lbs. each, having gained only 8 lbs. in 53 days.

Bonus For Quality Milk

With the chance to make a 40 cent bonus over a $2.50 per hundred weight flat rate for 3.5 per cent milk, Walworth County, Wisconsin, farmers have the opportunity for not only doing the production job better, but also are paid according to their pains.

No small credit for this splendid opportunity to realize large profits from the dairy herds of the county is due to the efforts of their county agent, L. J. Merriam. The matter of producing quality dairy products has been one of his perennial county wide projects. He has also urged the improvement in the production units of the dairies of his county by stressing the use of bred-for-production pure-bred bulls, and as a check on what the cows of the county are doing, the cow testing association.

A Chicago milk distributor made an offer to Lake Geneva farmers to deliver to their plant in Lake Geneva the best quality milk they could produce, to be bottled as grade "A" milk for the Chicago retail trade. They offered a bonus of 40 cents a hundred for milk showing a bacteria count of less than 10,000 to a cubic centimeter, and 25 cents if it came between 10,000 and 20,000; this over the flat rate, which throughout the fall has been at about $2.50 a hundredweight.

It was not long before farmers in the vicinity of Lake Geneva saw in this their opportunity to be paid according to the merit of the product they delivered. This was over a year ago, and on the first day 40 farmers brought their milk to the Chicago bottling plant. Within a month, the number had doubled, and at the present time 97 patrons deliver their milk to this factory. When the November accounts were settled, all but one of the 97 patrons received either a 25 cent or a 40 cent dividend. One farmer drives 14 miles to get in on the good prices. If ever a patron fails over a certain time to make his bonus, he is dropped and one of a now long waiting list is substituted.—Wisconsin College of Agriculture.

Beet Pulp and Soy Bean Hay

My roughage consists of dried beet pulp and soy bean hay. I want to mix ground oats, corn hearts, bran, and cottonseed meal with water and blackstrap molasses, soaking this about 12 hours before feeding. What proportions should be used? Would corn meal be better than the corn hearts? How much molasses should I use? Will I get better results from this mixture soaked or fed dry?

Jackson, Miss. G. P. R.

The proportions to mix the concentrates depend somewhat on the proportions of feeding the roughage. Dried beet pulp is really a carbonaceous concentrate supplying considerably more of total nutrients than is supplied in the ordinary roughage. It is comparatively low in protein. The soy bean hay is comparatively rich in protein being as good as alfalfa in this respect. Thus if only a small amount of the dried beet pulp and a large amount of the soy bean hay are fed, the supplemental mixture need not contain more than 10 to 12 per cent of digestible protein; whereas, if this proportion is reversed the protein content of the concentrates mixture will have to be higher because of the carbonaceous character of the beet pulp fed in proportionately large quantities and the reduction of the high protein soy bean hay.

In making a suitable concentrates mixture it is necessary therefore to assume the proportions of dried beet pulp and soy bean hay fed. Let us assume this to be 7 lbs. of dried beet pulp and 14 lbs. of soy bean hay daily per head. This combination in itself contains a greater proportion of protein than is required in a well balanced ration. To properly balance it with concentrates will require feeds of high carbonaceous character and low in protein. Such feeds are corn and blackstrap molasses. We would include some ground oats and cottonseed meal for variety, the latter partly because it is one of the cheapest feeds at the present time. We suggest the mixture of 400 lbs. of corn meal, 200 lbs. of ground oats, and 100 lbs. of cottonseed meal. To this we would add enough molasses as would give each cow between 2 and 3 lbs. per head daily.

The reason for substituting corn meal for corn hearts is that the meal likely supplies the kind of nutrients needed cheaper and in greater amount.

The amount of molasses to use depends somewhat on the price compared with other carbonaceous feeds like corn. The molasses will increase the appetite for feed. It does not contain as much nutrients as corn but feeding trials indicate that it is nearly equal to corn. One could feed up to 5 lbs. per head daily with safety.

If molasses is mixed with the dry concentrates there is nothing to be gained by soaking the mixture.

If less of the beet pulp is fed in proportion to the soy bean hay, the percentage of protein in the concentrates mixture could be reduced by putting in less of the cottonseed meal, but with feed price relations as they probably are it would not reduce the cost of the ration.

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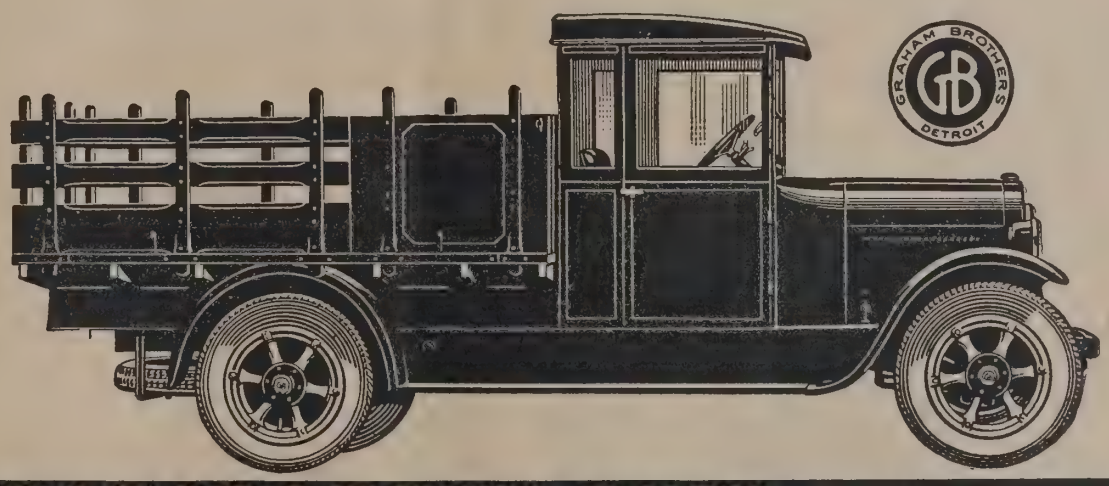
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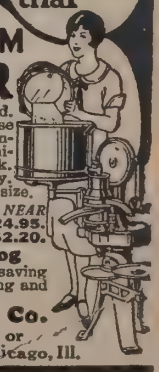
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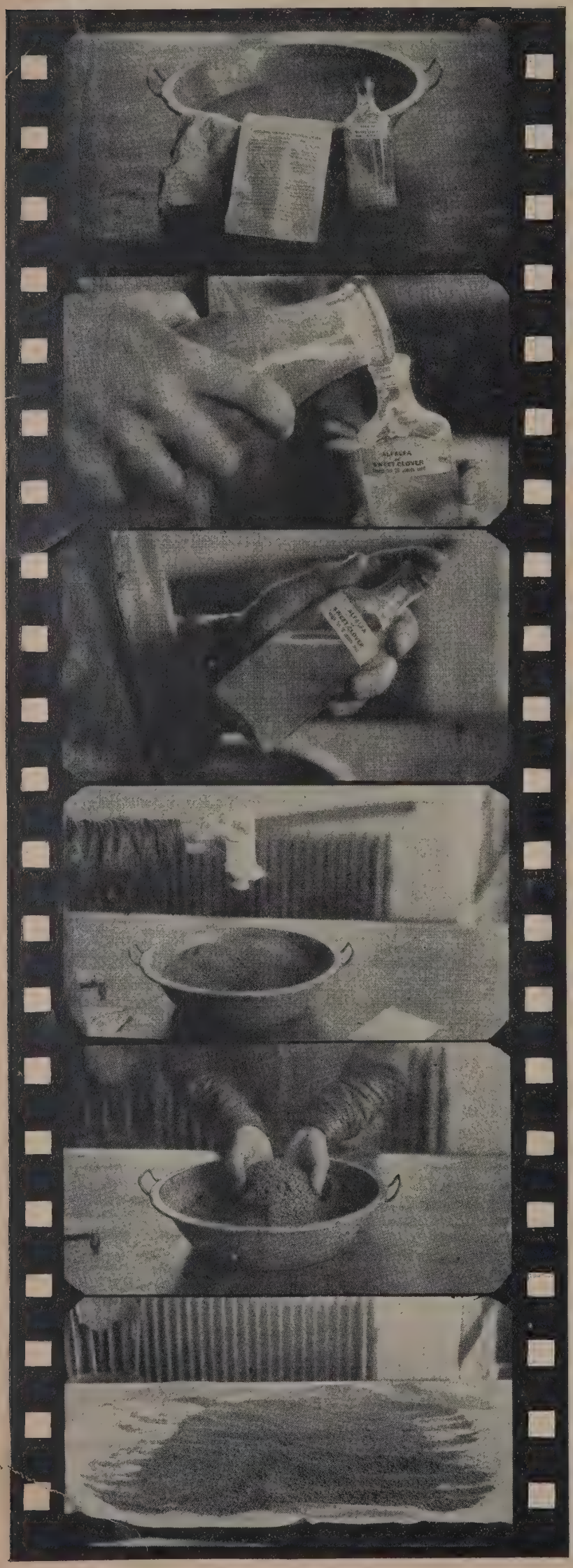
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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS



How to Inoculate Legumes

Now is the time, boys and girls, to get ready to plant alfalfa and sweet clover. We will assume that you have taken care of the lime needs of the field where you are going to sow one of these legumes this spring. If you want to be sure of a good catch, you will inoculate the seed.

The process of inoculation described here can be applied to any of the more common legumes. Remember, though, that one kind of bacteria will *not* inoculate all kinds of legumes. There are eight general groups, each of which requires its own special kind of bacteria. For example, alfalfa bacteria will inoculate all legumes listed in group one, but will not work on any other legume. The classification is as follows:

1. **Alfalfa,** biennial white sweet clover, biennial yellow sweet clover, Hubam, bur clover, yellow trefoil, and fenugreek.

2. **Red Clover,** mammoth, alsike, crimson, Egyptian, and white Dutch clover.

3. **Peas,** garden, canning, field, hairy vetch, spring vetch, wild vetch, broad bean, lentil, sweet pea, and perennial pea.

4. **Cowpea,** peanut, Japan clover, velvet bean, lima bean, partridge pea, wild indigo, and tick trefoil.

5. **Bean,** garden, field, navy, kidney, wax, and scarlet runner.

6. **Lupines** and serradella.

7. **Soy beans** are inoculated with the bacteria isolated from the soy bean nodule only.

8. **Wood's clover** (Dalea) is inoculated with the bacteria isolated from the nodule of that legume only.

Inoculation means the introduction of bacteria into surroundings suitable for their growth. We sprinkle legume seed with the right kind of bacteria and when the plants grow, other conditions being all right, these germs will multiply millions of times and form nodules or little bunches on the roots. These bacteria that live in the nodules take the nitrogen from the air and change it into plant food.

Inoculation insures the yield. The Wisconsin Experiment Station reports that in 1925 the inoculated plants in one field of alfalfa weighed four times that of uninoculated plants.

Inoculation makes the soil richer. While the amount of nitrogen fixed by inoculated plants varies depending on the soil, season, kind of legume, and method of handling, an average of all legumes is 50 to 100 lbs. nitrogen fixed per acre a year. Unless the plants have these nitrogen-fixing bacteria on their roots they will take nitrogen out of the soil for their growth. Then, too, we must consider that on some soils legumes save much nitrogen from being washed away.



INOCULATION MADE THE DIFFERENCE

Inoculation increases the quality of the legume plants. It makes them richer in protein, thus making better feed. At the Wisconsin Experiment Station it was found that in every ton of tops from inoculated alfalfa plants there were 305 lbs. of protein, while every ton of uninoculated alfalfa tops contained only 227.5 lbs. of protein. This difference was determined by chemical analysis and could not be seen in the field.

The movie film on this page shows the different steps in inoculating legume seed, in this case alfalfa seed or sweet clover. Follow it right down from top to bottom and you have a pictorial story of how to inoculate. There are other methods of inocula-



INOCULATION DOES IT. NODULES ON THE ROOTS OF A LEGUME

In these little houses live millions of tiny bacteria, wonder workers that gather nitrogen for the plant from the air.

on, but this is perhaps the simplest id most satisfactory.

First, the material—a bottle of ulture," a big pan, tub, or receptae for holding the seed, and the rections.

By culture we mean the bacteria id the food in which they are growg, in this case agar jelly.

Cultures are easily obtained at a w cost. Many state agricultural lleges are distributing them or they ay be secured from commercial seed uses. The bottle culture shown in e film was purchased from the Wisnsin College of Agriculture and sts residents of the state 25c. There e enough bacteria in one of these ttles to inoculate 20 lbs. of alfalfa sweet clover. It takes from 12 to lbs. of this seed to properly sow e acre.

Fill the culture bottle about twoirds full of cool water. In the ovie film the demonstrator is pourg the water from a small milk bot-.

Put the cork back and shake the ttle and contents well as in the ird picture. You cannot dissolve e jelly with cool water, so don't y. The object of this step is to ash the bacteria off the jelly into e water.

Sprinkle the liquid over the seed ich you have ready in the pan or b, as you see in the fourth picture.

Moisten the seed fairly well; if cessary you can refill the culture ttle with water. There are enough cteria left on the jelly to make e repetition effective.

Now, mix the seed thoroughly as in e fifth picture and spread out in me cool, shady place on a canvas or wspapers. The seed should be nted and harrowed in as soon af- inoculating as possible. The bacia live and multiply in the water the seed but die when the seed ies and their food supply is thus ut off. Undue exposure to the sunht will also kill the bacteria.

Our Review Column

A regular feature of the junior department, viewing the contents of Hoard's Dairyman of the previous issue. Let's talk it over.]

For a more complete discussion of e following see the February 25th ue.

What is the backbone of a good iry ration? A succulent roughge, such as silage, and good legume y. (See page 176.)

What are the maintenance and oduction requirements for a cow ighing 1,100 lbs. producing 40 lbs. 4.5 per cent milk daily? About 5 lbs. of protein and 23.5 lbs. of tal digestible nutrients. (See table page 176.)

Which breed is such a cow rather pical of? The Guernsey. (See ge 177.)

Where did the Guernsey breed ginate? On the Channel Islands ich belong to England and are lo-ed somewhat nearer the north ast of France. The three islands oted to this breed are Guernsey, derney, and Sark.

When was the first importation de into the United States? In 18 by Reuben Hains of Germanwn, Pennsylvania. Another imtation of a bull and two heifers s made in 1833 by a sailing capn who sent them to his brother in w Hampshire.

When was the American Guernsey ttle Club organized? In Februa-, 1877. The Club is celebrating fiftieth anniversary with a pilgmage to Guernsey this spring. rilla Boese, a Wisconsin calf club mber, has been awarded a free ip because of her outstanding club ord. (See page 192.)

What is the world's record for Guernsey production? Anesthesia Fth of Hill Stead, a Connecticut cow, produced 19,742 lbs. milk, 1,112.5 lbs. fat.

How may the mineral requirements of poultry be met? Provide lime in coarse oyster shell and lime rock grit fed in hoppers, provide fine table salt at the rate of one per cent in the mash, and calcium phosphate in bone—either hopper fed or in the mash. (See page 216.)

Pluck Wins for Jesse Stenson

That pluck and grit are real assets in making one's way in the world has been proved again by Jesse Stenson, 19 years old, Minnesota, now a student at the School of Agriculture, University Farm, St. Paul.



JESSE STENSON

For seven years Jesse engaged in boys' and girls' club work but without success in winning honors in local exhibits. Most boys would have given up. Jesse was not built that way.

One day he sat down and took an inventory of the situation. His conclusion was that he would have to have better animals if he hoped to win prizes. He had no money, however, and he knew that he could not obtain it from his father.

He solved this problem by establishing three trap lines for furbearing animals. Throughout the winter he visited his traps daily regardless of the weather, and at the sacrifice of one meal a day. But he got results. His season's trapping netted him $90.

Of this amount he invested $65 in a calf and two pigs. The remaining $25 he reserved for feed and supplies. At the county fair he won prizes with one of his pigs and his calf. This entitled him to a place among junior exhibitors at the State Fair and at the Junior Live Stock Show. Because of his industry and the showing made with his animals and in school work, he was awarded a $75 Caleb Dorr scholarship in the School of Agriculture. From sales, prize money, and scholarship his returns amounted to about $350.

With all the efforts necessary to make such a good showing Jesse found time to serve as a club leader, directing a club of 35 members who made creditable showings at their local fairs, and also to serve as a patrol leader for a Boy Scout troop of 13 members. Having gotten into his stride he intends to engage in junior club work for another two years.

Calf Feeding Questions

HOARD'S DAIRYMAN JUNIORS:—I have a few questions I would like to ask. How long should a calf nurse a cow? How much and at what age should a calf get linseed meal? Would it be best to keep calves in green pastures and feed them grain all summer, or keep them inside? What will make calves fat in their stomachs? I always thought water would do it. Is flour boiled with water and then mixed in milk good for calves or not, and why?

Connecticut. S. S.

A calf should nurse its mother at least for its first two or three feedings. It is important that the calf get the colostrum milk which is the first milk after calving. The calf can be taught to drink of its own accord almost at once after this. It is just as well to feed it milk from its own mother for the first four days because the milk is not fit for human consumption during that period. It is always best to underfeed rather than overfeed growing calves. Start in

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HOARD'S DAIRYMAN
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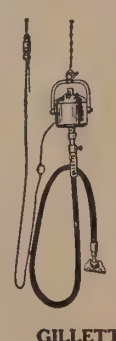
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My father's name is .....

Do you belong to a Boys' and Girls' 4-H Farm Club? .....

If so, what kind? .....

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with feeding milk in small quantities, say two pounds three times a day, gradually increasing this amount as the heifer grows older until it is receiving ten to fifteen pounds of skimmilk a day. The calf should receive whole milk for the first three or four weeks, then take a week or ten days to change from whole milk to skimmilk.

When you begin to feed your calf skimmilk you can start feeding it some linseed meal. At first put a half teaspoonful of linseed meal into the milk fed twice a day. This can be gradually increased until at the age of four months the calf is receiving a tablespoonful of linseed meal twice a day in its milk, or linseed meal can be fed with the grain mixture when the calf gets a little older. A good grain mixture is 30 parts ground corn, 30 parts ground oats, 30 parts bran, and 10 parts linseed oil meal. Calves under five months of age should receive whole grains instead of ground. After they reach five months of age, however, the grain should be ground.

Young calves under eight months of age will do best if kept in the barn during the summer and fed milk, grain, and legume hay; and perhaps some silage.

Drinking an excessive amount of cold water may cause a calf to bloat or swell up in the stomach, as you have described it. In feeding skimmilk care should be exercised that the froth is taken off before feeding. It has been found that this froth may cause bloat and digestive disturbances.

The calf should have plenty of water to drink at all times, preferably from a drinking cup if such is available.

While flour boiled with water and mixed in the milk adds carbohydrates to the feed, we consider it unnecessary labor as these same carbohydrates can be secured through feeding whole corn.

Junior Letters

A Poem, "Hoard's Dairyman"

Hoard's Dairyman Juniors:—I am sending another poem to be published in the Hoard's Dairyman. It is called "The Hoard's Dairyman:"

Roses are red, violets are blue,
But the thing I love best
Is Hoard's Dairyman,
Don't you?

I always think the cover of
Hoard's Dairyman is like a door,
Which opens into someone's house
Where I've not been before.

When I find a house that's dull
I do not often stay,
But if I find Hoard's Dairyman,
I'm apt to spend the day.

I never know what sort of news
Will be within, you see,
And that's just why Hoard's Dairyman
Is so interesting to me.

Maryland. Elsie Louise Singer.

A Grown-Up Junior Writes

Hoard's Dairyman Juniors:—I've been a silent reader of your page for a long time and enjoyed your merry circle.

Ever since I was a small lad I have had a calf, poultry, or garden of my very own but I'm sorry to say, dear folks, that I never had the opportunity to compete with other boys and girls as there was no club work in Kewaunee County those days. During the long winter months I would read different bulletins on my chosen project and try to learn all I could about it. The work is so fascinating that one learns to love it and I can recall those summer evenings when I used to hoe in my little garden and dream of the future and wondered what it had in store for me.

I am now connected with the State Bank of Kewaunee as a farm service man, but I still ride home and sit under that old brindle cow, when the roads are passable. The farm is only too dear to me. We are going to carry on a bacon hog project of the Yorkshire type. About 40 enthusiastic boys and girls will receive a bred gilt this winter. Next spring and summer they will have a litter of little pigs to raise, which are to be marketed in September, in a carload lot, at a premium, for a quality carcass. I want you boys and girls throughout this grand old state of Wisconsin to write to me and tell me about your experience in pig club work. My address is Kewaunee, Wis.

In closing I want to advise farm boys and girls to get into club work this year. It will be the happiest season in your young lives.

Edward J. Marek.

Raising Calves

Hoard's Dairyman Juniors:—This summer my brother and I raised a calf for veal. We bought the milk from Daddy for $1.75 per hundred. In a month or so we sold the calf to a butcher for 13 cents a pound. We received $13.39. We paid Daddy his money and then had some left over. We bought a few things and put the rest in the bank.

This fall we have another calf. We feed 8 lbs. of good milk and 19 lbs. of skimmilk per day. This calf is a Holstein and the other was a Jersey.

Hoping to hear from some of you juniors soon, my address is R. F. D. 5, Rice Lake, Wisconsin. Alice Rauchenstein.

"The Storm"

Hoard's Dairyman Juniors:—I am sixteen years of age and in my third year of high school. My father is a farmer and I help him in my spare time. I live three miles from town. I drive a car to school now so it makes it easier than walking.

I own one cow and two heifers myself. One is a registered Jersey and the other two are mixed breeds, but I am going to have all registered stock. Last summer I sold one cow for $125. This is a nice sum to put in the bank for future use. My brother and I own a small flock of sheep together. We have eleven sheep now.

Here is a poem I wrote:

The lightning flashed; the thunder roared;
The wind blew at a rapid gale;
The rain spattered as from the sky it poured;
Leaves were shattered by the hail.

Fruit lay scattered upon the ground;
Animals were seeking shelter from the rain;
Trees were blown upside down;
Buildings squeaked from the terrific strain.

The storm was past; all was still;
Insects were busily working around;
Cattle were hastily grazing upon the hill;
For fear another storm was in that direction bound.

My address is Lyons, N. Y.

Harold Spies.

Good Garden Suggestions

Hoard's Dairyman Juniors:—As you do not know me I will describe myself. I am 5 ft. 4 in. tall, weigh 109 lbs., and am 12 years old. I am in the 8th grade. My birthday is the 17th of July.

My father gave my sister and me each a young cow. As I was the youngest I got the youngest of the cows. No one could milk my heifer except my father. Then my heifer was sold. I selected another cow from our herd. Her name was Blossom. Last year Blossom raised a steer. I named it Happy Go Lucky. This year I sold it and it brought a little over thirty dollars.

This year Blossom raised another steer. I named it Buddy. I fed it new milk and then changed to half new milk and half skimmilk. Then finally I gave it all skimmilk. It is growing to be a very large calf. It is exactly like its mother. It is all red. This year our community organized a poultry club. I joined but withdrew again. I sent for some wire netting but it did not get here so gave up the idea.

I raised a garden, also. In it I raised sweet corn, carrots, parsnips, cucumbers, peas, beans (including limas and navies), and beets. It was down by my father's corn field, and when he cultivated his corn he also cultivated my garden. Between times I kept the weeds out and loosened up the dirt so it would not crack.

If any of the juniors wish to write to me my address is Sansarc, So. Dak.

Helen Lucile Burns.

A Young Jersey Breeder

Hoard's Dairyman Juniors:—I am especially interested in Jersey cattle and am a member of the La Grange County Calf Club, a club of 17 members. I had the highest junior heifer, by name, "Tycoon's Jewel's Opal." This heifer is a double cross of "Golden Tycoon" and also double cross of "Plymouth Ladie," both being prominent Indiana Jerseys.

Opal was fresh October 9 while I was at the National Dairy Show in Detroit. She gives 22 lbs. a day (she is getting no grain) and tests 5.5. As for size she is in good flesh and weighs only 700 lbs. It is characteristic of the line; her mother is still smaller, is a high producer, and tests 6.3.

I am running a project of five cows in school, all of them producing over 400 lbs. fat last year. I am a Senior this year and am carrying the project on with the heifer and the offspring of last year.

I hope other members will write to me and I'll try to answer them. I am 16 years old and stand for pure-breds.

My address is La Grange, Ind.

Charles M. Old

MILK STOOL PHILOSOPHY

J. J. SPRENGER, MINNESOTA

MY intelligent concern can only be for the future because I cannot change the past and en the present was planned when it s in the future. But I can keep ts concern intelligent only by the st careful study of the past. The unger I am the more the future a have in store for me if I am will- and fit to do my part.

While observing a large class of ys who were being trained in a y practical way how to make ngs with their hands in an up-to- e manual training room, I told m they were at a great advantage er us older folks because those ngs were not taught in school en we were young and that be- se of that fact I felt that we were n thirty years too soon. To which e of the boys answered that they ked about this very thing and had decided that they were at a disadvantage because there is no more cheap land and all the other walks of life are so crowded, and they were certain they were born just thirty years too late.

I believe, however, that both of us were expecting too much from conditions because we find it much pleasanter to blame our working condition than ourselves in case of failure.

But just what is our part as parents when it comes to giving society some one to take our places and in what way could we do something to prevent the financial shipwrecks about us?

A story is told of the elder Rothchild, that when he registered for a room he asked the clerk just what the room would cost him. Soon after this his son also registered and when the clerk asked him what price room he wished he replied, rather impatiently, "I should think you would know that price cuts no figure with me." When the father was asked to explain this difference he answered, "Why, you see my father was a very poor man and my son's father is a very rich man and that makes all the difference in the world." I believe he touched a phase of our job in life of which we might as well be thinking during the next few milking periods. If our children need to learn one thing more than any other it is the fact that money does not grow on trees and the only way we can teach it to them is to have reverses ourselves and what is more, to act like men when we have them.

All of the land must of necessity change owners at least once each generation, and new owners will get land in one of two ways; either it is given to them or they must go in debt for it. It is a sad fact that our boys are more liable to lose it if it has been given to them than if they are compelled to go in debt for it. The saddest part of it all is that failure in either case brings with it so much real heartache and discouragement. Personally, I believe at least three things should be heeded:

First, we should teach and practice economy, not only because we wish to save money but because we should save people as well.

Second, we should remember that any child who becomes heir to property but has not learned to get down to work, will lose it. The child who has really learned to work will not really need it.

Third, since we have such a long turnover as farmers, making it necessary for beginners to live a long time before they can realize on their work, the need of economy and better stewardship needs to be made more important to our children. The most comfortable place of all in which to live is just within our income.

Another 1,000-lb. Fat Producer

Another Holstein cow in the University of Nebraska, North Platte Substation, herd has finished an unusually good year record. N. P. Gerben Re-Becky produced 27,110.2 lbs. milk containing 1,006 lbs. fat (1,258.3 lbs. butter) in 365 days at the age of six and one-half years. As a 2-year-old she made a year record of 485.6 lbs. fat; she produced 676.8 lbs. fat as a 3-year-old and 769.2 lbs. as a 4-year-old. This cow was bred and developed in the herd where she is now owned.

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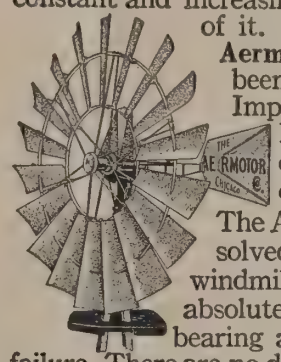
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BETTER COWS FROM BETTER SIRES

THE record of the dam of any sire is a promise, but the records of a large number of high producing daughters are the fulfillment of that promise."

At what point in the production of pure-bred cows will the average pure-bred bull fail to increase the production of his daughters over their dams; what point with grade cows? How much variation is there among pure-bred bulls when the production of their daughters is compared? How much is an outstanding, proved, prepotent dairy sire worth? How much damage can a poor sire do when used in a herd of good cows?

Some work done by the Bureau of Dairy Industry in a study of cow testing records comparing the production of dams with their daughters raises the above questions and supplies interesting data contributing to their answer. The data are reported in Department Circular 368 entitled, "Better Cows from Better Sires." A brief review of some of the more important findings should interest our readers.

This study includes 2,182 yearly production records of dams and their daughters from various cow testing associations. The records are of comparatively recent date, nearly all of them having been made within the association years ending in 1922 to 1925. In all cases the records of immature dams and of immature daughters were figured to maturity by the method in common use of dividing the production of the 2-year-olds by 70, the 3-year-olds by 80, the 4-year-olds by 90, and in each case multiplying by 100.

When both pure-bred and grade cows are considered together including 2,182 records, the daughters excelled their dams by 377 lbs. milk and 19 lbs. fat. This does not seem like a big increase but when it is known that the dams averaged 8,635 lbs. milk and 342 lbs. fat, it shows a very good general improvement to the credit of the better pure-bred sires.

Where the daughters of grade dams were considered separately, it was found that the dams averaged 8,181 lbs. milk and 326 lbs. fat, whereas their daughters averaged 8,608 lbs. milk and 344 lbs. fat, a gain of 427 lbs. milk and 18 lbs. fat.

Where the daughters of pure-bred dams were considered separately, it was found that the dams averaged 9,031 lbs. milk and 356 lbs. fat, whereas their daughters averaged 9,364 lbs. milk and 376 lbs. fat, a gain of 333 lbs. milk and 20 lbs. fat.

The daughters of pure-bred dams averaged 9,364 lbs. milk and 376 lbs. fat. The daughters of grade dams averaged 8,608 lbs. milk and 344 lbs. fat, or a difference of 756 lbs. milk and 32 lbs. fat in favor of the daughters of pure-bred dams. This would seem to indicate the use of better bulls in the pure-bred herds.

When the grade and pure-bred dams were considered together in production groups ranging from 76—125 lbs. production to 626—675 lbs., each group increasing by 50 lbs. fat, and the production of the daughters of these groups compared with their dams, it was found that when the average production of the dams reached 384 lbs. fat, thereafter there was a decrease in the production of the daughters over their dams. This means that the owners of high producing herds must keep sires that are highly prepotent in transmitting production to their daughters if the level of the herd is to be kept up or increased.

Among the pure-breds when the production of the dams reached 394 lbs. fat, thereafter the production of the daughters was less than their dams. For grades this figure is 349 lbs. fat. These figures simply mean that where one has pure-bred cows that average 394 lbs. fat, he must have a pure-bred sire that is considerably better than the average pure-bred sire; and where one has a grade herd of cows averaging 349 lbs. fat, he must likewise give considerable attention to selecting a sire or in both cases the level of herd production will be reduced.

A comparison was made of the production of the daughters of 58 pure-bred bulls in cow testing associations with the production of the dams. No sire was considered unless records were available on 5 or more of his daughters and their dams. Forty-two of these sires increased the butterfat production of their daughters over the production of the dams whereas 16 showed a decreased average. Arranging the sires in order of number of pounds fat their daughters increased over the dams; from the highest to the lowest it was found that the daughters of Sire No. 1 increased by 239 lbs. over their dams; daughters of Sire No. 20 increased by 53 lbs.; daughters of Sire No. 40 increased by only 11 lbs.; and daughters of Sire No. 58 decreased to 209 lbs. below the average of their dams. For direct comparison the data for Sire No. 2, No. 30, and No. 58 are given in table form.

In the case of Sire No. 2 every one of the five daughters produced more than their dams. With Sire No. 30 four of the twelve daughters produced less than their dams but even so when it is considered that the 12 dams averaged 11,871 lbs. milk and 414 lbs. fat, the sire's records were very good. Sire No. 58 decreased the production of every one of his 10 daughters below the production of their dams.

On the basis of these figures, 50 daughters of Sire No. 2 would, in one year, produce 11,850 lbs. fat more than their dams which at 50 cents a pound makes a value of $5,925. Fifty daughters of Sire No. 58 would, in one year, produce 10,450 lbs. fat less than their dams, which at 50 cents a pound means a loss of $5,225 for having used so poor a sire.

Facts like these impress upon us the important things to be done concerning the future improvement of our herds. The importance of selecting a sire, whether he is to be mated with grade cows or with pure-breds, is clearly demonstrated. The economic importance of some system of selective registration coupled with production records is clearly indicated in the data presented in this study.

"The record of the dam of any dairy sire is a promise, but the records of a large number of high producing daughters are the fulfillment of that promise."



HIGH PRODUCING HERD OF HOLSTEINS, OWNED BY I. V. OTTO, PENNSYLVANIA, THAT HAS BEEN IN A COW TESTING ASSOCIATION FOR SEVEN YEARS

Sire No.	No. of daughters	Milk production Dams	Milk production Daughters	Fat production Dams	Fat production Daughters	Increase or decrease Milk	Increase or decrease Fat
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
2	5	10,651	16,364	351	588	5,713	237
30	12	11,871	13,449	414	447	1,578	33
58	10	9,676	4,825	499	290	*4,851	*209

*Decrease

A Co-operative Cream Station

E. B. DARLINGTON, IDAHO

A CO-OPERATIVE organization which promises to have an important influence in the economic life of the community was established recently on the Minidoka project, in Southern Idaho. The new venture is a cream pool which is being operated by the Mini-Cassia Dairymen's Association.

The movement toward co-operation among local dairymen started about four years ago, but it was during the sessions of a dairy school held at the village of Declo last January that it crystallized into activity as a live organization determined to enter the business field. On June 7 a receiving station was opened and a program of collecting cream was inaugurated.

The objects of the association are to establish a more direct relationship between the producers of cream and the consumers of butter, to reduce overhead charges in manufacture, and to obtain for the membership any advantages that the market may afford. It is believed by the members that they will be able, through handling of the cream on their own account and the sale of butter through their marketing organization, to secure to themselves the profits on butterfat that have been going to outside concerns.

Headquarters of the pool are at Burley. From this central point trucks are sent out to collect cream from the farmers and it is all brought into the station for testing, cooling, grading, and preparation for shipment to the creamery at Jerome, about 30 miles away, where for several years a co-operative establishment has been operated. The cream collected and prepared locally is sent by truck daily to the Jerome creamery, the product of a collecting station at Eden being picked up en route. There are six collection routes out of Burley, with three trucks covering the territory.

The plan adopted by the association is to have the truck drivers call for separated cream on half the patrons each day, so that all members will have an opportunity to forward their product every other day, including Sundays during hot weather. Payment for the cream is made upon the next visit following the delivery or at the headquarters station, on an advance price basis determined upon the existing market and the outlook. Adjustments in price are made monthly, according to actual receipts for butterfat by the association. A premium of 3 cents per pound of butterfat is paid for sweet cream and the farmers are urged to keep it sweet for the maintenance of high butter standards. Butter is sold at sour cream prices to the farmers who are shipping, or 3 cents off the sweet cream price.

On June 15 more than 1,600 cows were signed up for the pool but not all of them were contributing on account of delays encountered in making final arrangements. Hay harvest was on and it has been impossible for all members to establish themselves immediately upon the new basis, requiring additional equipment in the way of separators, containers, etc. However, the average daily shipment to the Jerome creamery for the first month of operation is estimated to be from 800 to 1,000 pounds and it is believed that by the end of the summer the output of the Burley station will be at least 30,000 pounds of butterfat per month.

The membership in the Mini-Cassia Association now numbers about 260 dairymen. A development in the next few months to about 350 members, with upwards of 2,000 cows contributing, is expected by the officers and directors of the pool.

The arrangement by which the new organization has its product manufactured into butter at the Jerome Co-operative Creamery and marketed from there is considered advantageous from the standpoint of both the dairymen and the creamery administration. The association has taken a single share in the Jerome Co-operative, and is accorded exactly the same treatment as if each individual member were a shareholder. The creamery pays the cost of collecting, testing, cooling, grading, and hauling the cream, and the salary of the manager of the Burley station on the theory that the largely increased volume from this locality reduces the unit overhead cost. It is planned to operate the Jerome creamery at night to handle the additional input. The Jerome establishment already produces 175,000 pounds of butter per month and has the second largest volume of any creamery in the state.

The butter from the Jerome creamery, including that manufactured for the Mini-Cassia Association, is marketed through the Challenge Butter Association of Los Angeles, which is owned by 15 co-operative creamery associations and absorbs practically the entire product of all of them. Because of the high standards maintained by this marketing organization and required of its contributors, it is able to obtain a price for sweet cream butter several cents in advance of the general market in Southern California.

By handling the large volume through the Jerome creamery, partially supplied by Minidoka project dairymen, it will be feasible, according to local officials, to reduce the proportion of overhead costs so that the cream producers can be paid at least 2 cents per pound more for butterfat than the market price of butter at Los Angeles. This is possible because of the overrun in finished butter weight as compared with the poundage of butterfat.

A great deal of the milk from project dairy herds has been going to the cheese factories, there being five of these institutions in the community. Four of them are owned by the Laab interests and one is a co-operative plant.

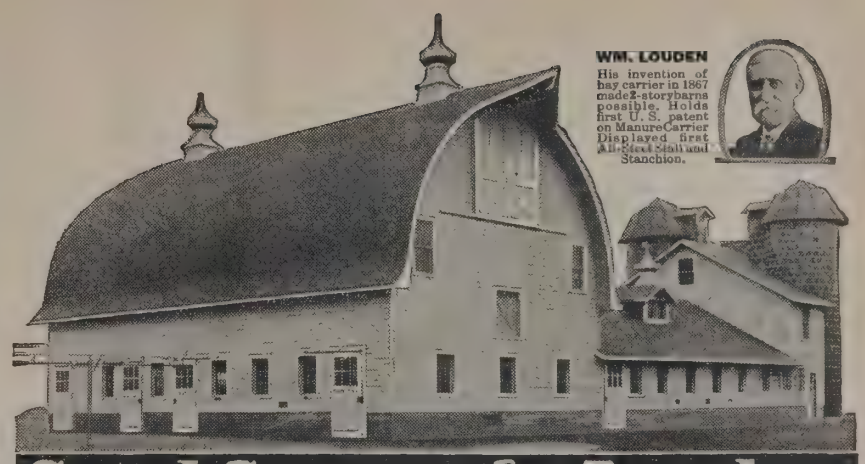


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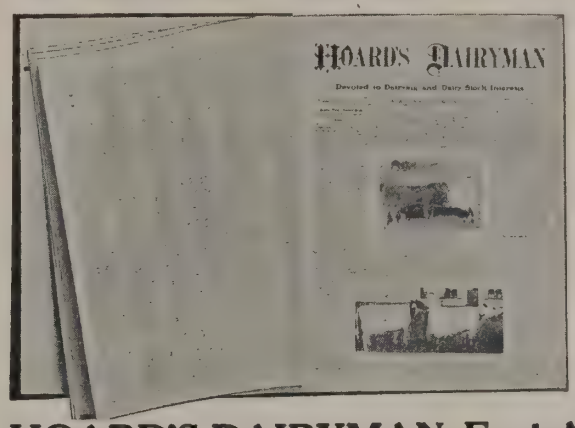
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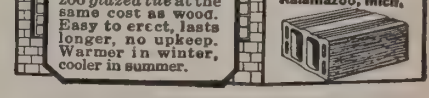
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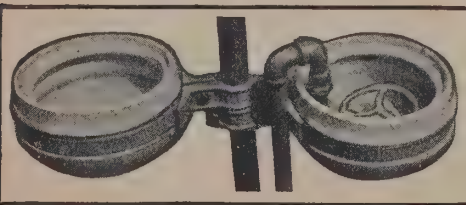
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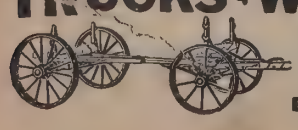
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Trailing Holsteins to South America

(Continued from page 239)

am convinced that they, too, have their troubles.

We are anchored before Topocilla tonight, immediately under the brow of mountains with lofty, snowless peaks. This town is small and acts in the capacity of a way-station for mines in the interior. Rain is as unknown here as diamond mines round Chillyville, Wis. Trains have to ascend thousands of feet to cross over the Andes. There is one on its way now, and it looks like an ant crawling upward, circling curves, spanning trestles, and disappearing finally in a tunnel as a mouse in a hole.

January 24. Did the morning chores in jig time, then two of the



RISSO'S FRIBOURG BULL, CHAMPION AT BUENOS AIRES SHOW

assistants and I hired a dusky Chilean to row us ashore for two pesos each. Being warm and thirsty, we repaired directly to the leading hotel of the town, and there we sat at table and consumed two bottles of cool beer each, and conversed and soon it was noon. Then we partook of their Sunday dinner which is much different than ours. But we were hungry and it tasted good, and, above all, it was a change. A shift from oxtails and kidney saute is a change.

After dinner we ascended a trail 1,000 feet and gave up. We had intended to climb 5,000 feet, but obstacles like heat, too much dinner, and a late attack of ennui were insuperable. We were combing the beach for a secluded place to swim in without bathing suits, when a carbinero appeared from nobody knew where and put a stop to our innocent pastime. It was not necessary that we swim anyway.

January 26. We steamed 110 miles during the night and at 6 a. m. were in Antofagasta. Everything started off with a bang this morning. The stevies came aboard in droves, the checkies got a breakfast of oatmeal and kidneys in the galley, the winches began whining—they needed oil—the booms moaned, and voices were pregnant with the stir to do labor.

January 27. This was a beautiful day. The sun is very ambitious in northern Chile, and neglects nobody. The stevies are unloading structural steel in front of the cattle and the winches screeching and the steam exuding from their pores—worn fittings—are a nerve-racker.

Antofagasta is a town of 40,000 people, although it does not look it. There is sea in front and mountains in rear, a cemetery with acres of white slabs on the mountainside—an evidence that the town is not a stripling—a plaza with flowers and shrubbery, a brewery on the waterfront, and a breakwater under construction. These are the outstanding features as seen from the harbor.

January 28—Another nice day, and very warm. The sun never neglects the people in Antofagasta nor the sorrel-topped peaks that hem them in. Work in the hatches, in front of the cattle, is finished.

I watched Wong and Wing eat their supper. It is an all-rice proposition, but one that looked enticing just the same. These Chinamen certainly know how to cook rice. I inquired of Wong regarding the secret for its preparation, and he replies: "All light, no!" "Sure," says I. "Fine." And was prodigal with nods and smiles. But Wong is just a human being; he likes flattery in varying amounts, and when he doesn't want to savee, he has a peculiar way of feining no-savee, too.

January 29. We took on a stock of fresh water today which costs $5 per ton, and is delivered in tugs.

I bought a Spanish grammar and have been doing some translating on my own hook. I find such startling information as this to remark: Don Quixote owned all the windmills in Spain; that the senoritas in Barcelona are pale eyed and black skinned; and that the king of Spain held up two robbers one dark night and took all their money from them. Spanish is more complicated than it appears.

At present our latitude is 23 degrees south of the Equator; we are within 30 mathematical minutes of the Tropic of Capricorn. This is South America's summertime, hot days and cool nights in Chile, and plain overhead at night are the Centaurs, the Southern Cross, the belt of Orion, and a thousand and one other constellations.

January 30. We almost sailed this A. M. without Lindy—almost. Steam was up, the Blue Peter was up, and the old man was up on the bridge with his megaphone. But when the carpenter on the forepeak began to hoist the anchor, the piston in the windlass broke. The Humming Bird had no extra piston, so it has taken all day ashore to get it welded and reinstalled. About 2 P. M. the agent's launch came out to the Humming Bird and on the bow, residing on his haunches and as unconcerned as you please, sat Lindy. He came up the ladder with the customary grace and meow, surveyed everything and everybody, and went aft. Now we know we are going to sail. And sure enough, at 6 P. M., Antofagasta is dipping down the horizon.

Tonight I traded one of my cherished Roi-Tans for a bowl of Wong's well cooked rice. Rice and milk from a $1,000 cow make a nice dish.

Wong says: "You like lice?"

I say: "Nope, lice I no like. Lice him no good."

Wing: "What to me you say?" I say, "Lice, lice, lice; you eat him plenty last night, lice!"

"Oh, rice. I thought you meant lice. Sure, I crazy for lice. Sure. Sure."

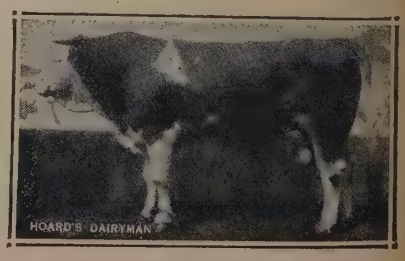
Wong lit his cigar and laughed good. "I catch him, tonight, big pan for you. Good? All light?"

"Fine, fine," says I. "You one fine cook, Wong."

As stated before, Wong appreciates flattery when doled discreetly.

A rich honey-colored moon, lopsided and low, hangs for the time being among the peaks of the Andes. A heavy sea is running, a sullen, unfriendly sea, and one that rocks the Humming Bird like a cradle.

January 31. Steaming down the



A SIMMENTHAL BULL IN PERU

coast of Chile, going from Antofagasta to Chanaral. Chile should have first prize for longest coast. A tremendous swell, arriving from a storm off Cape Horn, made the Humming Bird list awkward all day, and at times far over.

An hour before noon the quartermaster began to point the bow toward a little concavity in the coast line on the port quarter; but it was fully an hour later before Chanaral could be detected. Some copper concern from the States is developing a mine one hundred miles inland, and Chanaral is to become the loading port. Along the shore was a four-master, a storm victim, lying on its side and full of worthless cargo.

Wong says, looking at it, "Go shore, no? No good ship now. Ship sleep too much." Then he says, 'Lice, tonight; no good?"

"Sure, betchem boots, good. Plenty ice."

Then Wong says, "You good Chinaman. You lev Hong Kong. Plenty ice, Hong Kong."

"No," says I, "no liky Hong Kong. Much rat. No much money."

"Aw," he says, "you no good. Rat young, good. Chop suey, fine." Then he laughed good. Wong is quite a fellow.

February 1. Evening. The day is done, and a huge bowl of rice also. There is a cloud bank in the South, the first to be seen since leaving the Equator. A gentle breeze is sifting past the Humming Bird; the night is cool, balmy, and pleasant. An engineer has a phonograph and on the bunker-hatch entertains with it, and most of the crew is lying around the deck like a lot of useless refuse, listening, drinking in melody, some sleeping, others dreaming, but all tired when night comes because all hands have to work. The number of records is limited, but we enjoy them just the same. They are a diversion from the monotony of work and routine, change the course of thought, purge the mind almost like rinsing out a used vessel before putting it away for the night.

(EDITOR'S NOTE: This is the fifth of a series of six articles by Mr. Beattie. The next will appear in an early issue).

Joe Guesser is Converted—A Dairy Play

(Continued from page 236)

Joe: "That's all right for Bill, he has money."

Boaz: "Jack says they averaged $150 clear on each cow last year. Jack's club heifer milked 8,700 lbs. her first year's milking."

Joe: "What happened at the last calf meeting at the school house?"

Boaz: "The dairy specialist told us how farmers benefit by either keeping their own records or by joining a cow testing association. He said that only three of eight men who joined the cow testing association in Monmouth County guessed their best and poorest cows before the tester started work there."

Joe: "Son, the next time you start to any of those meetings you'll find yourself going back home. Do you think I believe all that stuff the dairy specialist told?" (Katrinka enters romping.)

Katrinka: "Seems to me that a woman oughtn't to have to cut her own wood on wash days. Here I am washing with no wood and the fire's out. I tried to cut some with that broken axe handle and it flew and hit my foot. There's not a thing in the house for on it, either."

Joe: "I don't see how you burn so much wood. I brought in a milk bucket full just this morning."

Boaz: "Bookkeepers get their wood sawed with a little engine. They can saw enough wood in two hours to last all winter. I spent that much time choppin' Sunday morning before Sunday School time."

Katrinka: "Don't talk so loud; here comes Bill and his son, Jack."

Bill: "Good morning, the whole Guesser family."

Joe: "Well, what's on your mind this morning, Bill? What day of the week do you clean your cow stables out?"

Jack: "Since Dad got his track and manure carrier in we clean stables three times a day. It's an easy job, now."

Katrinka: "Mr. Bookkeeper, Joe doesn't believe in anything up-to-date. He's so old fashioned, I guess, that's why we don't make money on our cows."

Bill: "Joe, if you do as I tell you, I'll help you make more money from your cows in the next two years than you have made in any five years before in your life."

Boaz: "I wanted dad to let me keep a record of what each cow gave."

Bill: "Joe, you must do one or two things. Weigh your own milk and then get the club agent to figure out how much grain each cow should be getting and figure out how much money each cow makes each month; or, better yet, join the cow testing association and pay the tester $4.50 a month to do it for you.

"In either case, don't be afraid to get rid of the poor cows. Then get a pure-bred sire and raise the calves from only the best cows. Set a standard of, say, 7,000 lbs. the first year, 8,000 the second, and so on, until you reach 10,000 lbs. as an average cow record for the year. Last year our cows averaged 10,620 lbs. each. Then, Joe, you get your cows T. B. tested, clean up a bit around the barn, and you'll soon be getting more money for your milk and there will be a demand for your calves."

Katrinka: "Keep right after him, Bill, until he decides to be a business dairyman even though it takes all day. I'll go in and get some things for dinner in case you have to stay that long."

Bill: "Then, Joe, get started to mixing in a few pure-breds; get Boaz to purchase a heifer through the calf club. Next, get one of these farm account books from the county agent. They are free and he will help you to start it. Jack keeps mine for me as my secretary. Boaz is in Jack's class at school. Get Boaz to be your secretary. We farmers have got to get more business in our farming nowdays. Do you have a pencil, Joe?"

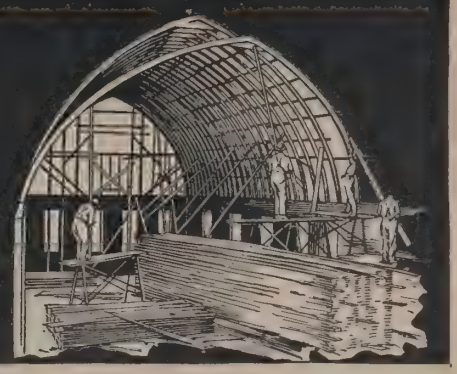
Joe: "No. Come into the house. I'm sort of getting interested in this."

Boaz to Jack all tickled: "Then it

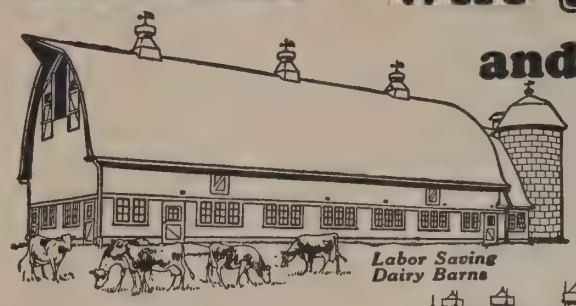
(Continued on page 293)



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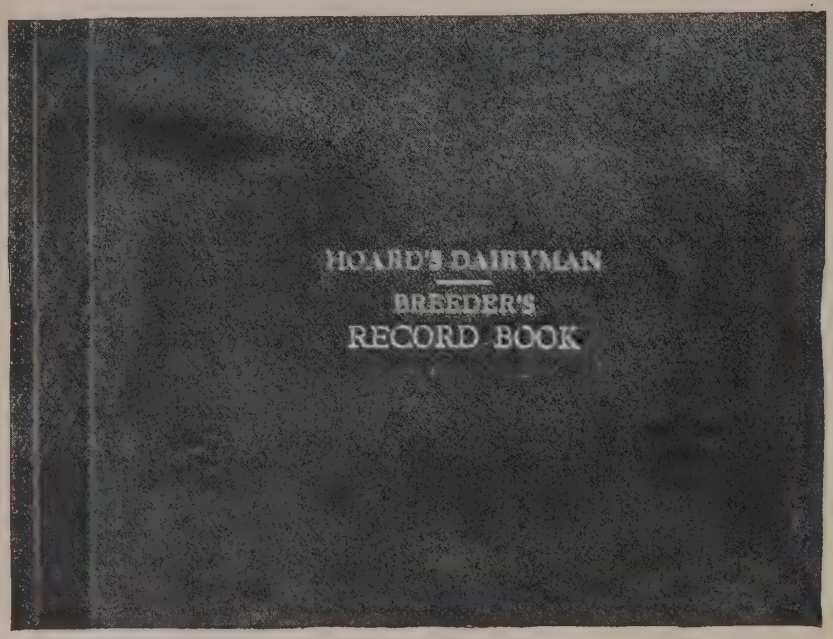
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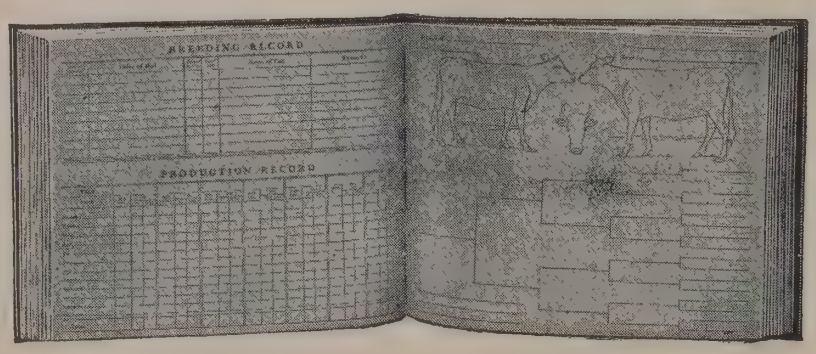
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DAIRY MARKET NEWS

Twin City January Milk

The Twin City Milk Producers' Association paid $2.48 a hundred for 3.5% milk delivered in St. Paul during January. The association handled 25,476,860 lbs. milk, of which 50% was surplus.

Cream patrons were paid 56 cents a pound for butterfat in first grade cream during January. This is 6.8 cents above the average price of 92-score butter on the New York market.

February Milk Prices

(From Report by U. S. Dept. of Agr.)

Table I represents a comparison of the net prices received by producers in 111 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributors' country plant:

Table I—January Producers' Prices by Geographic Sections.

Sections	Range of prices per cwt.	Comparison of average prices 1927 Feb.	1927 Jan.	1926 Feb.
New England	$2.77—3.82	$3.34	$3.38	$3.43
Middle Atlantic	2.45—3.15	2.85	2.85	2.69
E. No. Central	1.74—3.15	2.58	2.59	2.58
W. No. Central	1.66—3.10	2.34	2.38	2.31
South Atlantic	2.80—6.15	3.67	3.73	3.81
E. So. Central	2.36—3.39	2.64	2.78	2.66
W. So. Central	2.05—2.96	2.59	2.73	2.71
Mountain	1.82—3.20	2.43	2.47	2.52
Pacific	2.05—3.13	2.65	2.71	2.70
United States	1.66—6.15	2.79	2.86	2.83

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers:

Table II—February Producers' Prices f. o. b. city and Consumers' prices.

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.	$3.42—3.90	17
Phoenix, Ariz.		10—12
San Diego, Calif.		15
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	2.27	12
Hartford, Conn.	4.22*	16
Washington, D. C.	3.60*	15
Jacksonville, Fla.	4.53*	20—21
Atlanta, Ga.	2.80	
Chicago, Ill.		14
Des Moines, Ia.	2.65*	11—12
Topeka, Kans.	2.15	10
Louisville, Ky.	2.54	13
New Orleans, La.	3.04	14
Indianapolis, Ind.	2.10—2.27	12
Baltimore, Md.	3.55*	14
Boston, Mass.	3.62*	14
Detroit, Mich.	3.00*	14
St. Paul, Minn.	2.70*	11
St. Louis, Mo.	2.90	13
Lincoln, Nebr.	2.01	
Trenton, N. J.	3.41*	13
New York, N. Y.		15
Fargo, No. Dak.	2.10	
Cleveland, O.	3.34—3.50	14—15
Tulsa, Okla.	2.45—2.63	15—20
Portland, Ore.	2.35	12
Philadelphia, Pa.	3.49*	13
Pittsburgh, Pa.	3.90*	15
Providence, R. I.	3.62*	14.5
Sioux Falls, So. Dak.	2.75*	12
Memphis, Tenn.	2.58—2.73	15
Dallas, Tex.	2.60	13
Salt Lake City, Utah	2.49	9—10
Richmond, Va.	3.93*	14
Spokane, Wash.	2.50	12
Milwaukee, Wis.	2.90*	11

*Basic prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at the producers' railway shipping points, as also prices f. o. b. city, are given in Table III:

Table III—February Prices at Country Stations.

	At country stations	Freight zones to which prices apply
New Haven	$3.70*	28c rate
Washington	3.02*	35c 10-gal. can
Chicago	2.50	All
Baltimore	2.97*	35c rate
Boston	2.88*	181—200-mile zone
St. Louis	2.30	34c rate
Trenton	2.85*	41—50-mile zone
Buffalo	2.62*	28c rate
New York	3.00*—3.05*	201—210-mile zone
Cleveland	2.96—3.03	All
Philadelphia	2.91*—2.95*	51—60-mile zone
Pittsburgh	3.15*	All
Dallas	2.10—2.20	All

*Basic prices for fluid milk. †53c rate.

The following net prices were reported paid to members of producers' associations supplying the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and "Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade and the latter applying to that portion classified as "Surplus," which is used for manufacturing purposes:

Table IV—Net Prices Paid Members of Producers' Associations for 3.5% Milk.

Cities	Paid*	Period	Previously announced prices for same period Basic	Surplus
Hartford	$3.89	Dec.	$4.22	Butter market
Des Moines	2.57	Dec.	2.65	$2.10
Baltimore	3.50	Dec.	3.55	Butter market
Boston	2.74†	Dec.	3.35	Butter market
St. Paul	2.52	Dec.	2.70	All milk pooled
New York	2.80‡	Dec.	3.10	$2.31 to $2.56
Akron	2.98	Jan.	3.40	$2.10
Cleveland	3.10	Dec.	3.50	Butter market
Philadelphia	3.48	Jan.	3.49	Butter market
Pittsburgh	3.57	Dec.	3.90	Butter market
Milwaukee	2.66	Jan.	2.96	Butter market
Duluth	2.45	Jan.	2.80	All milk pooled

*F. O. B. city unless otherwise indicated.

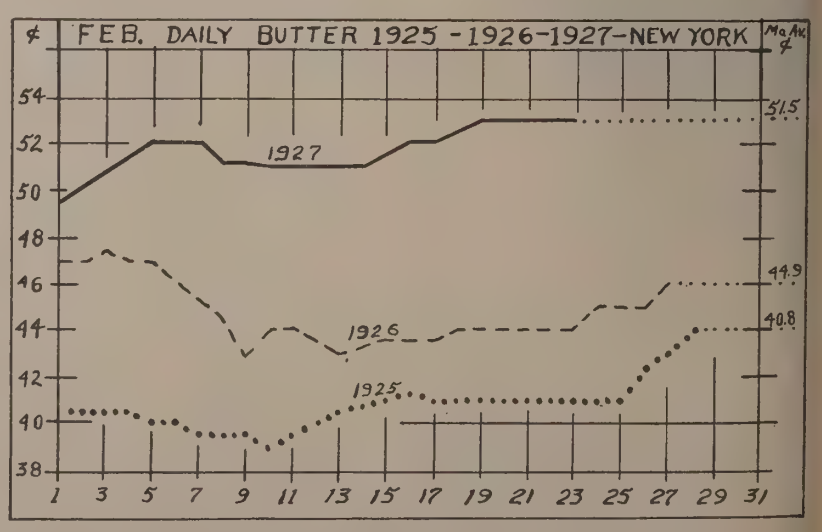
†181—200-mile zone. ‡201—210-mile zone.

Table IV gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat.

Table V—February Retail Prices to Consumer.

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Akron	16—18	20	8	10	16
Asheville	19	25	10		20
Baltimore		30	14	15*	16
Boston	17½	28	10		
Buffalo	14	26	10	12*	20
Chicago	17	25	10	15*	16
Cleveland	19—20	25	12—13	15	15
Columbus	17	25	12	15	14—
Des Moines	14—20	25	9—11	14	12—
Duluth	14	25	8	15*	17
El Paso	17		10	20*	15—
Hartford	20—25	25—35			18
Indianapolis	16		10—12		12—
Jacksonville	25		10—12	30	20—
Kansas City	15	25	10	20*	10—
Louisville	17	24	13		16
Memphis		30	6—7	20	14—
Miami	30—35	35	18—22	30	25—
Milwaukee	14—18	25	6	9—10	14
Minneapolis		22	13	12*	14—
Nashville	18		10	20	16
New Orleans	18	31	14		17
New York	30	28	11		
Omaha	15	20	10	15*	11
Philadelphia	15—16	30	9—13		17
Pittsburgh		25	10		17
Salt Lake City	15		5	15	14—
San Diego	20	30	9		15
San Francisco		25	14	20	20
Scranton	13	25	8—10	10	20—
St. Louis	18	25	10—18	15	17
Trenton	17	30	13	25	15—
Trinidad	15	20	10		12—
Washington	18—23	30	15	15—20	20
Wilmington	20		10	13*	17

* 12 oz. Package. † 18 to 25% fat.



Butter markets in February held steady at rising prices, the advance being from 49.5 cents on the first to 53 cents on the 23rd. The average for the month will be approximately seven cents above February of last year and eleven cents above two years ago.

ebruary Butter and Cheese

February butter on the New York market vanced from 49.5 cents on the first of the nth to 53 cents on the 23rd, averaging 51.5 its for this period. This is two cents above January average, 6.6 cents above Febru- a year ago, and 10.7 cents above Febru- , 1925. These prices have prevailed despite fear of traders that consumers would not e butter at the increased price and that oduction was bound to increase. The cur- it weekly report of the government says: large percentage of the trade sees little spect of any sharp price recession during coming few weeks unless consumptive out- s fall off sharply or the make of butter in- ases rapidly, and only here and there does e find an operator who will make such edictions."

Storage withdrawals have continued and ere is a shortage of this class of butter. oduction reports are irregular, but there is manifest tendency towards an increase. e weekly reports for February 12, in fact, ow a falling off in production as compared th last year. New Zealand butter is coming some quantity, some of it changing hands 52 cents.

Cheese on the Wisconsin boards declined m 25.5 cents on the first of February to cents on the 23rd, the average for this pe- d being 24.5 cents. This is one cent below January average, but is a cent and a half ove the February average of the past two ars.

A Bottle of Milk

The following article was written E. W. Palmer, for The Clevelands, published by the Cleveland, Ohio, hamber of Commerce. We publish is article for two reasons: first, it a good one and, second, it shows at the thinking men of the cities e interested in the welfare of the iry farmer:

A bottle of milk on the back steps -a small thing, a common thing, an expensive thing, an unconsidered ing; and yet, Greater Cleveland ends each year twenty million dol- rs for its milk and ten million more r its butter, cheese, ice cream, and ndensed milk—one-fifth of the od we consume.

An almost perfect food—balanced all the requisites of nutrition—it a vital necessity for babes and in- lids and ideal for the well and rong

An unconsidered thing—but it kes the product of six thousand rms to give Cleveland its daily sup- y; six thousand farmers who with eir assistants must be up at day- ght 365 days in the year, regardless weather, and who after milking ust traverse roads, no matter what ndition, to bring it to the platform om which it is taken by train or by uck to the depot or dairyman in leveland, to be pasteurized, bottled, d delivered quickly to the homes or e stores of our city.

And the detail of all this! The re at the farm to have everything nform to the city's health require- ents, the cooling and storage until starts for the platform, the cover- g on the trucks in summer to keep wn the temperature on its journey the city, the testing at the dairy r butterfat content, the standard- ing, pasteurizing, cleaning of bot- es, filling, delivery, selling, routing, redits, bookkeeping, and collections; l this and much more, to enable a illion people to have their daily ilk and cream supply.

The city, state, and federal health epartments must be given due rec- gnition for the debt that we owe em.

Not always was our milk supply ean, safe, and wholesome. Not far ack are the days when milk came om uninspected farms and was de- vered at the door without cooling, asteurizing, bottling, or care as to s origin or its bacteria content. requently epidemics of contagious isease came because of contami- ation in some farm community. esting of herds for tuberculosis has become common only in the past few years and the work is still going on.

Cities Go Further

State and federal veterinarians working from our state capital have done much by research, education, and persuasion to bring about advanced legislation, supervision, inspection, and co-operation. Working with community centers and with farm associations, much has been done to promote sanitation, cleanliness, and advanced methods of milking and handling of milk.

But the cities go much further. Backed by both city and state enactments, they begin with inspection at the farm of each shipper whose milk can not be brought into the city without a permit, which can be revoked for cause.

There has been passed in Cleveland an ordinance, effective January 1st, requiring that all fluid milk come from tuberculin tested cows.

Arriving in the city, the milk can be rejected for temperature, souring, uncleanliness, or too high a bacteria count.

Inspectors check up constantly on over 200 dairymen, and if conditions are not favorable the health authorities can revoke the dealer's permit, or if necessary have him prosecuted for violation of health laws.

Luckily all this is generally a matter of education and co-operation. Farmers and dealers alike are coming to recognize that the way to create a market and secure a fair price for their product is by giving the public the best possible article and then advertising its merits.

All have worked together to this end with striking success.

Other figures are interesting and important. Ohio has nearly two million dairy cattle, worth probably one hundred and fifty million dollars. When the state is cleared of bovine tuberculosis, it will create a new market for cattle from other states and add close to forty million dollars to the wealth of Ohio farmers.

All this is important to city dwellers. Not only is our health dependent largely on our food supply, but our prosperity is closely linked with that of the farmers.

When at times milk has been sold at prices ruinous to the farmer, the effect has been reflected at once in lower values of farm land and of cattle in reduced buying power, which in turn has affected towns and cities. Prosperity is always threatened when the farmer suffers.

The fertility of our farms is also largely conserved by dairying, and this is a matter of supreme consequence to this and to future generations.

The Cleveland Chamber of Commerce, through its agricultural committee, maintains a sub-committee on milk, believing an industry so important from every standpoint should have all the co-operation that the Chamber of Commerce can give.

To this end it has worked to help bring about better organization of the Milk Producers' Associations, improved systems of handling the seasons of oversupply and shortage, better relations with the distributor, a fairer basis of price to the consumer.

It has worked with the state, city, and county to secure advanced dairy laws and stronger support of the efforts to eradicate disease, to bring about more adequate inspection in city and country, and to develop the industry in every way.

It is a pleasure to state that all parties concerned—producers, distributors, and authorities—are at present working together in a remarkable way and, we believe, are giving Cleveland an excellent milk supply at very reasonable prices.

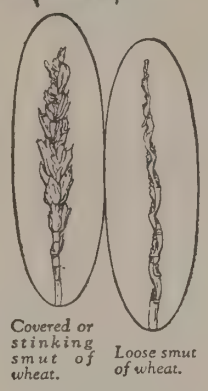
Smuts

of Wheat, Barley and other Cereal and Forage Crop Diseases

wiped out with

SEMESAN

The Organic Mercury Disinfectant for Dust or Liquid Application



Covered or stinking smut of wheat. *Loose smut of wheat.*

EXPERIMENT Stations, Agricultural Colleges and large-acre farmers have found Semesan the most effective, most economical disinfectant for the following diseases:

Smut Diseases—Bunt or stinking smut of wheat; covered smut of barley; stem smuts of rye; flag smut of wheat; loose and grain smut of sorghum; head smut of millet and smut of cheat.

Leaf Diseases—Stripe diseases of barley and glume spot of wheat can be effectively checked. The spot and net blotch of barley have also yielded to treatment with Semesan.

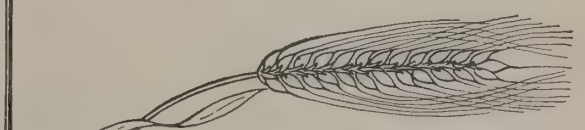
Stem and Root Diseases—Anthracnose of wheat, rye, oats, blue grass, orchard grass and timothy, "take-all" and seedling blight (Fusarium) of wheat; leaf spot of red clover; leaf and pod spot, and brown spot of soybeans; and numerous other diseases may be effectively checked by Semesan seed treatment.

AS long as there's a possibility of a better way of fighting disease there's always a possibility that you're not getting the most out of your acres and your effort. Read what Powell Fullerton of Idaho Falls, Idaho, says about Semesan:

"I found your Semesan treatment for wheat to increase germination and stand decided over formaldehyde treatment on the same ground and under the same conditions. While I did not harvest the two treatments separately, I noticed, when cutting, a much heavier stand on the Semesan side of the field. From this I judge I had an increased yield. I intend to again use Semesan on my wheat and Semesan Bel on my potatoes."

In Delaware, according to the Bureau of Plant Industry, "One grower disinfected his seed with Semesan and reduced covered smut from 22% to 0.5%. One field of spring barley where seed had been treated with Semesan showed only a trace of loose smut while untreated seed showed 1%. Spring barley treated with Semesan showed complete control of stripe while check contained 0.5%. In a field of winter barley treated with the same substance only 1% leaf blotch was found on the lower leaves while 20% was found on the check."

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DU PONT

New York Cow Makes Second 1,000-lb. Record

A very good record has just been completed by Canary Posch Netherland, an 11-year-old Holstein cow owned by Yates Farm, New York. In 365 days she produced 30,074.9 lbs. milk, 1,055.3 lbs. fat (1,319.15 lbs. butter). As a 10-year-old she produced 28,166.8 lbs. milk, 1,031.25 lbs. fat in a year. According to the Holstein-Friesian Association of America, she is the eighth cow of the breed to twice produce over 1,000 lbs. fat in a year.

Kiwanis Club Buys Bull

HOARD'S DAIRYMAN:—In order to encourage dairying in its community as well as build up the herds to better grades and higher production, the Kiwanis Club of Fitzgerald, Georgia, will secure a registered Ayrshire bull and present it to the farmers of the community.

It is probable that the animal will be "boarded" out on the farms of responsible and experienced dairymen in the section, each dairyman taking his turn in keeping the bull, and that his services will be given to dairymen free of charge or at a very small cost to cover the expenses of keeping him. And in this way it is predicted that the quality of the dairy herds will be greatly improved within a few years and more milk per animal will be secured.

The example of the Fitzgerald Kiwanis Club is a unique one, but it is one which might be well followed by other civic organizations in the South.

Georgia. J. H. REED.



Absolutely Clean MILK



Gets ALL the Dirt, Dust and Sediment

Dr. Clark's PURITY Strainer, with its sterilized cotton disc clamped to the bottom, is GUARANTEED to strain your milk 100 per cent clean—or your MONEY BACK.

Clean milk gets better grading, brings higher prices. That's why the U.S. Gov't and world's best creameries and condensaries endorse and recommend Purity Strainers. Over 50,000 dairymen and farmers use Purity Strainers daily, because no other strains so easy — so quick—so clean. Also best for straining maple syrup, vinegar, cider and home beverages.

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[1]

10 Day Trial Test

Write at once for our 10 Day Trial Test Offer. Find out how you can test the PURITY Strainer and get your money back if it doesn't remove every particle of dirt from your milk. Get all the facts. A postal or letter brings you complete information "10 Day Trial Test Offer" by return mail.

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They'll Get You That New Car

Notice the farm folks with new cars, radios, light plants and all the rest. They might have waited for Congress to help the farmer. But they helped themselves instead. They figured that a 5% cut in the cost of producing milk and a 10% gain in production would just about double their actual net profits—give them twice the money to enjoy life with.

Star Equipment Lowers Cost and Increases Production

It saves steps, time, feed and labor. It prevents dirt, dampness, waste, accidents and diseases that wipe out profits.

To the cow it means safety, cleanliness, comfort and health—fresh air, light and a fresh drink when she wants it. She can't help giving more milk.

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Corn Borer Threatens the Dairy Industry

(Continued from page 237)

fly as far as twenty miles and lays eggs on the underside of the corn leaves in late June, July, and early August, depending, of course, when the moth evolves from the pupa stage, for each individual moth has but a short life.

The egg hatches in four to six days. The resulting larvae bore their way into the cornstalk, proceed to eat the juicy sap, and continue in the stalk through the remainder of the growing period. From October to May the larvae hibernates in the cornstalk and this is the period in which the borer must be attacked if its spread is to be prevented or total eradication perfected.

Unlike other insects, the borer freely tunnels up and down the cornstalk, weakening it and causing it to break over, while it remains inside the stalk safe from poison sprays and other destructive means developed by scientists. Poisons cannot reach it and only complete destruction of the growing corn can completely annihilate it.

Control Measure Suggested

Granting then, because of its peculiar life habits, that the corn borer is secure from the usual control measures prescribed by entomologists, other measures must be devised.

In the first place we must consider that the United States government, in passing the Purnell bill, has authorized the expenditure of ten million dollars by the Department of Agriculture to combat the European corn borer.

The plans for procedure, according to Secretary of Agriculture Jardine, seem to be a clean-up campaign. Secretary Jardine seems to concur with Dean H. W. Mumford, University of Illinois, who with W. P. Flint, Illinois state entomologist, recommends eight control measures.

Dean Mumford suggests that in the first place farmers adopt soil management practices that will build up the soil and help produce maximum yields of corn on large, healthy stalks.

In the second place, Dean Mumford suggests that the farmers grow earlier maturing varieties of corn that can be planted late and at the same time develop heavier stalks.

A good rotation of crops is suggested, recommending that they provide for the growing of maximum acreages of crops which the borer does not injure and which at the same time help to build up the soil and enable the farmer to handle crop and weed refuse to the best advantage and at low cost.

An important recommendation is that as much of the corn crop as possible be utilized through the silo and as finely shredded material.

A further increase in the acreage of legumes is asked, for they are injured less by the borer than are other crops and are at the same time extremely valuable in all crop rotations.

Clean plowing is urged because a large proportion of the insects can be destroyed if all the crop and weed refuse is entirely covered.

Education and familiarity with quarantine regulations, with co-operation in carrying them out, will help materially to hold the borer in check.

Dean Mumford's final recommendation is one that applies equally well to all corn growing states. "Watch fields for the presence of this insect," he says, "and send suspected specimens either to your state entomologist or to the U. S. Department of Agriculture, Washington, D. C. Specimens should always be sent in sealed tin r ceptacles as no air is necessary.

Co-operation Needed

To save the corn crop of the Unit States, alone worth $325,000,000, a the other branches of agriculture d pendent on the corn crop for foo prompt co-operation among agricu tural interests, particularly amo farmers, is imperative.

In the state of Iowa, for instanc 83 per cent of all agricultural retur came from live stock and live sto products in 1925, with corn large as the dependent feed. Already co ering two and one-half million acre the spread of the borer will cast shadow over all of the country's bus ness.

Since the borer sleeps in the cor stalk from October until May, it quite evident that if the cornstall are destroyed during this perio there will be no larvae or worms r maining from which moths may d velop the next June. This is appa ently the weakest link in the borer life and the one to which specialis turn with hope. Already the man facturing industry has co-operate and perfected corn harvesting m chinery along lines designed by t Ohio Agricultural Experiment St tion, which permits cutting the co without any stubble remaining. removing the stalks one of the mo popular harbors of the borer is eli inated.

Other measures which may be ta en, are cutting the corn with a h when cutting is done by hand; ru ning all corn into the silo where t stalks are chopped up fine enough either kill the borers immediately they are later killed through ferme tation in the silo; by shredding a corn stover and plowing the co stubble deeply in the field; and bur ing all unused stover. Particularly states where fields are hogged dow the work to be done in the winter breaking down the stalks by draggi them and then burning. Cornstall must be kept out of the manure.

Corn stubble not plowed unt spring should be disked first and the plowed deeply. The corn cobs shou be destroyed before May 15 becau many of them harbor borers. Th will mean that all corn must shelled which has not been fed t that time.

Auxiliary means of control are cu ting and burning all sweet cornstal as soon as the ears are picked. T borers are especially fond of swe corn. All weeds should be burned the fall and especially fence rows. A. Moore, veteran corn grower at t Wisconsin College of Agricultur stresses this point in particular, b cause the borers can live not only cornstalks, but also in numerou weeds. Moore emphasizes the impo tance of clean farming and expresse the feeling that the attitude of man farmers will need to be changed.

It is just such a campaign that t government hopes to stage in the i fested area. Definite regulations wi probably be enforced regarding t destruction of cornstalks, plowin dates, etc.

Neighborhood Organization Helps

If entire neighborhoods co-operat in annual clean-ups, the chances fo damage are materially lessened. Th government suggests that farmers c operate on a neighborhood basis making certain that recommendation are followed. The government em phasizes especially that if everythin is done within reason to stop the bo er, there is still a possibility of savin the nation's corn crop.

Milk Production an Economical Process

That cattle use their feed more economically to produce milk than for growth has been shown by the Institute of Animal Nutrition at State College, Pa. This has been demonstrated in experiments conducted with the respiration calorimeter, by means of which all of the losses or expenses of feed utilization are measured. By the subtraction of these losses and expenses from the feed intake, in terms of energy, the net balance useful to the animal is obtained.

Using as a standard the value per pound of a feed for the purpose of maintaining the animal, without gain in weight or other useful product, the value per pound of the same feed for milk production is 98.5 per cent, and for growth 76.1 per cent of its value for maintenance.

Director Forbes of the Institute states, however, that milk production and beef production, as agricultural practices, cannot be satisfactorily compared on the basis of physiological economy alone, since each fits into a different practical situation and serves different requirements in human nutrition.

Milk Definitions and Standards

That the differential paid for high testing milk is too low and that the old time legal definition of milk is absurd in the light of our present knowledge were two related subjects discussed by Professor H. H. Wing at the 50th annual meeting of the New York Dairymen's Association.

"It has long been known and frequently demonstrated," said Professor Wing, "that not only is the fat the most valuable but the most variable constituent of the milk. It has also been shown that as the fat increases the other constituents, notably the protein, the next most valuable food constituent, also increases. Milk costs to produce and is valuable for food very nearly in proportion to its fat content. Milk is practically completely digestible. Its nutritive value is, therefore, approximately its energy value, and worked out on this basis milk of varying composition would show an increase in value of six cents for each one-tenth of one per cent where the base price for three per cent milk is $3.00 per hundred.

"It is entirely legitimate and so recognized to separate three per cent milk into two products, one containing practically no fat and the other anywhere from 18 to 40 per cent which is called cream. Is it any less legitimate to take the same milk and separate it as before into skimmed milk and another product containing four or five or any other desirable percentage and call it standardized milk or any other name or simply milk?

"So far as the sale of milk is concerned, the state law should provide:

"First. The term milk means the whole, fresh, clean, lacteal secretion obtained by completely milking one or more healthy cows properly fed and kept.

"Second. All milk sold at retail shall bear on the bottle cap or on the container a printed statement of the minimum percentage of fat it contains.

"Third. Within the meaning of this paragraph the term milk shall include milk, skimmed milk, and cream as defined below:

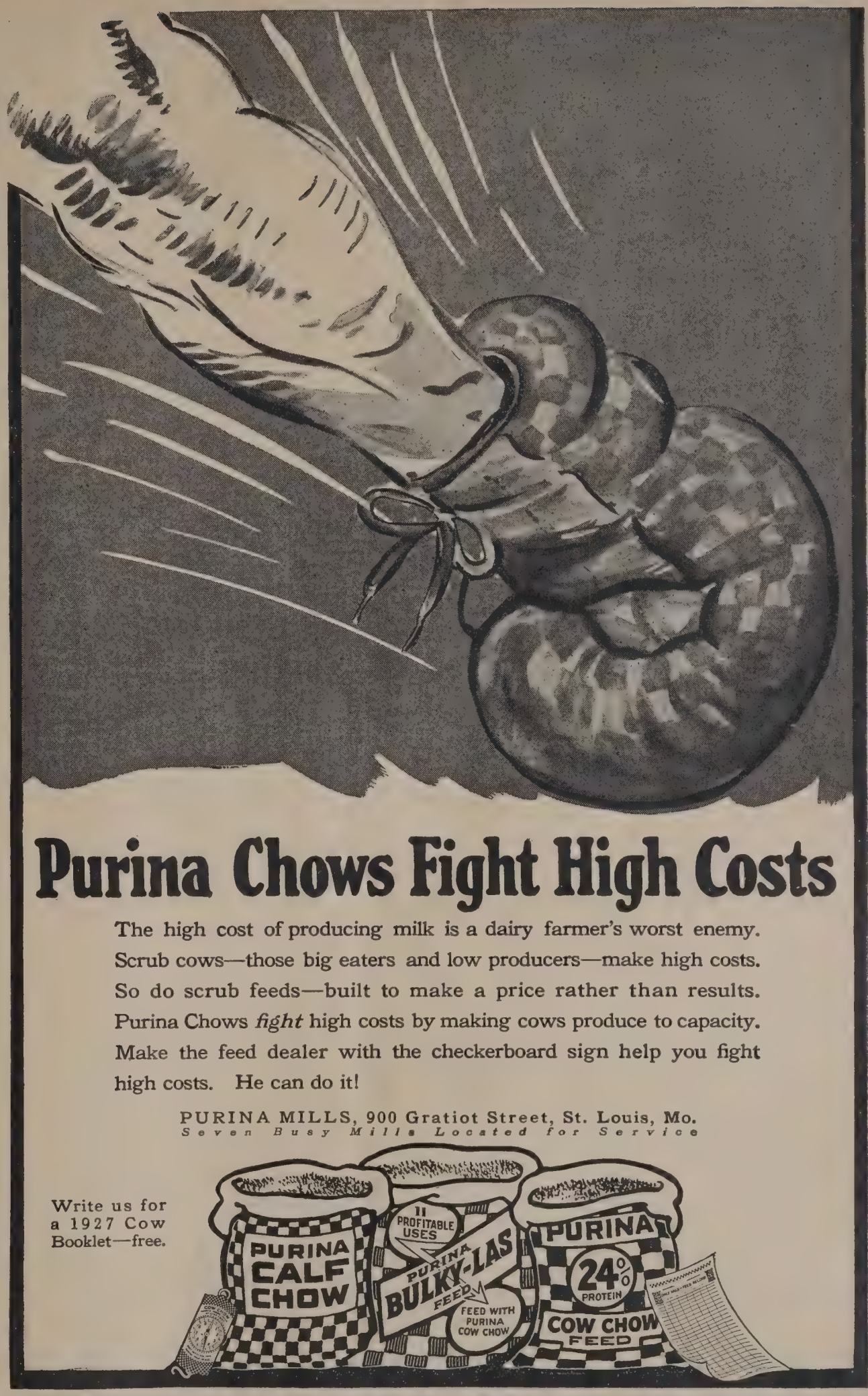
"A—All milk containing less than three per cent of fat shall be called skimmed milk and sold as such.

"B—All milk containing more than three per cent of fat and less than ten per cent of fat shall be called simply milk.

"C—All milk containing more than ten per cent of fat may be called cream and sold as such.

"Fourth—When milk is run through a centrifugal separator the two portions so separated may be recombined in any proportion to make milk or cream of any desired standard.

"Fifth—The state law should cease to define as 'adulterated' milk containing less than three per cent of fat and 11.50 per cent of total solids."



Purina Chows Fight High Costs

The high cost of producing milk is a dairy farmer's worst enemy. Scrub cows—those big eaters and low producers—make high costs. So do scrub feeds—built to make a price rather than results. Purina Chows *fight* high costs by making cows produce to capacity. Make the feed dealer with the checkerboard sign help you fight high costs. He can do it!

PURINA MILLS, 900 Gratiot Street, St. Louis, Mo.
Seven Busy Mills Located for Service

Write us for a 1927 Cow Booklet—free.

Another 1,000-lb. Fat Producer

The first Holstein cow to produce 1,000 lbs. butterfat in Class B, (milked 3 times daily) is, according to the Holstein-Friesian Association of America, Mechthilde Pontiac Segis Lady owned by the Pottenger Sanatorium Co. of California. As a 4-year-old she has recently finished a 365-day record of 32,092.2 lbs. milk, 1,005.2 lbs. butterfat (1,256.5 lbs. butter).

A man's true wealth is the good he does in the world.—Mahomet.

Come to Headquarters
"OWL BRAND"
COTTON SEED MEAL
NUT size and PEA size cake
F. W. BRODE CORPORATION
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For Permanent Soil Fertility
Raw Rock Phosphate
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Holsteins—Get your next Ormsby bred bull from State Institutional herd. Bred for high yearly production. Send for tree bull list. Can furnish nice lot of grade heifer calves. BOARD OF CONTROL, State Capitol, Madison, Wis. 3-6

Express Prepaid on Holstein Bulls up to 500 miles. Ages from 2 to 10 months. Yearly record dams and grandams. Prices reasonable. Federal supervision. Write for sale list. WINTERTHUR FARMS, Winterthur, Del. 5-*

Holsteins—Purebreds and grades. Area tested. Buy direct. We are breeders, not dealers. WAUPACA COUNTY HOLSTEIN BREEDERS ASSN., 112 E. Union, Waupaca, Wis. 5-6

Four Handsome Holstein heifer calves and registered male calf. First check $110. ALFAKORN FARM, Evansville, Wis. 4-2

35 lb. bull; Pabst Champion Korndyke, and 1½ year old son. Will exchange. GEO. G. SCHOEWE, Waukesha, Wisconsin.

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Grade Holsteins—Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years' experience. Can also furnish grade or registered Guernseys. JOHN ERICKSON, Waupaca, Wis. 18-Spl

Three handsome Holstein heifer calves, registered, $100, ALFAKORN FARM, Evansville, Wis. 2-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

The South Dakota Holstein-Friesian Association have their second Breeders Directory ready for distribution. Write for copy. A. F. TEST, Sec'y., Mitchell, South Dakota.

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Purebred Guernseys—Ten bull calves, six heifers, seven cows. Good records. Purebred Hampshire swine. Best strain. VALLEY GEM FARMS, Arlington, Wash. 5-2

Registered Guernseys for sale. Open and bred heifers, serviceable bulls. HARVEY LONGLEY, DOUSMAN, Wisconsin.

For Sale—Special offering 2 registered Guernsey heifer calves and 1 bull not related. See display ad page 298. LINWOOD GUERNSEY FARM, Homer Rundell, Livingston, Wis. 1-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Guernsey Bulls For Sale. A. R. breeding, excellent individuals, nicely marked and in fine condition. Also two pure-bred heifer calves four months old. BRIAN L. RUNDELL, Livingston, Wisconsin. 4-2

Guernsey Bulls for sale, 4 to 13 months. Dam's record 650 lbs. fat. Popular breeding. Write DALE E. RUNDELL, Livingston, Wisconsin. 3-3

Guernsey bull calves; beautiful color; show type; record dams; guaranteed. Accredited. FRANK KLEMM, Baraboo, Wisconsin. 5-2

For Sale—Grade Guernsey cows, fresh and close springers. M. GOLDSMITH, Genesee Depot, Wis. 4-2

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

High Grade Guernseys. Justamere Guernsey Farm is offering your choice of herd, no reactors, 60 day retest guaranteed if they go into clean place. Fresh, springing and fall cows. Prices very reasonable. CHAS. W. BLOTT, Mukwonago, Wis. 17-*

Guernseys for sale. Rock County Guernsey Breeders' Association Co-operative. Write FARM BUREAU, Janesville, Wisconsin. 2-4

Guernseyland (accredited) offers registered bull born February 20, 1926. Price $60.00. LYNN BRIGGS, Van Dyne, Wisconsin.

Guernsey Bull, Registered, richly bred, fourteen months old. First check $105. ALFAKORN FARM, Evansville, Wis. 5-2

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

LIVE STOCK WANTED

Wanted—One or two very high record grade Holstein or Guernsey cows. State age of cow, record both of milk and butterfat, by whom record was supervised, and price asked. KARL E. SUTHERLAND, Williamstown, Mass. 5-2

BABY CHICKS

If you want more eggs and larger profits our Accredited high-egg yield White or Buff Leghorn chicks will be your choice. Catalog free. RIVERVIEW HATCHERY, Fort Atkinson, Wis. 5-2

Pure Bred Chicks from high egg producing breeders. All breeders Hogan tested and strictly culled for correct size, type, color, and health; correctly mated for high egg production. Write for our new free "Poultry Profits" book containing valuable information for the poultry raiser. Liberal discount on all orders booked early. Pure bred chicks of all standard breeds for immediate delivery. WEDGEWOOD POULTRY FARM, Box 188, Pontiac, Ill. 3-*

500,000 High Grade Hollywood sired White Leghorn accredited chicks. Males and females passed and banded by State Poultry Association. Sturdy and vigorous heavy producing breeders assures chicks of quality and ability. Special discount now. Catalog free. WYNGARDEN HATCHERY & FARMS, Box 26, Zeeland, Mich. 5-3

Baby Chicks from culled, inspected flocks. Satisfaction guaranteed. EVERGREEN POULTRY FARM, Kewaunee, Wis. 4-6

POULTRY

Blue Ribbon Giant Brilliant Bronzed, Vigorous, disease-free turkeys, eggs and hardy turks, 100% arrival. Unrelated flocks. We're leaders. GREGORY TURKEY FARM, Cumberland, Wis. 5-4

Bronze Turkeys, Toulouse Geese, McCRADIE, Hendrum, Minnesota. 5-2

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

Separator Bargain for quick sale. Seven new separators in original boxes. F. J. NICHOLS, Box 355, Lansing, Michigan. 3-4

For Sale—Blue Ribbon Electric milker. Used 11 months, A-1 condition. First check for $85.00 gets this bargain. BOX 32, Hazelton, Ida.

Boilers, new 5 horse flueless, $170. All sizes, low prices. CASEY BOILER WORKS, Springfield, Ohio. 3-Spl

For Sale—Sharples Separator; good condition; reasonable. Address BOX 319, care Hoard's Dairyman.

AGENTS WANTED

Our New Household Device washes and dries windows, sweeps, cleans walls, scrubs, mops. Complete outfit costs less than brooms. Over half profit. HARPER BRUSH WORKS, 295 3rd St., Fairfield, Iowa. 5-2

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-24

We pay $200 monthly salary, furnish car, and expenses to sell our Guaranteed Poultry and Stock Powders. BIGLER COMPANY, X352, Springfield, Ill. 4-3

SALESMEN WANTED

Salesmen wanted to sell "Waukesha Mineral Feed." Exclusive territory, good commissions. Ask for particulars now. H. J. WELSH, Box 111, Waukesha, Wisconsin. 2-8

CREAMERIES

Creamery—Central Illinois; Ice cream manufacturers, retailers of milk. Sales $100.00 daily. Address BOX 321, care Hoard's Dairyman.

LUMBER

Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 909S, Everett, Washington. 5-2

We Save Dairymen $1.00 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-10

MATTRESSES

Mattresses made any size, low factory prices. Catalog free. PEORIA BEDDING COMPANY, Peoria, Illinois. 3-10

FARMS FOR SALE

Oregon Invites Farmers—to take a few week's vacation this summer! No one class needs a vacation more than the farmer. It is a good investment and while vacationing in Oregon you might investigate the opportunities for settlement on her irrigated and non-irrigated lands. It is a great country for diversified farming, for the raising of fruits, vegetables, nuts, grain, roots, for the poultryman and dairyman. Land can be acquired cheaply and on easy terms. There is every kind of outdoor recreation and excellent schools. Write, today, for any kind of information to the publicity dept., room 744, Portland Chamber of Commerce, Portland, Oregon.

Strout's New Farm Catalog—126 illustrated pages of interesting vital information for the farm seeker. Farms of every kind, bargains all; for instance, page 43 describes farm at about half value, 110 acres, good 10-room house, 2 nice barns, cement basement; 65 acres heavy-cropping fields, 20-cow pasture, large variety fruit and berries, near all advantages; price only $3500 including 10 choice cows, heavy horse, 75 poultry, all equipment, crops; part cash. Avoid losing the farm you want. Get this free catalog today and take first choice of bargains. STROUT AGENCY, 255-DL, 4th Ave., New York City.

Dairy—Have an ideal location for a dairy close to Casper. Will sell at a sacrifice, irrigated, ditches all in, water right fully paid, gravity flow from the Platte river, bottom land, sandy loam soil, under cultivation, 320 acres—more acreage can be arranged for—5 room house, large barn, fenced and out buildings. $70.00 per acre, 1-3 cash, 5 years on the balance. Casper and vicinity ship in 75% of her dairy products. 40,000 population for a market and milk wholesales at 52c per gallon. For further particulars write J. E. NELSON, 1044 E. First St., Casper, Wyoming. 4-3

Dairy farm 160 acres, Barron County, Wis. Modern 8-room house, light and water. 2 barns; 1 has cement floor, 16 stanchions; silo. Cement floor granary; machine shed; tile milk house; hog house. Soil clay mixed with sandy loam. 90 acres plow land; 70 acres pasture and wood lot. Will sell to experienced farmer at a price and on terms which can be met from income. References requested. A few other Wisconsin farms on same terms. For particulars write C. M. PUTNAM, P. O. Box 376, Madison, Wisconsin. 5-4

Choice Washington, Dodge and Fond du Lac County farms for sale at reasonable prices. All completely equipped with stock and machinery and now being operated by tenants. From 60 acres to 240 acre farms. Good buildings, good locations for markets and schools. We own all of these farms and will sell on liberal long term payments. Write or call. A. L. ROSENHEIMER REALTY CO., Kewaskum, Wisconsin.

Farm Land For Sale—588 acres at $30.00 per acre. 8 miles from Chester, county seat, on improved county road. Excellent livestock farm. All or part for sale. 120 acres at $20.00 per acre, 1 mile from railroad station, on state highway, 14 miles from Chester. Large creamery in Chester. Mild year round climate permits two crops per year. County is Guernsey cattle center of state. For accurate particulars address: CHESTER CHAMBER OF COMMERCE, Chester, South Carolina.

Chautauqua County, New York, ranks fourth in the United States in the value of its agricultural products—based on area. A beautiful county noted for its grapes, dairy farms, and Chautauqua Institution on Chautauqua Lake. The large eastern markets are adjacent. New York City is twelve hours distant. Good productive farms can be bought for $30 per acre, which is below their intrinsic value. The time to buy is now. For further information address CLYDE F. FISH, Jamestown, N. Y.

2000 Middle West farmers moved to Oregon in last two years, after thorough investigation. They like our mild winters, cool summers, with no severe storms to ruin a season's work and destroy property. Fine roads and schools, productive soil, good official bulletins and illustrated facts booklet, free. Land Settlement Department, OREGON STATE CHAMBER OF COMMERCE, 265 Oregon Building, Portland, Oregon. 3-4

Equipped Farm, modern convenience. ELI A. SHORT, Georgetown, Delaware. 4-2

SAVE MONEY —
by reading these columns!

MAKE MONEY —
by advertising in them!

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Homespun Tobacco—Smoking or chewing. 4 lbs., $1.00; 12, $2.25. Send no money, pay postmaster on arrival. Pipe free for ten names of tobacco users. UNITED FARMERS OF KENTUCKY, Paducah, Kentucky. 2-4

Homespun Tobacco. Chewing or smoking 5 lbs. $1.25, ten $2.00; cigars, $1.80 for fifty, $3.25 for 100. Guaranteed. Pipe free. Pay when received. FARMERS' UNION, Paducah, Ky. 2-4

Guaranteed Homespun Tobacco—Chewing or smoking, 5 lbs. $1.25; ten $2.00. Cigars $2.00 for 50. Pipe free. Pay when received. FARMERS' ASSOCIATION, Maxon Mills, Kentucky. 4-2

Guaranteed Homespun Tobacco—Chewing 5 pounds $1.00; 10—$1.75; Smoking, 10—$1.50. Pipe Free. Pay when received. UNITED FARMERS, Bardwell, Kentucky. 5-2

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Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer to consumer. $1.75 for Carton of 300 if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Michigan. 4-4

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For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

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Grafted Corn Belt Pecans. Illinois varieties. Hardy, tasty. SUNNY RIDGE NURSERY, Round Hill, Va.

SWINE

Large Yorkshire boars and bred gilts. MILTON HAND, Center Point, Iowa. 2-4

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Shepard Police puppies 4 months old, well marked. Strongheart breeding. Pedigreed. E. C. STOEHR, Appleton, Minnesota.

STOCK BUYER

Dairy cattle bought on commission. W. STRAUSS, Route 5, Watertown, Wis. 4-2

FARMS FOR SALE

For Sale—Stock farm, 837 acres, Halifax County, Virginia, 10 miles from South Boston, 5 miles Buffalo Lithia Springs, near Southern Railway, ¼ mile highway, schools and churches, on Dan River with fine water power undeveloped. Land slightly rolling, more than ½ open or in cultivation. 200 acres fine pasture land, well watered, several tenant houses, tobacco and cattle barns, etc. Ideal climate. Bargain price with terms to quick purchaser. C. W. TEAGUE, 311 Geer Bldg., Durham, North Carolina. 4-2

Modern fully equipped dairy and stock farm in full operation near Durham, N. C. 160 acres all clear and high state of cultivation. New 7-room house, two other cottages, two large 2-story stock and feed barns, new 30-stanchion dairy barn, new brick milk house. Other necessary outbuildings. Long terms. Immediate possession. BOX 249, Durham, N. C. 4-2

120 Acre good dairy farm for sale. Level clay loam. 75 miles north from Detroit, on good gravel road. Large brick house, silo, double barn, good out buildings. Good school across road. 3 miles south east Mayville, good milk or cream markets. $75.00 per acre, one-third down, balance easy terms 6%. Address owner. E. D. CARTWRIGHT, Mayville, Mich. 4-2

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

Dairy Farm—80 acres. Good location, house and barn; on main road—schools—near town. We also have other 40—80—160 acre farms. Cash payment only $500.00 to $1500.00, balance small payments. Ask for list. These farms are priced to sell quickly. Write today. Dept. 20, FEDERAL LAND BANK, St. Paul, Minn.

Chautauqua County, N. Y. offers opportunity for dairy and fruit farmers equal to any. Pool price for January milk 2,732 gross per cwt. We can sell what you want at ridiculously low prices. Write, CHAUTAUQUA GUERNSEY FARMS, Bank of Jamestown Bldg., Jamestown, N. Y. 5-4

240 acre farm belonging to an estate must be sold at once. Good soil and buildings. Two silos. Two basement barns. Electric lights. One mile to high school and station. 90 acres seeded. This $20,000 farm for $14,000, rather than rent. $4,000 down. Write BOX 190, Lakeview, Mich.

Dairy Farms—"Davidson Plan"—160 acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 3-5

For Sale—80 acre dairy farm, fenced, cross fenced. On rural route, electric line, three milk routes, 2½ miles from Bloomer. B. L. SNYDER, Bloomer, Wisconsin.

For Sale—80 acres, house and barn. 6 acres clearing, balance wood and timber. Cash or payments. J. A. BICK, R. 3, Butternut, Wis.

Wonderful opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Ga.

FARMS FOR SALE

For Sale—160 acres in central Wisconsin. Good buildings, good land, $60.00 per acre, terms. Write N. H. CALLAHAN, New Richmond, Wisconsin.

For Sale—Quarter section central Wisconsin dairy farm, complete. $1500 cash, balance easy terms. Address BOX 325, care Hoard's Dairyman. 5-3

Farms For Sale—Close to the large Armour Packing Co., at Huron, South Dakota. Deal with owner, no agents. E. F. MARTIN, Cavour, South Dakota.

70 Acres Waukesha, Wis. Fully equipped. 21 cows. Address BOX 316, care Hoard's Dairyman. 5-2

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

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Need several farms immediately. Must be close to school. WALT. MILLER, Carpenter Bldg., Milwaukee.

Wanted—Equipped farm; give price, etc. L. H. RAISLER, 6700 Wentworth Ave., Chicago, Ill. 3-*

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For Rent—1000 acre stock ranch, located near Newburg, Phelps County, Missouri. 800 acres fenced hog tight, good buildings, near school, ranch spring watered. If interested write W. E. WALLER, Charles City, Iowa for terms and full particulars. 3-3

For Rent—Cash or shares, 2 large farms in Juneau County, Wisconsin. Good proposition to right party. Inquire CHAS CREUZIGER, Sturtevant, Wis.

DAIRIES

For Sale—A thriving milk route business. With or without Guernsey cows. Will rent or sell farm. Good reasons for selling. RAY CANFIELD, Owner, Long Prairie, Minn. 5-4

HAY

Alfalfa Hay for Sale. Write for delivered prices. ALBERT MILLER & CO., 192 No. Clark St., Chicago, Ill. 18-*

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3, Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Hay—Alfalfa and other kinds. Get our delivered prices We serve you best. W. A. FERSON HAY & GRAIN COMPANY, Kansas City, Mo. 17-*

Alfalfa and all kinds hay. Ask for delivered prices. HARRY D. GATES COMPANY, Jackson, Michigan. 22-*

If You Want Alfalfa Hay, wire us. Government inspection and grades at shipping point. PERRY LAMBORN, Garden City, Kansas. 3-3

Baled Alfalfa Hay $20.00 per ton, carloads, F. O. B., Thiensville, Wis. GEORGE F. O'NEIL, Trust Company Building, Milwaukee. 4-2

For Sale—Alfalfa and other hay, car lots. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 27-*

Alfalfa Hay for sale. Get our delivered prices. R. H. HALL CO., Kansas City, Mo. 4-6

Hay For Sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 5-4

Alfalfa and Prairie Hay. Delivered prices. SUTTIE PEDERSON CO., Omaha, Nebr. 5-2

NURSERY STOCK

For Apple Trees, Strawberries, etc. send for catalog. KELLOGG'S NURSERY, Box 229, Janesville, Wisconsin. 5-3

SEEDS

Jacques Seed Corn—Grown from my own pure bred select breeding stock, under my personal supervision, in North Wisconsin. Selected from standing stalk before frost, dried out perfectly in my new dry house, equipped with individual ear racks, furnace heat and forced ventilation. Every bushel carefully tested. 95-100% germination and strong vitality. Inspected and certified by Wisconsin Experiment Association. Sold subject to thirty days test. Get reliable seed from North Wisconsin's largest seed corn grower. Golden Glow, Cold Resistant Golden Glow, Silver King, Minnesota Thirteen, Jacques' Northern Yellow Dent, Wisconsin 25. Also the highest grade Grimm Alfalfa in officially labeled and sealed bags, pedigreed oats and barley. Write for illustrated booklet and prices. WM. H. JACQUES, Box H, Prescott, Wis. 3-5

Winter Hardy Registered-Certified fancy grade Grimm Alfalfa seed, bags free, 35c per pound. North Dakota State Seed Commissioner has inspected, tested, sealed each sack. This Alfalfa guaranteed to conform to seed laws of your State. We still have limited supply Sweet Clover seed. Write for free samples and delivered prices on Alfalfa and Sweet Clover. Attractive special prices on club orders. NORTH DAKOTA GRIMM ALFALFA ASSOCIATION, State College Station, Fargo N. D. Co-operative organization of over 500 growers. 4-2

Buy Your Grimm Alfalfa Seed direct from the Introducer, and know that your foundation stock is pure, pedigreed seed, bred from the original Grimm strain. Acclimated to severe northwest temperatures since 1857. A. B. LYMAN, Introducer, Excelsior, Minnesota. The home of Grimm Alfalfa. 1-5

Alfalfa Seed—Do you know why your alfalfa winter killed? You no doubt did not use hardy grown WESODAK alfalfa seed. The seed we market is grown by our members who live in Western South Dakota. We market from producer to consumer. We grow S. D. No. 12, Registered Grimm and Cossack, and absolutely guarantee genuineness of variety. Write for price and samples to THE WESTERN SOUTH DAKOTA ALFALFA SEED GROWERS EXCHANGE, Nick Caspers, President, Mgr., Rapid City, S. D. 1-*

Wisconsin grown Registered and Certified Seed Corn. Oats, Barley, Wheat, Clovers, Timothy, highest quality Grimm Certified and common Alfalfa seed. Seeds priced right and guaranteed to give satisfaction. Write for free catalog. POPP & LANG SEED CO., Jefferson, Wisconsin. 4-4

Pure Certified Grimm's Alfalfa Seed direct from the man that grows it. Hardiest and best. Send postal for samples and folder for full information. TRIANGLE RANCH, Cottonwood, S. D. 27-*

Certified seed corn and Grimm alfalfa. Pure grass seeds, seed grains and poultry supplies. Booklet of seed bargains free. Write NORTH STAR FARM, Cokato, Minn. 2-4

Grow O. K. Beardless Barley. New two-rowed, stiff straw, heavy, productive. Purity 99.36. Excellent opportunity for first growers. Write for information. LONGACRE FARM, Phelps, N. Y. 3-3

Seed Corn—Dependable, vigorous. Several varieties. Experienced growers. Satisfaction guaranteed. Write for prices. Supply limited. JOHNSON & ARNESON, Dassel, Meeker County, Minnesota. 4-*

Alfalfa—Montana common 96%-plus purity, 100 lbs. $11.00. Genuine Grimm 10 lb. sample, prepaid $3.00. MONTANA SEED CO., Glasgow, Montana. 4-3

Genuine Grimm Alfalfa Seed. White and yellow sweet clover. Reasonable prices. SAM BOBER, Newell, South Dakota. 4-3

Hardy Alfalfa—Clovers and all farm or garden seeds direct from growers at money saving prices. New seed book. Free. FARMER SEED & NURSERY CO., 69 First Avenue, Faribault, Minn. 4-4

Certified Grimm alfalfa seed 99% pure, $30.00 per 100. Direct from grower. 20,000 pounds for sale. WM. DeMESSEMAKER, Tampico, Montana. 5-2

Alfalfa Seed—95% pure, $6.50 per bushel; Scarified sweet clover, 95% pure, $5.50; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

For Sale—Canadian Field Peas. Write for prices. FROSCH & SONS, Grimms, Wisconsin. 4-2

Baby Rice Pop Corn Seed good germination, 20c per pound. JERRY MASON, R-1, Fort Atkinson, Wis.

STATIONERY

r stationery represents you. Good quality with an illustration of your farm or members ir herd arranged nicely. Cost very little more the cheap variety. If you haven't any pic- to reproduce on your letterheads and en- ask us for illustrations of what we carry in Every breed of dairy cattle, and horses, swine oultry are also included. Book of 5,000 farm and cottage names, 25 cents. HOARD'S YMAN ART DEPARTMENT, Fort Atkinson, 26-*

MINERAL FEEDS

l—Cow County Mineral Feed as fed by Waukeunty Dairymen. Send $2.50 for 100 pound trial WAUKESHA MINERAL PRODUCTS COM-, Waukesha, Wis. 2-4

MISCELLANEOUS

one of our leather bound loose leaf pocket herd and be able to give accurate information re- the animals you have for sale. Will acdate 100 animals, (sketches, sire, dam, date of records, service date, etc.). Also service record, on table. Price $2.00, postpaid. HOARD'S YMAN. Fort Atkinson, Wis. 24-*

PRINTING

er Heads—We specialize in printing Farm Letter Give us a trial. HOARD'S DAIRYMAN DEPT., Fort Atkinson, Wis. 19-*

TESTERS WANTED

a Cow Testing Associations need testers. Sal-900 per year and up, plus board. Training s offered. Give age, experience, references first DAIRY EXTENSION, IOWA STATE COL-, Ames. 20-*



ivertising in this department is 8c per word. Remit in advance.

HELP WANTED

nted at once—Married man of clean habits on n dairy and general farming southern Wiscon- Protestant, small family preferred. House, gard nd milk furnished. Give age, nationality, exce and reference in first letter. Could use good man. H. TIMM, Clarno, Wisconsin.

nted—By April 1st, an experienced young man odern dairy farm. One that appreciates a good and year around position; Mechanical milker; sey cattle. State all about yourself including in first letter. Wm. RUTZEN, Glenwood City,

nted—Experienced married dairyman capable of promoted. Permanent position. $90 per month rid. Children attend city schools. Fine climate, water. Send copy of reference first letter. BOW-S SANITARY DAIRY, Box 764, Trinidad, Colo- 5-2

nted—Single man to assist in milking test cows. milker; steady work; opportunity for herdsman outhern Illinois greatest Holstein herd . State expected in first letter. EUGENE NAGEL, and, Illinois.

nted—Single man to milk forty cows with a ma- and help with barn work. Must be a hustler good milker; $75.00 per month, board and room. bonus every six months of service. E. F. 'RY, Wallace, Idaho. 4-2

lway Positions—Men, 17-40, wanting positions er on trains, $125-$400 monthly, free passes, ience unnecessary. Write BAKER, Supt., 124, ouis, Mo. 1-24

nted—Single man for creamery work on farm. be steady, good worker, and must have experiin creamery and bottle house work. Near Chi- Address BOX 323, care Hoard's Dairyman.

gle man to work as helper on dairy farm. Must good milker. Will pay $35.00, board, room and ng. P. A. DICKSON, Clay Center, Nebr.

nted—Middle aged man to work on small farm, job. $40.00 per month, board and room. S NOVAK, So. Haven, Michigan.

HELP WANTED

Wanted—Practical middle-aged farmer or recent agricultural graduate. Foreign birth or extraction preferred. Summer home. Purebred Holsteins. Address ADVERTISER, 1433 Gas Bldg., Chicago, Illinois.

Wanted—Single man March 15 on dairy farm. Must be good milker, able to handle horses and farm machinery. Will pay $50 month, board and laundry. Address BOX 108A, R-3, Kenosha, Wisconsin.

Wanted—Herdsman to care for Holstein cattle by April first. Wages $75.00 per month. Reference required. Address SAUK COUNTY ASYLUM, Reedsburg, Wisconsin.

Wanted—Reliable single man for general work on dairy farm. Steady work. Give experience, age and wages. TRIANGLE FARMS, Watertown, Wis. 4-2

Two good dry-hand milkers, between ages of 21 and 45. Wages $45 per month and board. MAGNOLIA FARM, Muscogee, Florida. 5-2

Wanted—Good reliable man for general farm work. Good wages. No cigarettes. L. G. HOWARD, Box 26, R-1, Templeton, Wis.

Wanted—Sober, industrious, single man for dairy farm. A. E. GEBERT, Milladore, Wis.

POSITION WANTED

Resourceful, experienced young man with thorough scientific and practical knowledge of all phases of agriculture would like to make connection, in a consultation capacity, with owner having farm operated, preferably in the vicinity of Milwaukee, Wis., who would like to make his farm more profitable. Even if your farming operations are only a hobby you will be interested. Write A. F. WINKLER, 123 Grand Avenue, Milwaukee, Wisconsin.

Experienced farm manager, exceptional ability, desires position as manager of large agricultural enterprise. Highly recommended, authentic specialist in certified dairy, fruit, poultry. Now employed by one of the largest dairy corporations in Penn., daily milk production, 7,000 quarts. Salary asked $200.00 per month with house rent. Will invest. IRA J. COLE, General Delivery, Wilkes-Barre, Penn.

A Big hard job is wanted by a young man who is college trained, familiar with every phase of the dairy business and a worker second to none. Please make definite proposition in first letter. Manager or farm superintendent's job preferred. CLAUDE JULIAN, Laurens, Iowa.

Position Wanted by buttermaker with 12 years experience. Understand butter, cheese and ice cream making; bottling, pasteurizing and selling. Good mechanic; can take charge of small dairy plant; can come on 15 days notice. Address BOX 324, care Hoard's Dairyman.

Position Wanted as assistant herdsman about May first. Have been employed the last seven years in creamery. But am anxious to get back to my former occupation. Do not use booze or cigarettes. Am steady. References if required. Address BOX 320, care Hoard's Dairyman.

Wanted to manage 30 or 40 cow dairy on salary or commission basis. Must be modern, well stocked and equipped and near good market. Prefer Holsteins and Chicago district. Best of references. Address BOX 317, care Hoard's Dairyman.

Young man, single, wants position as farm mechanic or working foreman. Experienced in operation and maintenance of trucks, tractors, and farm machinery; also dairy and general farm work. Address BOX 218, care Hoard's Dairyman.

Wanted—Position on modern dairy. Single man, age 50, experienced and good milker. State wages and particulars. NELS NELSON, 2610 Harney Street, Omaha, Nebr.

Manager, dairy farm, married, up to the minute on herd and farm management. Will handle your farm on a practical, economical basis. State salary. Address BOX 326, care Hoard's Dairyman.

Wanted—Position as herdsman. Thoroughly experienced in feeding and A. R. O. work. Good calf raiser and not afraid of work. Married, no children. Address BOX 322, care Hoard's Dairyman.

The Institute of Agriculture, Springfield, Massachusetts, has a few first class men available for positions as farm managers, farm foremen, herdsmen, orchardmen, poultrymen, and gardeners. 26-Spl

Position Wanted by experienced dry hand milker. Best of references. BERT GRIFFITH, 151 Forest Ave., Fond du Lac, Wis.

HAY Choice Black Hills Alfalfa direct. Write for prices. **C. C. HACKETT CO., Belle Fourche, S. D.**

PUBLIC SALE

48 HEAD of REGISTERED HOLSTEINS

Quitting dairy business, I will sell at Public Sale at my residence 3 1-2 miles northwest of LaPorte on the Johnson Road, at 1 O'clock P. M.

Wednesday, March 23

my entire herd of Registered Holstein cows, heifers, calves and herd bull. This is an accredited herd and of the very best breeding. They are all daughters or granddaughters of King Pontiac Segis Boone, number 310810, a 32 pound bull; the granddaughters sired by the 32 pound bull, Ormsby Korndyke Sadie Vale, number 389372. Every animal will be sold to the highest bidder. Following this sale, I will sell to the highest bidder a double unit Empire Milking Machine, 20 milk cans, DeLaval Power Separator and other dairy utensils; also about 50 tons of alfalfa hay.

TERMS OF SALE— Cash or Approved Note

J. E. Mack, Auctioneer

M. E. LELITER, Owner, LaPorte, Indiana

[Advertisement]

Herd Sire is Important Cause of Abortion and Sterility

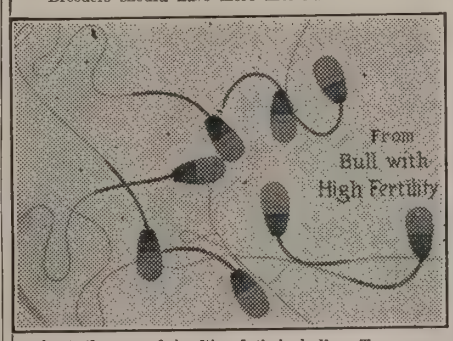
by W. W. Williams, D. V. M., Springfield, Mass.

The cause of abortion and sterility is often found in various disease conditions of the bull. It is common for weak or imperfect spermatozoa to be eliminated. Such cells either cannot unite with the egg from the cow (sterility), or if uniting, result in the formation of weak calves which are liable to be aborted.

Breeders should have more first hand information about the sexual health of their bulls. Too many breeders are treating their cows for breeding diseases caused by a diseased bull and then continue to use that bull.

A careful examination of the spermatozoa from the bull is essential in determining the cause of outbreaks of abortion and sterility, it forms the basis by which the reproductive ability of a bull may be anticipated, furnishes the means by which dangerously diseased bulls may be recognized and eliminated from service before severe damage has been done to the herd, and gives the prospective purchaser of a bull the most valuable guarantee of a bull's reproductive fitness which is to be had. No bull should be used in a herd of merit without first having assurance that he is healthy.

A correct diagnosis prevents useless, misdirected treatment and protects the breeding health of the herd. Consult your local veterinarian about having the necessary examinations made. There are none better qualified to give the breeders the necessary help than the trained and experienced members of the veterinary profession.





Absolute Dispersal Sale!

REGISTERED GUERNSEY HERD OF 30 HEAD

T. B. Tested and Free of Abortion. Every Udder Guaranteed

Daughters of Langwater Foremost, May King's Vrangue of Ingleside, Imp. Itchen May King, etc.

8 A. R. Cows and 6 on A. R. Test.
7 Cows to freshen this spring.
5 bred and 2 open Yearlings.
5 Heifer and 5 Bull Calves.
1 Herd Sire, 3 yrs. old—a good son of Imp. Itchen May King.

Reason for Selling: Going out of the business. Will price the whole herd, or any single animal.

RIDGEBROOK FARM
BARRINGTON ILLINOIS

SALE ANNOUNCEMENTS

Mar. 16—Grade Guernsey and Holstein Sale, Fond du Lac, Wis. O. G. Clark & Co., West Salem, Wis.
Mar. 22—Guernsey Dispersal. Brian L. Rundell, Livingston, Wis. Chas. A. Wilkins, Sale Mgr., Platteville, Wis.
Mar. 23—25th and semi-annual sale of Registered Guernseys. Waukesha County Guernsey Breeders' Association, Waukesha, Wis., F. E. Fox, Sec'y.
Mar. 23—Holsteins. M. E. Leliter, LaPorte, Ind.
Mar. 24—La Crosse County Guernsey Breeders, Registered and high grade Guernseys, West Salem, Wis. H. W. Griswold, Sale Mgr.
Mar. 30—Guernseys. Chas. E. Martin, Waynesboro, Pa.
April 12-23—Holsteins. Wisconsin Holstein Sales Ass'n. Sales. Jas. R. Garver, Madison, Wis.
April 26—Holsteins. U. S. National Blue Ribbon Sale at Oconomowoc, Wis. Haeger, Baird & Darcey, Sale Mgrs.
April 27-28-29-30—Holsteins. U. S. National Spring Sale at Waukesha and Watertown, Wis. Haeger, Baird & Darcey, Sale Mgrs.
May 4—Guernseys. South western Wisconsin Guernsey Breeders' Sale at Livingston, Wis. Chas. Wilkins, Platteville, Wis., Sale Mgr.
May 9—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.
May 12—Guernseys. National Guernsey Sale at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
May 13—Coventry—Dunwalke—Florham—Rockingham, Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sales Mgrs.
May 31—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. M. B. Wood, Sale Mgr.
June 2—Holsteins. National Holstein Sale at Springfield, Mass.
June 2—Guernseys. Highlands Dispersion, W. H. Gratwick, Owner, at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.

Wisconsin Accredited Hatcheries Association Co-operative

AFFILIATED WITH THE INTERNATIONAL BABY CHICK ASSOCIATION. Members advertising below have had their flocks inspected and accredited by the Wisconsin Dept. of Markets. Demand Wisconsin Accredited Ass'n Chicks. Your state protects you. OFFICE OF SECRETARY, COLUMBUS, WIS.

FAMOUS WINTER LAYERS

OOCO CHIX

WISCONSIN ACCREDITED HATCHERIES ASSOCIATION

DON'T EXPERIMENT!

QUALITY BEGETS QUALITY. Chix can be no better than the hens that laid the eggs. Show dividends from your poultry every month of the year. Buy OOCO PURE BREDS from State inspected and Accredited flocks. We can furnish you stock from trap-nest flocks with records of 200 to 290 eggs in 365 days. Quality and service always.

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THE OOCO CHICKERIES *Write for Catalogue* OCONOMOWOC, WISCONSIN

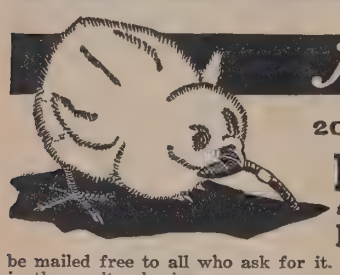
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The Old Reliable

MUELLER - CORY HATCHERY

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BABY CHICKS! *Get the large, strong, easy-to-raise kind that have made the Mueller-Cory Hatchery famous!*

FREE! Our new bulletin entitled "Are You Keeping Hens or Are Your Hens Keeping You?" will be mailed free to all who ask for it. A fund of valuable information based on actual experience in the poultry business.

Write for our large, handsomely illustrated catalog and read it from cover to cover. Compare the *facts* contained therein with the *claims* made by others. Then decide for yourself where your investment will net you the greatest profit.

MUELLER-CORY HATCHERY, 207 Main St., FORT ATKINSON, WIS.

Figure This Up!—

100 Blackhawk Accredited chicks hatched from flocks producing 140 to 160 eggs per year or better at $15.00 per 100.

100 ordinary hatchery chicks hatched from flocks of unknown egg production, probably not more than 80 to 90 eggs per year, which is high average for this type of flock at...$12.00 per 100.

As the offspring will be no better than the flocks which produced them, which is the cheapest?

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Wisconsin Accredited Quality

ORDERS FILLED PROMPTLY—ASK FOR CIRCULAR. SATISFIED CUSTOMERS OUR BEST ADVERTISEMENT.

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Wisconsin Accredited Chicks

White Leghorns, Anconas, Barred Plymouth Rocks. In these three varieties we have the best. Our free catalog tells you all. Our reasonable prices will surprise you. No complaints—Our last year's record and our this year's aim.

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WHITE LEGHORNS

BABY CHICKS PEDIGREE MALES HATCHING EGGS

From a farm breeding S. C. White Leghorns exclusively. Every egg produced on our own farm and backed by seven generations of 200 to 297 egg males. Chicks Jamsway hatched. 100 per cent live delivery of husky chicks guaranteed. Write for mating list.

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Why Enlarged Capacity Each Year?

Multiplied repeat orders. Strong chicks, rapid growers, heavy layers. Rocks, S. C. Reds, W. Wyandottes, Anconas, White Buff Brown Leghorns. Interesting catalog free. 5th year accredited.

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make satisfied customers. Send for copy of our free illustrated catalog. It tells about the 12 most popular varieties of chicks. Our chicks are hatched right. We know they will please you.

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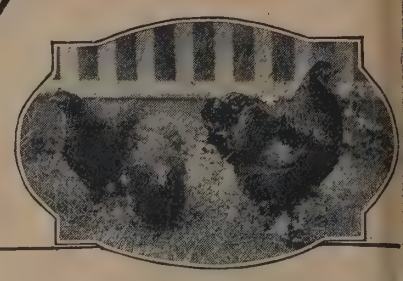


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hatched in Smith Incubators will please you. 13 leading breeds, 12 years' experience. Choice peppy chicks, 100% delivery. We breed for production.

CLEEREMAN'S HATCHERY R. 2 H, Green Bay, Wisconsin

Poultry on the Dairy Farm



A Profitable Foundation

Whenever the days begin to grow longer and the sunshine becomes just a little stronger, we should become interested in plans for the chick crop. There may be a few more severe storms but even that should not interfere with any plans which we may have made.

Possibly three things at this time will determine our poultry success for next year. Even though it does not control the profit it will be at least a foundation on which to build. The three legs for this stool are: (a) quality of chicks, (b) time of hatching, (c) rate and time of development.

A pullet when hatched will probably be "geared" to a certain rate of production. From her parents she has inherited the power to produce either a large or a small number of eggs. If we wish to procure a flock of potentially high producers it is imperative that we obtain chicks from known high producing lines.

If we are home hatching or having the eggs from our own flock custom hatched, we should have a special breeding pen. This unit can at least give us our breeding cockerels for the next year.

The selection should have been made last fall. In late October or November a selection could have been made from the flock then on hand. The hens that were at that time still producing and conformed to what we desire in size, body shape, time of molt, and vigor can be selected and banded. They can be allowed to run with the rest of the laying flock, until mated in the spring.

These hens should be mated with a pedigree, production bred cockerel. He should have everything that goes with a pedigree. Not only should the dam and sire be or come from producers but the cockerel should be vigorous, free from disease, and active. The habit of buying just what the pedigree says rather than what one also sees will lead only to trouble and failure.

If one did not select the pen last fall it is still possible to do so even though a little more time, work, and skill are required.

It is not imperative that the pen consist of hens. They can be well matured pullets. Proper supply of the necessary materials in a ration has discarded the old theory that pullets cannot produce hatchable eggs. Hatchability consists more in filling feed requirements than in age of stock.

At this season one can select the pullets that have given the most uniform, sustained production. This also means the pullets that started early and stuck with the job. Probably this is best indicated in the yellow skin birds by the rate and amount of fading which has taken place in the eyelid, beak, and legs.

One might, as many breeders do, especially if trapnesting, band as the pullets start producing. It is not necessary to trapnest in order to do this, for anyone can detect the laying pullets. They can be marked with colored bands. From this group the best can be retested as breeders.

Home hatching or the production of hatching eggs has become more (less of a specialized branch of poult keeping. The largest group are bu ing baby chicks from some hatcher

The demand for chicks has had t many operators starting that we more interested in making a pro than in producing quality chicks. great many others produced po quality stock because the busine was new and they were not expe enced.

To overcome some of these obje tions it was necessary to establish standard of some sort. This dema resulted in the inauguration of i spected flocks and accredited hatche ies under state supervision. It w deemed necessary to operate under state label since this permitted a di interested control.

Some deviation has been made the various states but the plan as whole is the same. Each flock pr ducing eggs for a hatchery is inspe ed and must conform in purity breeding, production, and freedo from disease as indicated by physic appearance. The same is true of t males and they, too, must be band with a sealed band.

A hatchery must agree to certa regulations such as record of sour of chicks, purchaser, operation machine, handling of chicks, and co formity to standard.

Chicks produced under these pla are usually sold under label direct the purchaser as inspected and a credited chicks. In some states t white diarrhea test may be require while in others the work may be co ducted under the supervision of a association. The aim in all cases the production of better qualit chicks.

Another advance has been ma since some states have adopted ce tification. This means an accredite or inspected flock that is headed onl by pedigree 200-egg or better male The males must come from a d pendable source. This demand wi again increase the quality of chic which it is possible to buy. Th greatest limitation to this work is th possibility of obtaining 200-eg males. It is one thing to claim suc records and another thing to be su of the source.

Hatcheries are so distributed a this time in every state that lon shipments are not required. One usu ally obtains chicks within easy shi ping distance so that they will spen a minimum of time in transit. Thi means that the chicks will have les opportunity to become chilled, heat ed, or mishandled. Shipping a lon distance never improved a chick.

Numerous terms and names ar applied to hatcheries other than thos described. The quality which on will obtain depends more upon th selection practiced in the breedin flock and the business integrity o the operator than in the name.

Buying baby chicks entails th same chance as any other transactio may entail.

Part of the chicks may be hom hatched and others purchased for de livery at the same time. By this com bination a larger flock can be ob tained which will result in better care better growth, larger group of broil ers to sell, and more uniform growth

Genoa Quality Chicks

Several years of hatching, rigid culling and selecting has given us chicks that verify our claims for **QUALITY.** Our flocks are headed by Males from Mahood, Harrison, Bonnie Brae, J. T. Thompson, Mapleside Farms, Pape, etc. Flocks culled the past two seasons by State Inspector. Write for Free Catalog and low prices. 10% deposit books your order.

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SHOEMAKER'S POULTRY BOOK

ws and describes 53 varieties of Old Reliable ins of SHOEMAKER Blood Tested Flocks PURE BRED POULTRY Backed by 38 rs of breeding prize winners. Gives many ful facts about handing, feeding, diseases and edies. Quotes LOW PRICES on fowls, CHICKS, Brooder Stoves and supplies. ite for this valuable BOOK — it's FREE.

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235 EGG FLOCK AVERAGE

s the record of Colonial Leghorns ned by Mearl R. Hess. Let us tell you w we are able to sell **SUPER-TEST** credited Chicks for less money than st hatcheries, yet give you quality like Mr. Hess got. We hatch all leading breeds. Our big, colored chick book is **FREE.** Why buy "cheap" chicks when you can get the best for less?

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COLONIAL POULTRY FARMS,
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64 BREEDS

Most Profitable pure bred Northern raised chickens, ducks, geese, turkeys. Fowls, eggs, incubators at reduced prices. 34th year. Largest plant. Fine valuable 100-page book and catalog free.

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BABY CHICKS FOWLS EGGS

68 breeds fine pure-bred chickens, ducks, geese, turkeys, fowls, eggs, chicks at low prices. 26 years with America's most profitable poultry, hern heavy egg producers. 10,000 prizes. Large log free.

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Wickless! the New 1927 SOL-HOT CHICK BROODER

The New 1927 Sol-Hot is the most wonderful brooder we have ever built — it's the crowning achievement in Sol-Hot's many years of undisputed leadership. It's WICKLESS — has no wicks to trim; no carbon; no smoke; no smothered chicks. Equipped with New Twin-Float Automatic Oil Level.

NEW TWIN FLOAT OIL CONTROL *Requires No Adjustment*

Wonderful New Patented Invention

Our New Patented Twin-Float Oil Level is the greatest invention ever made for chick brooders. Write today for free catalog telling all about the wonderful new Sol-Hot—the brooder that is creating such a sensation throughout the poultry world.

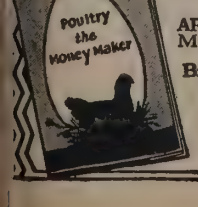
H. M. SHEER COMPANY
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Wonder LAYING MASH

MAKES your hens lay more eggs—you make more money—it's a wonder.

Write Today for free book



ARCADY FARMS MILLING CO.
Dept 11
Brooks Building
Chicago, Ill.

for the pullets when housed in the fall.

In addition to the kind of chicks, one must also consider the time of year that the stock is hatched. Poultry is only a crop which we are growing and demands a definite growing period. If we are also to obtain the greatest income for the year we must adjust our production program to conform to the market conditions. Any marketing system will never change the peak price back to December and January. We must rather produce eggs when the market wants them.

A Leghorn will usually require about 180 days for growth. This means that a pullet to start producing in October should be hatched in April. The heavier breeds will require about one month more of growth. When chicks are June hatched one can only expect a January or February production.

This factor of growing period is often overlooked. We assume that chickens, like Topsy, just happen. They just happen to hatch, happen to grow, and when the price of eggs reaches a high point are supposed to happen to lay.

It is imperative that a person plan in advance for egg production. Pullets must be hatched in time to be matured in time to start producing when we want the eggs rather than when they may be convenient.

This cry of early hatching has almost become a by-word. For years it was impractical because of the many limitations. At the present time the establishment of hatcheries makes possible obtaining chicks; perfection of brooders prevents chilling even when operated in the recommended portable colony houses; and rations can be fortified to permit rearing in confinement over quite an extended period without the development of leg weakness or rickets.

With this combination it is possible for the average farm flock owner to rear chicks early, economically, and successfully. All that most people now need is the courage to start and the attention to details required in brooding at that season.—J. B. HAYES.

Wants Methods Criticised

We use the Wisconsin chick ration in our broodery. We find that the broilers or roosters pay for themselves and pullets at three months of age. Would like to have you criticise our methods. We feed chicks nothing for first 72 hours beyond what they eat of their litter which for the first two weeks is clean, bright, alfalfa hay. At 72 hours we give steel cut oats in litter or on papers and a little mash, about what they will clean up in five minutes. This is fed every two hours. At end of first week they are put on self-feeder and kept there for ten weeks.

Our broilers are fed the same ration with the addition of ten parts digester tankage and 10 parts oil meal, and reach two pounds in eleven weeks. Is it not possible to add cod liver oil or yeast and shorten the feeding period of broilers?

We start R. I. Reds on February 15 and Black Minorcas on May 1. Please tell how to handle these pullets to prepare them for winter layers.

What do you recommend to feed laying hens for a tonic?

Tripoli, Ia. G. V. A.

There isn't much of an opportunity to offer much criticism on a method which makes it possible for the broilers to pay for themselves and the pullets at three months of age. This is mighty satisfactory brooding and is the standard towards which we have been attempting to work in connection with our regular extension program.

You have been successful in carrying the chicks through 72 hours without feed in that you have supplied

FARROW CHIX FOR SUCCESS



BANKING

Buyers of Farrow Chix start banking their winter receipts sooner than raisers of unknown Chix.

Our 200 egg strain are positive winter layers

MORE WINTER EGGS

This is the cry of thousands of poultry raisers. When eggs are high and profits the greatest you need Farrow Chix to fill the egg basket. Our Star Matings White Leghorns—bred to produce 200 egg pullets—can do this for you. A few dozen eggs in winter will more than pay difference in cost of these chix and common stock. You can't get blood out of a turnip. Neither can you expect to have laying chix from non-laying hens. Be sure of winter eggs and order our Star Matings. They are winners in egg contests. They will win for you. Tancred, Hollywood, Barron blood lines. Chix from America's Wonder Layers.

Confidence, Service, Reliability --- 3 Million Farrow Chix a Season
Quality Matings Farrow Chix March and April Delivery

	50	100	500
S. C. White and Brown Leghorns	$6.00	$11.00	$52.50
Barred Rocks, S. C. Reds, Anconas	7.00	13.00	62.50
R. C. Reds, White Rocks	7.50	14.00	67.50
Buff Orp., Wh. Wyandottes, Bl. Min.	8.00	15.00	72.50

Special Matings 3c a chick higher and Farrow famous Winter laying Star MatingsWh. Leghorns 6c a chick higher than Quality Matings. AMERICAN CERT-O-CULD

Farrow Chix produced under "American Cert-O-Culd" rules of the American Baby Chick Producers Ass'n. There are none better. Postpaid. 100% alive delivery. Write for 80 page catalog. Free.

D. T. FARROW CHICKERIES Dept. 18 Peoria, Illinois

BLOOD TESTED FLOCKS

Our flocks of Pure Bred, High Quality, Heavy Laying Fowls are annually tested FOR BOTH WHITE DIARRHEA AND TUBERCULOSIS. This testing is done by Assistant State Veterinary under University of Illinois supervision. 35 000 HENS UNDER TEST. **LARGEST PLANT IN THE WORLD PRODUCING BLOOD TESTED CHICKS ONLY.** Our Stock is selected especially for vigor and High Laying Qualities and Ancestry in both male and female. We are not State Accredited but eligible for Accreditation, when we call for it. We will have ONE MILLION OF THESE CHICKS for our customers during 1927. We also give a SEVEN DAY GUARANTEE on our Chicks. Our prices are moderate and from $12 PER HUNDRED and up according to variety and number ordered. We will also allow BIG DISCOUNTS on Brooders. **GET OUR BIG, FREE, COLOR PLATE POULTRY BOOK FOR 1927, before ordering Chicks elsewhere. Illustrates our Blood Tested Fowls in their natural colors and contains a great amount of information of value to you as well as detailed prices on our 15 leading Varieties. All Chicks Postpaid and 100% Live Delivery Guaranteed. Best of Shipping Facilities. Play Safe for 1927 by Buying our GUARANTEED CHICKS from fully TESTED FLOCKS.** Ref.—First Nat. Bank of Oneida.

LING'S HATCHERY, Carl Lingwell, Prop., Box 524, ONEIDA, ILLINOIS

THE CHICK OF THE HOUR

CAMPBELL'S SUPER-CHIX are hatched from bred-to-lay flocks that are real egg machines, and the Chicks have the **PEP TO LIVE** and **GROW.** Customers report Raising up to 98 per cent. Males from leading pedigree trapnested Strains such as **TANCRED, MARTIN, SHEPPARD, THOMPSON OWEN FARMS,** etc. Flocks inspected by State Vet. rigidly culled and **HOGAN TESTED. PROMPT SERVICE** or your money back.

100 Per Cent Live Arrival Guar.--Prepaid	100	500	1000
Wh. & Br. Leghorns, Heavy Assorted	$11.95	$55.25	$105.00
Anconas	12.95	59.75	115.00
Barred Rocks, S. C. & R. C. Reds	13.45	64.75	128.00
Wh. & Buff Rox, Buff Orpington	14.95	71.75	133.00

Champion Layers Winners Trapnest Records, Contest Winners.

White Wyandot, 100, $14-95-- Columbian Wyandot, 100, $15.95. Mixed Chicks, 100, $10; 500, $47.25. Order right from this ad and save time. Free Catalog. Ref.: Schirding State Bank. CAMPBELL'S HATCHERIES, Box 512, Petersburg, Illinois

MINKLER'S Hatchery



MINKLER'S CHICKS Are from good, pure-bred, vigorous flocks, bred for heavy egg production, carefully selected and cared for in a manner to insure greatest vitality in the chicks.

Full Livo Delivery Guaranteed—Prepaid	50	100	500	1000
White and Brown Leghorns	$6.00	$11.00	$52.50	$100.00
Anconas	6.50	12.00	57.50	110.00
Barred Rocks	7.00	13.00	62.50	120.00
White & Buff Rocks, Reds	7.50	14.00	67.50	130.00
White Wyandots, Buff Orpingtons	8.00	15.00	72.50	140.00
Heavy Assorted	6.00	11.00	52.50	100.00
Assorted Left Overs	5.00	9.50	45.00	85.00

Order from this ad. Bank Ref. Member A.B.C. P.A. & National Hatcherymen's Assn. MINKLER'S HATCHERY, Dept. 19, Morris, Ill.

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LARGEST ILLINOIS ACCREDITED HATCHERIES. All our Flocks are thoroughly inspected and culled by Inspectors under State authority. Our Flocks contain the blood of the best heavy laying Strains in the country, kept on free range and properly cared for to insure Health and Vigor. **YOU CANNOT DO BETTER ANYWHERE!** 100 per cent Live Delivery Guaranteed -- Prepaid.

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S. C. White & Brown Leghorns	$13.00	$37.50	$60.00	$115.00
Barred Rocks, S. C. Reds	15.00	43.50	70.00	135.00
White & Buff Rocks, R. C. Reds	16.00	46.50	75.00	145.00
Buff Orpington, Bl. Minorca	16.00	46.50	75.00	145.00
White Wyandottes	17.00	49.50	80.00	155.00

Choice Heavy Chicks for Broilers 100, $14; 300, $40.50 500, $65. Assorted Chicks, 100, $12; 300, $34.50: 500, $55

White Orpingtons, White Minorcas, 100, $18: 300, $52.50. Light Brahmas, 100 $19. Jersey Black Giants, 100, $22. Pekin Ducklings, 100, $25. 50 Chicks 1c higher than 100 rate. 25 Chicks 2c higher than 100 rate. Free Catalog. Ref.--First National Bank. CORN BELT HATCHERIES, Box 35, GIBSON CITY, ILLINOIS

WALDBESER CHICKS—FOR PROFITS

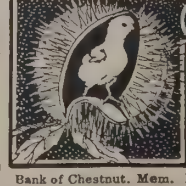
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CHICKS AND SERVICE. That is what we give. **BIG TEN PER CENT DISCOUNT** on all orders received during this month. Only one-fourth deposit required. **SAVE MONEY. BUY NOW** our Healthy, Vigorous, Pure Bred Chicks from Heavy Laying Flocks. Full Live Delivery.

Prepaid	50	100	500	1000
S. C. White Leghorns	$7.00	$13	$62.00	$120
Barred Rocks, Reds, Anconas	7.50	14	67.50	130
White Rocks and Wyandots	8.00	15	72.00	140
White and Buff Orpingtons	8.50	16	77.00	150

White Minorcas, 50, $9.50; 100, $18; 500 $88. Asstd. 100, $12; 500, $57.50; 1000, $113. Order from this ad. Get them when you want them. Ref. Morton State Bank. MORTON HATCHERY, Chris. Waldbeser, Jr., Prop., BOX 23, MORTON, ILLINOIS

CHESTNUT HATCHERY



ACCREDITED AND UNDER STATE SUPERVISION FOR 4 YEARS
All flocks inspected and accredited. 100% Live Delivery Guaranteed. Postpaid.

Varieties	25	50	100	Varieties	25	50	100
S. C. Wh. Leghorns	$3.50	$6.50	$12.00	Wh. Wyandotte	$4.25	$ 8.00	$15.00
Bar. Rocks & S. C. Reds	4.00	7.50	14.00	Part. Rocks	4.25	8.00	15.00
Wh. & Buff Rocks	4.00	7.50	14.00	Wh. Orp. & Lt. Brah.	5.50	10.00	19.00
Buff Orpington	4.25	8.00	15.00	Asst. Heavy	3.00	5.75	10.50

On orders for 500 deduct one-half cent per chick; on 1000 orders deduct 1c. No Discount on Assorted. Ref. Bank of Chestnut. Mem. I. B. C. A. Chicks shipped under State Label. CHESTNUT HATCHERY, Box H, Chestnut, Ill.

FLOCKS TESTED FOR WHITE DIARRHEA

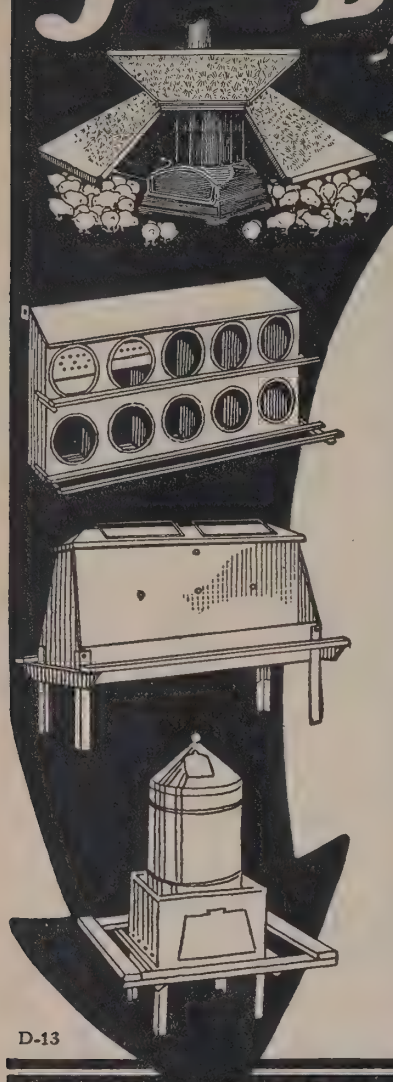
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ALL FLOCKS TESTED FOR BACILLARY WHITE DIARRHEA

Carefully culled for heavy egg production on free range, and properly housed, fed and cared for to insure the greatest vigor in our **IDEAL CHICKS.** S. C. White and R. C. Brown Leghorns, Barred and White Rocks, S/C. Reds, White Wyandots, Buff Orpingtons, Anconas. Our many years experience and labor is **YOUR INSURANCE OF SUCCESS** with your Poultry crop this season and at our **VERY MODERATE PRICES** you take no chances when you order our Hardy, Healthy, Vigorous, Pure Bred **IDEAL CHICKS.** Get our 1927 Literature containing full information and detailed prices now before placing any orders for Chicks.

LAFAYETTE HATCHERY, INC., Dept. 34 (Formerly LaFayette, Ill.) GALVA, ILLINOIS

Your Dollar Buys More -when you buy THE DREW LINE



Poultry Equipment

Drew Line offers you the short cut to modern Poultry Equipment at lowest cost and bigger poultry profits.

For over 28 years DREW has maintained an unvarying policy to build only the best quality of good, dependable, practical equipment which could be sold at a big saving in price to the man who buys it.

All we ask is for you to compare DREW quality, utility and prices with any other and you will be both surprised and delighted how much further your money goes when you buy DREW Poultry Equipment.

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No matter what kind of Poultry Equipment you want, the DREW Line Dealer can supply you at money saving prices. DREW Line Nests, Mash Feeders, Waterers, Chick Equipment and Brooder Stoves are the latest in design, built of the best materials, substantial in construction and most dependable in every day service. Drew Line equipment will save you labor, save feed, save money and increase your poultry profits. So why pay more.

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DREW Line Equipment is sold by good dealers everywhere. Send for our Poultry Equipment Literature which shows the methods and equipment used by others to get bigger profits—and we will send you the name of the DREW Dealer nearest you.

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Ever Since 1898-Better Equipment for Less Money

Town Line POULTRY FARM

the PERSONAL SERVICE Hatchery

Michigan Accredited 96 UNCULLED PULLETS LAY 7,611 EGGS FROM SEPT. 1, 1926, to JAN. 1, 1927, writes customer from Muskegon, Michigan. This is an average of 21 eggs per pullet per month. YOU can do the same with our stock, which is the result of 14 years of breeding for SIZE, TYPE, WINTER EGGS and HIGH FLOCK AVERAGE, instead of a few high individuals. We have HOLLYWOOD, TANCRED, and ENGLISH type S. C. White Leghorns, SHEPPARD'S Anconas, Brown Leghorns and Barred Rocks. Hollywood foundation stock from 260-290 egg record; Tancred foundation stock from 250 up egg record stock. Ancona foundation direct from Sheppard. The very best in Brown Leghorns and Barred Rocks. Our chicks are HEALTHY, VIGOROUS, Newtown hatched chicks from free range breeders. The strongest proof of the quality of our chicks is, that we have doubled our hatching capacity over last year. With "TOWNLINE" you also get "PERSONAL SERVICE." LARGE NEW CATALOG FREE.

NOTE THESE LOW PRICES—

	100	500		100	500
English type S. C. W. Leg.	$13.00	$60.00	Anconas & Br. Leg.	$14.00	$65.00
Hollywood or Tancred	15.00	70.00	Barred Rocks	16.00	75.00

ASSORTED OR MIXED CHICKS 10c EACH.
Chicks shipped postpaid. 100% live delivery guaranteed. Discount on early orders.

J. H. GEERLINGS, Mgr., R. F. D. No. 1, Box O, ZEELAND, MICH.

Michigan Accredited Chicks

Buy your chicks from heavy laying flocks that are officially accredited by inspectors supervised by Michigan State College and of prize winners at the Holland Poultry Show. White and Brown Leghorns, Anconas, Barred Rocks, S. C. R. I. Reds. 100% live delivery, postpaid. Send at once for free catalogue, full particulars and detailed prices.

HILLVIEW HATCHERY, C. BOVEN, Proprietor
R. 12, Box 10 A **HOLLAND, MICHIGAN**

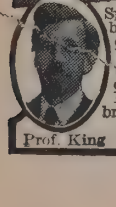
20TH CENTURY CHIX FOR 27 YEARS

WE HAVE BEEN PRODUCING AND SHIPPING CHICKS from our High Class, Heavy Laying Flocks to thousands of pleased customers all over the country and rendering Full Satisfaction. WE CAN DO SAME FOR YOU in 1927. Flocks AM. CERT-O-CULD.

100% Live Delivery Guaranteed, Prepaid	50	100	500	1000
Barron White Leghorns, mated with Impt. Males	$10.50	$20.00	$95.00	$180.00
Extra Quality Barron White Leghorns	7.50	14.00	67.00	130.00
White, Brown, Black and Buff Leghorns, Anconas	7.00	13.00	62.00	120.00
Barred and White Rocks, S. C. and R. C. Reds, Black Minorcas	8.00	15.00	72.00	140.00
White Wyandotte, Parks Ped. Barred Rocks (PC-33)	8.50	16.00	77.00	150.00

White and Buff Minorcas, 100, $20. Light Mixed, 50, $5; 100, $9.50. Heavy Mixed, 50, $6.50; 100, $12.
If you have never purchased 20TH CENTURY CHICKS give them a trial in 1927 and be convinced of the High Quality we produce. Get our 1927 Catalog sure or order direct from this ad. Member A. B. C. P. A. Ref.—Commercial Bank. 20TH CENTURY HATCHERY, Box 27, NEW WASHINGTON, OHIO

IOWA CHICK HATCHERY



Prof. King

Special Accredited and Blood Tested Chicks at prices that celebrate Prof. Irving King's 12th successful year in producing chicks that are bred to lay, including special high production White Leghorns, Kerlin Strain and Wyckoff strain (certified flock, trap-nested). Peppy, healthy, pure-bred chicks, and 100% live arrival guaranteed. Get Prof. King's 1927 Chick Book and latest offers on best poultry breeds FREE. IOWA CHICK HATCHERY Dept. S IOWA CITY, IOWA

PROF. KING'S ACCREDITED CHICKS

WARNING

Don't confuse Prof. King's Iowa Hatchery with any other. Address all letters to the IOWA CHICK HATCHERY

them with bright alfalfa hay. We have adopted a plan of keeping the chicks in the regular shipping boxes even when we hatch them ourselves until they are old enough to be fed. This prohibits and avoids a great many of the troubles that we have encountered on the part of other people from time to time when they would put a bunch of chicks under a brooder on sand or gravel or something of this sort and not give them any feed for 72 hours. Under these conditions, of course, the chicks would load up on sand or whatever else they might have access to with the result that a heavy mortality would occur. In your case the more of the alfalfa that they eat, the better prepared for good growth they are going to be. In case you should not have alfalfa, though, I would advise keeping them in the boxes until it is time to feed them when they may be placed under the brooder.

Your method of limiting the amount of feed which they are allowed to have for the first few weeks is advisable. A great many people have been successful in filling the hoppers with the 80—20 dry mash mixture, and the fountains with milk before the chicks as soon as they are placed under the brooder and allowed to remain there continuously. Personally, I am a little bit afraid of this as a general recommendation and feel that a person, year after year, will be more successful and will rear more chicks, if the feed which they are allowing will be restricted for the first few weeks or until they are allowed free range. Just as soon as they are out on range it is possible to leave the mash before them at all times because of the additional space in which they have to work, and on that account the possibility of avoiding cannibalism and other habits, such as this which we try to avoid, when they are kept rather closely confined.

It may be possible that the addition of cod liver oil to the ration at the rate of about 2% will give you additional growth. This would probably be possible even if you have an abundance of sunshine, because of the vitamins which the cod liver oil supplies that cannot be substituted in the form of other feed.

We usually try to hasten the growth as much as possible on the pullets up until the time they reach 1½ lbs., when from that time on we endeavor to control development in order to have production starting along in October. The 80—20 mixture works in admirably in this respect since it is only necessary to diminish the amount of milk which they are given to drink or to cut down the percentage of animal protein feed, such as the meat scrap and to leave the minerals which means the pearl grit, high calcium carbonate limestone grit, and the bone meal just as they were. Limiting the amount of animal protein will tend to delay maturity, but the rest of it being supplied will tend to increase the frame work or the size of the birds.

About a month before you house them they can gradually be turned over to the laying mash which you may be using to accustom them to this before they are housed and to house them early enough so that they are broken to the confinement before production starts.

The pullets, of course, want to be fed heavily on grain feed in order to have them in good physical condition, which means rather fat, before starting to force them. This reserve which we can establish in that way will give us a more continuous production after they once start and will tend to avoid considerable of the molt which was experienced along during the winter and also this starting stopping sort of production which get from pullets in rather poor cor tion. These birds, which are put i the house when only partly finish may, because of good breeding, started, but they can't maintain uniform production such as we des

The only tonic that we recomm for chickens is good feed. If one a well bred bunch that has been b for production and is given right sort of a ration properly b anced, the birds are going to conv this feed into eggs without the ac tion of any sort of a tonic or a stir lant. Under this heading we do class cod liver oil as a tonic or a st ulant, since that is a regular part the formula especially here in northern states and must be gi proper consideration.

Some very interesting work v carried on by one of the south stations recently in connection w the use of tonics that very admira shows that they are not necessary production.—J. B. HAYES.

Mating Geese

Please tell me if one gander enough for four hens.

Alta Vista, Ia. A. B. K.

The number of geese which it possible to mate with one gander pends largely upon the age of t gander and also upon the possibil often of getting this gander to ma with the geese. One usually fir that when a mating is once made is advisable to continue that just long as possible in order to avoid a display of choice which may be in cated on the part of either sex. Y will very often find that a goose w not mate with a gander during t first season. On that account it necessary to mate them seve months in advance of the time th you expect to collect the hatchi eggs. Usually only two geese a mated to a gander, but it is possib to increase the number up to fou In this case this probably would the maximum that one could carry a mating, and the success would dependent in this case upon the i dividuals which were carried, t length of time which they were ma ed in advance, and the possibility eliminating any display of selectivit

In case one did not get good fe tility it would be possible a little l later to decrease the number of gee which you have carried.—J. B. HAYE

T. B. in Poultry

The symptoms of tuberculosis poultry are: A sickly-looking hea pale comb, dull eyes, lameness, lo of flesh, especially on the brea bone, gradual wasting away but t appetite remains good. In the la stages the claws are long, the feat ers dull, and diarrhea may be pre ent. It is not likely that all t symptoms will appear in every d eased bird but the appearance of a one of them should be the cause f suspicion. The symptoms of tube culosis are very seldom present birds under a year old but the bi may be badly infected and not sho any change in appearance.

The lesions or evidence of tube culosis is found in the liver, splee and intestines. The liver may be e larged and gray or yellow nodul from a pin point to a dime in size a on the surface. The spleen may enlarged and spotted. Both liver a spleen break very easily. The inte tines may be well covered with no ules large or small. The breast bo may be bare of flesh.

The poultry tuberculosis bacillus generally considered to be a variety the same species which causes tube culosis in man and cattle. It is know

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TO AID IN KEEPING

All Livestock and Poultry Healthy

Kills Lice, Mites and Fleas. For Scratches, Wounds and common skin troubles.

WRITE FOR THESE FREE BOOKLETS:

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No. 185—**HOG WALLOWS.** Gives complete directions for the construction of a concrete hog wallow.

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No. 163—**POULTRY.** How to get rid of lice and mites, and to prevent disease.

ANIMAL INDUSTRY DEPARTMENT OF

Parke, Davis & Co.

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Saving Your Chicks

Why Chicks Die in the Shell—Why Millions Die the First 10 Days

Here is something we want every reader of this paper to have. It's a copyrighted book giving a world of information on hatching, brooding and feeding baby chicks. It tells you why chicks die in the shell, why millions die before they are two weeks old, tells of real home made brooders, what, when and how much to feed.

It is simply a book of startling facts, pointing directly to the cause of why millions of chicks are lost every spring. Now right here is some real information you have wanted to know so long. It sure tells you the cause of all these baby chick troubles.

Get you a copy of this book right now while you can. It is copyrighted, owned and controlled exclusively by one concern—there is no where else you can get it. Just write Tredway Poultry Service Co., Blackwell, Okla. Mention this paper, send the names and addresses of 5 persons who raise poultry, and 25c in silver, and book will be mailed you prepaid, One book only to each person or family. Dou't try to raise another chick without this book. Remember you must send the names with the 25c. Write them today — you will never regret it.

CAPPER SHIPS C.O.D.

Send No Money—Simply tell us what breed and how many you want. All chicks hatched in our own incubators from Cert-O-Culd flocks. 97% alive arrival guaranteed.

PRICE LIST	100	500	1000
White, Brown, Buff Leghorns, Anconas	$13.00	$62.50	$120.00
Single and Rose Comb Reds	15.00	72.50	140.00
Barred and White Rocks	15.00	72.50	140.00
S. C. Black Minorcas	15.00	72.50	140.00
R. C. White Minorcas	20.00	97.50	190.00
Buff Orpingtons	16.00	77.50	150.00
White and Silver Laced Wyandottes	16.00	77.50	150.00
Heavy Assorted	12.00	57.50	110.00
Mixed, All Varieties	10.00	47.50	90.00

CAPPER'S HATCHERY, Box 106, Elgin, Iowa

BABY CHICKS from inspected flocks. White Leghorns $12.00, Barred Rocks, S. C. R. I. Reds $15.00 per hundred, 20% down, balance C. O. D. on delivery. 100% Alive Delivery Guaranteed. Discount on large orders.

LMENDINGER HATCHERIES, Rocky Ridge, Ohio.

to be the cause of a large part of the tuberculosis in hogs and should therefore be regarded as a highly dangerous disease. The avian bacillus will live for a long time in soil or droppings but is readily killed by heat or direct sunlight. Ordinary disinfectants act rather slowly on it.

The sick fowl is a spreader of the disease and the droppings from the bird will contaminate everything they come in contact with. Healthy birds readily take the infection especially where unsanitary conditions exist.

Tuberculosis can be eradicated only by disposing of the infected stock. Treatment is of no value and testing is practical only in valuable breeding flocks. To eradicate the disease:

1. Kill and burn all birds showing symptoms of tuberculosis.

2. Replace the entire flock as soon as possible with healthy birds raised on clean ground.

3. Put dropping boards in poultry houses and keep them clean.

4. Market the old hens each year as soon as they stop laying.

5. Burn or bury deep all dead birds.

6. Get plenty of fresh air and sunlight into the house.

7. Plow up and sow down land where practical.

All sick birds should be opened and if unable to identify the trouble call on your local veterinarian or county agent, or send the next sick bird to the College of Agriculture, Veterinary Division.—DR. A. J. KNILINS, National Live Stock Exchange.

A Splendid Record

HOARD'S DAIRYMAN:—A Waukesha County hen laid 318 eggs from Nov. 18, 1925, to Nov. 18, 1926, or 318 eggs in 365 days. Mrs. Clyde Fruit is the owner of this hen whose record is as follows: November, 11; December, 23; January, 25; February, 24; March, 26; April, 28; May, 30; June, 29; July, 28; August, 28; September, 28; October, 25; November, 13 up to the 18th of the month.

This S. C. White Leghorn hen maintained her body weight and has not rested longer than two days since she began her record up to this writing.

Wisconsin. CLYDE FRUIT.

Cheated

Clerk: "How are you coming along with your poultry?"

Customer: "I've been swindled. I bought three different incubators and not one of them has laid an egg yet."
—Good Hardware.

WHITE LEGHORN CHICKS

sired by pedigreed males, records 200 to 293 eggs. Low prepaid prices. Shipped anywhere C. O. D. and guaranteed. Hatching eggs, cockerels, pullets, hens, egg bred 27 years. Winners at 17 egg contests. Write for free catalog and special price bulletin.

GEORGE B. FERRIS, 965 Union, Grand Rapids, Mich.

Bred-to-Lay White Leghorns

BARRON TANCRED HANSON STRAINS, Farm range stock. 15 years breeding, Eggs only. **15 eggs $2.00. 100 eggs $10.00.** Prepaid. 85% Fertility guaranteed.

MAPLE CREST FARM, Mayville, Mich.

SILVER SPRING HATCHERY

QUALITY BABY CHIX — Every Chick a Pure Bred

AMERICAN CERT-O-CULD from free farm range QUALITY Breeders. 100% Live Delivery Guaranteed prepaid to our door. 12 years experience, and best equipment.

VARIETIES	50	100	300	500
S. C. White & Brown Leghorns	$6.00	$11.00	$31.50	$52.50
White & Barred Rocks	7.00	13.00	37.50	60.00
S. C. & R. C. Reds	7.00	13.00	37.50	60.00
Wh. Wyandottes, Buff Orpingtons	7.50	14.00	40.50	65.00
Heavy Assorted	6.00	11.00	31.50	52.50

Special Prices on larger quantities on request. Order direct from this ad, or write for Catalog. Bank Reference. A trial order will make you another **BOOSTER** for **SILVER SPRING CHIX.**

SILVER SPRING HATCHERY, Box 115 ABINGDON, ILLINOIS

HUNDERMAN CHICKS

Chicks that are hatched from free Farm range breeders fed on milk from the dairy on the same farm. Our flocks and hatchery inspected and passed by representative of Mich. State College. Refer you to State Com. Savings Bank. Order from this ad.

Prepaid prices on—	25	50	100	500	1000
S. C. Wh. and Br. Leghorns	$4.00	$7.00	$13.00	$62.50	$120.00
Br. Rocks and S. C. R. I. Reds	5.00	8.50	16.00	77.50	150.00

Mixed Chicks $10.00 per hundred. Our chicks are Michigan Accredited. 10% down books your order. Free catalog. 100% live delivery prepaid.

HUNDERMAN BROS., R. R. No. 3, Box 35, Zeeland, Mich.

SIEB'S GUARANTEED CHICKS

from CERTIFIED HOGAN TESTED HEAVY LAYING FLOCKS

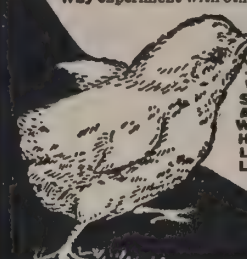
AT ASTONISHING LOW PRICES. WHY PAY MORE?



Genuine high quality is found only in chicks from stock bred many years for laying ability and exhibition purposes. Sieb's Certified Chicks are produced from flocks bred thru generations for these qualities. Every bird in our flocks HOGAN TESTED and certified for high egg production.

PROOF OUR CHICKS ARE BETTER

We received hundreds of letters similar to these. It shows why our customers are PLEASED and SUCCEED. Mr. Roy Burke, Wis., writes—the 150 Ancona chicks arrived May 3. I raised 144 of them. Pullets started laying Sept. 27th. Sold some cockerels at $25.00 when eleven weeks old. Kindly mail me your new catalog my order will go to Sieb Hatchery again. Mr. Geo. Wood writes—The red chicks received from you last year were the best I have ever seen. I sold some of the pullets at $1.50 each. The laying average of my flocks last Fall and Winter was 71%, while the so called celebrated Leghorns around the neighborhood were idle. 71% FLOCK AVERAGE during Fall and Winter is equal to a yearly average of 255 EGGS PER HEN. Why experiment with others when you can get this quality at our low price? Sieb Certified Chicks are of only ONE GRADE—the BEST. SEND FOR CATALOG or order direct from this ad. 97% live delivery guaranteed, prepaid.



Prepaid.	25	50	100	500	1000
Wh. & Br. Leghorns	$3.00	$5.75	$11	$52.50	$100
Bd. Rocks, R. I. Reds	3.50	6.75	13	62.50	120
Wh. & Buff Rocks, Wh. Wyandottes	3.75	7.25	14	67.50	130
S. L. Wyandottes, Buff Orpingtons	4.00	7.75	15	72.50	140
Anconas	3.25	6.25	12	57.50	110
White Orpingtons	4.00	7.75	15	72.50	140
Heavy Assorted	3.00	5.75	11	52.50	100
Light & Heavy Assorted	2.75	5.25	10	47.50	90
Light Assorted	2.50	4.75	9	42.50	80
Black Minorcas	3.75	7.25	14	67.50	130

SIEB'S HATCHERY

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CHAMPION CHICKS

CHAMPION CHICKS from Healthy, Carefully Selected, Heavy Producers, **TANCRED, MARTIN, SHEPPARD, HOLTERMAN, QUEEN BESS,** etc. Blood Lines. **CONTEST WINNERS.** Cream of Best Bred-To-Lay Flocks in Country. Extremely high records in Official Egg Laying Contests. Our Big Free Color Plate Poultry Book shows our **CHAMPION FOWLS** in natural colors and tells all about them. **IT'S FREE. ORDER IT TODAY.**

Postpaid 100% Live Delivery Guar.	50	100	500	1000
Wh. & Br. Leghorns	$7.00	$13.00	$63.00	$125.00
Anconas & Buff Leghorns	7.50	14.00	68.00	135.00
Barred Rocks, S. C. & R. C. Reds	8.00	15.00	73.00	145.00
Wh. & Bf. Rocks, Bl. Minorcas	8.50	16.00	78.00	155.00
Wh. & Bf. Wyandottes, Bf. Orps	9.00	17.00	83.00	165.00

Prices on other varieties on request. **BIG 10% DISCOUNT** allowed on all orders placed with us during this month. Save 10% and get your **CHAMPION CHICKS** this year when you want them. Members I. B. C. A. and A. B. C. P. A. Ref.—Burnetts Bank.

CARTER'S CHICKERY, Box 29 ELDORADO, ILL.

CHICKS — Backed By Gold

Our chicks guaranteed by a $500.00 gold bond on deposit at Denhart Bank of Wash. You take no chances in buying Bonded, pure-bred, vigorous chicks—they are bound to make good.

Varieties Postpaid Prices:	25	50	100	500	1000
S. C. Wh. and Br. Leghorns	$3.50	6.50	12.50	60.00	115.00
S. C. Mottled Anconas	3.75	6.75	13.00	62.50	122.50
Bd. Rocks, R. C. & S. C. Reds	4.00	7.50	14.50	69.00	135.00
B. Orp., Wh. & Buff Rks, Blk. Min.	4.25	8.00	15.50	75.00	147.50
Wh. and Silver Wyandottes	4.50	8.50	16.00	77.50	152.50
Light. Brah., Wh. Min., Col. Wyan.	4.75	9.00	17.00	82.50	162.50
Blue Andalu., Silv. Spgl. Hamburgs	5.25	10.00	18.00	87.50	172.50

Mixed Chicks $10 for 100—all heavies $12. Special matings at slightly higher prices. 100% live arrival. Send for new free catalog that tells all.

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SUPERIOR QUALITY CHICKS

INCREASE YOUR PROFITS by Improving your Flocks with Healthy Chicks from America's best and heaviest laying Strains. Barron, Parks (PE-1), Thompson, Mapleside, Mahood, Owen Farms, etc. **100% Live Delivery Guaranteed.—Prepaid**

	25	50	100	500
White and Brown Leghorns, Heavy Assorted	$3.50	$6.00	$11.00	$52.50
Buff Leghorns, Anconas, Sheppard's Famous Strain	3.75	6.50	12.00	57.00
Barred Rocks, R. I. Reds	4.00	7.00	13.00	62.50
White and Buff Rocks, Buff Orpingtons	4.50	8.00	15.00	72.00
White Wyandottes, White Orpingtons	4.75	8.50	16.00	77.00

Black Minorcas, 100, $15. White Minorcas, 100, $16. Send for Free Book, "SECRETS OF POULTRY SUCCESS." Bank Reference. **ILLINOIS HATCHERY, Dept. 92, H. C. Helm, Owner, METROPOLIS, ILLINOIS**

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"VALUE FOR MONEY"

BUILD UP YOUR FLOCKS

from **UNRELATED STOCK, PURE BRED, HEAVY EGG PRODUCTION RIGIDLY CULLED** from range flocks. Full Live Delivery Guaranteed. Prepaid.

March and April Prices:	50	100	500	1000
S. C. Wh., Br., Buff Leg., Ass't'd H'vy	$6.50	$12.00	$60.00	$120.00
Barred Rocks. S. C. Reds	7.50	14.00	67.50	135.00
White Rocks	8.00	15.00	72.50	145.00
Buff Orpington, Wh. Wyandotte	8.50	16.00	77.50	155.00

EXCELLO PLUS QUALITY CHICKS 2c per Chick higher than above prices, from extra selected, high egg producing flocks. We want your continued business and will make every effort to please and satisfy you. Ref.—New Farmers State Bank. **EXCELLO HATCHERY, Dept. J-7, MASON CITY, ILLINOIS.**

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BLOOD TESTED STOCK

WE SPECIALIZE IN BETTER CHICKS AT REASONABLE PRICES

39 BLUE RIBBONS AT 5 BIG FAIRS. Write for beautiful illustrated Catalog. It contains actual Facts, shows Stock from high Pedigreed ancestry Direct from Nationally known breeders. Aristocrat and Mapleside Br. Rocks, Martin's Regal Dorcas, Wyandottes, Leghorns with wonderful size and high flock average, also S. C. Reds and Wh. Rocks with blood of Chicago Coliseum Winners. **WE WON EVERYWHERE SHOWN, ALL FLOCKS BLOOD TESTED** for White Diarrhea. Order this Free Catalog today. It's convincing proof of Quality. **CHANDLER'S POULTRY IMPROVEMENT FARMS, Box C, MACOMB, ILL.**

COLUMBIA HATCHERIES

ALL LEADING VARIETIES PURE BRED-GREAT LAYERS

COLUMBIA CHICKS ARE GOOD, HONEST, PURE BRED CHICKS from selected, inspected Flocks of heavy layers, kept on free range, well fed, housed and cared for in a manner to insure strong fertility and **VIGOROUS, HEALTHY CHICKS** and **THE PRICE IS RIGHT.**

Full Live Delivery Guar. Prepaid	50	100	500	1000
White, Buff & Brown Leghorns	$5.50	$10.75	$51.25	$100.00
Barred Rocks, Heavy Assorted	6.50	12.00	59.00	115.00
R. I. Reds, White Rocks	6.75	13.00	64.00	125.00
White Wyandotte, Buff Orpington	7.50	14.00	69.00	135.00
Assorted All Breeds	5.00	9.00	44.00	87.00

ORDER DIRECT from this ad, or send for Free Catalog. Ref.—Any Bank or Business House in Columbia. **THESE CHICKS WILL PLEASE YOU AND PROVE A VERY PROFITABLE INVESTMENT FOR YOU.** We want your business for 1927 and will aim to fill your orders so as to hold your business for future years.

COLUMBIA HATCHERIES, Box 63, COLUMBIA, MISSOURI



The Southland ~a STOCK LAND

The Southland, served by the Louisville & Nashville Railroad, is fast becoming a land of stock raising and breeding along modern, and profitable lines. With the one-crop system dead and gone, diversified farming has come to stay; and good farmers of all kinds are more than "making good" here.

Stock farming in the North is made hard, and often unprofitable, by long winters, calling for costly housing and feeding. Not so in the Southland—mild climate; green pastures all the year; the winter stock feed needed raised on the home farm; abundant water; plenty of cheap labor—and home markets with top prices. What more could a stock farmer want?

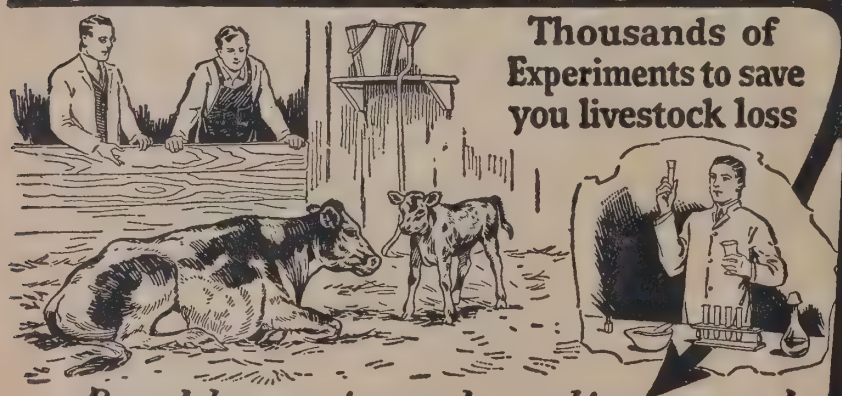


Write and tell us what kind of stock farm you want and we will tell you where to find it—and give you valuable pointers on how to run it, in the Southland. (We cannot, however, undertake to get anybody a job as a farm hand.)

Full information and descriptive booklet sent *free* on request. Address G. A. Park, Gen. Imm. & Ind. Agt., L. & N. R. R., Dept. H.D-6, Louisville, Ky.

L&N

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Thousands of Experiments to save you livestock loss

Read how science has discovered effective treatment for abortion calf scours, retained afterbirth.

We Have Thousands of Letters Like These

Milking Machines

"I am using B-K solution to keep the cups and rubbers of my milking machine in, and find it one of the greatest cleansing agencies. It keeps these parts in a sanitary condition to a point that seems almost unbelievable. B-K keeps all sediment and dirt out of the cracks and crevices and reduces the bacteria count."
William W. Moore, —, N. J.

Contagious Abortion

"B-K sure does the work, as the arrival of strong, healthy calves is proving; the first that have lived in over a year. There were also three cows that were barren, that we have now got in calf. Nine more are almost due to calve and are all looking fine. All the credit is due to B-K."
I. Mann, —, Colo.

Calf Scours

"I had a calf with white scours. We had given up hopes of saving her, when a friend gave me a small bottle of B-K. It cured the calf so I bought a gallon. Now I want all six of your bulletins, as I wish to put B-K to all possible use. It's good stuff."
J. C. Brown, —, Ohio

B-K Bacil-Ki

In talking with farmers and stock raisers at state fairs, dairy shows and in their homes, we find few that realize the vast amount of practical and scientific knowledge and experience represented in the organization back of B-K. That organization is composed of practical farmers, breeders, milk plant operators, chemists and bacteriologists.

B-K has been tested so thoroughly from every angle in our laboratories and on farms that its effectiveness in the prevention and control of disease among live stock and poultry is now beyond controversy.

The experience and knowledge we have acquired is available to you without charge. Our free bulletins include a wealth of information on breeding, feeding and sanitary care of live stock and poultry. Our advice and counsel on any problems not covered in the bulletin will be given gladly on request. Write us about your troubles fully so we can give you the benefit of our investigations and experience.

Live Stock and Poultry Owners get this 64 page book

We will send it free if you will write us the number of animals or birds you have and the breeds you push.



General Laboratories
Dept. 101C Madison, Wisconsin

Sell Your Surplus Cows, Poultry and Other Live Stock with an Ad on Our Special Opportunities Page

Holstein-Friesian Cattle in The United States

(Continued from page 238)

ord daughters up to April 1, 1926, are as follows:

Name of sire	No. daughters with long time records
Sir Inka Prilly Segis	74
Matador Segis Walker	72
Judge Segis	70
Sir Johanna Fayne	68
Sir Pietertje Ormsby Mercedes	65
King Pontiac Champion	65
Colantha Sir Walker Korndyke	64
Woodcrest Tehee	61
Ormsby Korndyke Lad	56
Dutchland Colantha Sir Inka	55

Scale of Points for Mature Cow

	Score
Forehead: Broad between the eyes; dishing	2
Face: Of medium length; clean cut; feminine; the bridge of the nose straight	1
Muzzle: Broad, with strong lips; nostrils large and open; jaws strong	3
Ears; Of medium size; of fine texture; well carried	1
Eyes: Large; full; mild; bright	2
Horns: Small; tapering finely towards the tips; set moderately narrow at base; inclining forward; well curved inward	1
Neck: Long; fine and clean at junction with the head; evenly and smoothly joined to shoulders	3
Shoulders: Slightly lower than the hips; smooth and rounding over tops; moderately broad and full at sides	3
Crops: Full; level with the shoulders	5
Chine: Straight; strong; broadly developed, with open vertebrae	4
Loin and Hips: Broad; level or nearly level between the hipbones; level and strong laterally; spreading from chine broadly and nearly level; hipbones fairly prominent	6
Rump: Long; broad with roomy pelvis; nearly level laterally; full above the thurls; carried out straight to tail head	6
Pinbones: Wide between; nearly level with hips	2
Thurls: High; broad through	2
Tail Head and Tail: Strong at base without coarseness; the setting well back; tail long, tapering finely to a full switch	2
Chest: Deep; wide; well filled and smooth in the brisket; broad between the forearms; full in the foreflanks	6
Barrel: Long; deep; well rounded; strongly and trimly held up	9
Flanks: Deep; full	2
Thighs: Wide, deep; straight behind; wide and moderately full at the outsides; twist well cut out and filled with development of udder; with escutcheon well defined	2
Mammary Veins: Large; tortuous entering large orifices or double extension; with additional developments, such as branches and connections entering numerous orifices	8
Udder: Capacious; flexible; quarters even and of uniform texture; filling the space in the rear below the twist; extending well forward; broad and well attached	14
Teats: Well formed; plumb; of convenient size; properly placed	4
Legs: Medium length; clean; nearly straight; wide apart; firmly and squarely set under the body; arms wide, strong and tapering	4
Hair and Hide: Hair healthful in appearance; fine and soft; hide of medium thickness; mellow and loose	5
	100

Scale of Points for Mature Bull

	Score
Forehead: Broad between the eyes; dishing	2
Face: Of medium length; clean cut; masculine: the bridge of the nose straight	1
Muzzle; Broad, with strong lips; nostrils large and open; jaws strong	3
Ears: Of medium size; of fine texture; well carried	1
Eyes: Large; full; mild; bright	2
Horns: Short; of medium size at base; gradually diminishing towards tips; inclining forward; moderately curved inward	1
Neck: Long, well crested; fine and clean at junction with the head; strongly and smoothly joined to shoulders	5
Shoulders: Of medium height; of medium thickness, smooth and rounding over tops; broad and full at sides; smooth over front	6
Crops: Full; level with shoulders	6
Chine: Straight; strong; broadly developed, with open vertebrae	5
Loin and Hips: Broad; level or nearly level between hipbones; level and strong laterally spreading from the chine broadly and nearly level; the hip bones fairly prominent	9
Rump: Long; broad; nearly level laterally; full above the thurls; carried out straight to tail head	8
Pinbones: Wide between; nearly level with hips	2
Thurls: High; broad through	2
Tail Head and Tail: Strong at base without coarseness; the setting well back; tail long, tapering finely to a full switch	2
Chest: Deep; wide; well filled and smooth in the brisket; broad between the forearms; full in the foreflanks	
Barrel: Long; deep; well rounded; strongly and trimly held up	
Flanks: Deep; full	
Thighs: Wide; deep; straight behind; wide and moderately full at the outsides; open, well cut out in the twist; with escutcheon well defined	
Mammary Veins: Large; long	
Rudimentary Teats: Well placed forward of scrotum	
Legs: Medium length; clean; nearly straight; wide apart; firmly and squarely set under the body; arms wide, strong and tapering	
Hair and Hide: Hair healthful in appearance; fine and soft; hide of medium thickness, mellow and loose	1
	10

The offices of the Holstein-Friesian Association of America are located as follows: Secretary's Office, Brattleboro, Vermont; Supt. of A. R., Delavan, Wisconsin; Extension Office, 230 E. Ohio St., Chicago, Illinois.

(EDITOR'S NOTE: This is the fifth of a series of six articles on the dairy breeds in the United States. The next will appear in an early issue.)

Buffaloed

"Look," said the American, pointing to the Statue of Liberty, "there's New York and Liberty—as American as the bison itself."

"My word," exclaimed the Englishman, "do you claim the jolly old bison as your own, too?"

"Surely," replied the American, "the bison is a species of the American buffalo."

"Ho, ho," laughed the Londoner, "if I didn't always think that the bison was something to wash your 'ands in."—Ex.

LIVINGSTON COUNTY TRUST COMPANY

To Young FARMERS SEEKING OPPORTUNITY

Investigate our attractive proposition:

Write to us for details regarding the fertile Genesee Country of Western New York. We will tell you how good farms may be bought or leased on easy terms if you own your own farm implements. These farms offer most alluring prospects for farmers engaged in dairying, raising canning crops, alfalfa and timothy hay, small grain, and sheep and cattle feeders.

Good roads, nearby markets, railroad facilities, schools and churches make these farms most desirable. Address

LEO M. ALLEN, Manager
Farm Department

LIVINGSTON COUNTY TRUST COMPANY
GENESEO, N.Y.

Low Priced Land—Year 'Round Season
Splendid Market

GREATER SUCCESS

LONG stretches of meadow land, green and fresh with the breath of the Atlantic upon it. Sprawling rivers, kissed by Carolina willows, exhaling a silent enchantment that grips the heart with its promise of peace and plenty. A country that knows only Spring; refreshed in summer by cool East winds, warmed in winter by the kindly Gulf Stream, blessed with a natural beauty that never fades. Cattle graze peacefully along the splendid roads that lead to the markets, to wide-awake towns, to excellent schools, to active churches. Rural telephone and electric lines from New Bern throughout the country. The whole is a picture of success. This is the New Bern County, whispering to you of health, of wealth, of happiness. Obey that impulse. Send your name TODAY for Interesting 36 page booklet FREE and without obligation.

NEW BERN, N.C.
CHAMBER of COMMERCE
The LAND of ENCHANTING WATERS

e Guesser is Converted—A Dairy Play

(Continued from page 281)

s as though I'll get a calf like rs, Jack."

ack: "You'll never regret it, z."

cene III—In Katrinka's Living Room

atrinka: "Bill, Joe looks as igh he is thinking about some- g."

ill: "We farmers don't do enough king nowadays. I wish I had had education boys get today. Let's re a bit. Jack, how much did our s average apiece the year you kept a record of them?"

ack: "5,100 lbs. each for the 22 s."

ill: "How many milked less than 0 lbs.?"

ack: "The four we killed."

ill: "The second year you kept rds, we changed our feeding and like the college recommended. much did each average, Jack?"

ack: "6,600 lbs. each for the 18 s."

ill: "Let's see, this is the second in the cow testing association. much did our cows average this year, Jack?"

ack: "10,620 lbs. each. Each cow red above expenses $150 each. also sold seven calves for a good ."

ill: "Now, Joe, can you see why ays better to be a business farm- han to go by guesswork? Is 0 a month a lot for a tester?"

oe: "Bill, I'm converted. Ka- ca, get dinner quick so we can n up and go up to the county h office to get a cow record book some of those barn sheets. I want to get Boaz a few pencils a pair of milk scales. I want to the county agent about the calf and the cow testing associa- "

ill: "And, Katrinka, we'll be ng for all three of you at the meeting tonight. The dairy ialist is going to tell us how to e more money by growing le- es so as to save on feed bills."

atrinka: "I don't know what le- es are but we'll be there. I don't y have clothes to come in with we'll be there."

e: "Katrinka gets a new dress afternoon so she won't need to shamed that she's Joe Guesser's "

ll: "So long, folks. Come over visit Issie and us. Katrinka, ll want to see Issie's electric er and iron."

ck: "Boaz, you get a stall fixed hat calf."

az: "I sure will. We can get it g away by borrowing the money the bank. I'll have two years y it back." (Good-bye, etc.)

(Curtain)



Camels bring enjoyment to living

SMOKING is one of the keen pleasures of life.

The choice of a cigarette deserves your most careful judgment because it determines the degree of enjoyment you will have. Camels welcome comparison on every count. Compare their goodness in every way. Each successive Camel brings a fresh pleasure no matter how constantly you smoke.

Such mellow mildness can come only from the world's choicest tobaccos, supremely blended, with the sole purpose of giving you, the smoker, a cigarette which you can enjoy to the fullest. The verdict of the experienced smoker is—

"Have a Camel!"

R. J. REYNOLDS TOBACCO COMPANY, WINSTON-SALEM, N. C.

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o-operative Marketing Shown By New Film

e early development and present t of co-operative marketing is ically presented in a new mo- picture, "Co-operative Marketing e United States," just released e United States Department of ulture.

is film, a contribution from the ion of Co-operative Marketing, u of Agricultural Economics, s with scenes of co-operative ac- s in pioneer days, such as barn- gs and husking bees. By means imated charts and scenes of the tions of representative associa- it brings out the gradual devel- t of co-operative marketing and resent extent of the movement. Over twenty associations in a dozen states were visited in obtaining the necessary scenes for the picture.

In addition to showing many processes in the co-operative handling of important farm crops, the film presents in a striking manner the magnitude of the co-operative marketing activities of approximately two million American farmers.

"Co-operative Marketing in the United States" is in two reels. It is the fourth of a series of educational films designed for use by co-operative associations, extension workers, and others engaged in teaching co-operative principles and practices. It differs from the others of the series in that it covers the subject in a general way rather than showing a single commodity or the detailed operations of a particular group of organizations.

Those who can use this film to good advantage may obtain it for a limited period free, the only cost being transportation charges. Requests or inquiries should be sent to the Office of Motion Pictures, United States Department of Agriculture, Washington, D. C.

Courtesy

A haughty lady had just purchased a postage stamp at a sub-station.

"Must I stick it on myself?" she asked.

"Positively not, madam," replied the clerk. "It will accomplish more if you stick it on the letter."



Sell your surplus cows, poultry and other live stock with an ad on our Special Opportunities Page.



I never dread the freshening period now—

WHAT a relief! No more troubles at calving! No sick cows from Retained Afterbirth. No losses from Barrenness due to injuries to the genital organs when lowered in vigor. No lay-off with sickness when the milk crop should be at the peak.

If you have been accustomed to leaving the health and vigor of freshening cows to chance, you know something of the troubles you can avoid by simply giving Kow-Kare two to three weeks before and after calving. The best dairymen in the country make it a regular practice—would not think of getting along without it.

Kow-Kare builds up the vigor of the digestion and the genital organs so that the unusual strain of calf-birth becomes a safe, natural process. The cow comes back to generous milk giving; the calf is a money-asset from the start. Used with unfailing results for over 30 years. A concentrated medicine that costs you nothing to use. The certain milk gain pays for it many times over.

Thousands of dairymen use Kow-Kare sparingly during winter feeding for all their cows. It helps them turn more of their heavy feeds into milk—keeps them responsive, healthy, vigorous. Kow-Kare brings back to health cows troubled with Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Lost Appetite, etc. Try Kow-Kare once and you will not keep cows without it.

DAIRY ASSOCIATION CO., Inc., Lyndonville, Vermont

Makers of Kow-Kare, Bag Balm, Grange Garget Remedy, American Horse Tonic, etc.

KOW-KARE

FAMOUS CONDITIONER OF MILCH COWS



Feed dealers, general stores, druggists have Kow-Kare—$1.25 and 65c sizes (six large cans, $6.25). Full directions on can. Mail orders sent postpaid if your dealer is not supplied. Our valuable free book on cow diseases sent free, on request.

18

LOWELL'S



COW CLEANING PRESCRIPTION

Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It releaves GARGET and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1 a pkg. 6 for $5

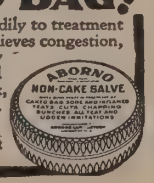
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5904 N. Harlem Ave. CHICAGO, ILL.

END CAKED BAG!

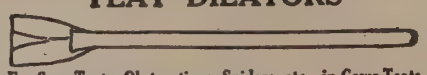
Caked bag and sore teats yield readily to treatment with Aborno Non-Cake Salve. Relieves congestion, stops soreness, softens tissues. Every dairy farmer should keep it on hand for time of need. Send 75c for 9 oz. box, prepaid—money back if not satisfied.

Write for valuable FREE Veterinary Booklet

ABORNO LABORATORY, 14 Jeff Street Lancaster, Wisconsin



PURPUL MEDICATED WAX TEAT DILATORS



For Sore Teats, Obstructions, Spiders, etc., in Cows Teats
Sold by Dealers or Mailed Postpaid. 25c doz. or 5 doz. $1.00

TESTIMONIALS

The greatest thing ever invented for cows teats.
E. Stafford, R5, Little Falls, N. Y.

Did not have much faith at first. Thoroughly convinced they are the remedy.
J. C. Noble, Enosburg Falls, Vt.

FREE Let us prove the merits of Dilators by sending you a package by mail, Free.

MOORE BROS., Dept. H. ALBANY, N. Y.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Dark Calf Pens

From our own observation it would seem that the calf pen ordinarily is considered a somewhat unimportant place in the cow stable and we fancy a wide investigation would show that in perhaps a majority of instances it is otherwise than sanitary. It may be for this reason that diseases of young calves are so prevalent. Of these may be mentioned navel and joint infection, calf dysentery or scours, fits or convulsions, and ringworm. Lice are also most prevalent in dark, dirty, damp, and badly ventilated stables.

It is of supreme importance that the calf pen be roomy, clean, and light and every stable for farm animals should be well ventilated. Some breeders seem to think that direct sunlight is bad for young calves, as they keep them in a pen week in, week out, for months at a time, and in some instances calves are practically kept prisoners for the first year of their lives. If the pen is roomy, light, and well ventilated and the ration complete, the calves may not, apparently, suffer in consequence of confinement; but when the calf pen is like the "black hole of Calcutta," so to speak, the health of the young animal is sure to be impaired, robustness absent, and tendency to disease intensified. Even the pen that is fairly well lighted and that is kept fairly clean is a poor place for the young calf; for nature intended free exposure to fresh air and direct sunlight, together with active exercise on pasture. In all instances, according to our way of thinking, constant confinement in the stable is injurious to any animal and especially so to the young, growing ones. It surely lessens resistance to disease, weakens the constitution, and entails upon future herds of cattle lessened vitality, robustness, and, possibly, prepotency.

It has been thought that when sunlight was allowed free entrance, through the specified "four square feet of window glass" for each animal, germs would be killed, all of the benefit of direct sunlight obtained, and the animals therefore be enabled to grow fully, retain constitutional vigor, and escape or resist disease; but that scarcely is the case. Scientists have proved, in recent years, that the ultra-violet ray, or "tanning ray," of the sun does not penetrate glass. Sun parlors and the sunny hog houses that have largely replaced the old dark houses for swine, are comfortable on account of the heat that comes from free entrance of sunlight; but they lack the ultra-violet ray and that is absolutely necessary for the perfect development of the young animal's frame and is likewise of great benefit to every animal. It is this ray that causes lime to deposit in the bones and phosphorus to enrich the blood. It is, in itself, a remedy for rickets, when not too far advanced and provided the ration is also made complete, and is a sovereign preventive of rickets. It only has its beneficial effect when the sunlight comes into direct, untrammelled contact with the skin and that should be allowed every day when the sun is unclouded. Do away with the dark, dismal, dirty dungeon in which so many calves pass a miserable existence and are injured for life. Provide sanitary stabling and make it possible for the young animals to have a direct outdoor sun bath on every fine and at the same time take needed exercise.

For Leaking Teats

HOARD'S DAIRYMAN:—In your azine of Jan. 25, S. M. St. Kansas, asks for remedy to pr cows losing or leaking milk.

I have a fine Holstein, now 5 old, that leaked milk two seasons bad. I wished to send her t butcher, but she gave so much and losing a large part of it t could not get her in condition.

I then began to treat the teat ter each milking with a 2% sol of oil of tannin, using a small an of alcohol to prevent freezing, have no more trouble. I use a bottle with opening large enou admit the end of teat and simply the liquid against it.

Colorado. R. W. WILLOUGH

Death of Calves

We are having trouble with our calv ing, having lost four. They get a s at the navel after they are a few da Digestive system seems to be in shape. They refuse to drink after bein for a short while. Swelling is small and before the calf dies it covers alm entire stomach underneath. The las that got this trouble we opened the and it lived. About a week ago we ga barn a thorough cleaning and disinfecte a 1—40 solution of dip. A couple of da ter a cow freshened with a calf that se be a little premature and now this swelling in the same way although the was painted with iodine as soon as d This cow had a fall and we think this premature freshening. The other calve been dropped at full time.

Waterville, Iowa. W. A

Pus-forming germs and other invade the navel at birth and an abscess to form at that part secondary abscesses form in the or joints. In some instances can be little doubt that the infe has occurred before birth. Infe with the contagious abortion d is a possibility and to determin your veterinarian should the have a sample of blood from cow tested at the state exper station, veterinary departmen Ames. To disinfect the stable, a thorough cleansing, use a mi of 1 part of compound cresol tion and 30 parts of water, or of coal tar disinfectant and 20 of water. Include the floor and ters and follow disinfection b plying freshly made lime-wa every part of the stable. At saturate the navel with a 2 pe solution of mercurochrome and apply powdered starch. Repea application daily until the nav dried and shriveled. Have you erinarian give each new born hypodermic treatment with a bi antagonistic to the infection as as that can be done after birth

Impotent Bull

Could you advise me what to do or bull that doesn't serve and is lazy? every cow is coming back. He was mu ter at first and is two years old. I ha the same trouble with three bulls.

Saginaw, Mich.

Retire the bull from service f months and during that time him daily in harness, or at lea him take active outdoor ex every day. Overservice, whe young, and lack of outdoor ex tend to cause impotency. Do no bull run with the cows. Also adequate and complete feedin cluding minerals.

Impotency of Bull

Is the injury derived from serving to cows permanent to a young bull? Co with good care, be brought back to no and about what would be the required

Lavalle, Wis. J.

A young bull will be likely to er his lost "bullhood" if retired service, generously fed, and wor harness or otherwise, or at least to take active outdoor exercise

Will Anyone Accept This Pipe-Smoker's Challenge?

Wedded to one tobacco for twenty-one years, veteran defies anyone to claim longer record

Twenty-one years is a long time to stick to any one product—particularly tobacco. Because even though over a period of years a tobacco may not change in flavor or quality, a smoker's taste generally does.

So it is all the more remarkable to receive such letters as that from Mr. Roberts of South Dakota, reproduced below. Evidently, there is something about the unchanging quality of Edgeworth Tobacco that keeps a smoker's taste unchanging, too.

Read Mr. Roberts' letter:

Columbia, S. D.
Sept. 9, 1926.

Larus & Bro. Co.
Richmond, Va.
Gentlemen:

I am a veteran of the Edgeworth army, still in active service.

I make this claim, challenging all comers, to have smoked Edgeworth and nothing else but Edgeworth (when it was possible to get it) for a longer period than any other person within the scope of your territory.

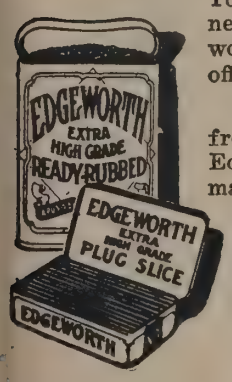
I have smoked Edgeworth for twenty-one years and will soon start on the twenty-second.

I'll admit to having tried other brands, including so-termed high-class, high-priced blends and mixtures, enough to appreciate and satisfy myself of the superiority of Edgeworth.

In all these years I have never had one can of Edgeworth that varied in flavor or otherwise.

I can enumerate other excelling qualities of Edgeworth, but its selection above all other brands for a term of twenty-one years testifies, for my part, all there is to say for this most delicious and satisfying of all smoking tobaccos. Yours very truly,

(signed) J. J. Roberts



To those who have never tried Edgeworth, we make this offer:

Let us send you free samples of Edgeworth so that may put it to the pipe test. If you like the samples, you'll like Edgeworth wherever and whenever you buy it, for it never changes in quality.

Write your name and address to Larus & Brother Company, 15-0 S. 21st Street, Richmond, Va.

We'll be grateful for the name and address of your tobacco dealer, too, if you care to add them.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Edgeworth Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound, and also in several handy in-between sizes.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Edgeworth Ready-Rubbed for the same price you would pay the jobber.

On your radio—tune in on WRVA, Richmond, Va.—the Edgeworth Station. Wave length 256 meters.

day. Six months of such treatment should suffice, provided the bull is not a confirmed masturbator. That vice is incurable and should be a cause for castration.

White Scours

What do you recommend for white scours in young calves?

Spencer, Mass. J. R. S.

To prevent the infectious or germ-caused form of dysentery in the newborn calf, which popularly is called white scours or calf cholera, we advise following procedure:

Provide a new, sanitary calving pen and calf pen. Keep these pens disinfected, whitewashed, and freshly bedded. At birth, immunize the calf with polyvalent calf-dysenteric serum, or use the white scour bacteria according to directions given by the maker. Also saturate the stump of the calf's navel with tincture of iodine or a 2 per cent solution of mercurochrome and then dust it with powdered starch or finely sifted slaked lime and repeat the applications daily until the cord dries up, and no raw spot remains. Feed the calf the milk of a cow that has been giving milk for some time instead of the dam's milk.

Garget

I have a 4½-year-old grade Jersey cow which freshened 3½ months ago with her third calf. She had milk fever very bad. No milk fever pump being available, a Ford pump was used and brought her through in good shape. Now about once a month one quarter gets hard and feverish for about a day or two, then goes away. Does not seem to affect either quality or quantity of milk. Could this be caused by heat periods or injury to the udder by milk fever treatment? She is giving 38 lbs. of milk daily now on alfalfa hay and commercial ground dairy feed. What treatment, if any, do you advise?

How may I prevent a return of milk fever when she freshens again? Have been advised to keep her in the barn for ten days before freshening and kept on very poor feed. Do you think that would help or should she be turned out for exercise?

Willapa, Wash. T. D. H.

The simple form of garget described may be induced by coming in heat or heavy feeding, but possibly was caused by infection at time of milk fever treatment. At times of attack strip the udder clean every hour or two during the day and in the evening rub in a mixture of one part each of turpentine and fluid extract of poke root and eight parts of lanolin, lard, or sweet oil. To prevent milk fever feed a light, laxative ration; as calving time approaches have the cow take outdoor exercise every day, and let the calf nurse for a week from birth.

Barrenness

Is there anything to be done or given to a cow to make her get in calf? I have a pure-bred Guernsey cow eight years old that calved early last May and have not been able to get her to stick yet.

Chisago City, Minn. M. M. A.

Medicinal treatment rarely helps in such a case unless the cow is very fat in which case administration of potassium iodide may prove beneficial. The dose is one dram given twice daily in water until it causes a discharge from the nostrils. When that occurs the treatment should be discontinued but may be repeated later, if needed. The cow should not be bred if she comes in heat while receiving the drug. In a majority of instances, however, infection of the lining membrane of the neck of the womb, or womb proper, is the cause of such sterility and that requires local treatment with antiseptics applied by a qualified veterinarian.

Ringworm

What should I do for my stock with barn itch? The men that take care of them have got it, too. I always whitewash my barn in the summer time.

Fort Plain, N. Y. H. G.

Isolate affected cattle and then cleanse, disinfect, whitewash, and properly light and ventilate the stable. Ringworm or "barn itch" is caused by a vegetable parasite that lives on damp woodwork and walls as well as on the skin. The disease is communicable to man. Treat by saturating the spots with oil until the scabs or crusts can be removed without drawing blood. When that has been done apply strong iodine ointment upon and around each spot. Do that two or three times daily for two or three days, and then apply the ointment as often as is seen to be necessary. Bathe spots around eyes with a solution of hypochlorite of soda ("B-K"). If many cattle have to be treated it will be cheaper to wet the sores on the neck, body, and legs with a solution of 4 ounces of bluestone per pint of hot water. Apply it at intervals of 6 or 7 days.

Tuberculin Testing

I am writing you for information in regard to T. B. test on cattle. Is it possible that a cow badly infected with T. B. may not react to, say, the intradermic test, which is now mostly used, and remain in the herd and continue to be a "spreader?"

Would it be advisable to apply a combined test to such suspicious cases?

Davenport, Ia. O. R.

It is possible for a cow to be so saturated with the poisons of tuberculosis infection that she fails to react to the subcutaneous or thermal tuberculin test, but she would be much more likely to react to the intradermic test.

In all retests and "suspicious" cases it is best to combine any two of the three standard methods of tuberculin testing.

"Give me a round-trip ticket."
"Where to, please?"
"Back here, you loon."



More Milk Guaranteed

Leaving the health of the cow's udder and teats to chance is like milking into a leaky pail. The slightest injury to these delicate tissues means sure milk loss.

Let Bag Balm be your guarantee of a full, easy milking. This marvelous penetrating ointment quickly heals any cracked, chapped, injured teats. Inflammation or injuries to udder or teats is reduced almost at once, the tissues restored to normal action. This great healer is surprisingly effective in treating Caked Bag, Bunches, Cow Pox. It is compounded especially for use on the udder and teats, but has hundreds of healing uses on the farm. Clean, pleasant odor; cannot taint the milk.

Feed dealers, general stores and druggists have Bag Balm, in the big 10-ounce package for 60c. If you have trouble getting it order from us.

Booklet, "Dairy Wrinkles," free.

DAIRY ASSOCIATION CO., Inc.
LYNDONVILLE, VT.



STOPS LAMENESS



from a bone spavin, ring bone, splint, curb, side bone, or similar troubles; gets horse going sound. Absorbine acts mildly but quickly. Lasting results. Does not blister or remove hair, and horse can be worked. At druggists, or postpaid, $2.50. Horse book 9-S free.

Pleased user says: "Had a very lame horse with bone spavin. Now sound as a dollar; not a lame step in months. Working daily."

ABSORBINE
TRADE MARK REG U S PAT OFF
W. F. YOUNG, Inc. 454 Lyman St., Springfield, Mass.



Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.
The Newton Remedy Co.
Toledo, Ohio.

SPOHN'S DISTEMPER COMPOUND



Keep your horses working with "SPOHN'S." Standard remedy for 32 years for Distemper, Strangles, Influenza, Coughs and Colds. Give to sick and those exposed. Give "SPOHN'S" for Dog Distemper. Sold by your druggist. If not, order from us. Small bottle 60 cents, large $1.20. Write for free booklet on diseases.
SPOHN MEDICAL CO. Dept. 4, GOSHEN, IND.

HORSES MULES & DOGS

Soft Absorbent Texture →
Small rounded end easy to insert



Dr. Naylor's
MEDICATED TEAT DILATORS

For the treatment of Spider, Obstructions, Hard Milkers, Cut and Brused Teats, etc.

Made of an absorbent texture capable of carrying the Medicated Ointment into the teat canal to the seat of the trouble. They heal the teat and keep it open.

Three doz. Dilators, sterilized and packed in jar of Medicated Ointment, $1.00. Sold by dealers or mailed post paid. Manufactured by
DR. H. W. NAYLOR, VETERINARIAN, MORRIS, N. Y.

Wonder Healing Compound FOR MAN or BEAST
—It's CORONA WOOL FAT

Soothing Healing Ointment That Works Like Magic



Corona Wool Fat is made from the oil extracted from sheep's wool. It's different from any salve or ointment you ever tried. It heals and soothes, but will not smart or blister the most sensitive wound. It has healed thousands of stubborn wounds where other lotions have failed.

Hardly a day passes but what you'll find some use for Corona. For sore shoulders, sore necks, collar boils, split hoofs, scratches, sore teats on cows, caked udders, cuts, wounds, burns of any kind on man or beast it is unequalled.

LIBERAL SAMPLE FREE Corona is sold by nearly all druggists or direct from us on receipt of price—**8 oz. tins 65c, 20 oz. tins $1.25,** postpaid. If you will send your name and address, we'll mail you a liberal sample and book of uses Free. We want you to see for yourself the wonderful healing properties of Corona.

CORONA MFG. CO., 416 Corona Bldg., Kenton, O.

[6]

Wisconsin Jersey Meeting

At the recent meeting of the Wisconsin Jersey Breeders' Association, Professor G. C. Humphrey advised the Jersey breeders to organize their forces for a definite program in order that Wisconsin may continue its pace at the head of the dairy industry. F. B. Astroth of the American Jersey Cattle Club advocated a breeder's code of ethics.

It was again voted to offer a trophy to the Jersey herd of at least ten cows that makes the highest herd average in a Wisconsin testing association during the year 1927.

Officers for the following year are: Glen W. Vergeront, president; G. B. Reedal, vice-president; A. F. Block, secretary and treasurer.

Wisconsin. G. W. VERGERONT.

JERSEYS

Write For

SALE-LIST

of bred daughters of Xenia's Sultan and You'll Do's Volunteer. Breed up **QUALITY TYPE AND PRODUCTION** in your Jerseys with an **ELM HILL BULL.**

ELM HILL JERSEYS,
LEE BOYCE, MGR.
Brookfield, Mass.

BUY ENGLISH JERSEYS

Good Cattle — Moderate Prices

FOR SALE. Bull and heifer calves from hardy and heavy milking strain. We will also sell some very good cows. Inspection invited.

HON. MRS. LIONEL GUEST, Ferring,
Goring-by-Sea SUSSEX, ENGLAND

For Sale

REGISTERED JERSEY BULL ready for service, out of high production stock; **ALSO REGISTERED JERSEY BULL CALF.**

My herd of a little over 100 registered Jerseys is one of the best in the country today. A herd sire from it will increase your production.

D. A. CURTIS, Jamestown, N. Y.



THE CID'S CLEOPATRA 505797, IMP.
10,455 lbs. 5.27 per cent milk in 361 days.
Dam of our herd sire,
THE CID'S FONTAINE.

FOR SALE—BULLS and HEIFERS.
Also COWS and HEIFERS in calf.

A. F. BLOCK
R. F. D. No. 5, WAUKESHA, WIS.

BURN BRAE JERSEYS

Ibsen's Chief—herd sire. Serviceable bulls and younger from high producing dams including the state champion in the 305-day division. We now have 16 cows on R. of M. test, and a choice lot of young stuff, both sexes for sale.

Federal Accredited herd and no abortion.
CHAS. A. PETERSON, Rosendale, Wis.

Easton Farm

-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
H. W. DAY, Mgr. LA CROSSE, WIS.

JERSEYS

MAJESTY'S and SYBIL'S — of Quality
Offering 6 well grown heifers of excellent type and quality—ready to breed.
CEYLON COURT FARM, G. D. GILBERT, Manager
LAKE GENEVA, WISCONSIN

JERSEY HEIFERS

University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.
AMBERG FARM, Hillsboro, Wis.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
H. S. HAGER, PRAIRIE DU SAC, WIS.

HEAVY PRODUCING
JERSEYS

Serviceable bulls and younger for sale, from herd that averaged 505.01 lbs. butterfat in C. T. A. past year. Accredited herd, no abortion. Prices reasonable. Write or call and see herd.
W. H. EDDY HOWARD LAKE, MINN.

FINANCIAL KING JERSEYS

Our bulls of serviceable age have been sold but we have a few excellent calves from R. of Merit cows. Prices reasonable.
COLDWATER JERSEY FARM, COLDWATER, MICH.

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

Traded a Team and Wagon for Jerseys



A few years ago the Thornleys of Oregon determined to start with pure-bred Jerseys. Conditions made it necessary for them to trade some equipment, harness, a wagon and a team, for foundation stock.

Last month one of their young cows completed an official test with a record of 913 lbs. of fat and 18,867 lbs. of milk; another produced over 850 lbs. of fat and 14,513 lbs. of milk. Confidence in the Jersey was not misplaced.

Write for a free copy of JERSEY FACTS.

THE AMERICAN JERSEY CATTLE CLUB, Dept. B,
324 West 23d St., NEW YORK

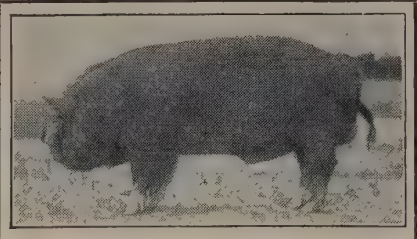
Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Buy from Hoard's Dairyman advertisers. They are reliable.

SWINE



BERKSHIRES

The Quality Breed

Consumers of meat now-a-days demand quality. In this respect Berkshires are the undisputed leaders, as the results of any International Show will prove. Our Berkshires have quality, are prolific, easy feeding, and big type.

Write for facts!

PINEHURST FARMS
PINEHURST, N. C.
Ayrshire Cattle and Berkshire Hog Breeders

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM
MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

AYRSHIRES

South Farm Ayrshires

Will sell a limited number of Young HEIFERS and BULLS.
Let us know your wants.
SOUTH FARM, Willoughby, Ohio

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

Spring Valley AYRSHIRES

Accredited Herd
Foundation FEMALES - BULLS
For Sale At All Times!

Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL
AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us.

Federal Accredited Herd.
SYCAMORE FARMS, Douglassville, Berks Co., Pa.

Penshurst Ayrshires

HEALTH—PRODUCTION—QUALITY
Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.
PENSHURST FARM, NARBERTH, PA.

A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.
GLEN FOERD FARMS TORRESDALE, PA.

AYRSHIRE COWS
FULLY ACCREDITED
300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

WOOD FORD FARM
AVON, CONNECTICUT
— OFFER —
Grandson of the World's Champion Mistress Thistle of South Farm.
Sire—McAllister Betty's Son.
Dam—Barclay's Thistle. R. of H. record, 9159 milk, 4.02% fat, Class EE.
J. J. ANDERSON, SUPT.

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 3 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.
ALDEBARAN FARM, E. J. Nelson, Mgr., Racine, Wis.

AYRCROFT FARM

is offering some **good bargains in Ayrshires.** Write for what you want. Herd Federal **Accredited.**
B. B. SIMMONS & SONS, PEWAUKEE, WIS.

WITH THIS END IN VIEW



— You Can't Resist the Ayrshire!

For the "business end" of the Ayrshire is a model of beauty and usefulness. — A long, level rump, clean-cut thighs, sturdy feet and legs, and an udder with every ideal characteristic are constantly before those farmers fortunate enough to have this end in view.

These farmers have learned that Ayrshire udders are built to produce and wear for the life of the cow. With ample size, perfect shape and strong attachments, Ayrshire udders also possess that mellow, elastic quality that means heavy production year after year.

With This End In View The Ayrshire Is The Most Profitable Cow

Write for booklets or let us help you get a foundation.

AYRSHIRE BREEDERS' ASSOCIATION
10 Center Street BRANDON, VERMONT

GORDONDALE GUERNSEYS

CONSIGNMENT

— TO THE —

WAUKESHA COUNTY SALE

Waukesha, Wis., March 23

The best proven production son of Ladysmith's Cherub—Cora's Cherub of Shorewood 58822 A. R. 11 A. R. daughters, average 543 lbs. fat at an average age of 2 yrs., 173 days. Also 7 high class females—good individuals—A. R. records—in calf to the best Cherub sires.

Federal Accredited.

L. E. GORDON, Jr., Nelsonville, Wis.

LUXERIN GUERNSEYS

(SHERIDAN'S)

Fond du Lac - Wisconsin

TWO VERY HIGH CLASS YOUNG BULLS, born Feb. 9th and Feb. 10th, well-grown, good color, very good type (show kind) sired by Saugerties May Rose King 50343 A. R., one of Wisconsin's best sires. Dam's records 677.13 fat A. A. and 652.8 A. respectively. Accredited herd. Blood tested.

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y — WAUKESHA, WISCONSIN

A Real Guernsey Bull

Combining production with type. Born Nov. 10, 1925. Sire's 3 nearest dams average 760 lbs. fat, his daughters producing 20 to 30% better than dams. Dam's record 667 lbs. fat A. She has a 746 lbs. fat daughter. A show bull. Best breeding. Herd accredited abortion free. Write

MAPLE CREST FARM
Random Lake, — Wisconsin

BULL CALVES

No. 1—born 5-30-26, light fawn and white, C. T. A. dam.

No. 2—born 6-28-26, fawn and white, dam 553 lbs. fat class A.

Typy bull calves at farmers' prices F. O. B. Athens. Herd Federal Accredited and free of Abortion.

HELENDALE FARM, — Athens, Wisconsin

WANTED — Yearling Pure-bred GUERNSEY BULL

dam's record must exceed 600 lbs., prefer solid fawn. Mail records and particulars to

EDWIN EVANS, Mgr.,
INGERSOLL-TILDEN FARMS, — Delavan, Wis.

GUERNSEYS! GUERNSEYS!!

GRADE and PURE-BRED, compare our price, type and quality before buying. Now is the time to buy fresh and springing cows.

FOND DU LAC GUERNSEY BREEDERS' ASS'N.,
Geo. M. Newlin, Sec., — FOND DU LAC, WIS.

GUERNSEYS! GUERNSEYS!

Carloads of pure-breds or grades. Prices are right. Come or write.

LACROSSE COUNTY ASSOCIATION,
VILAS YOUNG, Sec., — West Salem, Wis.

Guernsey Cows and Heifers

I have for sale a few good young registered cows and heifers from A. R. dams. The price is right. The herd is clean. Write or come to the farm.

J. M. HARVEY, — R. 2, Waukesha, Wis.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.

A Federal Accredited Herd

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

AUCTION—MARCH 16

At Fond du Lac Sale Pavilion

Fond du Lac, Wisconsin

500 HEAD

Tuberoulin Tested and ready for Inter-state shipment

300 GUERNSEYS
200 HOLSTEINS
Fresh and Close Springers

These cattle will be sold in lots of one, two and three, five and ten head.

This will be the largest grade sale ever held in the world!

Cattle guaranteed to be as represented.

Sale Opens 9 A. M., — Wednesday Morning, — March 16th, 1927

CATTLE CAN BE INSPECTED DAY BEFORE SALE

For information write O. G. CLARK & CO., — West Salem, Wisconsin

First Annual

AUCTION SALE

MONDAY, MAY 9

Foremost Guernseys

FIFTY HEAD, a very select offering from our federally accredited herd of 300 head. Cows in milk, fresh and bred, bred heifers, heifer calves, bulls and bull calves.

The high standard of excellence in our herd, eighty-four A. R. cows in the herd average 11,671.5 lbs. milk, 603.8 lbs. fat; Premier Exhibitor 1924, 1925 and 1926 winning 601 prizes at State, National, Sesquicentennial, and Major shows including Premier Exhibitor at National Dairy Show 1924-1925-1926, assures prospective purchasers securing animals of herd improving qualities.

Bulls bred to sire Production, Type and Reproduction.

Females worthy a place in any herd, they are especially valuable as foundation animals.

Catalogue only on request to

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. — JIMMY DODGE, Mgr.

Guernsey Heifers FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

PROVINCE LINE FARM

BULL CALVES from 2 months to year old. Sired by our great bull, Langwater Bravery and from high producing A. R. dams. Pedigrees and prices furnished on application.

J. W. MILLER, Owner, Box 73, PRINCETON, N. J.

Springers and Fresh Cows

HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., — WEST SALEM, WIS.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

GEO. E. LARSON, AMHERST JCT., WIS.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

Shoveling Snow With a Scythe —

There's a man in your neighborhood who is trying to make a few dollars by milking a few cows. Ordinarily, his intelligence is above the average, he is a hard worker, and he tries to be a good farmer, but—

He's just neglected to consider the business side of dairying. He still uses a scrub bull, and he doesn't keep record on his cows. He might just as well try to shovel snow with a scythe. We could tell him about some farmers who are making *real profits* from Guernseys. Tell him to write for

"THE STORY OF THE GUERNSEY"

THE AMERICAN GUERNSEY CATTLE CLUB
8 Grove St. — PETERBORO, N. H.

High Grade Dairy Cows

The Chicago Dairy Cow Exchange is offering at private sale high class dairy cows, mostly Guernseys and Holsteins. Most of them are fresh or springers. These cows come direct from herds in accredited counties, from accredited herds, or herds that have passed at least one clean test.

When you are in the market for healthy, profit producing, cows, come to the "Exchange." Write us today for complete information.

CHICAGO DAIRY COW EXCHANGE
Reid Murray, Manager — Union Stock Yards, CHICAGO, ILLINOIS

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

H-O-L-L-I-S-T-O-N

SPELLS

PERSISTENT PRODUCTION and REAL ANIMALS

Build up your herd by using a bull calf whose sire and dam come from *persistent* producers and real individuals. Our prices will interest you if you want a REAL sire.

D. G. TENNEY, — 15 West Fourth St., — NEW YORK CITY

BUY LADYSMITH CHERUB BLOOD

Shorewood Farm offers the bull, SHOREWOOD HERO, a double grandson of Ladysmith's Cherub whose 19 A. R. daughters average 600 lbs. fat. Dropped April, 1926, solid fawn, good individual. Sire—Cherub's Royal Leader of Shorewood (senior herd sire) whose dam, Pearl of Pomeroy, has 777 lbs. fat in AA., full sister to Pearl's Dot, 965 lbs. fat AA. Leader's first three daughters on test are doing exceptionally well. Dam—Cherub's Procris of Shorewood, undefeated 2-year-old and grand champion at 3 large shows, 1925. A. R. record 10,500 lbs. milk, 540 lbs. fat Class G. while on show circuit. Her dam, Ma Chere Procris, National grand champion 1921, A. R. record 17,900 lbs. milk, 831 lbs. fat, Class A. A wonderful combination of Ladysmith Cherub, May Rose and Jardinere Masher blood. Write for pedigree and price.

SHOREWOOD FARM, — CRYSTAL BAY, MINNESOTA

FOUNDATION GUERNSEYS

FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, — DEERFIELD, ILL.

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, — Deerfield, Illinois.

GUERNSEY BULLS

of MAY ROSE, GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

100 GUERNSEYS

REGISTERED — *To be sold at the twenty-fifth and semi-annual sale of the* — SELECTED

Waukesha County Guernsey Breeders' Association

SALES PAVILION

MARCH 23d, WAUKESHA, WIS.

It has always been our aim to select animals with quality that are pleasing to the eye and good producers. We have various ages to offer which are the result of years of careful breeding by reliable breeders.

In selecting the largest number of animals we have ever offered at one time, we assure you we had profit producers in mind at the time of inspection. We have cows fresh and due to freshen soon, yearlings and two-year-olds, choice heifer calves very suitable for club work, and a few choice males of serviceable age.

Following are a few of the many good Females:

Imp. Modesty of Edgemoor A. R. record of 504 lbs. fat in Class GG.
Sunny Slope Pearl Rose whose dam has 745 lbs. fat.
Rosemary of Maple Hill whose dam has 618 lbs. fat.
Muskego Merry Maid, a daughter of Itchen May King, Grand Champion, National Dairy Show. Dam has 608 lbs. fat.
Peggy of Gordondale, A. R. record of 531 lbs. fat at 3 years.
Daisy's Rosalla. Dam has 612 lbs. fat.
Royal's Duchess of Maple Hill, A. R. record of 572 lbs. fat.
New Hope Cherub's Susan, dam has 564 lbs. fat, and bred to a bull whose dam has 900 lbs. fat.
Three daughters of Dairymaid's Criterion of Iowa out of high record cows.
Beauty's White Face of Maple Heights, 1st Prize in 1926 at seven of the leading state fairs and dairy shows.
Anna Laura's Glenwood Girl, a very beautiful cow fresh at sale time.

A Few of the Males:

Danny's Glad Lad of Fern-Dell, 1st Prize at 2 leading shows in 1926. Dam has 700 lbs. fat.
Tillybardin Topsy Boy, dam has 605 lbs. fat, and sire's dam 629 lbs. fat.
Cora's Cherub of Shorewood, whose sire is Ladysmith Cherub, dam has 734 lbs. fat Class AA.
Kate's Alvin whose 6 nearest tested dams average 605 lbs. fat.
Aralia's Girl's Prince, sire's dam has 614 lbs. fat and dam has 551 lbs. fat.

All animals are tuberculin tested, ready to ship anywhere. If you are interested in Guernseys, this is your opportunity, and you cannot afford to miss this sale.

AUCTIONEERS: LOVE and BENJAMIN

Catalog sent only on request

F. E. FOX, Secretary — **WAUKESHA, WISCONSIN**

NOTE: March 22—Dispersal Sale, B. L. Rundell, Livingston, Wis. Chas. Wilkins, Platteville, Wis., Sales Manager.
March 24—Annual Consignment Sale, La Crosse Guernsey Breeders' Association, H. W. Griswold, West Salem, Secretary, and Sales Manager.

200 GUERNSEYS

The Old Reliable

La Crosse County Guernsey Breeders' Ass'n

WILL SELL AT

WEST SALEM, WIS., MARCH 24

75 Registered COWS, HEIFERS and BULLS of the best families of the breed. A. R. cows and sons and daughters of A. R. cows. Also Murne Cowan's King 52375 whose dam and sire's dam average 1027.78 lbs. fat highest for the breed.

125 HIGH GRADE SPRINGING GUERNSEY COWS and HEIFERS. Many with large C. T. A. records. The choice of many herds.

All from Federal Accredited Herds or just tested. Sold in the heart of an Area Tested County.

Send for Catalog and full information at once

H. W. GRISWOLD, Sale Manager, West Salem, Wis.

OTHER SALES—WAUKESHA GUERNSEY BREEDERS SALE, MARCH 23.
BRIAN RUNDELL DISPERSION SALE, LIVINGSTON, MARCH 22.

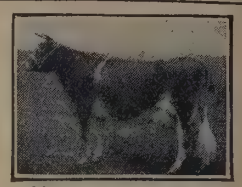
LINWOOD GUERNSEY SIRES

COMBINE TYPE AND PRODUCTION

PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. **CINDERELLA'S FAME OF MOUND CITY 78385.** Dam: Cinderella's Josephine 909 lbs. fat.

2 REGISTERED BRED HEIFERS also **4 FINE BULLS** with A. R. dams, records 740—669—634 and 624 pounds fat. Write for prices and pedigrees.

LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.
Homer Rundell — Federal Accredited Herd



SOLD FOR $22,000.00

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

BULLS—HIGH CLASS FEMALES

SHOW TYPE—PROFITABLE PRODUCTION

We have for sale a few first class bulls, serviceable and younger from A. R. dams, and can also offer some good, young, registered cows and heifers. For several seasons our herd was successfully exhibited at the larger midwest shows. Cherub breeding. Write us or come to the farm.

L. P. MARTINY, — **Chippewa Falls, Wisconsin**

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) **MUKWONAGO, WIS.**

GUERNSEYS

Good proven BULLS or Good YOUNG BULLS at prices you want to pay. Write

LARSEN'S FERN-DELL GUERNSEY FARMS A. W. FOX Manager — **Green Bay, Wis.**

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. — **APPLETON, WISCONSIN**

BUTTERGOLD GUERNSEYS

BUTTERGOLD CHARMER born October 12, choice bull calf, light fawn and white, good conformation, very pretty. Dam now on test, both grandams A. R. Nat. Grand Champion breeding. Fed. Acc'd. No abortion.

TARR BROTHERS, NEW AUBURN, WISCONSIN

COMPLETE DISPERSION!

VILLAGE FARM GUERNSEYS

Tuesday, March 22d — Livingston, Wis.

50 REGISTERED GUERNSEYS

(Imported and American Bred)

Including 22 head of milking age, 8 bred heifers, 10 open heifers and 10 bulls 4 to 12 months old.

8 of the cows have A. R. records, 7 of which average above 600 lbs. fat, one a class G record of 450 lbs. fat.

There are 2 daughters of Sequel's Slogan with their descendants. The rest of the herd is mostly May Rose breeding.

There are 2 daughters and one son of Imp. Dora of Village Farm (640 lbs. fat) that sold in 1926 National sale for $1200. Also a twin sister with a record above 600 lbs. fat.

Herd is T. B. tested and in good breeding condition.

CHAS. A. WILKINS, Sale Manager, PLATTEVILLE, WISCONSIN

BRIAN L. RUNDELL, Owner, Livingston, Wis.

WAUKESHA SALE, MARCH 23, FRANK FOX, MGR., WAUKESHA, WIS.
WEST SALEM SALE, MARCH 24, HARRY GRISWOLD, MGR., WEST SALEM, WIS.

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) **Lloyd L. Dewey, MUKWONAGO, WIS.**

Do These HEIFER CALVES Appeal to You?



They are daughters of Anton's King Confidence, our senior herd sire. He has many more like them. Our younger sires, King Harvester of Prospect and Mixter Claimant, are also getting very desirable individuals. Write us for pedigrees of our sires then you will know what it means to have a bull at the head of your herd from our farm.

Square Udders—Deep Bodies—Dairy Temperament Combined with Persistent Production for Generations

Our bull calves sell fast, consequently we have none of serviceable age to offer. Write us for our reasonable prices on bull calves up to six months of age.

HOARD'S DAIRYMAN FARM — **Fort Atkinson, Wis.**

ry Herdsmen Available

March 20, sixty men will have ted all or a part of the work Herdsmen's Course at Iowa College, Ames, Iowa. These ave all been raised on farms er two-thirds of them are pri- interested in dairy cattle. farm experience coupled with contact with the winter live short course at Ames qualifies to serve dairy cattle breeders definitely as herdsmen or as- herdsmen, depending some- on their previous experience aturity.

riably these men have made Some of them will return to ome farms; others go into cow association work, and others o locate with good herds where ill have an opportunity to take ponsibility as they prove them- worthy.

breeders who might wish to touch with one or more of these an do so by writing to the Husbandry Department, Iowa College, Ames, Iowa.

S. Brown of Connecticut re- that one of his Holstein cows, Sylvia, has just completed a ecord of 25,162 lbs. milk, 745 at. She was 62 months old at d of her test and during her lactation periods has produced lbs. milk, 1,678.4 lbs. fat.

GUERNSEYS

/e want you understand—

Loma Farms has purchased the re Bay Cliffs Herd, formerly at Bay s, Mich. We are carrying on the e breeding operations.

ding back of the animals we sell fundamental policy with us.

te us for low prices on bull calves.

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
RQUETTE MICHIGAN

NCREST FARMS
ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER
erd Sire, Lancastrian No. 37057, pronounced rities as the best son, individually, of Ne Plus hose offspring, for a number of years past, riably topped the sales of major importance. scendants of this great sire are becoming o secure, and in the near future will be val- quisitions. Breeders desiring the best there is blood will do well to investigate, as we are stock at the right price. Address inquiries to
SMEDLEY, MGR., MEDIA, PA.

gains in Bull Calves
TWO-CENT STAMP CAN SAVE YOU
= From $100.00 to $500.00 =
FOR SALES LIST—FINEST BLOOD
May Rose through King of the May, Secret, Langwater Cavalier; Bell- , France, Glenwoods. Greatest group sires in any herd. A. R. records up lbs. fat.
WAWA DAIRY FARMS,
32nd St., Philadelphia, Pa.

DUCTION BULLS--*Righto*
they sire daughters which produce
A TON OF MILK A MONTH
ead's Banner, sold as a youngster Unseen) for a reasonable price, is the Silverwood's Diana:
ber, 1925—2,158 lbs. Milk—ONE TON y, 1926—2,187 lbs. Milk—ONE TON esent sales list carries equally good ones.
IEAD FARM, 526 Land Title Bldg., PHILADELPHIA

JBLIC SALE
/EDNESDAY, MARCH 30
Y HILLSIDE REGS. GUERNSEYS
re Rockingham Noble, son of Langwa- liston. 17 cows, all young, 11 heifers, z bulls, 8 grade cows, accredited herd. ue sent on request.
E. MARTIN, Waynesboro, Pa.

HOLSTEINS

KING PIETERTJE JEWEL ONA WAYNE
A son of the Grand Champion King Pietertje Jewel Korndyke from a dam that completed the world's record six-generation group. His first six dams in direct line have records averaging over 900 lbs. butter including his dam's record as a two-year-old for only 269 days and carrying calf 227 days. His 16 nearest tested dams average over 1,000 lbs. Born August, 1925. Ready for heavy service.
For Sale or would Exchange for Choice Alfalfa Hay
R. E. DILLON, Williamsfield, Ohio

OHIO HOLSTEINS
Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.
OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St., Cleveland, Ohio.

K. P. O. P. Bulls
If you will need a new sire during the next year get in touch with us. We can offer you just what you want.
HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write
L. E. FERGUSON, LAURENS, IOWA.

SHEBOYGAN COUNTY FOR HOLSTEINS
85% of all cattle in county are Holsteins. Over 200 fine Federal tested herds to select from. Full time field man is at buyers' service. Write or come if you want good Holsteins.
SHEBOYGAN COUNTY HOLSTEIN ASSOCIATION
Arthur V. Jensen, Fieldman PLYMOUTH WISCONSIN

STATE and FEDERAL TESTED **HOLSTEINS**
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.
Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

REGISTERED HOLSTEIN HEIFERS
We offer several bred heifers due in March and April. All are sired by a 1,040-lb. Homestead sire and all are bred to a 990-lb. grandson of Iowana Sir Ollie. Accredited herd.
CHAS. HUGHES & SON, NEENAH, WIS.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association
can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

SERVICEABLE BULLS—FOUNDATION HEIFERS
Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.
BAIRD BROS., Box 177, WAUKESHA, WIS.

Wisconsin Holstein Sales Ass'n

15 Leading Holstein Counties Cooperating

600
Registered Holsteins

To be sold the second and third weeks in April

Beginning April 12

THE SOUTHERN DIVISION of this cooperative sales series is supported by breeders from Jefferson, Rock, Dane, Iowa, Sauk, Columbia, Juneau, and Richland Counties.

THE NORTHERN DIVISION is supported by breeders from Fond du Lac, Washington, Sheboygan, Manitowoc, Wood, Marathon, Taylor and Clark counties.

SALES POLICY—To consign a better class of cattle than is ordinarily consigned to county sales; to pool the advertising strength of these sales into one campaign and to so conduct these sales that they will be a constructive advertising force for the counties supporting them.

WISCONSIN HOLSTEIN BREEDERS are convinced that the county sale must be supported because it is the most helpful agency in building a permanent market for the county.

THE ADVERTISING STRENGTH of such a cooperative effort justifies breeders to consign a better class of cattle than he would be justified to consign to the single county sale.

THEREFORE THE BUYING PUBLIC will have a practical line up of cattle to select from—the kind that develops and proves out in a satisfactory manner.

These sales will be held at different places on succeeding days throughout the second and third weeks in April.

For specific information regarding this sales series and for an illustrated folder, write

James R. Garver, Madison, Wis.
In Charge of Publicity and Sales Correspondence

350 HEAD

U. S. NATIONAL SALE

350 HEAD

Watertown – Waukesha, Wisconsin.
APRIL 27-28-29-30

"The Blue Ribbon Sale"

Oconomowoc, Wis., April 26

EVERY ANIMAL A "TOP"

This does not mean every animal is expected to sell for a long price, but it does mean that every animal will be a desirable one. We are making of this a Production-Type sale and every animal is selected with that in mind.

Watch the coming issues of Hoard's Dairyman and the Holstein-Friesian World for more complete information about the great animals that will be sold.

For Circular or Catalog write

R. E. HAEGER, Algonquin, Ill. — W. L. BAIRD, Waukesha, Wis. — FRANCIS DARCEY, Watertown, Wis.

U. S. NATIONAL SPRING SALE

Watertown and Waukesha, Wis., April 27-30

SMALL ACCREDITED HOLSTEIN HERD

OFFERED AT PRIVATE SALE!

Dissolution of partnership makes it necessary to offer one of our herds for sale. It includes 26 registered Holsteins,—8 cows, 5 to 7 years old; a 4-year-old; three 3-year-olds; eight 2-years-olds; 4 yearlings; one heifer calf and one bull calf. The 8 cows and one 3-year-old are bred to Sir Ormsby Skylark Pontiac Segis, a 37-lb., 1,199-lb. grandson of Duchess Skylark Ormsby and King Segis Pontiac. The others are sired by him and bred to Sir Longfield Neeltje Segis, an excellent 30-lb. bull with good year record backing. Herd is accredited and free from abortion. This is an opportunity to buy what you want, one or a carload. Write or come to the farm.

C. A. SCHROEDER & SONS — WEST BEND, WISCONSIN

5 Registered 2-year-old Heifers

Because our barns are over crowded we are offering 5 registered 2-year-old heifers, bred to freshen March 25 to June 30. Heifers are by a sire from a 982-lb. 3-year-old and their dams are by a 33-lb., 1,287-lb. bull. Their dams have C. T. A. records from 323 lbs. fat to 576 lbs. fat. Our herd averaged 355 lbs. fat, 3.99% test in C. T. A. in 1925; 373 lbs. fat, 4.01% test in 1926. Herd is federal accredited.

We will help any buyer secure more heifers from neighboring herds if desired. Write us today.

H. E. REDDELIEN & SON, — Oconomowoc, Wisconsin



EAR TAG 3105
Born June 24, 1926

THIS SHOW BULL FOR SALE

The sire is closely related to Bess Johanna Ormsby (the only 4 times 40-lb. cow) and the dam is a granddaughter of King of the Ormsbys (102 A. R. O. daughters). She made 18.56 lbs. butter in 7 days at 2½ years and is still under semi-official test, making 350 lbs. in 188 days. First check for $200 takes him.

WINTERTHUR FARMS, — Winterthur, Delaware

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

MILFORD MEADOWS

Where long-distance records and high test counts

Our daughters of King Bess Burke Ormsby (1164 butter) and Marathon Aaggie (1,250 butter) are most all bred to

SIR TRIUNE PANSY (1,317 lbs.)

First to freshen in January. You will be pleased with this combination of type and production.

W. W. KINYON, Mgr., LAKE MILLS, WIS.

DICMERE HOLSTEINS

SHOW TYPE—PRODUCTION

We have for sale bull calves 4 to 10 weeks old sired by Walcowis Ollie Abbekirk, a 968-lb. son of that grand champion, Iowana Sir Ollie. They are from 23-lb. to 25-lb. 3-year-old dams. $150 to $200 and bargains at that price. The herd is federal accredited. Write if you want a bull with type, backed by proven production.

H. E. DICKINSON, — Oconomowoc, Wis.

HOLSTEIN Bulls - Females

YOUR PICK OF 150 HEAD. Abortion tested and T. B. free. First prize National Dairy Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.

F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

Mention Hoard's Dairyman to Your Dealer—It Helps Us

AGAIN — We Offer a Son of Sir Inka May

Again we have a son of Sir Inka May old enough to ship. This one (No. 1895), born August 19, 1926, is exceptionally promising, in fact you can figure on showing him next Fall.

His Two Nearest Dams Average —

Butter 365 days . . . 1214.18
Butter 7 days 35.36

His dam, a cow with a splendid udder, is a big, fine, straight cow that has two records over 33 pounds and one over 35 pounds..

She is a cow that transmits type and production, with three good producing daughters. Her other son sold at the National Sale for $1500.

She has a year record of 905 pounds of butter from 21,296.7 pounds of milk. Her dam is a 28 pound daughter of Sir Skylark Ormsby Hengerveld. Her sire has a 1000 pound sister, a 33 pound dam, and 3 daughters from 32 to 35 pounds.

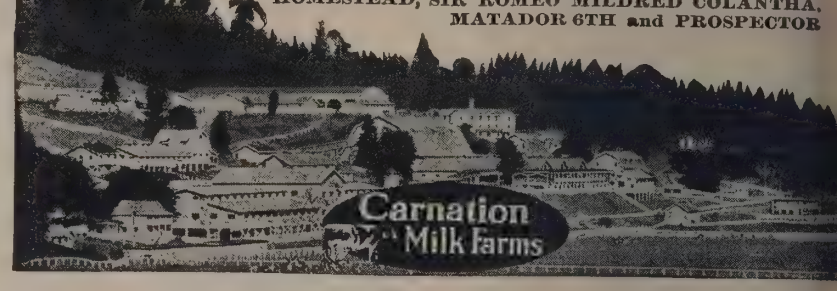
THIS IS ONE OF THOSE EXCEPTIONALLY DESIRABLE BULLS THAT WE PROMISED TO OFFER THIS YEAR. YOUR OWN GOOD JUDGMENT WILL TELL YOU THAT THERE WILL BE FEW OPPORTUNITIES TO SECURE A BULL LIKE THIS

Send for extended pedigree of Sir Inka May

Address all correspondence to

311A CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Sir Bess Ormsby Fobes — Head Your Herd With a "Sir Bess" Bu

We have for sale a few very good young bulls by Bess or from Sir Bess daughters and by Creation. you want breeding, type, and long time production are sure one of them will suit you. Write us or c to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) DOUSMAN, W
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

ABORTION FREE HOMESTEADS

When you buy cows, heifers or bulls do you consider their freedom from abortion ?

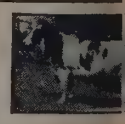
At the present time we take pleasure in announcing the fact that have passed our third consecutive Agglutination (or blood test) w out a single positive reactor in a herd of over 200 animals. Our her also under Federal Supervision for T. B.

IT PAYS TO BUY FROM CLEAN HERDS

We usually have something to sell. Write or wire your wants

MILWAUKEE COUNTY INSTITUTIONS FARM, E. C. THOMPSON, Farm Mgr., WAUWATOSA, W

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

JOHN H. PULS — ALLENTON, WISCONSIN

HOLSTEIN BULL

Offering a light colored March calf si by a 1215-lb. Bull and out of a 24 - year-old that averaged over 80 lbs. of milk a day. PRICE $225.00.

THE NORRIS FARM *Federally Accredited* Mukwonago, Wiscon

Choice HOLSTEIN-FRIESIAN (Registered)

Cows and Bulls For Sale

These cows hold high A. R. Records. Two score to select from.

CLAPBOARD HILL FARMS CO., Inc.
Office at New Canaan, Connecticut
FARMS AT NEW CANAAN, M
DLEBURY, and GOSHEN, CO

A Serviceable "Ollie" Bull

I have FOR SALE at my HIGHLAND FARM, LAKE GENEVA, WIS., KING OLLIE KORNDYKE DE KOL, born Dec. 24, 1925. A good individual sired by a 25-lb. grandson of Iowana Sir Ollie and from a 967-lb. 4-year-old daughter of King Korndyke Pontiac Lass. Write today for pedigree and price to

JOHN H. ALCOCK,
3460 W. Adams St., CHICAGO, ILL.

YOUNG BULL

BORN AUGUST 31ST

DAM, Empress Prilly by a son of the Great Adiro Wietske Dairy Maid. Dam is a daughter of King S Alcartra Prilly. HIS SIRE, Dutchland Colantha Vanderkamp, 31 lb. son of Dutchland Colantha Vanderkamp Lady Segis. 8 nearest dams average 31 in 7 days and 1,000 lbs. butter from over 20,000 milk in 305 or 365 days. ½ White; thin hide, fine h and good individual. Herd accredited. Price $200

W. L. BROWN, Central Village, Co

Our Surplus Purebred And Grade Holsteins

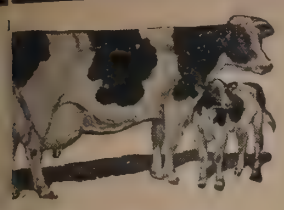
have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

Quality Holsteins

Jefferson County Holstein-Friesian Breeders Asso tion has them. Over 1000 herds to select from. W your wants to our field man.

BERT ANTHES, Fort Atkinson, Wisco



HOLSTEINS

—Producers of Cash!

Holsteins stand supreme as butterfat producers. Holsteins in most instances are leaders in cow testing associations, both in individual and herd records. Under official test the important records for butterfat are all held by Holsteins. Their ability to produce butterfat, milk and calves economically, make them consistent producers of cash.

Write for Holstein Literature and Facts

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN Association of America

30 E. Ohio St. CHICAGO
Room 601

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lealthy Holsteins

are in the market for grade or registered Holfrom tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.
Dearborn, St., CHICAGO, ILL.

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erviceable Bulls

have two young bulls ready for light e for sale. Both are by Segis Prospect ent, a 30-lb., 1165-lb. grandson of Matagis Walker and Segis Pietertje Prospect.

1. Born Feb. 20, '26. An excellent inal nearly white. Dam, De Kol Nether-Homestead, 25.19 lbs. butter, 440.3 lbs. in 7 days. Price $200.

2. Born May 7, '26. A very good, ht, well bred calf priced at $150 to sell y. The herd is clean. Write today.

HE W. T. RAWLEIGH COMPANY
Rawleigh's Ideal Farm, FREEPORT ILL.

---

o You Look Ahead?

ve a choice selection of Bull Calves on hand ill be ready for service before next winter. prices NOW represent a handsome profit for them. The selection is greater. Herd five n Ogle County C. T. A. Federal Supervision lood Tested."

ock River Farms, Byron, Ill

OUNG BULLS

Priced to Sell!

sold out of serviceable bulls but have excellent bull calves 2 to 4 months old, right. They have the type and breedhat will suit you and are from A. R. Write today.

RY M. WOOD, Delavan, Ill.

---

falo Creek Farm Holsteins

are offering BULL CALVES rich in by breeding from tested dams. These rom six to eleven months old. Some as low as $100.00. Write for pedigrees urther information. Herd under federal vision.

HAM BROS., Arlington Heights, Ill.

ARWOOD FARM HOLSTEINS

YOUNG BULLS FOR SALE

youngsters are sired by a 1000 lb. grandson of ietertje Ormsby Mercedes 37th and are from st producing cows. Write today if you want with type and backed by productive breeding.

LANDORF, GLEN ELLYN, ILL.

ULL BORN MAY 23, '26

by a son of "Sir Bess Ormsby Fobes" out of a cow with 995 lbs. of butter in days with 25,000 lbs. of milk. She also 27 lbs. in seven days. He is large, ght, evenly marked. Send for pedigree picture,

WOOD & NELSON, DE KALB, ILL.

---

lyde Park Farm

is now located at

os Park - Illinois

our fully accredited herd of high-producing red Holsteins is headed by a splendid son of lor from a 35 lb. dam. We sell our Bull Calves sonable prices to local dairymen.

JOHN A. CARROLL, Owner
Address all communications to
E PARK FARM - WORTH, ILL.

MOVE QUICK—Nice, Straight Son lan O' War — "That Son of 37th"

—A dandy straight royally bred cow with a udder. 812 lbs. at 3 yrs. Her sire a Son of tha Johanna Lad. Her dam a 26 lb. heifer ter of Dutchland Creamelle Boy. CALF—born pt., well marked, right in every way, for quick $200.00. Pictures and podigree on request.

EMPIRE STOCK FARM
Schmidt's Sons, ST. PETER, MINN.

A 33-lb. Bull

Ready for Service!

His dam has just completed a year record of 987.16 butter and 21,647.9 milk. Her seven-day record is 33.61 lbs. butter from 631 milk.

His sire is from a 31-lb. dam.

BLYTHEFIELD FARMS
JOSEPH H. BREWER, Owner
GRAND RAPIDS MICHIGAN

HOLSTEIN BULLS FOR SALE

EAR TAG 272—Born Aug. 29, 1926. Marked half and half. Two nearest dams average 32.27 lbs. His dam is a 27-lb. cow with a 30-lb. daughter. His sire is by Sir Korndyke Ormsby Piebe and from a 37-lb. cow. **PRICE $250.00.**

EAR TAG 255—Born March 31, 1926. More white than black. Dam is completing record of 800 lbs. Sire of calf is a 30-lb. bull and a maternal brother to a 42-lb. cow. **PRICE $250.00.**

EAR TAG 273—Born July 1, 1926. Marked about half and half. His sire was the Grand Champion at the 1926 Minnesota State Fair and was by Sir P. O. M. 14th. Dam of the calf is a granddaughter of Sir P. O. M. 41st. **PRICE $150.00.**

Act quickly if you need a bull. Pedigrees and further particulars sent on request.

FEMCO FARMS
F. E. MURPHY CO.,
Box 336-B, BRECKENRIDGE, MINN.

---

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 704 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

A GOOD BABY BULL

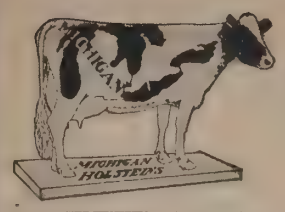
Sired by ST. OLAF ORMSBY SENSATION No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

AKONA HOLSTEIN FARM

BULL CALF born Jan. 9, 1927, very good type. Sire's dam, 1,016 lbs. butter in year, dam's record 637 lbs. Accred. herd. Price $85.

B. A. NORRIS, ANOKA, MINN.



Now is the Time!

Michigan's pure-bred Holstein cows are right in heavy production. Don't have to rare all over the back forty;—stuff is all in the barns. Owner isn't far off, either—his chores won't permit him to ramble far. He has time to show you his Black and White wares. What do you want in the pure-bred line? Tell me, so I can ask our 16 County Sales Managers to quote you.

J. G. HAYS, SECRETARY
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, East Lansing, Mich.

KENT COUNTY A Modified Accredited Area. Six Cow Testing Associations proving about 800 Holsteins. Inquiries for Purebred stuff solicited.
JOHN C. BUTH, Sales Manager, R. No. 2, GRAND RAPIDS.

SERRADELLA FARM *Offers*—

SERRADELLA DUTCHLAND COPLAND 480221 — Born Nov. 4, 1925

SIRE—Sir Dutchland Colantha Denver whose dam is Dutchland Colantha Denver, the best 36—1300 daughter of Colantha Johanna Lad.

DAM—Copland S S Echo; butter, 7 days, 2 years of age, 20.96; butter, 7 days, 4y 9m 16d 28.56.

Straight top, well built, ready for service bull, at a moderate price.

SERRADELLA FARM, Federal Accredited Herd, OSCODA, MICH



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

Michigan State Herds

offer YOUNG BULLS ready for service sired by *Bell Farm King Sylvia*, a show son of the famous 1113-lb. show cow, "White Susie."

Tag No. 221 was born February 28, 1926. His dam is a 27.5-lb. daughter of Flint Hengerveld Lad and out of a Sr. 2-year-old with a 365-day record of 862.48 lbs. butter and 21,441 lbs. milk.

Send for pedigree.

"MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Department B, Lansing, Mich.

Decreamco Bess Burke Fobes Our Jr. Sire



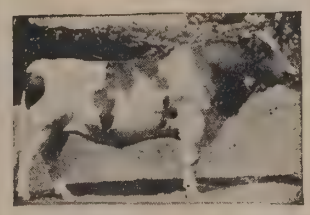
This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

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MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

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Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"



READY FOR SERVICE

A Show Bull From a 1155-lb. Dam

DEAN INKA SEGIS ORMSBY, born Jan. 13, 1926. SIRE: DEAN COLANTHA SEGIS ORMSBY, a richly bred ORMSBY show bull of 1000-lb. breeding. DAM: LASHBROOK INKA SEGIS, a 30-lb. cow who just finished with 1155 lbs. butter from 27,335 lbs. milk in 365 days.

This bull is a top notch individual, a prize winner at the 1926 Iowa and Minnesota state fairs. HIS EIGHT NEAREST YEARLY TESTED DAMS AVERAGE 1130 LBS. BUTTER. Send for pedigree, photo and price.

A. J. LASHBROOK, NORTHFIELD, MINN.

MAYOWOOD FARMS

26 — HOLSTEIN BULLS — 26

Our new Sales List offers you a variety of serviceable and younger bulls from dams with splendid A. R. records, and from well-bred heifers now on test. We can meet your requirements for

QUALITY—TYPE—PRODUCTION

Prices to meet your needs. Write us.

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Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

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Milks Cows Like No Other Machine Ever Milked Cows Before

At last something new HAS happened in the history of machine milking.

The wonderful Surge Milker has changed all old ideas of what a milking machine ought to accomplish. You cannot judge this machine by anything you ever knew of milking machines in the past. Breeders who used to be afraid to put a machine on their record making Pure Breds are using The Surge. They tell us they are making wonderful records—and the udders have never been kept in better condition by the most careful hand milking.

Dairymen producing for city milk trade who couldn't make pure, clean milk with old type machines are earning premiums for low bacteria counts—and spend no more time washing The Surge than they used to spend washing milk pails.

The Surge is sweeping everything before it. It is the greatest thing that has happened in the dairy industry in many years.

Only These 4 Rubbers To Wash

Think of that! You men who have TRIED to keep old fashioned milkers clean. Only these four simple pieces of rubber to wash. NO long tubes. NO claws. NO places for the milk to lodge and breed bacteria. Only 20 seconds to take machine all apart—30 seconds to put it together. So easy to wash that you don't mind it after every milking. That's why it's easy to make Grade "A" milk and sell it at premium prices.

4 ft. or 4 inches

Which would you rather wash? That's not very hard to figure out. No indeed—and that's the *big* reason why The Surge is *so easy* to clean and keep clean. Result: Clean milk — premium prices — no drudgery.

Mail Coupon For FREE Demonstration Offer

Pine Tree Milking Machine Co.
2843 W. 19th Street. Dept. 28-53 Chicago, Ill.

Please send me your Free Surge Catalog and without cost or obligation tell all about your special FREE Demonstration offer on the Pine Tree Surge Milker.

I milk ..... cows

What power will you use? ☐ Gas ☐ Electricity

Name .....

Address .....

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Any man who wants a Surge Milker can make a deal to pay for it on very easy terms. We'll figure to use any equipment you may have already in your barn. You'll be surprised how little it will amount to. Fill in the coupon and mail it right now It doesn't obligate you

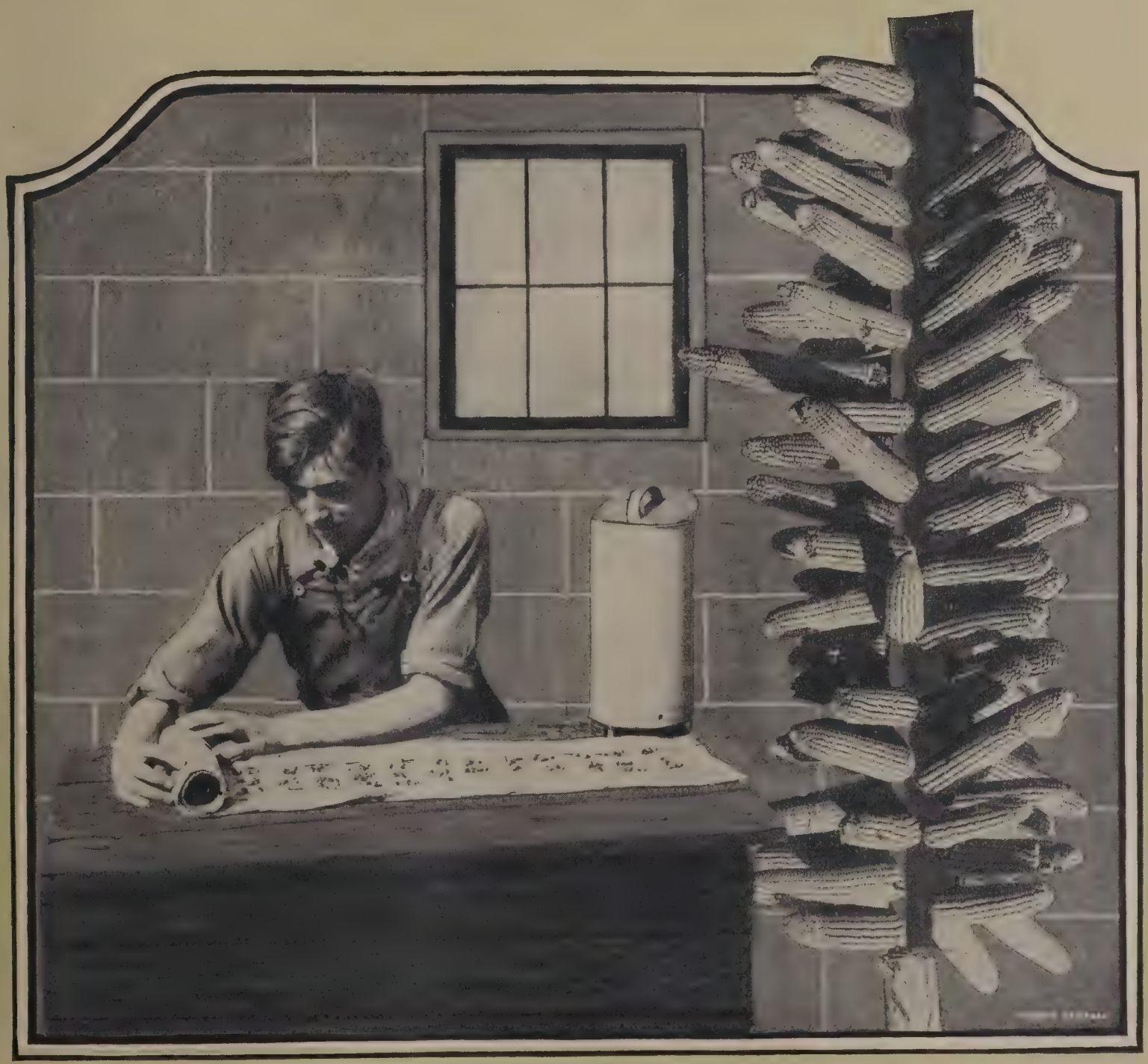
You ve been reading some surprising statements here. You will never believe them as we do until you see this wonder milker working in your own barn, on your own cows. That's why we are ready to offer you a chance to have a FREE Demonstration without obligating yourself to buy anything. It is the most surprising offer ever made in milking machine history. Fill in and mail the coupon for full details. Do it NOW!

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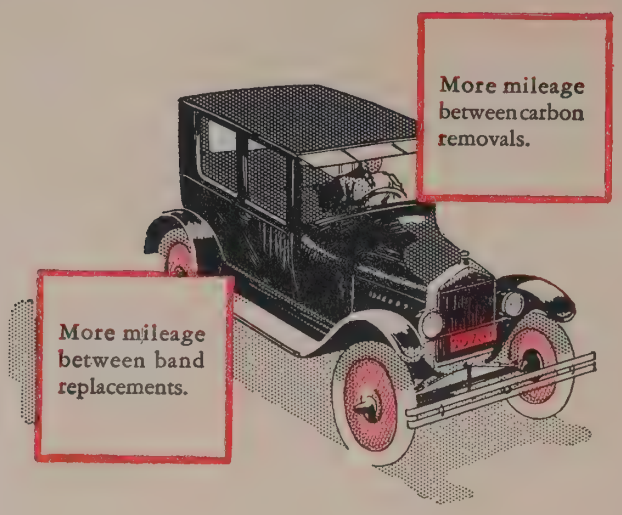
HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 6 Fort Atkinson, Wisconsin March 25, 1927

Ford owners pleased! The improved Mobiloil "E" gives a double surprise



When the improved Mobiloil "E" was announced, some asked, "But in getting the new smoothness in starting and stopping, how can you retain the unusual freedom from carbon which we have always found in Mobiloil 'E'?"

Our reply was, "That has been our chief concern. That is why we waited years to change Mobiloil 'E.' Ingredients used in many Ford lubricants to provide easier starting have resulted in extra carbon and valve troubles. It was only after years of experimenting that we got the two results: Real freedom from jerky starts and stops *plus* real freedom from carbon."

Today's Mobiloil "E" is cheaper than ever to use. Here is why—



By increasing the life of transmission bands you postpone the expense of replacement. That's saving number one. By cutting down carbon deposits you pay for fewer carbon removal jobs. That's saving number two. Nor is that all.

The improved Mobiloil "E" splashes freely in the Ford lubricating system. It reaches all engine, clutch and transmission parts where protection is vital. And today's Mobiloil "E", due to its clinging, resisting character shows remarkable economies. Less wear. Fewer repair bills. More power. A sweeter-running Ford engine.

And due to the great "wearing" qualities of Mobiloil "E" you will use less oil.

Four quarts to prove it

Mobiloil "E" will cost you less to use than other oils despite the fact that Mobiloil "E" costs 5 cents more per quart. Four quarts, a Ford crankcase full of the genuine Mobiloil "E", will prove this to you.

After you have once tried the improved Mobiloil "E" you will want to keep a supply on the farm. A nearby Mobiloil dealer has Mobiloil "E" in various sized cans and drums. Each container offers real economy and convenience in handling oil.

The year around use Mobiloil "E" in your Ford car and Ford truck. In your Fordson tractor use Mobiloil "BB" in summer and Mobiloil "A" in winter. Ask the Mobiloil dealer what grade of Mobiloil to use in cars, trucks and tractors of other makes. All Mobiloil dealers have the complete Mobiloil Chart of Recommendations.

GARGOYLE

Mobiloil "E"
***for* Fords**

VACUUM OIL COMPANY

MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas*

Other branches and distributing warehouses throughout the country

Corn Borer Campaign Plans

A provisional program for the $10,000,000 campaign for the control of the corn borer recently authorized by Congress was outlined last week at a conference of representatives of five state departments of agriculture, of extension divisions of the state agricultural colleges, and the United States Department of Agriculture, called by the Secretary of Agriculture. The act authorizing the campaign provides for control work in New York, Pennsylvania, Ohio, Michigan, and Indiana. It is estimated that a corn acreage of 2,500,000 acres in between 300,000 and 400,000 farms in these states will be included in the clean-up.

The appropriation will become available as soon as necessary legislation now pending in the legislatures of the five states affected gives the state departments of agriculture the necessary powers of quarantine and compulsory clean-up required, together with authority to delegate such powers to the federal workers employed under the act. When this state legislation has been passed, steps will be taken immediately to put the federal regulatory organization in the field and begin the inspection of individual farms in the control area. The inspectors will notify farmers of the necessary measures which they must take, according to the provisional regulations adopted by the conference of state and federal workers.

These regulations require the burning or satisfactory destruction of all cornstalks, remnants of stalks and corn cobs either in the fields, the feed lot, the barnyard or around canning factories and other process agents, unless ensiled or shredded. The corn fields must either be plowed to such a depth that no stalks, pieces of cobs, or other corn remnants appear on the surface when it is plowed, disced, harrowed, planted, or cultivated, or, if not plowed, the fields must be cleared by pulverizing all corn remnants. It is expected that individual farmers voluntarily co-operating in the clean-up will take these necessary measures by May 1. Following May 1, all infested farms will be reinspected. If reported as meeting all requirements as to control measures, the individual farmer will be reimbursed not to exceed $2.00 an acre for field corn and not to exceed $1.00 an acre for sweet corn on which he is obliged to undertake operations in addition to those normal and usual in farm operations at this season.

Where the regulations have not been complied with either intentionally or unintentionally, the federal regulatory force under the authority of the state department of agriculture will conduct the necessary clean-up with its own special machinery and crews. The farm cost of such enforced clean-up will be charged to the individuals on whose farms the work is done and will be collected on the same basis as taxes by the state authorities under the authority which the state legislation now pending will give them. The funds collected in this way by the state authorities which represent expenditure of federal money will be turned over to the United States Treasury as provided for in the federal act and pending state legislation.

Prior to May 1, according to the provisional program, the federal forces will also give a large number of local field demonstrations in the selection and operation of machinery most effective in borer control work as part of an intensive educational and publicity campaign to be put on in co-operation with the Department Extension Service, the extension divisions of the state agricultural colleges, and county extension agents. This supplementary campaign will consist of holding educational field meetings, the organization of county and local committees in the interest of voluntary clean-up of the borer, supplying information to the press and other news agencies, and the distribution of educational material through the extension forces.—U. S. Department of Agriculture.

J.C. PENNEY CO. A NATION-WIDE INSTITUTION

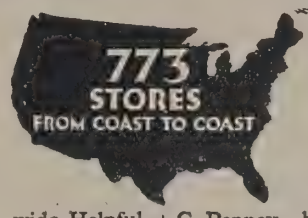


A small dry goods, shoe and clothing store was opened in a small town in the west, serving a few hundred homes.

The one small store has grown into a Nation-Wide Institution of 773 Department Stores serving millions of homes.

FROM ACORN TO OAK

After 25 years of growth now a nation-wide shopping service



WE are celebrating with pride and thankfulness our Twenty-fifth or Silver Anniversary—with pride for the privilege of serving the American public—with thankfulness for the generous response that has come to our effort.

Since the Spring day in April, 1902, when Mr. Penney inaugurated, in a small and inconspicuous manner, a Retail Shopping Service which was destined to become one of Nation-wide Helpfulness, a quarter of a century has passed.

It has been a period of notable growth and expansion, of winning millions of friends, of serving them faithfully, of basing achievement upon the good will of mutual satisfaction.

During all these eventful years, we have been mindful of our responsibilities to the legion of patrons who have contributed and are today contributing, so continuously and so generously, in helping make our Service one not of profit alone but of the confidence that rests on good will.

Never for a moment have we knowingly wavered from the responsibility of this relationship. It has always been to us an inspiration to reach out for greater things, that we might be the better prepared to render a Service which should prove to be more and more beneficial to the increasing numbers who come to us.

Not only is that one little Golden Rule Store of 1902—now itself grown to far larger proportions—still serving the people in and about Kemmerer, Wyoming, but there has sprung from its applied principles and policies, others to a present total of 773 Department Stores, scattered over 46 States.

All these are children of what we now affectionately term, The Mother Store; all happily operate in the Service of the public under the name of the J. C. Penney Company. The Founder of this Organization—Mr. James C. Penney—builded in his pioneering days more enduring and substantially than he knew.

His ideals and practices—square treatment alike to all always—and the extent to which he packed Value into every Dollar of purchase—these constitute the pattern according to which this enormous business has been shaped and which has caused it to grow until it has now become a Nation-wide Institution, serving more than 3,000,000 homes.

The dynamic selective and buying power of the Company created by its tremendous volume of cash sales, which, in 1926, amounted to $115,682,737.86, gives *a saving power to the public* which means much to the thrift and to the economic life of the people of every community where it operates a Store.

At this milepost in our history, we pause only long enough to express our thanks to the great American people for their continued confidence and appreciation of our efforts in their behalf and to offer the assurance that in the future as in the past we shall strive to serve not only well but better and better with each succeeding business day.

OUR ANNIVERSARY CELEBRATION BEGINS APRIL FIRST!

WRITE TODAY FOR "THE STORE NEWS"
beautifully illustrated by rotogravure, showing you how to save large sums on Dry Goods, Clothing, Furnishings, Shoes and kindred lines — standard quality goods! A post-card will bring it.

A NATION-WIDE INSTITUTION
J.C. PENNEY CO. INC.
Executive Offices and Warehouse—330 W. 34th St., N.Y. City

RETAIL SALESMEN WANTED
experienced in our lines, to train for Co-partner Store Managers, providing for the continuous growth of our Company and especially the expansion planned for 1927. Write for particulars.

Fern's Wexford Noble Dies

Fern's Wexford Noble, the undisputed champion show bull of the Jersey breed, died at Twin Oaks Farm, New Jersey, recently. This sire whose perfection excited the admiration of every lover of good live stock, died of a disease known as osteomalacia, or "brittle bone." This disease was due to the inability of the animal to absorb enough mineral matter to supply the requirements of its body.

Wexford was just eight years old at the time of his death. He was grand champion at the National Dairy Show for three years in succession—1922, 1923, and 1924. His sons, Fern's Rochette Noble and Oxford Wexford Noble, were grand champions in 1925 and 1926. His get was first in the get of sire class at the 1925 and the 1926 National.

Wexford's Modest Joy, the oldest daughter, has just completed an official test in which she produced 800.85 lbs. fat and 13,471 lbs. milk. This is a senior four-year-old state record for New Jersey. A number of other daughters now on test will make very good records.—The American Jersey Cattle Club.

Vernon County Guernsey Meeting

The annual meeting of the Vernon County Guernsey Breeders' Association held Feb. 19, at Viroqua, Wis., brought out a good attendance. It was voted to deduct one per cent of the receipts of the spring sale for association work, and plans were made to hold the summer meeting at the county fair ground. The program included interesting talks by E. J. Schilling and Mrs. Bertha Lauder.

JANE BECK, Secretary.

NEW! LOW MODEL MELOTTE



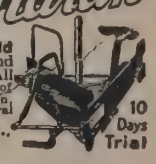
NOW—for the first time, the farmers of America have a chance—*if they act quick!*—to see and USE on 30 Days' FREE Trial, the NEW Low Model Belgian Melotte Cream Separator. In the NEW Melotte you NOW have a greater convenience and all-around satisfaction than was ever known before.

Don't Pay for 4 Months

Yes, you need not pay one cent for 4 Months after you receive the NEW Melotte. Special Introductory Low Price RIGHT NOW! 30 Days' FREE Trial. Write for FREE Book and Special Offer.

MELOTTE SEPARATOR Dept. 28-53
H. B. BABSON, U. S. Mgr.
2843 West 19th Street, Chicago, Ill.

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New Improved Martin Farm Ditcher and Field Terracer. Turns water-soaked and washed acres into producing land. All steel. Adjustable, reversible. Does work of 100 men. Open Drainage, tiling, irrigation, terracing, road grading. Low prices. Liberal terms. Send for free book.
Owensboro Ditcher & Grader Co., Inc.,
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IF the opportunity presented itself, more than a million Buick owners would recommend this car to you. And they would tell you reason after reason why they buy Buicks whenever they need new cars.

They know the excellence of the Buick Valve-in-Head engine—today *vibrationless beyond belief.*

They know a driving ease which makes other cars feel inefficient. A Buick starts smartly, even in zero weather—parks and unparks handily—steers with no effort at all.

Another Buick advantage is Service. There are 4000 Buick Authorized Service Stations, to safeguard Buick performance all over America.

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ıtered at Fort Atkinson, is., as second class matter.

Semi-monthly

Three Years $1.00

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Volume 72 FORT ATKINSON, WIS., MARCH 25, 1927 Number 6

DAIRY PRODUCTS VERSUS COTTON

HARRY B. TABER, ARKANSAS

)LACE your finger anywhere on the map south of the Mason and Dixon's line; then go from ere to the county seat of whatever unty you have haphazardly home-eaded. You will find that county cing a "cotton crisis." You will so find the farmers aroused at last id changing their schedule for next ar, with cotton marked "One-half ff." And we do not believe the rmer will change his mind next ring—not this time.

We have selected Faulkner County ecause it is a typical cotton county the typical cotton state of Arkan-s, and it will reflect conditions as ey are today in 9 out of 10 of all e counties in all southern states. long with the rest of the South, aulkner County has gone "over the p" in cotton production this year, id the market has slumped to 11 or ? cents. Various other lines of rming have been suggested the past veral years. Some of them have en adopted by the more progressive rmers. Quite a few farmers last ar cut their cotton acreage, and cceeded well with radishes, sweet tatoes, melons, and milk cows.

It is with the last item this article chiefly concerned as an ideal sub-itute for a money crop. The aulkner County Co-operative Dairy ssociation has been in active oper-ion for several years and has built a splendid dairy product business. has secured regular outside mar-ts in nearby towns and cities. Its arket is steady the year round at ry good prices. Here, then, is mething tangible for the cotton rmer to grasp. All he has to do is get some good milk cows and care r them right. His market is at his or. No waiting a year to get his oney, or to find out that he isn't ing to get it.

What is true in Faulkner County just as true anywhere else in the uth where there is a good, live co-erative dairy association.

A visit to the milk and cream plant of the Faulkner County Co-operative Dairy Association, after a prior visit in the summer of 1921, would be an eye-opener to even a casual observer. Beginning the dairy business five years ago last April, R. L. Folts, practical farmer and expert dairyman, and several others opened a milk station in a small frame building on the outskirts of town. Mr. Folts smiled when asked if he remembered the output of milk at that time.

"Not hard to remember," he said, "we had just four cans of milk the first morning. But we are doing a little better than that today."

"A little better" to the tune of 10,000 lbs. of sweet milk per day, besides about 220 gallons of sour milk. And this does not nearly meet the growing demand. The plant now supplies several chain stores and ships to 6 or 7 towns in the state daily, with still others calling for milk they are unable to supply.

The Faulkner County Co-operative Dairy Association began with 10 members—today it numbers 140 members. Two years ago the business went entirely beyond the capacity of the first little building and equipment. In fact, Mr. Folts and County Agent W. L. Hall both agreed that to meet the demands of the trade a larger, better building was needed, and also modern equipment that would permit the association to put up and handle its own products. County Agent Hall and Mr. Folts are both former Wisconsin farmers and dairymen, and knew the best type of construction and equipment. Under their direction the association erected a modern dairy plant about a stone's throw from the paved highway leading to Little Rock, a city of some 75,000, one of their best markets. Over this highway the plant now operates two milk trucks daily.

The new building and equipment cost around $12,500, largely paid out today by a part of the profits of the business. All the machinery is modern, operating by electricity.

In the first few months of the business, operating as a milk station, shipments were confined to whole milk, going to the Little Rock market. Later, and in the last two years especially, the plant after changing to the new location has gone in for high grade cream for the ice cream trade and manufactures a splendid grade of butter. The butter has been given the name "Wonder State" and it finds a ready sale anywhere. Some 700 to 800 lbs. are shipped daily.

At Guy, a settlement in the northern part of Faulkner County, a meeting of some 100 farmers was held recently. The purpose of the meeting was to start dairy farming and stop cotton farming. At this meeting County Agent Hall, Mr. Folts, Mr. T. M. Williams of the Conway Chamber of Commerce, and Herbert Maddox, representing the Farmers' State Bank of Conway, were present and addressed the meeting. Mr. Maddox told the farmers that his bank stood ready to advance them the money to buy good Jersey milk cattle to get their start with, and arrangements were also made to truck the milk to Conway. This meeting was the result of the low price of cotton, in a way, and is a part, too, of a five-year campaign now under way by the Conway Chamber of Commerce to help the farmer get away from raising cotton and into a more stable and profitable business.

Mr. Folts stresses the fact that for the farmer to get the best profits he should raise practically all his own feed. He advises no farmer to enter the dairy business unless he raises all the leguminous hays for his cows, and also provides plenty of pasture for them. If the farmer is in earnest about quitting cotton, or cutting the acreage of cotton materially, he can without doubt manage this feeding and pasture. Mr. Folts favors the Bermuda grass pasture as the best permanent pasture in the South. It is capable of keeping up more cows per acre, and is a good milk producer when properly balanced with other feeding. He advises sowing Japan clover on the Bermuda in the spring, and burr clover in the fall, about September or October. With the Bermuda grass, which corresponds to the Buffalo grass of the North, as a base, the Japan clover gives an earlier pasture in the spring, and the burr clover a later one in the fall, and altogether furnish much better pasture than any one of them alone.

With the banks ready to help him, and the association prepared to handle his products and give him an unlimited market right at home, the Faulkner County farmer should not hesitate in making his choice between cotton and milk cows for 1927. And many other southern sections offer the same opportunity.



R. L. FOLTS AND HIS ARKANSAS HOLSTEINS

Mr. Folts was largely responsible for the initiation and successful outcome of the Faulkner Co-operative Dairy Association.



WHENCE ALL BUT HIM HAD FLED"

A typical hillside cotton field in Faulk-er County, Arkansas. The cotton is gone nd no profit, but this farmer is using is cotton mule to mark off terraces, and ill use the fertilizer from his dairy barn o build up the soil and put it in some-ning different next year—not cotton. He ade six bales of cotton, but his six dairy ows and his corn and potatoes saved the ay.



NEW PLANT OF THE FAULKNER COUNTY CO-OPERATIVE DAIRY ASSOCIATION

JERSEY CATTLE IN THE UNITED STATES

THE Jersey breed originated on the Island of Jersey, the largest of the group of Channel Islands which lie between England and France. The exact origin of the breed is unknown but it is probable that it is descended from cattle native to the nearby coast of France. It came from the same foundation stock as did the Guernsey and at one time the two breeds were together known as Alderneys.

Realizing the importance of preventing a further introduction of outside blood if their cattle were to be considerably improved, the residents of the Island in 1879 passed a law preventing the importation of cattle into Jersey except for immediate slaughter, and no outside blood has been introduced since that time. At about the same time the cattle on that island became known as Jerseys instead of Alderneys. According to Plumb, the improvement of Jerseys really began shortly after 1800. In 1833 the Royal Jersey Agricultural Society was organized and the following year it originated a score card for Jerseys with a total of twenty-five points for the bull and twenty-seven points for cows. This card was used at the first island show which was held in 1834.



POGIS 99TH OF HOOD FARM, LEADING REGISTER OF MERIT JERSEY SIRE WITH 115 R. OF M. DAUGHTERS

Importation and Distribution

The first importation from the Island of Jersey to America was made in 1850 by Taintor, Buck, Norton, and others living in Connecticut and thereafter there were fairly regular importations which became more numerous after 1870. Since 1890, many Jerseys have been imported every year. The number of imported animals registered since 1904 is 7,642, an average of nearly 350 annually.

Jerseys are more evenly distributed in the United States than is any other breed. According to the 1920 government census there are about 232,000 registered and 9,300,000 grade Jerseys well scattered throughout all the 48 states, nearly 41% of the cattle in this country that are of any of the recognized dairy breeds.

General Characteristics

The Jersey is the smallest of the major dairy breeds. The calves weigh from 40 to 75 pounds at birth. The heifers develop rapidly and mature sufficiently to drop the first calf at 24 months of age. The mature cows weigh from 700 to 1,200 pounds, averaging about 900 pounds, and the bulls weigh from 1,200 to 1,800, averaging about 1,500 pounds.

The color of Jerseys is usually some shade of fawn or cream color, though different shades of mouse color, gray, and brown are common, and some individuals approach black. They may be solid color of any of these shades, or spotted with white. The muzzles and tongues are usually black or lead colored, but light-colored tongues are not uncommon; and around the muzzle is a white or mealy ring.

Production

Jersey milk carries a high per cent of butterfat, the average test for all 365-day R. M. records being 5.364%. During the period from 1902 to 1925 inclusive, 19,742 365-day Register of Merit records were made, their average being 8,698 lbs. milk, 466.5 lbs. butterfat. Approximately two-thirds of these records were made in heifer form. Up to August 1, 1926, eighteen Jersey records above 1,000 lbs. of butterfat have been made in the United States. Three records above 20,000 lbs. milk have been made.

Scale of Points for Jersey Cow

Dairy Temperament and Constitution

Head, 7—
- A—Medium size, lean; face dished; broad between eyes; horns medium size, incurving 3
- B—Eyes full and placid; ears medium size, fine, carried alert; muzzle broad, with wide open nostrils and muscular lips; jaw strong ..

Neck, 4—
- Thin, rather long, with clean throat, neatly joined to head and shoulders .....

Body, 37—
- A—Shoulders light, good distance through from point to point, but thin at withers; chest deep and full between and just back of fore legs ..
- B—Ribs amply sprung and wide apart, giving wedge shape, with deep, large abdomen, firmly held up, with strong muscular development .....
- C—Back straight and strong, with prominent spinal processes; loins broad and strong .....
- D—Rump long to tail-setting, and level from hip-bones to rump-bones .....
- E—Hip-bones high and wide apart .....
- F—Thighs flat and wide apart, giving ample room for udder ....
- G—Legs proportionate to size and of fine quality, well apart, with good feet, and not to weave or cross in walking .....
- H—Hide loose and mellow .....
- I—Tail thin, long, with good switch, not coarse at setting-on .....

Mammary Development

Udder, 26—
- A—Large size, flexible, and not fleshy
- B—Broad, level, or spherical, not deeply cut between teats .....
- C—Fore udder full and well rounded, running well forward of front teats ..
- D—Rear udder well rounded, and well out and up behind .....

Teats, 8—
- Of good and uniform length and size, regularly and squarely placed .....

Milk Veins, 4—
- Large, long, tortuous, and elastic, entering large and numerous orifices ....

Size, 4—
- Mature cows, 800 to 1,000 lbs. .....

General Appearance, 10—
- A symmetrical balancing of all the parts, and a proportion of parts to each other, depending on size of animal, with the general appearance of a high-class animal, with capacity for food and productiveness at pail ....

Total score .....

Scale of Points for Jersey Bull

Head, 10—
- A—Broad, medium length; face dished; narrow between horns; horns medium in size and incurving .....
- B—Muzzle broad, nostrils open, eyes full and bold; entire expression one of vigor, resolution, and masculinity ..

Neck, 7—
- Medium length, with full crest at maturity; clean at throat .....

Body, 57—
- A—Shoulders full and strong, good distance through from point to point, with well defined withers; chest deep and full between and just back of fore legs .....
- B—Barrel long, of good depth and breadth, with strong, rounded, well-sprung ribs .....
- C—Back straight and strong .....

(Continued on page 337)

The Highest Jersey Producers by Age Classes

Name of cow	Owner	Milk Lbs.	Fat Lbs.	Age Yrs.	Age Mos.	Class
FOR 365 DAYS:						
St. Mawes Lad's Lady	H. D. Iliff, Oregon	11,756	829.1	1	11	A
Raleigh's Torono's Meme	Sherman Nursery, Iowa	16,090	902.2	2	5	A
Sensation's Mikado's Millie	F. H. Young, South Carolina	13,303	850.8	2	8	AA
Poppy's Dortha	F. E. Lynn, Oregon	17,804	994.3	3	4	A
St. Mawes Lad's Pride	H. D. Iliff, Oregon	14,243	1,002.4	3	7	A
Darling's Jolly Lassie	Pickard Bros., Oregon	16,425	1,141.3	4	0	AA
Vive La France	Pickard Bros., Oregon	14,926	1,031.6	4	7	AA
Groff's Constance	C. W. Groff, Massachusetts	17,942	1,130.1	5	3	A
Snip Wanger 2d	H. W. Bonnell, Ohio	18,226	941.1	13	1	A
FOR 305 DAYS:						
Graymere Alice	M. N. Tibbles, Oregon	11,465	581.9	1	11	AAA
Golden Princess Judith	Mrs. M. H. Harris, Massachusetts	10,073	638.8	2	0	AAA
St. Mawes Susy 3rd	E. Carey, Oregon	10,789	613.0	2	6	AAA
Killingly Torono Lass	Killingly Farm, Massachusetts	14,268	816.9	3	3	AAA
Fauvic's Ivy	A. V. Barnes, Connecticut	11,943	722.0	3	9	AAA
St. Mawes Pretty Lady	L. C. Daniels, Oregon	12,657	827.9	4	1	AAA
Raleigh's Quiet Lady	Coe Laughlin, Ohio	13,144	794.4	4	7	AAA
Lulu Mary of Ashburn	J. M. Dickson & Son, Oregon	14,619	844.6	5	5	AAA
Lucia Kent's Ola	M. P. Ladd, Massachusetts	13,045	674.0	12	0	AAA



DARLING'S JOLLY LASSIE, WORLD'S RECORD JERSEY COW WITH 16,425 LBS. MILK, 1,141.3 LBS. FAT



OXFORD'S WEXFORD NOBLE, GRAND CHAMPION JERSEY BULL AT THE 1926 NATIONAL DAIRY SHOW



BLONDE'S CUNNING MOUSE, GRAND CHAMPION JERSEY COW AT THE 1926 NATIONAL DAIRY SHOW

TRAILING HOLSTEINS TO SOUTH AMERICA

The Log of Their Keeper

JAMES G. BEATTIE, WISCONSIN

EBRUARY 2. Kidney saute for dinner, oxtails yesterday, kidneys the day before that, and tails tomorrow. Made new rope lters this afternoon, and tonight ong and I had our trading clothes again. Wong loves tobacco and I e rice. A grapefruit, dropped on



THE BARREN COAST OF CHILE

deck of the Humming Bird, would rt a riot.

ebruary 3. Another day, another lar. Nothing has happened, just usual routine. Destination, one nearer. We had oxtails for akfast, oxtail salad for dinner, oxtail patties for supper.

Wong says: "Alle same oxtail, alle ue. No eat, no good. Naw, no d. Good for sick dog, make him ier." Then Wong laughs good.

have guests, quite a good many, n I milk. They mostly have hers, coffee pots, and little pails. dy comes too, he likes new milk.

ebruary 4. In spare time I try to e the mysteries of the Spanish mmar. Learned the cardinal numbs in no time, and the names of s and months. And the prepositis and interjections. But the os! In front of their citadel I e had to stop and dig trenches. y are a bird of a different color, a l of white robin with blue breast, the secret of them is to know the ings. Whether Don Gomez has by the throat or in the o breaking out vintage of ripe age, you must get the terminas just so, or he is liable to con- e an encomium for an insult.

he gulls have left the Humming Bl. A good many think it was the il patties. Sailors say when they a feed of rank meat they mark h ship and quit it. Maybe their c is "fishy," but the fact of the ter is, the gulls are assembled y around the Turpin, a German , also in here discharging cargo. onight, the second mate, saloon sman, an assistant, two sailors, n an oiler mingled together amidh and told stories until midnight. se fellows, all addicts of the sea, r gentlemen and hard workers, e saving their earnings and others ndering them. Reminiscences, and all but forgotten, were resurrected there for another dusting, and from every port and inlet of the world that ships sail they came. Between them, they have been in every land, in every sea and clime; the carpenter, for instance, having had a narrow escape in Yokohama, September, 1923. These fellows are rich with color, life, and travel, and it is unfortunate indeed that they have not the gift to paint them in ink for others' duller hours.

February 5. At 4 a. m. I reached to the region of my feet for a blanket. The air is cool. By and by I hear Wong shuffling along the companionway with his dilapidated old sea-slippers, humming a Chinese chanty and strumming discordant on a bread-pan. He starts the day at 4:30, not just this day, but every day. Wong is a sun-of-a-gun to work; so is Wing, the second cook. The fact that they are is conclusively proven when you sum up all they do in a day in the way of preparing the grub for 45 men. Whatever may be said about these Chinamen, there is one thing they cannot be accused of, and that is laziness. When I arise, 30 minutes later, Wong is heading for the galley with the bread-pan running over with kidneys, so from that one might infer that we will have kidney saute for dinner.

With our position the same these days, the firemen have an easy time. The oilers have some work to perform, helping the engineers who are always busy. And like the engineers the sailors always have something to do. They have many a wire rope to splice on a voyage, and splicing wire rope is strenuous labor. It is their duty to keep a stock of slings on hand for the stevedores, and keeping the rigging and booms and blocks and tackle in working order is their job. Then there is chipping and painting and a dozen other jobs that depend on them.

February 6. Nile Boklund and Julio Ginocchio, firemen on the Humming Bird, went ashore last night and were put in jail for disturbing the furniture appointments in the Swiss Bar. The old man, having nothing else to do, went ashore and paid their fines, $1.40 each.

According to Nile, things weren't very nice in the Chanaral housegow. Being a sort of stockade, it had neither floor nor roof, not even a mat to lie on. There is a vine with thorns, vicious spear-pointed thorns, and more poisonous than ivy five times over, growing thick as you please on the walls. This vine serves the purpose of a sentry, it cannot be bribed, and the jail-going element is afraid of it. Nile and Julio slept on the ground and received no breakfast. When you go to jail in these parts you must have outside connections. Nile and Julio were glad to see the old man.

February 7. The Humming Bird has been whooping it up all day. The propeller shaft has been turning over at the rate or 62 revolutions per minute, which is the *grande* atonement for spiritless effort in the past. We are in heavy seas, but the ship meets them squarely, and, taking them squarely, naught but spray reaches the cowsheds. At 10 a. m. we notice a herd of seals northbound, glistening and rotund and nimble; also we meet a wind that is stiffening with strength and a drop in temperature.

At 10 p. m. one hears from the bridge the clear note of clapper and brass—four bells. The third mate patrols the bridge and a sailor the forepeak. And in a moment a reply resounds from the bell on the foc'sle, and from out the darkness comes the beautiful cry, "ALL'S WELL, SIR." It is exquisite, that cry, and freighted with meaning. Its very sound makes a feeling of security permeate you through and through, for in the hands of those two, keeping vigil, is vested the safety of all aboard.

February 8. Well, this is the 55th and last day on the Humming Bird. The handsome, good-natured General still licks your hand with his raspy tongue, and the calves since leaving New York have grown. Fifty-five days is a long time for cattle to stand practically in crates and still refuse to get sick or lose their stolid dispositions. And one marvels at them, and for the weary patience they evince. Tomorrow they will start on a night's ride to their future home in the Andes, and after that their trials so far as this trip is concerned should be over.

The Humming Bird has pushed determinedly through rough seas since morn. The Pacific can be pacific, but it can be ruthless, too. The saloon messboy sprinkled the tablecloth with water to keep the dishes from sliding around. At 6 p. m. we heave in sight of land and Valpariso, and two hours hence we are in the harbor lane, barely moving, killing time, waiting for a pilot to come and assign us a berth. The pilot is slow, and we cruise around a port area until he arrives. The bow anchor dropped and the stern made fast to a buoy constitutes putting the ship away. We are too late for the doctor and his coterie, so for tonight we are the same as in quarantine or at sea. Nobody can go ashore, and no boaties can loiter at our ladder looking for business.

The crew congregate amidships and feed their hungered eyes on whatever scenery is available. There are many ships in the harbor, ships under flags of many lands, and many whom this crew recognize and probably have been members of. A few births distant is the dreadnought that England sold to Chile for a "song." It is a big monster and looks both sinister and stately in the after-twilight glow. But what does Chile want with a man-of-war like that? As Chileans with whom we have come in contact,

(Continued on page 344)



LOADING THE WISCONSIN CATTLE FROM THE BOAT TO A CHILEAN BOX CAR AT VALPARAISO

Senor Mitrovich, one of the owners of San Vincente, is standing to the right of the cattle crate.



ONSIN CATTLE ARRIVE AT SAN VINCENTE IENDA, THE HOESLY PURCHASE IN THE REAR



THE HUMMING BIRD AT ANTOFAGASTA, CHILE

Stop was made here to load nitrate. The small man at the left was the humpbacked cook that made the goulash for the stevedores. He uses everything he can get his hands on,—potatoes, fish, onions, bananas. All mixed together it is cooked on deck in a big iron kettle.

DAIRY MARKETS IN 1926 AND COMPARISONS

THE attempt has been made in the accompanying tables to give a survey or picture of dairy marketing activities during 1926, together with comparisons with previous years. Most of the price quotations are from reports issued during the year by the Bureau of Agricultural Economics, U. S. Department of Agriculture, the Wisconsin Department of Markets, and the Wisconsin Department of Agriculture. The averages are simple averages of the monthly quotations, and are not weighted according to the actual marketings each month except in the few cases noted.

Pooled Prices for Market Milk

We are particularly grateful to the various milk producers' associations that have given us the pooled prices they have paid during the past year. We caution against making direct price comparisons between these associations because there are several factors involved in the establishment of prices in widely separated communities that it is impractical, if not impossible, to present. Supply and demand, city requirements, distance from market, and other conditions peculiar to a given territory have their influence on prices irrespective of the efficiency of the co-operative milk marketing organization.

Members of these associations averaged a return of practically the same price secured in 1926, but in every case exceeded 1924 by 8 to 44 cents a hundred. This corresponds with prices received for milk marketed in other forms. While prices are no higher, net returns are above 1925 and 1924 by reason of the reduced cost of feed.

Profits Above Feed Cost Largest on Record

The dairy farmer has good reason for feeling that 1926 was kind to him, for his returns above feed cost were the highest on record for several years and nearly equal to the high price period of 1919 and 1920. While some other costs of production may have been higher, the few reports that have come to Hoard's Dairyman indicate that the dairy farm returns in 1926 were among the best on record.

Disregarding the increased production per cow that has taken place in the past ten years and that has had an important part in increasing dairy farm returns, cost formulas for feed and market prices of dairy products show a very satisfactory condition prevailing in the industry. The spread between the feed cost of market milk and price received was $1.74 in 1926. This is 23 cents above 1925 and is exceeded only by a few cents in 1919 and 1920. Producers of cream made into butter received a return of 25.9 cents a pound fat above feed cost in 1926, which is 2.4 cents above the spread in 1925 and is exceeded only slightly in 1923 and 1919, with the return in 1920 being 3.4 cents greater.

The following table of the spread between prices received and costs of feed is based on the average prices for butter and for milk as reported in Tables I and XIII, with feed prices as given in Table VI:

	Market milk per cwt.			Fat per pound		
	Rec'd.	*Feed cost	Spread	†Rec'd.	‡Feed cost	Spread
				Cts.	Cts.	Cts.
1926	$2.76	$1.02	$1.74	47.9	22.0	25.9
1925	2.68	1.17	1.51	48.8	25.3	23.5
1924	2.64	1.09	1.55	45.8	23.4	22.4
1923	2.71	1.03	1.68	49.4	22.3	27.1
1922	2.31	.86	1.45	43.9	18.7	25.2
1921	2.67	1.15	1.52	46.8	24.4	22.4
1920	3.53	1.77	1.76	66.3	37.0	29.3
1919	3.50	1.71	1.79	65.0	37.3	27.7

*Based on the feed cost of 100 lbs. milk being equal to the farm price of 50 lbs. alfalfa hay, 100 lbs. corn silage, and 33 lbs. of a mixture consisting of 350 lbs. corn, 350 lbs. oats, 200 lbs. bran, and 100 lbs. cottonseed meal.

†Based on price of fat being 7.8 per cent above 92-score butter in New York. (See Table VIII.)

‡Based on feed cost of one pound butterfat being equal to the farm price of 18 lbs. alfalfa hay, 3 lbs. corn, 2 lbs. oats, 1 lb. bran, and 1 lb. cottonseed meal.

The price of feeds in New York is discussed as follows by Professors Warren and Pearson of Cornell in "Farm Economics:"

"During the calendar year, 1926, feed was cheaper than at any time since 1921 and 1922. The price of a dairy ration fell from an average of $41.81 per ton in 1925 to $37.26 in 1926. Corn meal fell from an average price of $47.89 to $37.40 per ton; gluten, from $43.11 to $38.72; hominy, $41.96 to $33.43; and cottonseed meal fell from $48.45 to $39.96. Ground oats and the wheat feeds were lower in 1926 than in 1925, but the declines were relatively small. Linseed meal was slightly higher in 1926 than in 1925. Fair farm prices for milk, eggs, and other live stock products and cheap feed during 1926 lightened somewhat the burden of the New York poultry and dairy farmer.

"Feed prices are about 25 per cent above pre-war, whereas milk and eggs are about 50 per cent higher."

Production and Consumption

Production of manufactured dairy products was somewhat less than in 1925 as is shown in Table XIV, but the net trade output or consumption is practically equal. Decreased production is doubtless due in part to fewer cows and in part to the increasing demand for market milk for city consumption.

The number of cows has decreased from 22,481,000 on January 1, 1925, to 22,148,000 on the same day in 1926 and finally to 21,824,000 on January 1, 1927. This is a decrease in two years of 657,000 head, or nearly three per cent. That there is no immediate danger of overproduction by increase in number of cows is indicated by the fact that there are 115,000 fewer heifers between one and two years than there were two years ago, although the number is four per cent greater than a year ago. Value of cows is 23 per cent greater than two years ago and 9 per cent greater than one year ago.

That city consumption of milk is increasing is indicated by the report that the receipts of milk in New York City in 1926 were 12 per cent greater than in 1923 and 4.4 per cent greater than in 1925. Reports from milk producers' associations also indicate greater sales of fluid milk, which is to be expected both from increasing population and increasing per capita consumption.

The Dairy Situation

The U. S. Bureau of Agricultural Economics has issued the following statement concerning dairy market conditions in 1926:

"Earliest indications were that production in 1926 would exceed that of 1925 by a good-sized margin, but by the first of June it was evident that unfavorable weather conditions in important producing sections were causing a shrinkage. June weather was more favorable and the flow of milk was stimulated, but the loss of momentum during the preceding month, a knowledge that storage stocks were again piling up, and recollection of what had happened to butter prices in December and January of last winter, all served in some measure to check a full comeback. The result of all this was an irregular production trend during succeeding months. The probability now, at the close of the year, is that butter production will about equal that of 1925 instead of

(Continued on page 345)

Table I—Butter Prices for 1926 on 92-score Butter

	Chicago	New York	Boston	Phil delph
	Cts.	Cts.	Cts.	Cts
January	43.0	44.7	45.2	45.
February	43.1	44.9	45.4	45.
March	41.5	42.8	43.3	43.
April	38.3	39.4	40.0	40.
May	39.4	40.8	41.1	41.
June	39.1	41.2	41.6	42.
July	38.5	40.5	40.9	41.
August	40.1	41.8	41.9	42.
September	43.1	44.6	44.7	45.
October	45.9	46.9	46.5	47.
November	48.9	50.6	48.4	51.
December	52.5	54.7	53.7	55.
1926 Ave.	42.8	44.4	44.4	45.
1925 Ave.	44.0	45.3	45.5	46.
1924 Ave.	41.2	42.5	42.8	43.
1923 Ave.	46.0	46.8	47.1	47.
1922 Ave.	39.2	40.7	40.7	40.
1921 Ave.	41.7	43.4	43.7	44.
1920 Ave.	58.7	61.5	61.1	61.
1919 Ave.	57.8	60.3	60.0	60.

Table II—Wisconsin Monthly Farm Prices in 1926

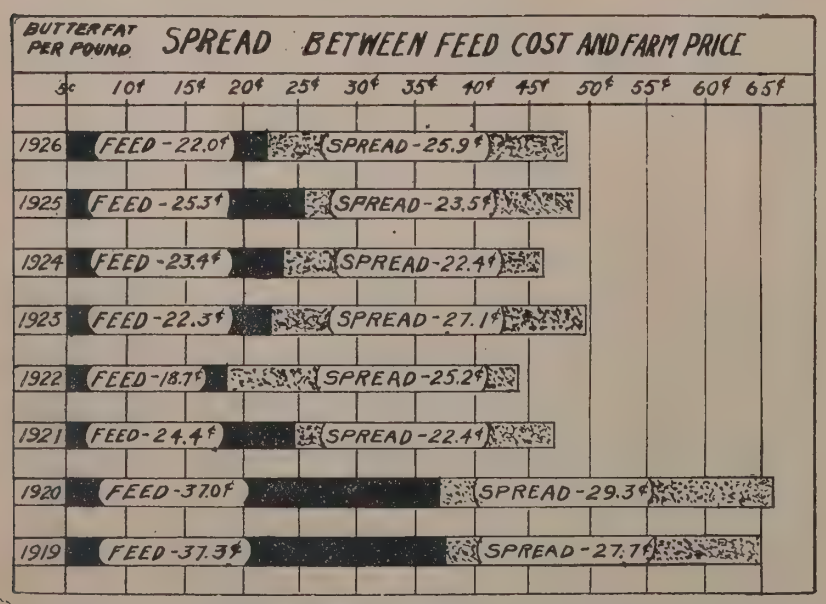
	*Creamery Rec'd. per lb. butter	Paid per lb. fat	†Condensery per cwt. milk	‡All milk per cwt.	Hogs per cwt.	Ve cal p
	Cts.	Cts.				
Jan.	42.9	48.6	$2.16	$2.11	$10.60	$1
Feb.	42.6	47.6	2.06	2.04	11.70	1
Mar.	40.2	46.1	2.04	1.96	11.70	1
Apr.	37.9	42.1	1.98	1.84	11.50	1
May	39.3	44.1	1.86	1.80	11.90	1
June	39.0	43.3	1.84	1.74	12.70	1
July	38.6	43.2	1.84	1.79	12.50	1
Aug.	40.5	45.1	1.91	1.82	11.40	1
Sept.	43.6	48.8	2.01	1.89	12.00	1
Oct.	46.2	51.6	2.12	2.04	12.10	1
Nov.	50.4	56.1	2.16	2.15	11.40	1
Dec.	51.4	58.1	2.23	2.25	10.90	1
Ave. 1926	42.7	47.9	$2.02	$1.92	$11.70	$1
1925	43.6	48.8	1.99	1.90	10.90	

*Average price received for butter and p patrons per pound fat by 107 Wisconsin operative creameries producing a total of million pounds butter for 1926, or appr mately one-third of all the creamery butter the state.

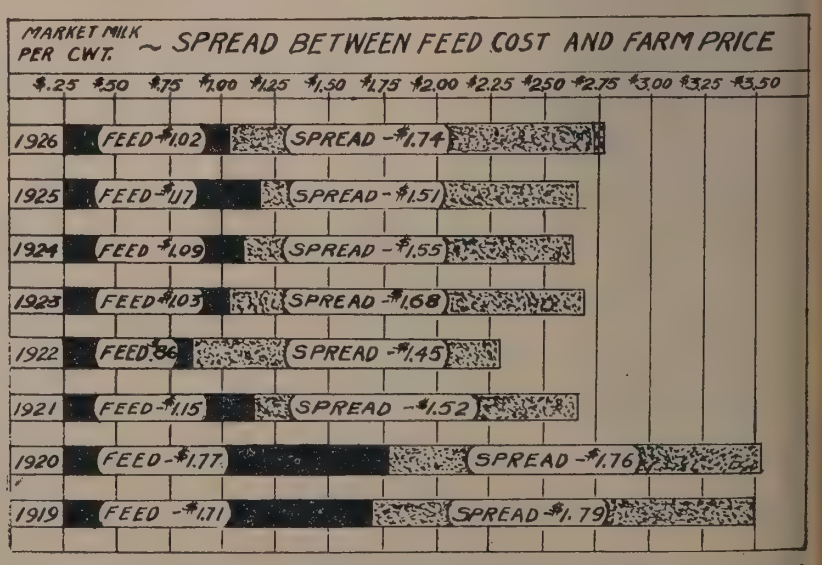
†Average price paid for 3.5% milk delive to 61 Wisconsin condenseries.

‡Average price received by Wisconsin fa ers for milk as sold in its various forms.

FEED COST OF MILK AND FAT:—Based farm feed prices prevailing in Wisconsin, according to the accepted feed cost formu the feed cost of 100 lbs. milk was $1.17 a h dred in 1926 as compared with $1.23 in 19 the feed cost of a pound of fat being 28 c in 1926 and 28.4 cents in 1925. Feed charged as follows for 1926: Alfalfa $18.66 a ton; corn, $.74 per bushel; oats, per bushel; bran, $31 per ton; and cotton meal, $40 per ton. If clover hay, averag $14.30 a ton, had been substituted for alf hay in the formula, the feed cost in 1926 100 lbs. milk would have been $1.06 and of pound fat, 24.2 cents.



Producers of cream in 1926 received a return over cost of feed of 25.9 cents a pound fat, or 2.4 cents more than in 1925. This good showing was made despite the fact they received only 47.9 cents a pound fat at the creamery, which is one cent less than in 1925. Comparisons with previous years is highly favorable, as is shown above. The basis of the computations used above is explained in the table presented in the accompanying discussion.



The average price received by farmers for market milk in 1926 was $2.76 a hundred pounds, according to the U. S. Bureau of Agricultural Economics. The cost of feed to produce this milk was $1.02, leaving a return above feed cost (or "spread") of $1.74. This is 23 cents above 1925 and the largest spread received for several years. It is only exceeded by a few cents in 1919 and 1920. Basis of the feed cost computation is given in the table presented in the accompanying discussion.

able III—American Cheese (Twins) Prices at Wisconsin Primary Markets for Past Seven Years

	1926	1925	1924	1923	1922	1921	1920
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
an.	23.5	23.4	22.1	26.3	19.9	23.9	30.8
eb.	23.0	22.7	21.1	24.5	20.5	25.1	27.8
ar.	19.8	21.9	20.2	22.8	19.2	24.9	28.1
pr.	17.9	22.3	17.1	20.2	15.7	18.2	29.0
ay	18.4	21.5	17.4	22.3	16.5	14.2	27.4
ne	19.3	22.1	18.4	22.9	18.3	13.9	25.0
ly	19.2	21.2	17.8	21.3	18.9	17.7	24.6
ug.	19.7	22.6	18.5	23.0	18.9	19.0	24.6
ept.	21.5	22.1	19.3	24.7	20.5	18.9	26.4
ct.	23.0	23.4	18.4	24.5	24.5	19.6	24.6
ov.	23.4	23.0	18.7	23.4	24.8	19.2	24.5
ec.	24.5	23.3	20.9	21.6	26.6	19.6	21.9
ve.	21.1	22.5	19.2	23.1	20.4	19.5	26.2

able IV—Yearly Prices of Butter and Cheese

	U. S. Butter Chicago	U. S. Butter New York	Danish Butter* Copenhagen	Danish Butter* London	Cheese Wis. Boards
	Cts.	Cts.	Cts.	Cts.	Cts.
26	42.8	44.4	36.4	39.1	21.1
25	44.0	45.3	42.3	45.7	22.5
24	41.2	42.5	39.7	42.1	19.2
23	46.0	46.8	36.8	40.2	23.1
22	39.2	40.7	36.6	40.2	20.4
21	41.7	43.4	38.1	44.3	19.5
20	58.7	61.5	45.2	49.0	26.2
19	57.8	60.3	65.7	52.6	30.0
18	50.0	51.0			27.5
17	41.3	42.7	49.0	45.4	23.5
16	32.7	34.9	38.9	39.7	18.0
15	28.4	29.8	32.3	34.3	14.8
14	28.8	29.8	25.8	28.6	15.2
13	30.8	32.2	25.9	27.6	15.0
12	29.6	31.6	26.3	27.7	16.0
11	26.6	27.9	25.5	26.6	14.0
10	29.8	31.1	24.4	25.5	15.1

*Conversion to U. S. currency made on basis exchange quotations by the Federal Reve Board.

Table V—Balance of Trade in Dairy Products
(Thousand pounds, i. e., 000 omitted)

	Exported	Imported	Net
tter, 1926	5,483	8,029	2,546 Imp.
eese, 1926	3,903	78,417	74,514 Imp.
nd. milk, 1926	114,549	1,663	112,886 Exp.
otal, 1926	440,545	956,936	516,391 Imp.
" 1925	573,508	787,024	213,516 Imp.
" 1924			283,305 Imp.
" 1923			477,030 Imp.
" 1922			123,430 Exp.
" 1921			330,272 Exp.
" 1920			551,988 Exp.
" 1919			2,644,946 Exp.
" 1918			2,274,332 Exp.
" 1909—1913			324,096 Imp.

*In terms of milk.

Table VI—Farm Price of Feeds: Farm ce of home grown feeds and cost to farm- of mill feed as reported by the U. S. De- rtment of Agriculture. Average for hay is year ending June 30; for corn, October ; for oats, July 30; for bran and cotton- d meal, December 31:

	Alfalfa per ton	Clover per ton	Corn per bu.	Oats per bu.	Bran per ton	Cottonseed meal per ton
16	$13.52	$14.52	$0.70	$0.39	$21.20*	$39.96*
15	13.81	13.43	1.06	.48	35.37	47.00
14	13.54	15.14	.84	.43	34.97	48.49
13	12.82	13.03	.77	.39	34.64	51.75
12	10.58	14.15	.54	.33	31.58	52.70
11	15.96	19.48	.62	.51	26.10	44.23
10	22.70	23.69	1.51	.80	41.61	47.97
19	20.35	20.93	1.53	.70	48.79	78.57

Prices in carlots at Utica, New York, as orted by Department of Economics, Cornell iversity.

able VII—Wisconsin Milk Prices: The owing table gives the farm prices per hun- d pounds milk as reported by some 500 op reporters to the Wisconsin Department c Agriculture, the prices being the monthly erages for all milk whether sold for manu- turing or direct consumption:

	1926	1925	1924	1923	1922	1921	1920
J.	$2.11	$1.84	$2.26	$2.38	$1.62	$2.07	$3.22
F.	2.04	1.85	2.15	2.29	1.58	2.01	2.96
M.	1.96	1.88	2.02	2.18	1.57	2.10	2.70
Apl	1.84	1.86	1.72	2.00	1.50	1.86	2.70
M.	1.80	1.83	1.59	1.91	1.42	1.37	2.62
Je	1.74	1.82	1.61	1.93	1.44	1.26	2.44
J.	1.79	1.87	1.63	1.95	1.52	1.39	2.46
A.	1.82	1.88	1.61	2.00	1.54	1.62	2.56
S.	1.89	1.91	1.61	2.10	1.65	1.62	2.57
O.	2.04	2.06	1.66	2.15	1.86	1.75	2.46
N.	2.15	2.14	1.73	2.21	2.12	1.82	2.38
D.	2.25	2.12	1.83	2.25	2.29	1.81	2.22
A.*	$1.92	$1.90	$1.73	$2.07	$1.64	$1.64	$2.56

This is the weighted yearly average.

Table VIII—Trend of Butter and Butterfat: Amount and per cent monthly prices paid Wisconsin producers per pound butterfat exceeded the quotations on 92-score butter in New York and Chicago. (Based on Tables I and II.)

	Amount Over New York	Amount Over Chicago	Per Cent Over New York	Per Cent Over Chicago
	Cts.	Cts.	%	%
January	3.9	5.6	8.7	13.0
February	2.7	4.5	6.0	10.4
March	3.3	4.6	7.7	11.0
April	2.7	3.8	6.9	9.9
May	3.3	4.7	8.0	11.9
June	2.1	4.2	5.0	10.7
July	2.7	4.7	6.6	12.2
August	3.3	5.0	7.9	12.4
September	4.2	5.7	9.4	13.2
October	4.7	5.7	10.0	12.4
November	5.5	7.2	10.9	14.7
December	3.4	5.6	6.2	10.6
1926 Ave.*	3.5	5.1	7.9	11.9
1925 Ave.	3.5	4.8	7.7	10.9

Table IX—Market Milk: Yearly average of monthly prices (not weighted according to production) paid producers for 100 pounds of 3.5% milk and delivered at local shipping point or country station. Does not include surplus or milk sold for other purposes than for direct consumption, except for cities 12 and 15.

Section or City	1926	1925	1924	1923	1922
1. New England	$3.39	$3.32	$3.13	$3.30	$3.03
2. Middle Atlantic	2.70	2.70	2.55	2.79	2.44
3. E. No. Central	2.52	2.48	2.49	2.53	1.94
4. W. No. Central	2.20	2.18	2.19	2.34	1.92
5. So. Atlantic	3.78	3.45	3.52	3.34	3.07
6. E. So. Central	2.46	2.52	2.74	2.41	1.97
7. W. So. Central	2.64	2.56	2.59	2.71	2.25
8. Mountain	2.39	2.45	2.36	2.37	2.02
9. Pacific	2.70	2.71	2.70	2.78	2.41
10. United States	2.76	2.68	2.64	2.71	2.31
11. Boston*	3.09	2.91	2.57	3.04	2.72
12. Chicago	2.52	2.43	2.48	2.57	1.87
13. New York*	3.05	2.97	2.55	2.85	2.68
14. Philadelphia*	2.65	2.62	2.60	2.79	2.20
15. St. Louis	2.03	2.04	2.00	2.16	1.77
16. Washington*	2.69	2.48	2.56	2.62	2.24
17. Detroit*	3.00	3.00	3.00	3.08	2.46
18. St. Paul*	2.55	2.63	2.45	2.83	2.43
19. Des Moines*	2.44	2.50	2.71	2.67	2.24
20. Milwaukee*	2.80	2.50	2.76	2.84	2.21

*Basic prices for fluid milk.

Zones to which prices apply for cities: No. 11 to the 181—200-mile zone; 12—all county plants; 13—the 53c rate point; 14—the 34.3c rate point; 15—the 34c rate point; 16—the 35c rate point; 17 to 20—f. o. b. city.

Table X—Condensed Milk: Review of prices paid producers for 100 pounds of 3.5 per cent milk delivered at condenseries and evaporated milk factories. Prices are averages of the monthly prices, but not weighted according to the varying production by months.

	1926	1925	1924	1923	1922
New England	$2.07	$2.07	$2.01	$2.28	$1.83
Middle Atlantic	2.30	2.14	2.08	2.34	1.55
E. No. Central	1.96	1.97	1.80	2.20	1.69
W. No. Central	1.88	1.87	1.77	2.09	1.68
Northwestern	1.86	1.93	1.77	2.12	1.71
South Western	1.85	1.94	1.76	2.05	1.64
United States	1.97	1.99	1.83	2.21	1.70

Table XI—Comparison of Total Receipts and Storage of Butter for 1926 and 1925 at the Four Large Markets*
(Thousands of pounds, i. e., 000 omitted)

	Receipts† 1926	Receipts† 1925	Storage‡ 1926	Storage‡ 1925
Jan.	38,482	36,449	21,124	27,039
Feb.	38,664	34,369	15,222	18,388
Mar.	44,792	40,999	9,461	7,119
April	43,952	40,518	8,626	1,451
May	53,100	58,431	14,662	5,752
June	74,633	70,820	43,907	33,395
July	67,247	67,814	68,132	54,952
Aug.	48,959	56,240	73,263	63,735
Sept.	43,443	43,336	66,930	55,258
Oct.	36,630	40,847	54,496	47,791
Nov.	33,291	35,118	36,207	36,371
Dec.	35,141	33,981	19,620	25,619
Total 1926	558,334	558,922	19,620	25,619
1925	558,922		25,619	
1924	575,683		36,337	
1923	532,143		14,542	
1922	512,825		15,963	
1921	453,468		35,001	
1920	395,200		39,627	
1919	421,839		40,950	

*Chicago, New York, Boston, and Philadelphia.

†Receipts at these four markets average slightly over 40% of the total production of creamery butter.

‡Storage on last day of month or of year. The storage at these markets averages over half of the storage for the country as a whole.

Table XII—Milk Producers' Association Pooled Prices: The following are the average prices paid producers for all milk (including surplus) according to reports by milk producers' associations supplying these several cities. Prices between cities cannot be directly compared because of different conditions surrounding each association, because one association may be located in a thickly populated territory where there is little or no surplus while another may be in a heavy producing territory with fewer consumers, and because the operations for one year may be abnormal in some respect. Prices given are for 100 lbs. of 3.5% milk.

City*	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Ave.†	Surplus %†
1 Akron	$3.03	$2.93	$2.72	$2.61	$2.48	$2.47	$2.58	$2.78	$2.96	$3.02	$3.04	$3.07	$2.81	40
2 Baltimore	3.16	3.18	3.11	3.13	2.99	2.87	3.13	3.16	3.20	3.46	3.52	3.50	3.20	
3 Cincinnati	2.50	2.50	2.40	2.25	2.15	2.15	2.15	2.40	2.50	2.60	2.60	2.70	2.41	
4 Cleveland	3.06	2.96	2.72	2.63	2.35	2.30	2.72	2.80	2.87	3.01	3.01	3.10	2.79	30
5 Des Moines	2.40	2.40	2.36	2.32	2.23	2.18	2.23	2.29	2.32	2.33	2.52	2.55	2.34	17
6 Detroit	2.85	2.86	2.86	2.82	2.67	2.58	2.65	2.72	2.75	2.82	2.95		2.78	18
7 Hartford	3.73	3.76	3.73	3.65	3.42	3.24	3.54	3.69	3.76	3.83	3.94	3.89	3.68	20
8 Los Angeles	3.32	3.32	3.32	3.32	3.32	3.32	3.15	3.15	3.15	3.32	3.15	3.15	3.25	24
9 Milwaukee	2.42	2.40	2.37	2.45	2.43	2.44	2.39	2.59	2.75	2.79	2.78	2.73	2.55	26
10 Modesto	2.08	2.15	2.07	1.91	1.91	2.00	2.00	2.12	2.12	2.12	2.17	2.26	2.08	
11 Selma	2.10	2.10	2.00	2.20	2.20	2.20	2.25	2.25	2.25	2.25	2.10	2.10	2.17	
12 St. Paul	2.35	2.25	2.20	2.12	2.15	2.18	2.25	2.27	2.32	2.41	2.50	2.52	2.30	50
13 Washington	3.58	3.53	3.55	3.59	3.05	3.04	3.14	3.12	3.13	3.60	3.60	3.60	3.38	4
14 Pittsburg	3.19	3.12	3.08	2.88	2.62	2.63	2.65	2.96	3.01	3.19	3.54	3.57	3.03	51
15 Boston	2.58	2.57	2.43	2.33	2.29	2.00	2.30	2.40	2.50	2.44	2.75	2.85	2.45	45
16 New York‡	2.59	2.51	2.42	2.31	2.14	2.01	2.15	2.36	2.56	2.58	2.72	2.80	2.43	
17 New York§	2.84	2.80	2.62	2.54	2.40	2.33	2.41	2.57	2.74	2.80	2.87	2.94	2.66	
18 Philadelphia	2.61	2.53	2.48	2.46	2.21	2.22	2.48	2.48	2.51	2.87	2.89	2.89	2.55	10

*Prices for cities 1 to 14 are f. o. b. city; for No. 15, the 181—200-mile zone or 73½c rate; for Nos. 16 and 17, the 201—210-mile zone; and for No. 18, the 51 to 60-mile zone.

‡Dairymen's League. §Sheffield Producers.

†These are the averages of monthly prices and surplus. The weighted yearly averages were not available, except St. Paul reporting 50% surplus.

Table XIII—Comparison of Different Markets for Milk

	Market milk	Condenseries	Cheese factories	Creameries
January	$2.89	$2.17	$2.35	$2.32
February	2.83	2.06	2.30	2.33
March	2.78	2.03	1.98	2.23
April	2.80	1.93	1.79	2.05
May	2.65	1.81	1.84	2.12
June	2.64	1.79	1.93	2.14
July	2.66	1.79	1.92	2.11
August	2.71	1.84	1.97	2.17
September	2.75	1.95	2.15	2.32
October	2.76	2.00	2.30	2.44
November	2.79	2.09	2.34	2.63
December	2.85	2.22	2.45	2.84
1926 Ave.	$2.76	$1.97	$2.11	$2.31
1925 "	2.68	1.99	2.25	2.36
1924 "	2.64	1.83	1.92	2.21
1923 "	2.71	2.21	2.31	2.43
1922 "	2.31	1.70	2.04	2.12
1921 "	2.67	1.92	1.95	2.26
1920 "	3.53	3.01	2.62	3.20
1919 "	3.50	3.09	3.00	3.14

The attempt is here made to compare the returns per hundred pounds 3.5% milk as sold to four different markets. The comparisons are arbitrary and will vary according to markets and conditions in various sections. It is probable that the majority of farmers selling market milk did not receive as high a price as quoted for all their product, as some would take the "surplus" price. Also, the majority of farmers selling to butter and cheese factories probably did not secure the *estimated* returns as shown, but these returns are possible and are being secured or exceeded by efficient dairy farmers supplying well managed factories. The condensery returns are probably most accurately representative of the returns actually received by the average farmer.

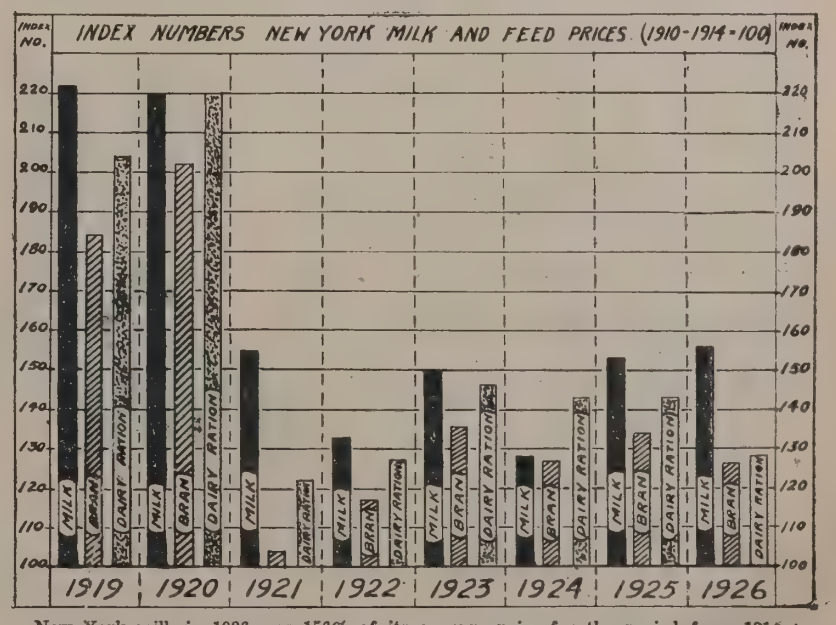
The market milk and condensery prices are the average prices of 3.5% milk for the U. S.

The cheese factory return is computed on the basis of 100 pounds 3.5% milk having a value at the cheese factory of ten times the quotation of American cheese on the Wisconsin Primary Markets (Table III). The creamery return is computed on the basis of 100 pounds of 3.5% milk being valued at the creamery at 5.2 times the New York quotation on 92-score butter (Table I), covering both the butter and skimmilk values.

Table XIV—Trade Output of Manufactured Dairy Products
(Thousands pounds, i. e., 000 omitted)

	1926	1925	% change
Butter:			
Creamery	1,845,389	1,361,526	−1.3
Farm	580,000	590,000	−1.7
Net imports	2,546	1,869	+36.2
Storage*	−18,430	−12,909	
Trade output	1,946,365	1,966,304	−1.0
Milk equivalent	40,873,665	41,292,389	−1.0
Cheese:			
Production	417,728	443,514	−5.8
Net imports	74,518	53,213	+40.0
Storage*	−4,729	+9,091	
Trade output	496,975	487,636	+1.9
Milk equivalent	4,969,750	4,876,360	+1.9
Condensed Milk:			
Production	1,727,567	1,757,858	−1.7
Net exports	112,886	143,141	−21.1
Storage*	−55,202	+32,844	
Trade output	1,669,883	1,581,873	+5.6
Milk equivalent	4,174,708	3,954,683	+5.6
Total Milk Equivalent of All Three:			
Production	48,929,367	49,811,831	−1.8
Trade output	50,018,123	50,123,427	−0.2

*Plus sign (+) indicates increase in storage, and minus sign (−) indicates decrease in storage.



New York milk in 1926 was 156% of its average price for the period from 1910 to 1914, with bran at 125% and a dairy ration of mixed feed at 128%. Milk prices advanced 25% more than feed and were higher than any year since 1910, except for the peak prices of 1919 and 1920. It is interesting to note that the advance in feed prices kept pace with the advance in milk prices for only the one year of 1920. The index numbers used here were compiled by Economics Department of Cornell University.



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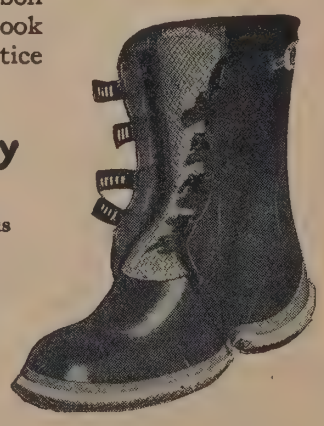
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Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyman assumes no responsibility for opinions expressed.

Jerseys and Guernseys Compared

HOARD'S DAIRYMAN:—In a recent letter in answer to Mr. Main whose letter appeared on page 22 of your January 10th issue, I refrained from giving any data regarding Guernsey Advanced Register records. This was because it has never been my intention to compare the two breeds or to do anything detrimental to the advancement of pure-bred cattle in general.

It might interest many of your readers to know that official records completed up to January 1, 1926, on about 31,000 Jersey cows show an average production of 446.40 lbs. fat from 8,327 lbs. milk, with a percentage of 5.361 fat; 22,900 Guernsey records show an average production of 9,675 lbs. milk and 483.2 lbs. fat; average test 4.99. This includes all records up to January 1, 1927.

When the Jersey records completed in 1926 are added to the above figures their showing will be improved somewhat, as the average for all records completed in 1925 showed a production of 9,348 lbs. milk and 498.12 lbs. fat; average test 5.329. The average Guernsey record completed during the same period runs 527.2 lbs. fat and about 10,250 lbs. milk.

As might be expected, the Guernsey being the larger framed cow is capable of a little better average production than the Jersey. Likewise, the Holstein-Friesian, being still larger, is capable of still greater average production. We can compare breeds until doomsday as I have always claimed and each will remain of the same opinion to the end. Where the Jersey people fall way behind is in not going after the business. The other fellow is not catching suckers as our friend, "Butterfat," fears, nor will Mr. Main's policy of live-at-home and advertise in "The Jersey Bulletin" bring about an increased demand. Advertise in the general farm and dairy papers and as you catch your suckers, hand each a dose of concentrated "bait" in the form of your breed paper. What harm is it to go out after suckers and then educate them? We were all suckers to start with. Just don't be a darn fool and try to play them for suckers after you have won their confidence.

Virginia. A. G. INGHAM.

The Sabbath

HOARD'S DAIRYMAN:—In your issue of Feb. 10 I note some curious articles on the Sabbath, rife with radical errors. In this article I desire to reply to Mr. Spicer of Illinois.

Mr. Spicer tells us, seemingly soberly enough, that "the Sabbath was for Jews only, and Gentiles were not allowed to observe it under penalty of death. The latter prophets allowed strangers, i. e., Gentiles, to keep the Sabbath with Jewish friends, but it was optional, not commanded. In no place in the Old or New Testaments are the Gentiles ordered to keep any day of the week as Sabbath."

I think this is the most glaringly absurd misstatement, as well as the most utterly inexcusable misstatement I ever saw in print. I wonder if the gentleman never read the fourth commandment. If not, I respectfully suggest to him that he give it his careful consideration. It tells us very explicitly who were commanded to keep the Sabbath. Here it is: In it (the Sabbath) thou shalt not do any work, thou, nor thy son, nor thy daughter, thy manservant, nor thy maidservant, nor thy cattle, nor thy stranger that is within thy gates. Here the "stranger within thy gates," who, according to the man's own admission means the Gentile, was just as pointedly commanded to observe the Sabbath as was the Jew. "Sabbath made only for Jews?"

I don't know how it is in Illinois, but over here in Virginia quite a number of our most respectable people consider Jesus a very respectable authority on such quotations. Did He say that the Sabbath was made for Jews? Never. What did He say? He declared that the Sabbath was made for man; and every Bible student knows that throughout the entire Scripture the word man as he

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sed is a comprehensive term that in-udes absolutely every creature be-nging to Adam's race.

To illustrate, Jesus said to the mpter, "It is written, man shall not ve by bread alone but by every ord that proceedeth out of the outh of God." Can any sane Gen-le imagine that the term man as re used by the Savior included no-dy but Jews? If he did, then it as tantamount to saying that no-dy would be saved but Jews. How ould this suit our friend, Spicer? Virginia. L. L. HICKS.

Louisiana in February

HOARD'S DAIRYMAN:—Perhaps some your northern readers would like have a little picture of Southern uisiana the first week of February. Roses in bloom (as they have been winter); clover in pastures abun-nt and about half bloom; Bermuda ass and other pasture grasses green d from 4 to 6 inches high. Tem-rature averages about 70° for the hours, so cows are on pasture both y and night; vegetable shipping in ll blast with dozens of cars moving m this parish (county) daily; the st strawberries are on the market d selling for 75c per pint basket; l crop of potatoes recently dug and ring crop being planted; alfalfa out 12 inches high and will be dy to cut by first of March the st of six to seven cuttings. Corn und all plowed and will be planted t of February and first part of rch. Spring gardens planted and . Our dry cows and young stock e had no grain or silage all winter. Our winters are short and moder-; summers long and also moderate contrary to general impression ong people in the North. Our mmer temperature seldom goes ve 95 and usually a refreshing eze from the Gulf of Mexico, th of us.

The writer's introduction to thern Louisiana was about eight rs ago when around the first of ember everything was green and s grazing on good pasture. It dly seemed believable.

Dairying in Louisiana is still in its ncy although there has been rapid des along that line the past two three years. It is estimated that e $40,000,000 worth of dairy ducts are shipped into this state ry year, about $15,000,000 of ch is condensed milk.

The average quality of dairy cattle ow and the big majority of men aged in dairying is simply "milk-r cows," knowing little about the nce of feeding.

and in Southern Louisiana is still tively cheap and most of it very ductive. Southern Louisiana will discovered" one of these days and l values will have a sharp advance, until that time it is the land of lden Opportunity."

ouisiana. C. W. DAVIS.

law of Moses and Law of God Contrasted

OARD'S DAIRYMAN:—That the ten mandments of God are perpetual immutable will be quickly seen willingly admitted when the facts disclosed. The crime wave sweep-the world, wherein each offense is olation of one or another of the commandments, should make y father and mother carefully ider and anxious to learn the s pertaining to this vital question. e hateful deception that God's commandments have been abol-d and nailed to the cross, has had rld wide sowing and how horri-he harvest, but the searchlight of s precious word focused squarely on the situation will clearly discern long hidden truth and people every-where awakening to the fact that it was the law of Moses and not the law of God that was abolished at the cru-cification of Christ.

Wisconsin. J. E. LING.

Timely Subjects

HOARD'S DAIRYMAN:—I have read letters of others which I enjoy. Every dairyman should take your grand paper. Here are a few sub-jects we should bring before Con-gress.

First is rural police. "Why, it will cost more money," some will say. But listen, in my own neighborhood $500 worth of chickens were stolen last year. In my county alone over $5,000 worth of farm products were stolen last year. How about the girls in teens which are disappearing daily, the murders, and the people being killed by reckless drivers?

The next subject is a standard price for farm products the year around. For example, wheat, $1.50; eggs, 40 cents.

Next question to do away with Sunday ball games, movies, and dances. And wouldn't it be better if our high school would read the whole New Testament instead of novels?

Let's have a better immigration law to stop the outlaws from other countries coming here. Make each man and woman give his or her past history.

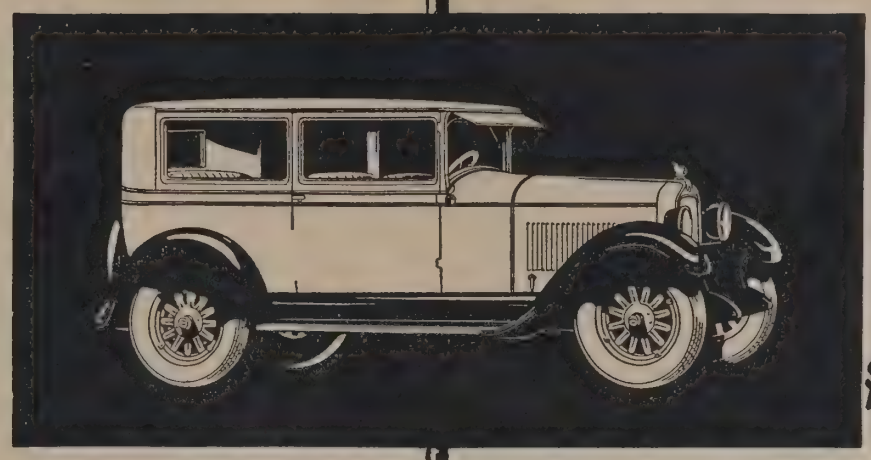
Ohio. PAUL GARTRELL.

The way never to grow old and gray-headed is to die young.—Prov-erbs of Spain.

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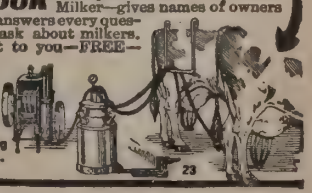
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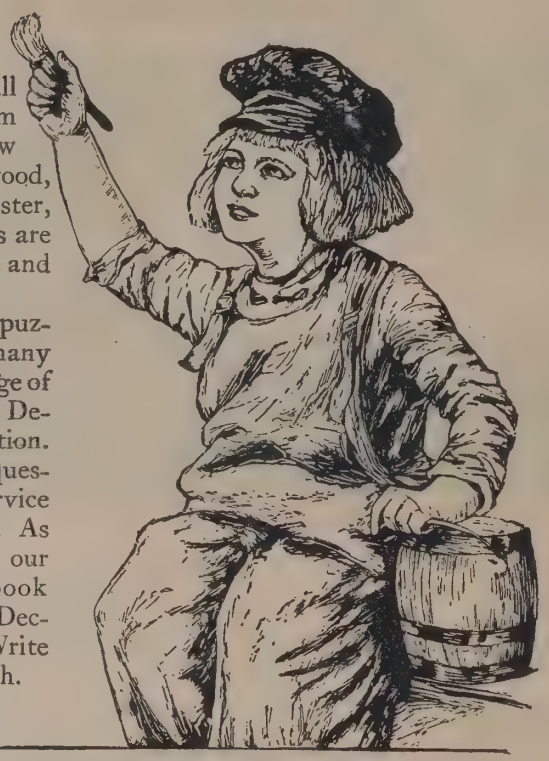
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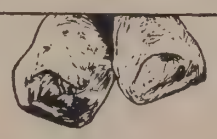
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Tangier Peas and Hungarian Vetch

C. L. GRIGGS, OREGON

TANGIER peas and Hungarian vetch, two of the most popular crops introduced by the Oregon Experiment Station in many years, are finding great favor with dairymen in the Willamette Valley and the coast section of Southwestern Oregon. In the valley section, Hungarian vetch is supplanting hundreds of acres of common vetch for all forage purposes and for seed production as well, being better adapted to the cold valley soils, aphis-resistant, of a better quality for hay, and yielding about the same amount of hay and more seed per acre than the common vetch. Thus far, in the Willamette Valley, Tangier peas are grown mostly for seed purposes but it is expected that the crop will be used considerably for summer silage when the cost of seed is less and the possibilities of the crop better known.

In Southwestern Oregon, particularly Coos County, the two crops are largely supplementary for each other, as Hungarian vetch will thrive where the Tangiers perish. Take, for example, the farm of A. R. Kay, who was largely responsible for the introduction of Hungarian vetch to his neighbors. On the high land along the bank of the Coquille river which borders the Kay farm, the Tangier peas thrive, while farther back from the bank on land which would be under water at high tide, if it were not for tide gates, the Hungarian vetch seems to be superior.

Six acres of Tangiers were sown on the riverbank land in October last year, three of which survived the winter's floods. When the crop from this three acres was put in the silo in July, the measured depth of settled silage showed a yield of more than 20 tons of silage per acre. The other three acres of the field were replanted in March to Tangier peas and yielded almost as much silage when harvested in August as the first field. The only apparent advantage, according to Mr. Kay, was that the fall sown land could be plowed and planted to corn for late fall green feed. The silage from these fields, when fed, was of good quality and eagerly eaten by the dairy herd.

Unlike Hungarian vetch, Tangier peas do not make a particularly fine quality of hay as the stems are too long and coarse. Neither are they very desirable as green feed, for the same reason, as several Coos County farmers have found during the past season. However, on some of the hill land where the stalks do not grow



TANGIER PEAS
County Agent C. R. Richards inspects Tangier peas grown on upland on farm of George Hampton, Coos County, Oregon.

rank, an abundant yield of medium quality hay is obtained. George Hampton was one of the farmers who grew Tangiers on hill land last summer, and says that while he had a real job harvesting them as a hay crop, his cows ate them well after they were cured in the hay mow. Mr. Hampton's neighbor, J. B. Moomaw, planted the crop for soiling purposes and obtained a large quantity of green feed from a very small area. C. E. Schroeder prefers Tangier peas for ensilage, Hungarian vetch for hay, and is experimenting with Japanese millet as a soiling crop. Mr. Schroeder's neighbors humorously allude to this farm as the "League of Nations," and indeed he does have crops from several sections of the globe, all introduced by the Oregon Experiment Station.

Hungarian vetch can be grown in any section of the country that has a climate no more severe than that of Western Oregon. A considerable market is developing for Oregon seed in California. Previously a great many cars of purple vetch seed have been shipped into the southern states for planting as a green manure crop in the citrus orchards. Purple vetch



SPRING PLANTED HUNGARIAN VETCH AND TWO-MONTH-OLD HUNGARIAN VETCH ON FARM OF A. R. KAY, OREGON
This was used for silage as is almost everything else grown on this farm.

a rather uncertain seed producer, many farmers are turning to ungarian vetch and Tangier peas hich yield more seed and are equally aluable as a green manure crop.

Regarding Tangier peas and their ospective usefulness, G. R. Hyslop, gronomist of the Oregon Experient Station, says, "We consider the angier peas a very satisfactory lage crop for regions where there is rather mild, moist growing season, id where there are no extremes of ld, unless there is adequate snow ver. It appears that the Tangier as are sometimes injured by severe eezing and thawing, even though e temperature does not get very low. would hesitate to plant them where e temperature is sustained at as w as 10 to 13 degrees Fahrenheit. course, Tangier peas will stand bstantially lower temperature when ere is adequate snow cover.

"I think there is a real possibility r the Tangier peas in the mild secns of Western Washington and the ast section of Oregon, some of the tions in Jackson and Josephine unties in Southern Oregon, and in ite a good deal of territory in Calinia. There is doubtless a great al of very good growing country for ese crops in the southeastern tes."

Pointers on Alfalfa Culture

HOARD'S DAIRYMAN:—"My experice has taught me that the depth of nting is a big factor in getting a nd of alfalfa," says Arthur Jewett Ingham County, Michigan, exitor of the grand champion bale alfalfa hay at the International ain and Hay Show at Chicago in 25. "From one-half to threeurths of an inch deep is ideal. ien planted at a depth of an inch more the results are not satisfacy."

t pays to have the alfalfa seed bed n and well packed before seeding, ording to Mr. Jewett. A sweet is absolutely essential for success l it is well to make the acidity t before seeding than be sorry afwards. Where alfalfa has never n grown before, Mr. Jewett ads inoculation. After a few years a good rotation in which alfalfa included, inoculation will not be essary. He regards it as a good n to mix in a little alfalfa when ding other grasses. In this way ew alfalfa field may be more easisecured.

More alfalfa growers fail because unadapted seed than from any er cause," says Mr. Jewett. A few ts less in price for the southern opean seed has tempted many n to purchase it instead of hardy thern seed. Such seed may actly fool a person by coming up ker, showing much promise, but er a cold northern winter the ntake is discovered.

lthough he has kept fields of ala for as long as 12 years, Mr. ett believes it a good plan to keep ds not longer than five years. er grasses are bound to creep in rather than fight them, it is bet- to seed a new field.

ebraska. H. H. BIGGAR.

Grading in Canada

OARD'S DAIRYMAN:—In the matof improving quality, we are mak- rapid strides in Canada. All but- and cheese intended for export t be graded by government grad- nd sold on this grade. The cheese ories and creameries are now ely paid for their product on the rnment grader's certificate. In , when grading was commenced, ations for Canadian and New and cheese were about on a par. n the Canadian cheese began to lead and this lead has been increased year by year until, in 1926, according to J. A. Ruddick, Dominion Dairy Commissioner, the average premium on Canadian cheese was .68 cents a pound. On our total output of cheese this amounts to $1,000,000. "If we make the best of our opportunities we have nothing to fear from competition," observes Mr. Ruddick. "Fair competition is a good thing and the proof of that assertion lies in the fact that Canadian dairying has made more real progress in the last five years than in the previous twenty."

The progress referred to by Mr. Ruddick was achieved by a revolution in our methods of securing higher quality. Previous to five years ago, education was the prop relied upon to maintain quality and improve it. Farmers were given oceans of good advice but no financial incentive to do better. Also, producers were well aware that the indifferent five or ten per cent could do more to lower quality than all the rest could do to prove it. All the educational effort was not wasted but results were never in proportion to the effort expended. Then a movement started on the Prairies to buy cream by grade and sell the butter on the same basis. Improvement in quality of creamery butter was instantaneous. From making the poorest butter in Canada, the western creameries were soon making the best. The movement spread to the East and now practically the whole of Canada buys cream from the farmer and sells butter according to its quality. The same principle has been applied to the sale of cheese and with the same results.

Canada. F. E. ELLIS.

Tourist—"Brothers! We've climbed to the top of this mountain to see the view and we've forgotten the glasses."

Scottish Guide—"Och! Never mind, there's nobody aboot. We can just drink oot o' the bottle."

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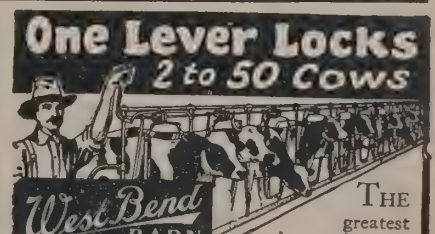
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EDITORIAL COMMENT



EACH year finds a larger quantity of both vegetables and fruits in the market. The change that has been made in production of these crops is very noticeable, and it is due to the fact that dieticians urge larger consumption of these products and that people are more able to buy them. No diet is considered complete without vegetables, fruit, and milk.

We were forcibly struck by noting in a March 2 report of the United States Department of Agriculture that the daily movement is around 100 cars of celery, 25 of tomatoes, and 12 cars of strawberries from Florida; 200 cars of lettuce from the Imperial Valley in California; and 75 cars of spinach from Texas.

Since people are consuming more fresh vegetables, fruit, milk, and other dairy products, they have less doctor bills and are enjoying better health.

A DAIRY PILGRIMAGE

The first dairy pilgrimage took place last year when a number of members of various national dairy organizations and delegates of the American Dairy Federation went to Washington, D. C. The purpose of this pilgrimage was to become better acquainted with the work of the United States Department of Agriculture, and especially that of the Bureau of Dairy Industry.

The second annual dairy pilgrimage will take place this year April 26, 27, and 28—that is, these are the dates set for a trip to the United States Department of Agriculture and to review the work of the Bureau of Dairy Industry and such other bureaus as time will permit them to visit. Any person interested in dairying will be a welcome pilgrim.

We believe there is an advantage to the development of the dairy industry in having people informed as to what the United States Department of Agriculture is doing for the welfare of agriculture. It is well to have a clear understanding of the work of the Bureau of Dairy Industry. In no other way can we receive full benefit of the many good things being done for the dairy industry by the federal government.

THE COW WENT WRONG

An editorial in the Guernsey Breeders' Journal, entitled "The Judge Went Wrong," emphasizes a practice of the show ring which we believe is injurious to the development and breeding qualities of dairy cattle. The editorial goes on to say: "Where one follows the fair circuit it is quite evident that the reason for placing the same animal in one to three different positions at different fairs, is not so much the judgment of the judge as the condition of the animal."

Anyone who has made a study of dairy animals knows there is a slight difference in condition of any animal from day to day and especially so if the animal is put in an abnormally high condition. This invariably requires excessive feeding and such animals are very likely to have a decided slump in condition. A situation of this character immediately reveals that the show ring is permitting the feeder and, we might add also, the man who exhibits the animals to have too large a part in determining awards of the show ring. In other words, we judge condition, the skill of the man who feeds and handles the cow, rather than the merit of the animal.

Here is a sentence taken from the editorial in question which indicates to us that we are overconditioning our dairy show cattle: "A cow placed well up in the aged cow class early in the day, but when the same cow came in the Advanced Register class later on she placed down. This was a case of the same judge and practically the same animals in the class, but a difference of a few hours in the condition of the animal."

It is evident that this cow was overconditioned and was receiving more feed than she was capable of handling. While the cows will vary in their appearance from day to day they do not vary in appearance in a few hours, unless attempt is made to put them in the highest bloom and flesh. This very often means hiding defects which mislead the judge. Surely such practices as this can not contribute to a better type of dairy cattle and larger producers—the real purpose of the show ring.

McNARY—HAUGEN BILL

In our issue of March 10 we gave liberal extracts from President Coolidge's veto message of the McNary—Haugen bill. We did this that our readers could have opportunity to determine for themselves whether or not the President's reasons for vetoing this measure are sound.

It seems to us that those who think such legislation is sound and would assist in placing agriculture upon a proper basis should take the time to point out wherein the President's arguments are faulty or do not properly present the facts. Newspapers or persons who condemn the President's action by glittering generalities and prejudicial statements should be requested to point out, step by step, any misstatements they find in his message. Anyone can say that the President's veto message was "long and detailed," "prepared by many hands," and "unsound." And, moreover, that the McNary—Haugen bill would bring relief to agriculture. Not one of these statements is an argument for or against the message or the bill.

The critics of the President should analyze his arguments and show wherein they believe he has misrepresented the McNary—Haugen bill. Further, they should outline how the McNary—Haugen measure will operate in handling the various crops whose surpluses it proposes to store or export. For example, how would the approximate surplus of 500,000,000 bushels of corn of 1925 have been handled? In 1914, nearly 51 million bushels of corn were exported and less than 10 million imported. In 1924 we exported less than 10 million bushels of corn and imported about one-half as much. The McNary—Haugen bill made provision for storing surplus, but its chief purpose was to export surplus. It occurs to us the proponents of this legislature should carefully work out just how our surplus corn will be handled, as well as all other crops covered in the bill as basic commodities.

The dairy interests are solving their marketing problems. Dairy products are stored in peak of production by co-operatives, corporations, and individuals, and sold during periods of low production. This stabilizes prices and helps prevent overproduction. New markets are being opened up for dairy products; poor cows are being sold to the butcher. For two consecutive years there has been a decrease in the number of dairy cows. Dairy interests have not been able to discover any plan that will permit overproduction and still maintain reasonable prices for dairy products.

It is our opinion that if the McNary—Haugen bill had become a law, prices of agricultural products which it considers basic would have advanced temporarily. This would have stimulated production, notwithstanding we have seen statements that good prices do not increase production. This sort of reasoning is childish. Every farmer knows that high prices sooner or later increase production and low prices decrease production.

We cannot comprehend how the McNary—Haugen bill would be permanently beneficial to agriculture unless acreage could be controlled. There is a difference between seasonable surplus and acreage surplus. The McNary—Haugen bill might be made to operate in handling seasonable surpluses, but how it could be operated to handle unlimited production passes our understanding. Since none of the proponents of this measure have outlined how it would operate, we, of course, cannot direct ourselves to a discussion of the plans they may have in mind.

If the proposal were to work as those favoring it think it would, prices of the basic products, which include corn, wheat, rice, pork, and cotton, w advance. This means higher prices for food w be paid by the entire population and only third of the farmers would receive incre prices. Dairy farmers would pay more for feeds they buy as well as for many of their fo They would receive no benefit from this legislat but it would cost them much money.

Unless acreage were controlled, farmers pro ing these basic crops would not in the end be efitted. By increasing production, surplus w increase and the extra cost of handling it w wipe out the increased returns received for crops marketed at home. The McNary—Hau measure would mean cheap foods and feeds foreigners; higher prices for these products chased by our own people; and ultimately w prove disastrous to those whom it proposes help.

If prejudice and selfish interest only are t considered, those representatives in Congress voted for the McNary—Haugen bill voted to den the dairy farmer with added cost of produc and no benefits. Organizations like the Wisco Farm Bureau Federation that endorsed the m ure were asinine and neglectful of the selfish terests of dairy farmers, to say nothing of t lack of study and understanding of the prop legislation. If it were good legislation, the d farmer might well have contributed his shar paying increased prices for his feed that agri ture as a whole might benefit. But we are fir convinced it would in the end produce no be for the grain grower, yet would have increased production cost of the dairy farmer.

We commend the President for his veto the real interest of agriculture as a whole and dairy industry in particular. We suggest agai our readers a careful analysis and considera of the President's message. Do not allow the of sectional and business prejudice to close y eyes to reason and calm judgment as to what proposed measure would do.

WATER BUCKETS

It has been shown by tests that when cows h water kept before them so they can drink at time they desire, they produce more milk t when watered once or twice per day.

The results of an investigation, carried on by Bureau of Dairy Industry of the U. S. Departm of Agriculture, show that cows gave 3 per more milk when water was kept before them t when watered but twice per day. When g water but once per day they produced 4 per less milk than when permitted to drink at These comparisons were made under favor conditions. It is plain to anyone who has served how cows are watered, and especially cold weather, that keeping water before them increase the production of milk more than 4 e cent.

Anything as cheap as water and as esser should be furnished to cows in abundance at times. The quantity of water which a cow consume depends upon the feed she is receiv the amount of milk she is producing, the t perature of the water, and the weather. Wh cow is given dry feed she will drink more w than when given succulents. The cow needs water if she is fed large quantities of roots. may go a day or two without drinking when 100 pounds of roots per day. No sensible man, ever, will depend upon the feed to supply his with water or require the cows to drink under verse conditions.

The best way to water cows is to keep the w before them so they may drink whenever they thirsty. The cow, in reference to her water quirements, is a better judge than her owner. is one instance when a man should not ques feminine judgment.

Sweet Clover Pasture

Hoard's Dairyman frequently refers to sweet clover as being a very good pasture crop for dairy cows. I am persuaded to give it a trial. In planning my acreage I need to know more about how many cows an acre of the crop will carry and how long this will supply satisfactory pasturage.

Clarinda, Iowa. W. A. R.

Some data on the carrying capacity of the white biennial sweet clover have been collected by W. J. Fraser of Illinois. Fourteen farmers reported pasturing cows on sweet clover the first fall after it was sown in the spring with small grain. These farmers had 170 acres of the pasture and they pastured 271 cows, or 1.6 cows per acre for an average period of 1.7 months; .63 of an acre supported a cow during this time.

Twenty-one farmers reported on pasturing sweet clover the second year. They had 266 acres of the crop on which they pastured 388 cows or 1.46 head per acre for an average period of 3.9 months; .69 of an acre supported a cow for this time. These 21 farmers turned out on an average April 29 and took their cows off the pasture on the average August 26. By this time the growth in the small grain stubble of the new seeding is large enough to be turned on and it would carry the cows for a period of 1.7 months. Thus, by combining the old and the new crops, one is able to get between 5 and 6 months' service.

These figures are averages—not of a large number of farmers, but of enough to be fairly accurate. We have seen a good sweet clover pasture (second year) carry as many as 3 cows per acre from May first until the first of August. We have seen the fall growth (first year seeding) cut nearly 2 tons of hay per acre. These observations are given to show what can be done under somewhat ideal conditions. Unless one determines right from the beginning to have good sweet clover he is likely to be disappointed. If he succeeds in getting good pasture, he will be somewhat astonished at the service it will give.

Color Does Not Indicate Production

I have a red and white Guernsey that gives milk testing only 3.5 per cent, and have fawn and white cows that test 5 per cent. Does the color of the cow make the difference? What is the difference between a Jersey with a black tongue and black points, and a Jersey with a light colored tongue and light colored points?

Roachdale, Ind. J. R. M.

There is no relationship between the productive capacity of a cow and her color. The amount and butterfat percentage of her milk is not associated with color, except as a certain color has become a marked family or breed trait and this family run relatively high or low in test.

Because a Guernsey cow may be red and white is no indication that she will produce milk of a relatively low fat content. In the particular case cited, it is very likely that the ancestors of this red and white cow were normally low testing animals and that they happen to be red and white is only incidental. We know of many red and white Guernseys that test relatively high for the breed and if statistics were available, it would probably show that just as large a percentage of red and white Guernseys test high as there are fawn and white that test high. The highest testing Guernsey in a certain herd in this vicinity happens to be a red and white Guernsey. Her color comes mainly from the breeding on her sire's side as her dam is more nearly fawn color. In this herd are a number of light colored or fawn colored cows that are relatively low in test, although none of them will drop back to much less than 4.5 per cent for a year's average. Some of the lower testers will occasionally test for a month or two under 4 per cent, but this is rather unusual.

Our father was a breeder of pure-bred Jerseys many years ago and we well remember the emphasis that was then placed on a black tongue. Indeed, this was one of the first things that buyers would look at in purchasing a cow. Another thing that was looked for at that time was the length of the switch. This was merely a breed prejudice and was not in any way related to the productive ability of the cows in question. There is no basis for the belief that a Jersey with a black tongue or with a long switch will produce any more milk than one with a white tongue. The same is true in regard to the other color points in the animal.

In the past there was a considerable prejudice against Guernsey cows with dark noses. Despite the fact that in the show ring the dark nose is not discriminated against in the giving of prizes and it is not now included in the Guernsey scale of points, there still remains some prejudice with some buyers against a Guernsey cow with a dark or smoky nose. As time goes on, we believe this prejudice will evaporate because it has no real relationship in indicating the possible productive capacity of the cow.

Cane, Kafir Fodder, Alfalfa

The following feeds are available at prices indicated; ground kafir grain, 80 cents a hundred; bran, $1.65; cottonseed meal, $2.00; linseed meal, $3.50; corn gluten feed, $2.75; alfalfa meal, $1.45; alfalfa hay, $21.00 a ton; cane and kafir fodder, $8 a ton.

The cane and kafir fodder is all the roughage we have on the farm. Can buy alfalfa hay 2½ miles away for $21 a ton. We feed all the cane fodder and ground kafir fodder the cows will clean up. Would you advise buying the alfalfa hay at the price indicated? What concentrates mixture would you advise for feeding with the cane and kafir fodder? With this roughage and alfalfa hay?

Amarillo, Texas. J. J. R.

The cheapest source of total nutrients is from the kafir grain and the cane and kafir fodder. This combination does not make a desirable ration for dairy cows for three reasons; first, it is too low in protein, meaning that the cows would have to consume more than they actually will consume if enough protein is taken to meet the requirements; second, the combination would, in all probability, become somewhat unpalatable in which case the amount of nutrients consumed would not meet the requirements; third, the ration is too low in mineral substances.

The ration may be improved in the following ways: first, by adding alfalfa hay to the roughage; second, by adding just enough blackstrap molasses to the cane and ground kafir fodder to make it palatable; third, by making a concentrates mixture suitable for the roughage; fourth, by supplying a simple mineral mixture.

At the prices given, leaving out the kafir grain and fodder, the alfalfa hay is next to cottonseed meal in supplying protein cheaply; it is the cheapest source of total nutrients, cottonseed meal being second. It is advisable to buy the alfalfa hay. By adding this to the roughage and by improving the palatability of the cane and kafir fodder by the addition of molasses, one has a roughage combination that will tempt cows to eat maximum quantities and thereby get a greater portion of the nutrients from the cheapest feeds.

In the event the alfalfa hay is not added then we would by all means advise using the molasses with the fodder. This roughage with molasses will need a concentrates mixture containing between 18 and 20 per cent of digestible protein. Such a mixture could be made of 400 pounds ground kafir grain, 200 pounds bran, 200 pounds cottonseed meal, 100 pounds each linseed meal and gluten feed. This mixture contains 18.7 per cent digestible protein.

If alfalfa hay is included with the fodder and molasses added to the latter, a concentrates mixture containing between 11 and 13 per cent of digestible protein is suitable. Such a mixture could be made of 500 pounds ground kafir grain, 200 pounds bran, 50 pounds each cottonseed meal and either gluten feed or linseed meal.

If alfalfa hay is not included with the roughage a mineral mixture composed of equal parts of bone meal, finely ground, high calcium limestone and salt should be fed. With the feeding of liberal amounts of alfalfa hay along with the fodder it becomes a question as to whether there is need for mineral supplements. No harm can be done by feeding the mixture given and it is likely needed for the heavier producing cows.

Weight of High and Low Test Milk

Is there any set weight that a gallon of milk should weigh? How much difference can there be between the weight of one gallon of Jersey and Holstein milk? What would be approximate difference in weight between one gallon of Holstein milk and one gallon of 3.5% cream?

Priest River, Ida. L. L. H.

There is no legal weight for a gallon of milk, but it is generally estimated as averaging 8.6 lbs.

A gallon of Holstein milk will weigh from 8.58 to 8.6 lbs. as compared with a gallon of Jersey milk that will weigh from 8.6 to 8.62 lbs. This indicates that a gallon of Jersey milk will weigh from one-fourth to four-tenths of an ounce more per gallon than will a gallon of Holstein milk, the extreme difference being two-thirds of an ounce. A gallon of 20 per cent cream will weigh 8.43 lbs., the weight per gallon decreasing slightly as the test increases. For instance, 25 per cent cream will weigh 8.39 lbs. per gallon; 30 per cent cream, 8.35 lbs.; 35 per cent cream, 8.31 lbs.; and 40 per cent cream, 8.28 lbs.

It will be noted cream weighs less per gallon than does milk, yet the high testing milk weighs more per gallon than does the low testing milk. This apparent discrepancy is due to the fact that in normal milk testing from 3 to 6 per cent, the solids not fat increase along with the test. This overcomes the lower weight of the extra fat in the milk and the influence of the solids not fat is greater than that of the fat. The higher testing milk, therefore, has a higher specific gravity and will weigh more per gallon. On the average, a gallon of skimmilk will weigh 8.63 lbs., but a gallon of skimmilk from normal milk of high test will weigh more than a gallon of milk from milk of low test. A gallon of skimmilk produced from milk testing 3 per cent will weigh 8.59 lbs. as compared with a gallon of skimmilk from milk testing 6 per cent weighing 8.64 lbs.

Estimating Corn For Silage

I would thank you to advise in your usual prompt manner what amount you consider I owe my new tenant.

Tenant grew 12 acres of corn on his own land at his expense, he snapped 68 bbl. of corn for his own use (corn measured with husks on) from 6 acres. The remaining 6 acres was not snapped. The entire 12 acres was then cut, hauled, and put in my silo. We shared even the expense for cutting, hauling, and filling silo, including meals for men, tractor, oil, etc.

We have entered into an agreement for this tenant to work my farm on equal shares and I wish to reimburse him for my share or 50% of the ensilage that I am to furnish from said silo.

Silo is 12'x30' or 32' and after ensilage was in same for 3 weeks it settled down to 26' height.

Ashburn, Virginia. C. A. H.

There is no satisfactory method of estimating the value of corn in the field when it is to be used for silage purposes. However, we offer the following suggestions as to a rather rough method of estimating these values in this case:

A 12-foot silo filled to a settled depth of 26 feet would contain approximately 56 tons of silage. If this silage is of good quality, a ton of it would be valued at one-third the value of a ton of hay in the mow; if it is of only fair quality, it might be worth only a quarter of the value of a ton of hay. However, assuming it is of good quality and hay in the mow is worth $15 a ton, the silage would be valued at $5.00 a ton in the silo. There is no standard costs for harvesting a crop of corn and filling a silo. From such reports as we have, it would appear that this would amount to not over $1.50 a ton even when proper charge is made for the use of the silo itself. If this figure be accepted, the corn in the field would then be valued at $3.50 a ton. The 56 tons of silage would, therefore, indicate a value of $196 for the corn as it stands in the field.

Another method of estimate is to assume that the 68 barrels of corn contained some 200 bushels valued at 75 cents a bushel. This would amount to $150 as the value of the ear corn on six acres. The corn stover has about 25 per cent of the value of the ear corn, which would indicate a value of about $37.50 for each six acres. This would indicate a total value for the standing corn, or, rather, for that portion of the corn that was put into the silo, of $225. The actual valuation would vary from this according to the local price for ear corn and whether the barrel of snapped corn was equal to three bushels of merchantable corn as considered in this estimate.

If the above estimates are at all applicable, it would indicate that the tenant has supplied approximately $200 worth of corn. Under the usual share agreement, the tenant is supposed to supply one-half of the purchased feed. There is due him, then, $100 for your half of the feed he has supplied. That these estimates might do substantial justice to the tenant is indicated from the fact that, including the snapped corn he has had for his own use, this tenant would secure approximately $30 an acre for his corn. In the 1924 federal report, we find that the average cost of growing an acre of corn in Virginia is estimated as being $27.53, with a yield of 21 bushels to the acre.

Hoard's Dairyman

Fort.Atkinson, Wisconsin

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What is the difference between a snake and a bed bug?

Answer: A snake crawls on its own belly.

A COW CALLING CONTEST

C-O-O-O B-O-S-S, C-O-O-O B-O-S-S! The hills of dairyland ring with the echoes of this musical call summoning the herd from refreshment to labor. 'Tis milking time! C-O-O-O B-O-S-S, C-O-O-O B-O-S-S!

Now the scene changes to a beautiful park on the shores of Lake Winnebago. 'Tis a day in July, 1926. Great crowds of country and city folks are gathered for the third annual Winnebago County, Wisconsin, dairy day picnic. A cow calling contest is in progress.

Though the scene has changed the actors have not, for they are the same pastoral peoples who for generations have been chanting C-O-O-O B-O-S-S, C-O-O-O B-O-S-S! The same fervor and feeling emanate from their vocal organs, perhaps more, for they are engaged in competition.



DAVEY, JONES, SCHULTZ, PANSIE, NELSON, MIRACLE, TUCKER

Corn belt farmers may have their hog calling contests, but for dairy farmers the cow calling contest's the thing. Many veterans of the cow yard were entered that day in what County Agent Gus Sell said was the first event of its kind ever held in Winnebago County.

Three judges were selected for the contest—T. G. Brown, A. T. Hennig, and Avery C. Jones. The calls were judged on volume, musical effect, and enticing qualities. Harold Tucker was declared the champion cow caller.

Six other prizes were awarded in the following order: Warren Miracle, William Nelson, W. H. Schultz, Mrs. Ferdinand Pansie, Robert Jones, and C. F. Davey. When the lady contestants began broadcasting to imaginary cows, a bit of humor was introduced in the shape of a canvas cow manipulated by two farmers who gamboled up to the platform.

There are three breed associations in Winnebago County—Holstein, Guernsey, and Jersey. Formerly each held its own annual picnic. Now, instead of competing with each other to see which can stage the biggest and best, they co-operate, getting together to make one big dairy day. Last year all previous records were broken when more than 6,000 people attended.

An old fiddlers' contest, the enrollment of new members in the three breed associations, an address, "Pinch Hitting in Dairying," by A. J. Glover, editor of Hoard's Dairyman, and a baseball game were other features on the day's program.

New Alfalfa Facts

We used to think that lime and inoculation about told the whole story but more recently we have come to learn that phosphates are often badly needed to make alfalfa yield to its highest capacity. This does not mean to say that phosphate is needed everywhere, or is as generally needed as is lime. Furthermore, there are no simple soil tests by which we can tell how much, if any, phosphate the land may need as we can so easily do in case of lime.

One of the surest ways to find out if the soil needs phosphate is to try a sack or two on an acre of our grain or corn. Phosphates generally make a big showing on barley and wheat, and often in oats, provided the soil lacks in this ingredient.

On heavy soils that have an ample quantity of lime in them, alfalfa can be started in corn by sowing just prior to the last cultivation. However, this method is almost bound to fail, unless the corn is planted thin—check-rowed at not more than three to four kernels per hill. The corn should be of an early maturing kind. The fields should be thoroughly well cultivated to eliminate most all weed growth. The alfalfa should be sown at a somewhat heavier rate of seeding than is ordinarily used. Generally, eighteen to twenty pounds per acre are sufficient.

On my father's farm we established, this past season, seventy acres of alfalfa with this method and every acre is a decided success. George Marr, a near neighbor, has established some eighty acres of alfalfa in the past two years, largely by seeding in corn. On heavy soils with ample lime and with the precautions mentioned, this method of seeding is giving reasonable success.

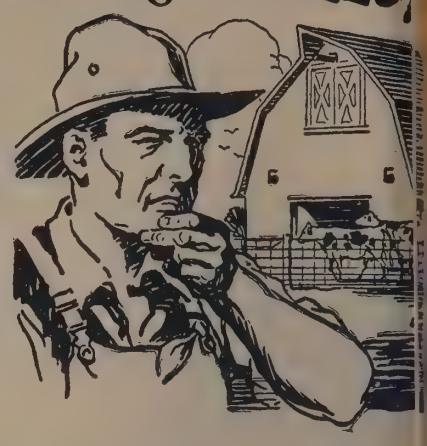
Another way of getting alfalfa and sweet clover started is to pasture off the nurse crop of oats. The cows are turned in when the oats are about ready to head out. It is generally best to turn in at least six to ten head per acre, so that the oats will be eaten down rapidly and not to let the cows remain in the grain field after they are filled up and begin to lie down. This is the time to turn them out in the regular pasture, otherwise they will waste much of the grain and may injure some of the alfalfa. This convenient way of handling the grain crop eliminates a great deal of labor and, at the same time, provides pasturage.—L. F. GRABER, Wisconsin College of Agriculture.

World Record Ayrshire

HOARD'S DAIRYMAN:—You give the world Ayrshire record holder as Nellie Osborne of Elm Shade. I would call your attention to the fact that another Canadian cow, Betsy Wylie, last year beat her record for butterfat. The latter's record is 21,805 pounds milk, 1,103 pounds fat, average test 5.06 per cent, as compared with 23,223 pounds milk, 1,003 pounds fat for Nellie Osborne. Betsy Wylie was owned and tested by Samuel C. Crockett of Nova Scotia, and was sold by him at the Toronto Royal Winter Fair last November to the Glen Campbell Stock Farm of Ontario. Her bull calf—then 15 months old—was sold at the same time and has since been purchased by Capt. J. C. Dunwaters, a well known Ayrshire breeder of British Columbia.

British Columbia. A. H. COTTON.

Are you feeding the right salt?



A NOTED agricultural expert, after a series of tests, found that when stock goes without salt it is not long until they take on a haggard appearance, the coat roughens and loss in weight and productivity follows.

Livestock needs salt to be well-conditioned and efficient. But you must feed them salt they will eat. An untouched salt pile does no good.

Feed your farm animals Diamond Crystal Salt. It is pleasant to the taste and free from inpurities. The stock will eat it—all they need; instinct tells them when to stop. Diamond Crystal Salt always makes better animals; better producers.

There is a Diamond Crystal Salt for every farm use—for livestock, for curing meats, for table and for cooking, for canning, for butter and cheese-making. Be sure to ask for Diamond Crystal at the store where you trade.

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Dept. 1171, St. Clair, Michigan

Please send me, free, trial package and booklet, "101 Uses for Diamond Crystal Salt."

*Name*_____

*Town*_____

*R. F. D.*_____ *State*_____

To Standardize Milk Ordinances

HOARD'S DAIRYMAN:—In order to stimulate interest in securing for West Virginia a better milk supply, Dr. Clarence E. Smith, associate milk specialist of the U. S. Public Health Service, has come to West Virginia for a three months' visit during which a state-wide milk campaign will be waged. The adoption of standard milk ordinances is being considered as the first and most important step in getting proper local assistance to the representatives of the state departments which have to deal with this problem.

Statistics show that 5,008 children under 5 years of age died in West Virginia in 1925, of which number more than 3,800 were under one year of age. More than 1,400 of the children under two years of age died of causes attributed to diet—in other words, milk, since that is the common diet under five years although not used nearly as much as it should be. These few figures point out the tremendous importance of the milk problem in West Virginia and, of course, in all other states. High infant mortality and poor milk supply always go hand in hand.

Under the new standard milk ordinance, which it is hoped that West Virginia cities will adopt, the local health officers will inspect and grade all dairies supplying milk in their localities. To provide Grade A milk the dairy must have three feet of lighting and 500 cubic feet of air space for each cow, solid sanitary flooring, painted or whitewashed walls and ceiling, clean barnyard and milk room, sterilized utensils, and yearly health certificates for all employees. In addition, all cows must pass a tuberculin test and a physical examination.

The local health officers of all cities adopting the ordinance will work in close co-operation with the state milk inspector.

The standard milk ordinance started in Alabama in 1923 when the health authorities of that state requested the federal authorities to assist them in working out a uniform program for the state. This was done and in 1924 an effort was made by the U. S. Public Health Service, looking to a standard milk ordinance for the nation. Louisiana adopted the ordinance only to find that more than half of the milk used by New Orleans was supplied by her neighboring state, Mississippi, and asked that they certify all their dairies supplying milk to New Orleans. The result was that Mississippi passed the standard milk ordinance giving protection not only to Louisiana but to her own people.

Under the present plan, the dairy interests of the state are working hand in hand with the state officers, realizing that the proposed milk ordinance is based on right principles and that it makes a greater demand for their product. This is proven by the fact that the National Dairy Council endorses the U. S. Public Health Service program.

West Virginia. ROSS B. JOHNSON.

Cows Eat Subsoil

I am feeding corn silage, alfalfa hay, a 24 per cent protein concentrates mixture, minerals, tonic, and salt to my cows. They persist in eating subsoil. What is the cause of this?

How much feed value is there in fodder that has been out all winter when it is ground fine and fed to cows? How does it compare with corn silage cut in at the proper stage?

Wadsworth, Ohio. C. E. D.

We are unable to ascribe a cause for the cows that seemingly crave something they apparently are not getting as indicated by their eating subsoil. We offer the following suggestions concerning the ration fed: (1) If liberal quantities of alfalfa hay are eaten daily (8 to 12 lbs. per cow) one does not need a 24 per cent protein concentrates mixture to properly balance the ration. A mixture containing 12 per cent is more suitable. (2) If possible we would find out what the mineral mixture is composed of, if this is not already known. A mixture supplying calcium, phosphorus, sodium, and chlorine, such as would be had in equal parts by weight of salt, bone meal, and finely ground limestone (high in calcium and low in magnesium), is all that is needed, especially when such a good legume hay as alfalfa is being fed. (3) Cows that are fed corn silage, alfalfa hay, and a grain mixture suitable for such roughages do not need a tonic.

We could not say definitely how much food value is left in corn fodder that has been out all winter, though in comparing it with corn silage on the dry matter basis the silage would be much higher than the fodder. Cutting or grinding the corn fodder would not increase its food value, except as it would induce cows to eat a larger proportion of it, and thereby reducing the waste. Cutting or grinding does not convert a roughage to a concentrate, increase its digestibility, or reduce the percentage of fiber; it helps to get more of it through the cow.

Folks

There's your folks and my folks
The best folks that be;
Better folks than our folks
No one ever sees.
Treasure them so tenderly
Let their hearts divine
Folks is blessings, heavenly,
When they're yours and mine.
Soon the Sea o' Life'll sweep
Some o' them away;
Your folks 'n' my folks
's slippin' every day.
Fill their hearts with sunshine
Pump 'em fuller yet!
Milk o' human kindnesses
Never hurt a pet.
Treasure them so tenderly
Let their hearts divine
Folks is blessings, heavenly,
When they're yours and mine!

(Copyright, 1925) —I. A. KIMBLE.

INTERNATIONAL SPEED TRUCK
Big-capacity, low, easy-loading for all loads





International 3-ton Truck in the dairy business, owned by Harry Marsh of Carlisle, Ia.



Eighteen farmers at Swift Current, Sask., Canada, are using International Speed Trucks, with grain bodies, as above.

Begin this year to Profit with this Truck

WHEN you come to buy the motor truck that will put your farm hauling on a fast modern basis, remember that INTERNATIONAL HARVESTER *is equipped to help the farmer as no other organization can!*

International Trucks range from the light International, the ¾-ton "Special Delivery," up to the big 5-ton Heavy-Duty unit. They include the most complete line of Speed Trucks on the market, both 4 and 6-cylinder, for 1¼ and 1½-ton loads. If the truck you want is a handy, economical, long-lasting truck for loads of moderate size, one of the Speed Trucks will suit you to a "T."

International in every size is a quality truck—big value at its price. Bodies for every kind of farm load, comfortable riding, with sturdy chassis and ample dependable power for hauling loads over road and field.

Then, SERVICE! You know International Harvester service—it is rendered in fullest measure to International Trucks. We maintain 126 Company-owned Motor Truck Branches and Service Stations in the United States, a wonderful organization of service ready to help any owner meet any emergency. Branches and dealers always close at hand.

Haul your loads four times as fast, do each half-day's hauling in an hour—so you can get back to your fields and livestock where your *profit* is waiting to be made. Let an International help you. *Write us for a Catalog.*

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Send for free sample folder.

If you have no wool send to our mill for Consumers' Selling Price List.

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Dept. 120 MERRILL, WISCONSIN

Mention Hoard's Dairyman to Your Dealer—It Helps Us

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Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film - like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



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successors to
Chas. Skidd Mfg. Co.
Janesville, Wis.



Gets ALL the Dirt

More MONEY for YOUR MILK

10 Day Test

Write today for descriptive literature and particulars of how Dr. Clark's PURITY Milk Strainers help you get Grade "A" test and more money for your milk.

It is the only Strainer made that's guaranteed to strain 100% clean. Our 10 Day Trial Test enables you to prove it at our risk—your money back if it fails to remove ALL the dirt. Thousands in use — two sizes 10 qt. and 18 qt. Sold by dealers everywhere. (5)

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DR. CLARK'S **Purity** MILK STRAINER

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Hanson DAIRY SCALE

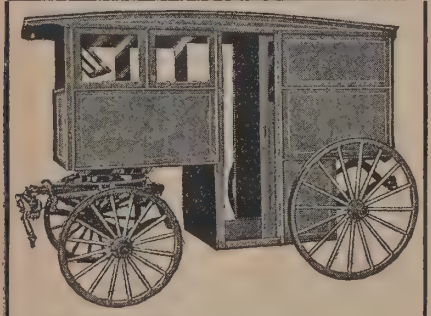
Loose pointer sets anywhere on dial to offset weight of pail. Readings in tenth of pounds make figuring easy—and large dial with distinct figures and graduations insures correctness. Sturdy steel construction. Guaranteed accuracy. At better dealers—or order direct. Sent prepaid on receipt of price.



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Write for free samples
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COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Ida.	Gooding-Jerome	Jan.	659	590	25.8	H.	7	1206	45.5	H. Greer
Minn.	Pope Co. *	"	307	568	23.2	H.-S.	18	1043	36.4	A. J. Wigner
"	St. Louis Co. *	Feb.	306	583	23.1	G. G.	4	980	45.4	M. Francisco
Kan.	Harvey	Jan.	138	740	32.0	G. H.	18	740		L. Vetter & Sons
"	Reno	"	322	642	25.1	R. H.	8	1115	40.9	A. M. Davis
Va.	Bot.-Roanoke	"	364	622	24.9	J.-G.	11	686	39.1	P. W. Pettit
Ind.	Spencer-Perry Co. *	"	287	610	27.0	R. H.	6	1155	38.3	G. Hafele
"	Spencer-Perry Co. *	Feb.	269	531	24.9	G.	25	679	35.7	Shrode Bros.
Wash.	Lewis Co. *	Jan.	323	834	35.2	R. H.	17	1333	45.2	H. Bouchard
Penn.	Carbon-Lehigh *	"	431	754	26.9	H.	19	1254	44.2	L. A. Zimmerman
Tenn.	Hamilton Co.	Feb.	607	506	23.3	G. J.	46	587	28.6	Derwent Farms
Vt.	Lamoille Valley	"	537	431	19.6	M.	4	706	32.2	W. E. Hadley
Ill.	Hancock-Adams	Jan.	438	518	22.6	R. H.	30	1089	37.2	Rice Bros.
"	Ogle Co.	Feb.	431	687	24.6	R. H.	8	1250	46.3	J. Hemingway
Wis.	Glenwood	"	520		23.9	M.	23	1021	39.1	L. Draxler
"	Spring Valley *	"	410	597	23.9	G. G.	13	807	34.9	B. Olsen
"	Endeavor	Jan.	421	645	23.7	G. H.	9	1129	37.8	H. Landgraff
"	Maiden Rock *	"	404	1242	29.1	G. H.	18	1419	52.8	M. Solveson
"	Stanley-Thorp *	"	480	603	23.5	R. H.	22	1075	38.6	W. H. Krause
"	Mad.-Valders	"	382	646	25.8	J.	14	830	42.9	H. Vogt
"	West Bend	"	402	721	27.5	G. H.	17	1298	42.0	A. Heindl
"	Westby *	Feb.	342	642	17.4	G. J.	10	975	46.5	J. B. Wemmer
"	Algoma	"	407	751	31.7	G. G.	11	800	37.3	J. Jacobosky
"	Ced.-Grafton	"	311	843	30.0	G. H.	8	1607	68.5	W. Buth
"	Cicero-Bl. Creek *	"	391	514	19.8	G.	10	795	34.9	A. Brusewitz & Son
"	Sparta *	"	338	603	24.9	G.	15	742	35.4	C. Hertson
"	Waukesha Co.	"	553		25.4	H.	17	1144	41.1	F. Funk & Son
Mich.	Mecosta-Remus *	Jan.	217	592	27.6	G. H.	6	1342	43.7	P. Schipper
"	Freeport-Barry *	"	150	766	30.6	R. H.	8	1491	49.7	A. D. Miller
"	Miss.-Falmouth *	"	205	589	21.9	H.	9	1487	49.9	A. DePinter
"	Macomb 2 *	"	257	610	24.0	R. H.	5	1239	46.3	E. Burmann
"	No. Antrim	"	222	472	22.7	J.-G.	6	882	41.9	L. Kent
"	Reed City *	"	238	489	22.0	G. H.	11	999	39.3	A. E. Madale
"	So. Kent *	"	263	592	25.5	R. G.	7	714	36.6	E. Ruehs
"	Leelanau Co. *	"	214	417	18.1	G.	6	798	36.3	W. G. Kirkpatrick
"	Kent-Gr. Rapids	Feb.	354	674	24.7	G. G.		799	40.3	R. Holmes
"	Ott.-Allendale *	"	223	622	23.7	R. H.	11	1322	44.8	R. P. Knoolhuizen
"	No. Allegan *	"	164	731	28.3	R. H.	7	1251	42.2	W. Frey
"	No. Wexford	"	187	396	18.0	M.	12	766	31.6	F. Budahl
"	Ott.-Jamestown *	"	240	716	28.4	R. H.	14	1074	38.0	A. Kroost
N. D.	Burleigh Co. *	"	418	611	22.9	H.	16	946	34.6	F. Splonskowski
S. D.	Day *	"	400	453	18.0	H.	9	891	35.1	L. A. Philbrook

* Retest rules followed.

Varying Cream Tests

HOARD'S DAIRYMAN:—"It does not matter what kind of milk you run through a separator as long as the cream screw is set to a certain point, the test will remain the same!" This emphatic statement is often heard in a gathering of farmers. Why would it not be so? The cream screw is set to regulate the test. Cream is cream!

A member in the Leelanau Association of Michigan had this same discussion with his neighbor across the road. It so happened that he had Jerseys and his friend had Guernseys. This was a typical chance to try it out. To get a disinterested person to do it, the tester of the local association was chosen. The milk of both herds was run through the same separator and the cream screw was not touched. Both herds were tested to find out the average test. The cream from both morning and night of each herd was mixed and a sample of cream was taken from each herd making a composite sample.

The average test for the Jerseys was 5.9 per cent for milk and for the cream 54 per cent. The average test for the Guernsey milk was 4.7 and for the cream 45 per cent. The Jersey milk tested one-half per cent more than the Guernsey, and the Jersey cream tested 9 per cent more.

This shows that the rich milk has a much higher cream test than a lower quality. This should teach us to set our separator cream screw according to the average test of our herds each month. As our test increases or decreases, we should regulate our cream test accordingly as it is generally known that best results are obtained from a 38 to 40 per cent test.

WALTER G. KIRKPATRICK, Tester.

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	Reporting	No. of cows*	Ave. fat per cow* All cows	High ass'n.	High herd	High cow fat	No. of separators Tested	Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
Idaho	Jan.	9	9	3,695	26.8	30.4	64.4		186	25	24
Utah	"	5	5	2,554	27.1	28.6	52.6	81.4			30
Indiana	"	30	23	7,703	22.3	27.6	47.9	86.3			
South Dakota	"	10	10		21.6	25.6	47.0	†118.5			34
Wisconsin	"	160	146	57,893	22.4	†33.3	†64.8	†111.2	1374	146	729
Michigan	"	102	74	19,005	25.0	†34.4	†55.9	†113.0			148

*Includes dry cows. †Retest rules followed.

From Loss to Profit

HOARD'S DAIRYMAN:—Among the improved and improving herds of the Endeavor Association of Wisconsin is one which is very prominent. As I started the year last February, I found a mixture of all kinds of cows, poorly fed, and not bringing any profit at all in the herd of Walter Moss. There was even a loss of $21.83 for that month. Mr. Moss was quite depressed by such low standing but started at once weeding. Seven of the cows had gone when I came for second time and the herd was almost even in feed cost and value of product. By culling and then buying some Jerseys he succeeded in getting better and better results.

It took a long time to convince him of the paying proposition of the so-called high-priced feeds, but in the ninth month he made a real trial with bran, cottonseed, and oil meal. At the end of the last month his herd cleared $84.88 instead of $21.83 below feed cost, the herd consisting of 12 cows, instead of 19 in the beginning.

The figures in his herd book are backed by cream checks. It was his convincing talk about the value of cow testing that let us find in two days the missing farmers to make the good work go on for a second year of cow testing.

WILL BODEKER, Tester.

Write the C. T. A. Editor Hoard's Dairyman, for our prize offer to testers for monthly and annual reports.

Michigan Goals

Mr. A. C. Baltzer, in charge of Michigan cow testing association has set the following goals for accomplishment by testers during 192

1. Each tester is to strive to have a waiting list of members anxious to join in the testing association.

2. Each tester is to bring the pure-bred sire situation among the cow testing association members up to 100 per cent use of pure-bred sires. At present the rating is 90 per cent of the 2,600 members using pure-bred sires.

3. Sectional meetings will be held during the spring and fall months.

4. Each tester is going to endeavor to have two safety bull pens built among the members of his cow testing association. Plans have been furnished each tester. These may be built as a demonstration or as direct personal work by one or another member. At any rate this is a goal that each tester will try to live up to this coming year.

5. The alfalfa acreage which is nine-tenths acre per cow under test in Michigan cow testing association will be increased to one acre per cow under test if possible. Likewise the sweet clover acreage is due for enlargement. At present there are three-tenths acre per cow under test and it is desired to increase this to five-tenths acre.

6. Each tester will endeavor to make greater use of the Michigan Record of Performance. With 1,34 entries in the first volume covering nearly two years' work and 1,050 entries in the second volume covering the year 1926, it may be possible to have a larger number entered during 1927.

7. Each tester will keep further information about the testing association results in a log book furnished him by the Dairy Department, Michigan State College.



EIGHTY MICHIGAN COW TESTERS ATTENDED THE ANNUAL CONFERENCE AT EAST LANSING DURING FARMERS' WEEK

A Decided Preference for DE LAVAL Separators and Milkers by members of Cow Testing Associations

IN the United States there are approximately 22,000 members of cow testing associations —the most progressive group of dairymen in the country.

Each cow testing association is in charge of a competent tester who weighs, tests and records the milk from each cow, and frequently tests the skim-milk from the cream separators of the members. The testers know exactly what each separator does and are in an ideal position to observe the work of milking machines.

Reports recently received from approximately 35% of all the cow testers in the United States show that of all the members using cream separators and milkers

60.8% use De Laval Separators
28.7% use De Laval Milkers

A remarkable showing, not only on separators but on milkers as well, in view of the fact that most of these De Laval Milkers have been put in use within the past six years.

The reasons for the greater use and popularity of De Laval Separators and Milkers are simple. The Babcock Test proves the De Laval Separator skims cleaner. Years of use prove it gives longer and better service. The milk scale and production records prove the De Laval Milker milks better. The watch proves it milks in less time.

In the long run De Laval Separators and Milkers are by far the most economical. They pay for themselves. See your De Laval Agent or write the nearest office below for full information.

The De Laval Separator Company

NEW YORK	CHICAGO	SAN FRANCISCO
165 Broadway	600 Jackson Blvd.	61 Beale Street



What a Few Cow Testers Say:

I will state that, according to my knowledge, De Laval Milkers and Separators are the best and the cheapest in the long run.

During the past two years' work in this association I have made numerous skim-milk tests and find the De Laval the only one which can be relied on to skim with 1-100 of 1% under good conditions.

I find that on the average De Laval Separators skim closest, last longest and run the easiest of any make I have come in contact with. Ninety per cent of all tests made on De Laval Separators run .02 per cent or less.

In my experience with milk separators, I have found the "De Laval" to be the most practical, economical and efficient of any separator in existence.

De Lavals are very efficient—skimming to less than .01 per cent and never over .03 per cent, are easy to clean, operate and maintain.

In all my experience around cows and their owners, I have seen numerous makes of milking machines used and these discarded for one reason or another, but I have never seen a De Laval Milker discarded. All the De Laval users are well satisfied.

The De Laval Milker users are very well satisfied with their machines, and can talk praises for them. Only yesterday a dairyman using a De Laval milking machine said if he had to get along without his milker, he would sell his cows.

The common remark heard among members regarding their De Laval milking machine is this: "Take my machine away and you can also take my cows." I have never heard any complaint of dissatisfaction among De Laval patrons about their milkers or separators.

The experience in other associations leads me to believe the De Laval is the most satisfactory milker for the average farmer. There are no adjustments to be made. There are very few farmers who can or will take the proper care in adjusting the speed of a milker. The consequence is that soon they "cuss" the machine and quit using it. I have yet to see a De Laval system lying idle on a "going" farm.

I test the separators in my association every month, and the De Laval certainly doesn't lose in a comparison with other separators. Have a few rather ancient De Lavals which are still running good and skimming as low as 1-100 of 1%.

After five years of cow testing, I will say that both De Laval Separators and Milkers are the best of all makes that I have seen in operation and have always boosted for both machines.



"PELOUZE"
New Dairy Scales
Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound
Guaranteed Accurate

Made to comply with Departments of Weights and Measures. Large 7-inch Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail. Order through any leading supply house, specify "Pelouze." If they haven't it order direct.

No. D. 40 $4.50
No. D. 60 $5.50
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Hand or motor power, pays for itself in a single job making floors, fence posts, grain bins, water troughs, silos, etc. Make money working for neighbors. Write your address on edge of this page, tear out and mail to us for free offer.

Badger KWIK-MIX Co.
1014 Cleveland Ave. Milwaukee, Wis.

Soy Beans for Dairy Cows

HOARD'S DAIRYMAN:—For the last 12 years farmers of Shelby County, Kentucky, have been failing to grow red clover. This failure has now reached a point where farmers are becoming much alarmed about the unproductiveness of their soil. Almost every farmer who has not limed his land will tell you that he has wasted hundreds of dollars, buying and sowing red clover seed during the past 12 years.

In a dairy county like this, which used to be even more of a dairy county than now, legumes are very essential for successful dairying. However, almost all farmers were slow to find a substitute for clover. This may have been responsible in part for Shelby County's losing her reputation as the "Jersey Isle of America."

Some change had to be made and many of them took up with the southern cowpea until the seed went so high that prices were prohibitive. Through the publicity of the crops specialist, Mr. Kenney, of the College of Agriculture, a few were learning about soy beans. When I came to this county in 1925 several farmers were already sowing soy beans. About 3,000 bushels were sown in 1924. One seed dealer was asked to handle soy beans and he said, "Not me! I have 12 bushels of those things that have been here two years and the farmers of my community won't sow them." That same year his people did sow 250 bushels.

The necessity of inoculating the soy bean in order to have success was where the farmer left the track. Most all men expected two things, a soil builder and a hay crop. At the same time if they failed to inoculate they did not get either and were disappointed. In the beginning soy beans were sown with millet and with Sudan grass and cowpeas. It was a common sight to see 10 to 15 acres of growing soy beans, uninoculated and yellow. In addition to not understanding inoculation, it was a common mistake to buy poor varieties and old seed with low germination because it was cheap. This resulted in more dissatisfaction. Field meetings, demonstrations, and publicity were the means of overcoming opposition and to popularize soy beans.

In 1925 the farmers sowed about 5,500 bushels and their cows, horses, sheep, and hogs were fed upon thi fine hay. The problem of overcom ing opposition was no small one, a because the farmer hated to give u his clover. Some farmers would sa beans ruined the land; others woul claim that stock would not eat th hay; but the truth bore fruit an pushed its way to the front. Man farmers have not learned yet wher beans should come in the rotation, a quite a few will follow soy beans wit corn or let beans follow tobacco o wheat which is not the best practice

The original idea was to gro beans for cow feed, but this last yea cheaper seed caused them to branc out. Seventy acres were sown an plowed under as a green manur crop. Twenty-five acres were sow for seed and the great bulk of th balance was grown for dairy cows.

The average yield of soy bean ha in Shelby County is about 1½ ton per acre—this includes the thin soil poor seedings, and poor stands. W have in our borders about 18,00 dairy cattle. To feed these on so bean hay would require 12,000 acres or 18,000 bushels of seed annually This indicates that a good many o our dairy cattle still know what timo thy hay and sorghum cane tastes lik —which is true.

Mr. W. A. Newton seeded thirty acres of Virginia Browns for seed i 30-inch rows and purchased a littl Giant harvester to save them with But the fall was so wet that he coul not get to the field but one-half day Only twenty bushels were saved. H is now harvesting his crop with hogs

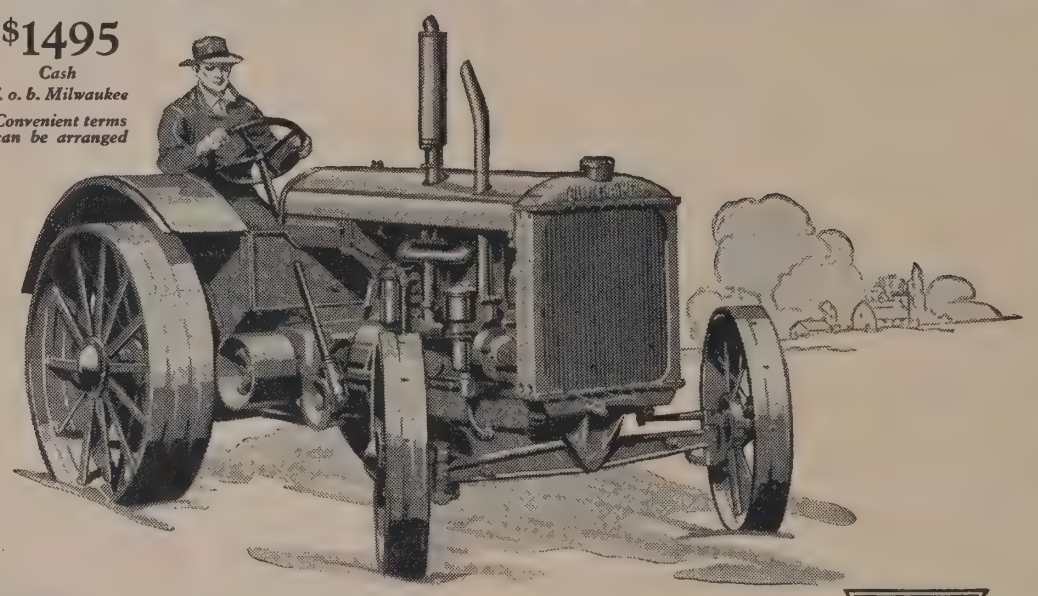
Mr. B. A. Thomas had 120 acre harvested for seed and saved abou 1,000 bushels. The hogs are harvest ing some of his beans also. Only 80 bushels of beans produced in thi county will be for sale this year.

Shelby County farmers have nov learned that the right variety of so bean hay is an excellent substitut for red clover in feeding dairy cow and are becoming reconciled to it use, as would be indicated by the fac that they sowed 9,000 bushels i 1926. This is a 200 per cent increas in 3 years and we plan to hold thi with a small increase until alfalf will take the place of soy beans fo our 18,000 dairy cows.

The difficulty of saving soy bea hay in rainy weather is always a problem but not nearly so big a prob lem as saving cowpeas, for bean have a much lower water content an cure more rapidly. Often much com plaint is made about the high price o seeding an acre and then running th chance of losing the hay in a we fall as was true here the past tw years. To meet this problem, I foun Roy Miller using a method in 192 that was successful in saving his ha during rainy weather. He used thre tobacco sticks about four feet long placed them in a wigwam position tying top together and cocking eigh to ten rake swathes to the cock around and over these sticks. Th beans were mowed down in the morn ing and were allowed to cure thi way. This method was widely pub lished in our county this fall and a hundred or more farmers saved thei hay in rainy weather that would have been lost otherwise. Mr. Joe Tiche nor reported the method to have saved him many dollars' worth o hay this year.

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Ample power to handle every job comfortably. Easy on operator, easy on tractor, easy on pocket-book. Does it pay? Send the coupon for facts which enable you to judge for yourself.

ALLIS-CHALMERS MFG. CO., *Tractor Division*
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Oil Purolator



Oil is cleaned and purified 45 gallons an hour, removing every atom of dust and dirt. This prevents enormous amount of wear for lubrication is with clean oil *entirely*.

Air Washer



By centrifugal action and forcing through an oil-soaked mattress, every particle of dust and grit is removed from carbureting air.

Spark Arrester and Muffler



Insures quieter, more comfortable operation with no danger of flying sparks.

Gas Filter



Fuel cannot carry grit to cylinders or pistons, for every drop is cleaned and filtered.

Allis-Chalmers
20-35 TRACTORS

Tuberculin Test Required

In a study of 250 municipal milk ordinances, the Bureau of Dairying finds that one-fourth of these cities require that all milk, whether raw or pasteurized, must be from tuberculin tested cows. Three-fourths of all the ordinances require that all raw milk must be from tuberculin tested cows

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., March 10—The daily press has carried the big news stories about what Congress did and did not do in its final days, but perhaps without emphasis on one important omission which temporarily paralyzes the effort which was made successfully to protect United States dairymen against the importation of unsanitary milk from foreign countries. The Lenroot—Taber Milk and Cream Import restriction bill was passed and signed by the President, but the appropriation which the Secretary of Agriculture must have to put the field agents at work to enforce the Act, failed in the second deficiency bill which was killed in the Senate filibuster.

The result of the failure to secure this appropriation, unless some other round-about way is found to secure the money, will be that the proviso which was added to the bill in its final hearing in the Senate becomes operative, and the secretary is directed to issue temporary permits, so all milk and cream will continue to come in as heretofore.

The administration of the act is placed in the hands of the Secretary of Agriculture and by him has been delegated to the Bureau of Chemistry which handles all of the so-called "pure food" laws. On July 1, this work all passes to a new administration, to be known as the "Food and Insecticide" Administration. The Bureau of Dairy Industry will not have anything to do with administering this act, except that it has been called in by the secretary to assist in preparing the necessary rules and regulations which are to be issued. The determination as to whether or not there is any money which may be made available for this purpose, now that the Second Deficiency bill carrying the necessary appropriation has failed, is under consideration between the secretary, the budget officer, and the Bureau of the Budget.

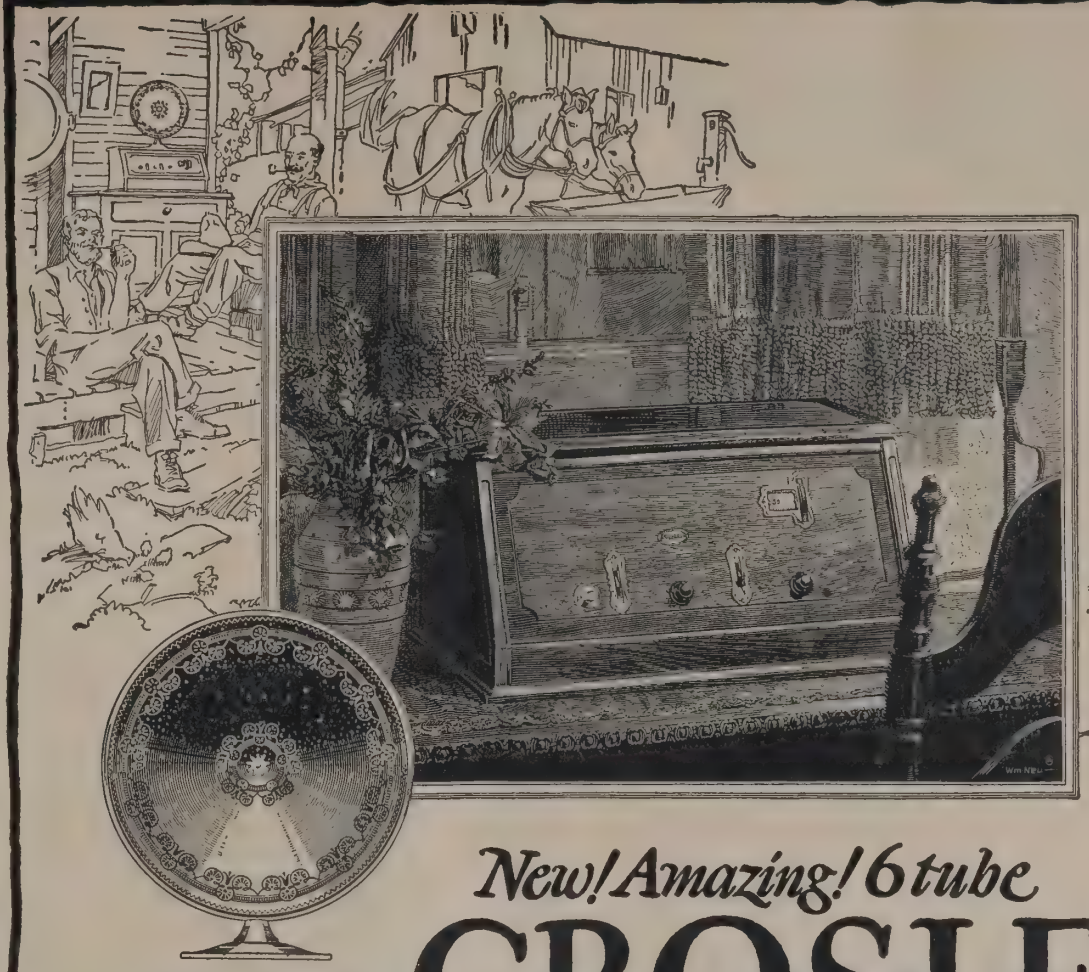
Besides filibustering the second deficiency bill to death, incidental to killing off the Reed Senatorial Election Investigating Committee and the Boulder Dam proposition, Congress passed the McNary—Haugen bill in its last ten days of work, and then accepted the President's veto without a chance or an effort to vote on the veto.

The National Dairy Union reports that news has been received of very favorable progress toward better oleomargarine legislation in Nebraska and Iowa and of an effort toward a similar law in Missouri. No news has been received here of the effort that was contemplated in Indiana to get a bill through to replace the one passed, and then lost—or perhaps stolen before it was signed—at the last session of the legislature.

If all of the cottonseed oil used in oleomargarine last year had been paid for in cash, so the cotton grower received the full amount and this was spread equally over the cotton acres, each acre would have received less than seven cents. This is reported as a summary from official figures compiled by the National Dairy Union. In a bulletin just issued by this organization it is stated that this sum—seven cents an acre—represents the only interest the American cotton grower "now has in the oleomargarine indutsry."

Medium: "The spirit of your wife is here now. Do you wish to speak to her through me?"

Interviewer: "Yes. Ask her where she put my winter underwear."



New! Amazing! 6 tube

CROSLEY

SINGLE DRUM CONTROL

RADIO

Distant stations louder and clearer—cut through summer static with this powerful 6 tube radio.

$60.

Folks who own this new Crosley set are going to enjoy radio as much this summer as in winter. 1927 summer broadcasting will be more extensive than ever. With this 6 tube marvel stations formerly in the far-away class become neighbors.

Crosley radio is *the* farm radio because farmers as a whole spend their money very carefully. They are business men. They have learned to look for value. Actual count shows more Crosley radios owned on farms than any other make.

This new set of Crosley is a wonder. Match it against any set of 6 or 7 tubes. The volume of its reproduction will keep radio a delight all summer.

Crosley radios are high in quality.
Finely finished cabinets, beautifully decorative in two tones and gold metal trimmings. Up to the minute single drum control. Easiest set on the market to tune.

Crosley radios are low in price,
because Crosley mass production methods permit spreading expenses over many units instead of few. Second cost is reasonable too, because battery consumption is unusually low.

See them at your Crosley dealers. Write Dept. ..... for descriptive literature if your dealer cannot supply you

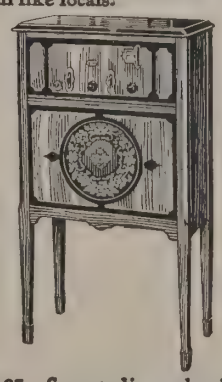
THE CROSLEY RADIO CORPORATION

POWEL CROSLEY, Jr. President. CINCINNATI, OHIO.

Crosley sets are licensed under Armstrong U. S. Patent No. 1,113,149, or under patent applications of Radio Frequency Laboratories, Inc., and other patents issued and pending.

The CROSLEY MUSICONE
The finest loud speaker you can buy—not the costliest. Enormous demand has kept price at an incredible low level. Crosley patented actuating unit will reproduce sound perfectly. Volume is tremendous. 12 inch size, $9.75—16 inch size, $14.75.

The 6-60 is a beautifully finished 2-toned mahogany cabinet. All stations found with and written down on single drum. Acuminators find stations missed on ordinary single dial control sets. Crescendon brings distant stations in like locals.



The 6-85. Same radio mechanism as in table model 6-60. Same startling results. Same complete radio satisfaction. Genuine Crosley Musicone built in this pleasing console. Beauty of tone and fidelity of reproduction unmatchable. A rare value and a set that will give you pleasure for years to come. Price, without tubes and batteries..... $85

Stevens' Farm Holstein Sale

The dispersion of Geo. A. Fox's Stevens' Farm herd of registered Holsteins at Sycamore, Ill., Feb. 25, brought out an excellent crowd who wanted cattle and were willing to pay fair prices for them. Seventy-five head brought $12,635, an average just short of $170, and a good figure if one considers that it includes nine calves selling under $100. Five hundred thirty dollars, the top figure, was paid by Ensign Streever, Illinois, for King Colantha Reka, an 11-month-old son of one of Mr. Fox's foundation cows, Reka Beets of Rock, 31-lb. 3-year-old. Henry Albert of Illinois paid $500 for a 2-year-old son of the same cow.

Haeger and Mack did the selling.

Following are the averages for animals of the different age classes: Four bulls averaged $351; 18 cows, 4 years old or over, $189; 10 3-year-olds, $194; 17 2-year-olds, $167; 25 under 2 years, $107.

Aunt Ada's Axioms: Good manners add a lot to home life, for they make it easier and more pleasant to get along with those about us.

He is a wise farmer who plans for the future—and builds *Permanent* construction—with

Portland Silos and building Tile

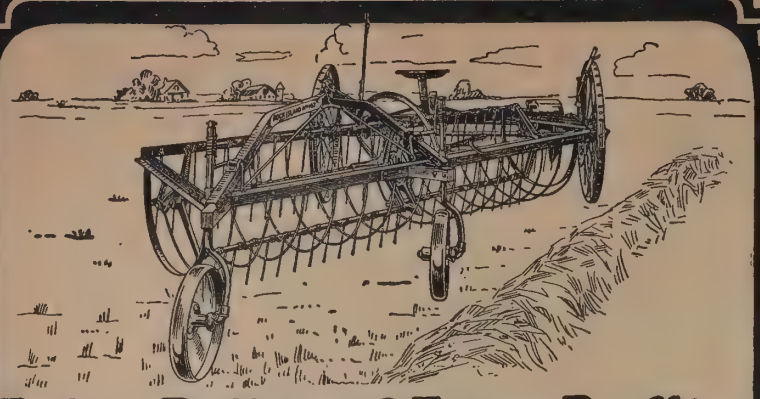


Beautiful, big Vitrified Tile Block Silo with built-in steel back-ladder, is an everlasting building. You are sure of tight, strong buildings of every kind when you use the Portland Block.

Our Sealed Joint (Wet-mix) Cement Stave Silo is the only one fully bonded by richly cemented joints. Ask for catalog and Special Season prices.

Our Farmer-Agent Plan Will Interest You

Portland Silo Co., Box A, Portland, Indiana



Rakes Dollars of Extra Profit Into Windrows

You get a better grade of hay by curing it properly, and you rake the hay clean without roping it when you use a

Rock Island No. 162 Combined Rake and Tedder

The only left-hand rake on the market equipped with divided cylinder. When either raking or tedding, the machine runs lighter and steadier, because it has six short tooth bars, giving six points of contact with the ground, where the ordinary combined rake of this type has only three long tooth bars. This six-point contact gives a steady pick-up of the hay, avoids shattering the leaves and results in smoother operation. It also prevents roping the hay, as each mower swath is handled individually.

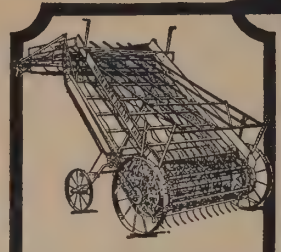
Exclusive Adjustable Cylinder Device

By means of a convenient lever, the cylinder can be raised or lowered to the necessary height.

The angle of the teeth can be adjusted instantly, or change made to either raking or tedding.

The No. 162½ Rake is designed especially for beans. Both are sold by Rock Island Implement Dealers.

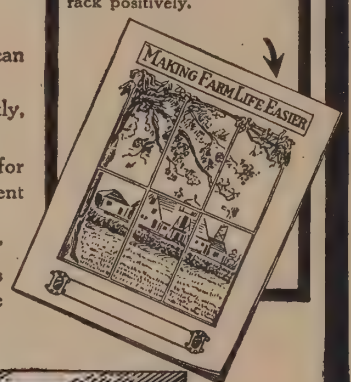
FREE BOOK—"Making Farm Life Easier" describes this and other Rock Island Hay Tools that put more profit into your hay crop. Write today for free book C-60.



The Working Partner For Any Side-Delivery Rake

The Rock Island No. 158 Windrow Loader has an adjustable cylinder, which can be set to sweep the ground or to operate at any reasonable height to get clean hay without gathering trash.

Upper elevator can be lowered to start the load, and pushed up and locks automatically as load is built, delivering hay onto rack positively.



Rock Island
Plow Company - Rock Island, Ill.



NATCO HOLLOW TILE SILOS

ROT-PROOF, WIND-PROOF, PRACTICALLY SAME PRICE AS WOOD - LASTS AS LONG AS THE FARM

Send for Free Booklet

NATIONAL-FIRE-PROOFING-COMPANY

General Offices: Fulton Bldg. Pittsburgh, Pa.



Write Your Own Guarantee!

Put down in black and white what YOU want your Silo to be. Then let that stand as OUR Guarantee of the

COPPER-IZED METAL SILO

Most Modern, Most Practical Silo, COPPER-IZED Metal throughout. Many exclusive features. Backed by 23 years of Experience and Responsibility. Tell us what size silo you want so we can quote factory-to-you prices. Special discounts on early orders.

The Thomas & Armstrong Co.

Dept. C London, Ohio Est. 1904

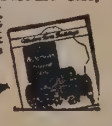
Buckeye Breeder Houses, Corn Cribs, Grain Bins

Before You Build a SILO or Any Other Building

Send for our FREE Book on Modern Farm Buildings and learn how thousands of far-sighted farmers are putting up permanent, fire-safe, Kalamazoo Glazed Tile buildings at no greater first cost than good frame construction.

THE OLD RELIABLE KALAMAZOO SILO

Wood stave or glazed tile, Kalamazoo tile silos are fire-safe, frost-proof, moisture-proof, and acid-proof—the biggest profit-paying opportunity for your farm offered anywhere *today*. Pays for itself in one year. Don't wait. Prices are *low*—right now. Save money. This FREE Silo Book Tells How. Write for it.



KALAMAZOO TANK & SILO CO.

Dept. B-6 Kalamazoo, Mich.

PAPEC

The Cutter That Does Not Clog

"I Like the Low Speed"

writes J. C. Willard, Philadelphia, N.Y. "High-speed cutters are dangerous and take more power. No matter how crooked the stalks, the Third Roll takes them through." "We ran six days without a stop of any kind at all," reports S. M. Richardson, Smith Grove, Ky.

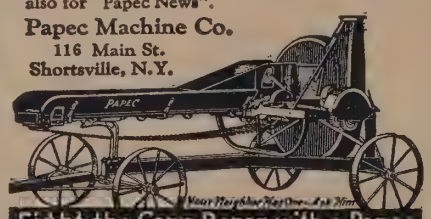
Here's a Book You Need—FREE

The 1927 Papec Catalog tells how to put up better silage—and MORE silage—at lower cost. Tells why the Papec pays for itself in one or two seasons. Write for your copy of this Catalog, also for "Papec News".

Papec Machine Co.

116 Main St.

Shortsville, N.Y.



Fight the Corn Borer with a Papec

Mention Hoard's Dairyman to Your Dealer — It Helps Us

The Aim of City Milk Control

B. L. CRANDALL, NEW YORK

STANDING like a white sentinel, guarding the health and happiness of her and her family, the average American city housewife finds on her front porch or in her dumb-waiter every morning, a bottle of milk. A sufficiently commonplace occurrence it is to arouse little, if any, curiosity, but really typifying a progress on a par with any known to the world today, and a transformation, which, without any disrespect, can be compared with that of St. Paul.

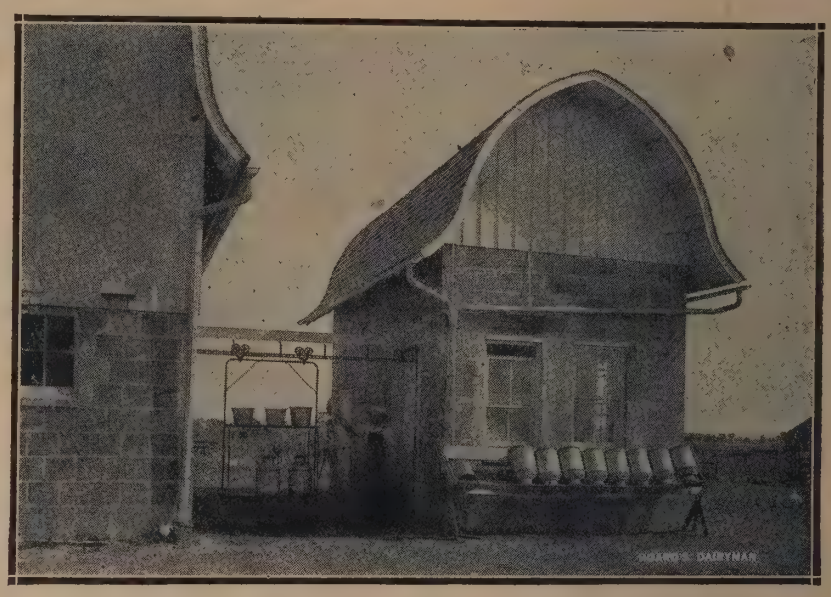
Strange as it may seem, the innocent looking bottle of milk which the housewife seeks each morning as food for herself and her children, could once have been properly termed a messenger of death. Not unlike the early Saul who threw consternation into the ranks of the early Christians with his brutality and depredations, milk was once far from being the almost ideal food it is today. To it and water must go the credit or having been the carriers of the causes of more deaths and sickness than any other two agencies known to man.

Continuing the comparison, like Saul who became the Apostle Paul and thereafter went about doing good, milk has undergone a transformation, and is now a highly regarded member of the long list of foods which man likes. True, its transformation has not been as quick nor as complete as that of the ancient leader, and it still can undergo improvement. What still remains to be done, is important to both producer and consumer.

For centuries, milk has been regarded as a natural and health-giving food but also the carrier of germs which have caused widespread epidemics of typhoid fever, septic sore throat, diphtheria, scarlet fever, and other ailments. It now is under suspicion of being a carrier of other diseases. City health boards have formulated milk regulations that have produced quite satisfactory results, but there is much yet to be done if the consumer is to get what he wants—pure milk, sweet milk, and milk which he can use without fear.

Four words will state the aim of city milk control, or the effort to provide city residents with a good food. They are: pure, whole, sweet milk. Only a few more words will cover the method by which it is to be obtained, and the goal of health boards realized. They are: sound cows, healthy humans, clean utensils, and careful handling.

The desire to have good milk is not any different now than it was years ago, but the means adopted to get it have undergone many changes. The end of these is not yet in sight. Bacteriological and pathological researches are continually throwing new light on milk and how it must be handled in order to get safe food. Years ago, the practice of clipping and washing cows was unknown. Sterilization of milk pails and other utensils was not practiced although an effort was made to keep them reasonably clean. Investigation of the health of the humans who came in contact with milk was unheard of and the idea of cows giving dangerous milk, although apparently in good health, had not yet been born. These, however, are known today, and in the application of truths which the study of milk has brought out, lie the fundamentals of city milk control.



MILK HOUSE ON THE DAIRY FARM OF D. C. BENEKE, MINNESOTA

A concrete water storage tank on the top of the milk house furnishes water for the house, the barn, and the water trough around the barn.

City milk boards must be credited with having accomplished much toward bringing to the city consumer a better grade of milk than he had in days gone by. Nowadays we have no such mixtures as calves' brains, chalk, sugar, and water served up as milk, but milk still presents a problem and milk boards have a big field for action and a difficult goal to attain, if they are to secure for their consumers the safe milk which all want. Their aim should be to get a steadily better grade of milk, and in the light of more recent discoveries, the health of the animals which pro-

GEHL *Lightest-Running* **SILO FILLER**

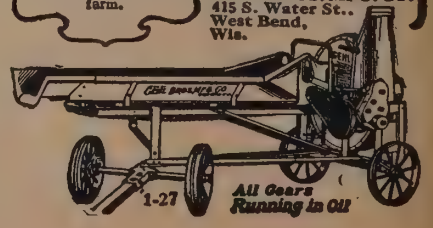
Low speed means less power required, less vibration, hence longer life. The Gehl has all steel construction, non-breakable, boiler-plate fly wheel. Absolutely self-feeding. All gears enclosed—run in oil.

What a University Test Proved

A Gehl cut 19.26 tons per hour with only 13.26 H.P., elevating 35 feet and running 465 R.P.M.—the lowest power of any cutter in the test. It will do as well on your farm.

Auto Type Gear Shift for changing length of cut. Wonderful no-choke blower fills highest silos with low speed—3 H.P. and up will run Gehl cutters. Dealers everywhere — Write for name of nearest dealer.

GEHL BROS. MFG. CO.
415 S. Water St.
West Bend, Wis.



duce the milk and of the humans who handle it on its journey to the consumer, should receive especial attention.

Much is being said nowadays about tuberculous cattle. They present a menace to milk supplies, but not as great as many would believe. Humans, and especially those over 16 years of age, are not especially susceptible to bovine tuberculosis. Careful investigations which have been made show that only 1.5 per cent of all adults over 16 affected with tuberculosis have the bovine variety. However, this percentage is great enough to warrant a careful checkup of all cows whose milk is used by human beings.

Accepting the premise that it is the aim of city milk control to provide safe and whole milk, milk boards can well afford to require more frequent examinations of the cattle which are supplying their respective cities. The usual plan of yearly physical examinations is not sufficient as it is entirely possible that in the 12-month gap for a cow to develop some ailment which renders her milk unsafe for human consumption. The dairyman cannot always be depended upon to remove from the herd an unfit animal, or to keep her milk from being put in with that from the rest of the herd. One milk company which serves a big metropolitan area has come to realize this fact and is considering the employment of a veterinarian to make daily examinations of cattle supplying its highest grade of milk. If the middleman has seen the light, surely it cannot hurt the milk board with its larger responsibilities.

As great as is the need of clean, healthy animals however, the need of healthy humans handling milk is equally as urgent. The need of preventing people from coming into contact with milk, who have communicable diseases in their homes or families, has been given attention, but it should not end there. City milk boards should look into the health of milk handlers more carefully and not stop where they have. Another step should be taken which is similar to that taken with the cows themselves.

If it is good practice to examine the cattle, it is equally as good and probably more effective, in getting safe milk, to examine all who handle it. Among humans there are those whom the medical and biological professions term as carriers. These people have in their systems the germs of malignant diseases that do not fall victims to them themselves. There are cases on record where milk consumers in large numbers have become ill with no apparent reason. When a careful investigation was made, it was found that some handler of the milk, before it was bottled, was a carrier of these germs and from him was coming the trouble. All who handle milk in any way should be subjected to careful examinations and if found to be carriers of disease germs or in frequent contact with them at home, they should be prevented from handling milk which ranks as more naturally susceptible to contamination than any other food.

Contrary to early beliefs and the subject matter of numerous scientific papers of days gone by, milk does not come from the cow in a sterile condition. Freshly drawn milk contains germs of various kinds, but these may not be particularly harmful. The fact that milk is not only food for humans but also an excellent food or medium for bacteria, is where the trouble lies. Absolute cleanliness and health are essential to safe milk, but even with these trouble may arise.

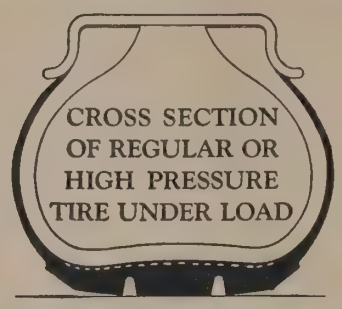
Pasteurization of milk appears to date as the best way of safeguarding it for human consumption. This treatment of milk is not particularly intricate or expensive, but it requires accuracy and skill. For the individual dairyman, pasteurizing machinery is prohibitive and it is doubtful if he could operate it efficiently if he had it, but milk boards should give thought to ways and means of having milk, which reaches their consumers, pasteurized before being bottled.

The process of pasteurization does not affect the food value of milk nor does it affect its taste if done properly. It does, however, destroy the bacterial life which, if it comes into contact with the internal organs of human beings, may cause many difficulties. It is a means of making a clean, wholesome milk safe. It is the chief aim of city milk control.

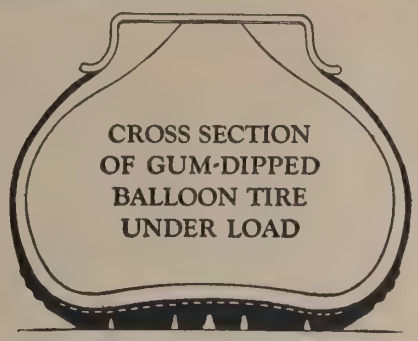
For the first time in his life, Bobby saw a flounder.

"Look, ma," he cried excitedly. "Look at that funny fish! He's got a flat tire!"

Scientifically Designed BALLOON TIRE TREAD



THIS type of tire rides more directly on the wide rider strip at the center of the tread. That is where the weight and wear come, so that is where extra rubber is needed. The walls and tread of this tire are thick and stiff, making necessary the use of large tread design for high pressure tires.



THIS type of tire—low pressure Balloon—carries the load on a wider surface, therefore grooves are cut directly in the center of the Firestone Tread to permit easy flexing. Greater amount of Rubber is placed at outer edges of tread where most of the load is carried. Instead of large, heavy rider strips and projections which retard flexing and cause skidding, the Firestone Tread is provided with small projections and narrow rider strips which increase flexibility and give greater safety and skid-protection.

Another Reason why— Firestone Tires are Better

When Firestone engineers were developing the Balloon Tire they found it necessary to design a tread altogether different from that which is required by High Pressure Tires.

The Firestone tread was not designed with large, massive projections for appearance or to make plausible sales argument. On the contrary, the projections of the cross-and-square tread are small and the rider strips narrow permitting the tread to yield to irregularities and cling to the road, giving the greatest non-skid surface. This tough, pliable tread has the wear-resisting qualities that give thousands of extra miles of service.

The tread, however, is not the only important part of the Balloon Tire. Such a tread as this, designed to yield to every depression of the road, must be placed on the carcass that also has the qualifications to withstand the terrific flexing that this design tread permits. Firestone provides this extra strength and endurance by dipping the cords of the carcass in a rubber solution. By this process, every fiber of every cord is saturated and insulated—to withstand the extra flexing of the Firestone tread.

If you want the economy, comfort and safety of Gum-Dipped Tires—see the nearest Firestone Dealer. He will gladly explain the many features that make Firestone Tires better.

MOST MILES PER DOLLAR



AMERICANS SHOULD PRODUCE THEIR OWN RUBBER Harvey S. Firestone

Fair Echoes

Said the Guernsey to the Holstein,
"Don't you wish you had a suit
In colors swell, of red and yellow,
Trimmed in white to boot?"

Said the Holstein to the Guernsey,
"Don't you know, my brown-eyed pet,
Colors bright have gone toboggan,
Now they're wearing white and jet?"

Said the Guernsey to the Holstein,
"I'm descended from the bull—
Rushes mentioned in the Good Book,
Growing down by Pharaoh's pool."

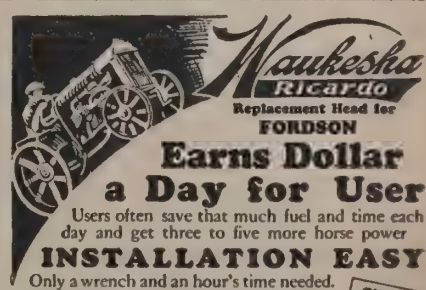
Said the Guernsey to the Holstein,
"Your old milk's so thin and blue,
Though you fill the pail to brimming,
Still the bottom tin shows through."

Said the Holstein to the Guernsey,
"Let me put you in the clear,
No one needs a pail to carry,
All the milk you give, old dear."

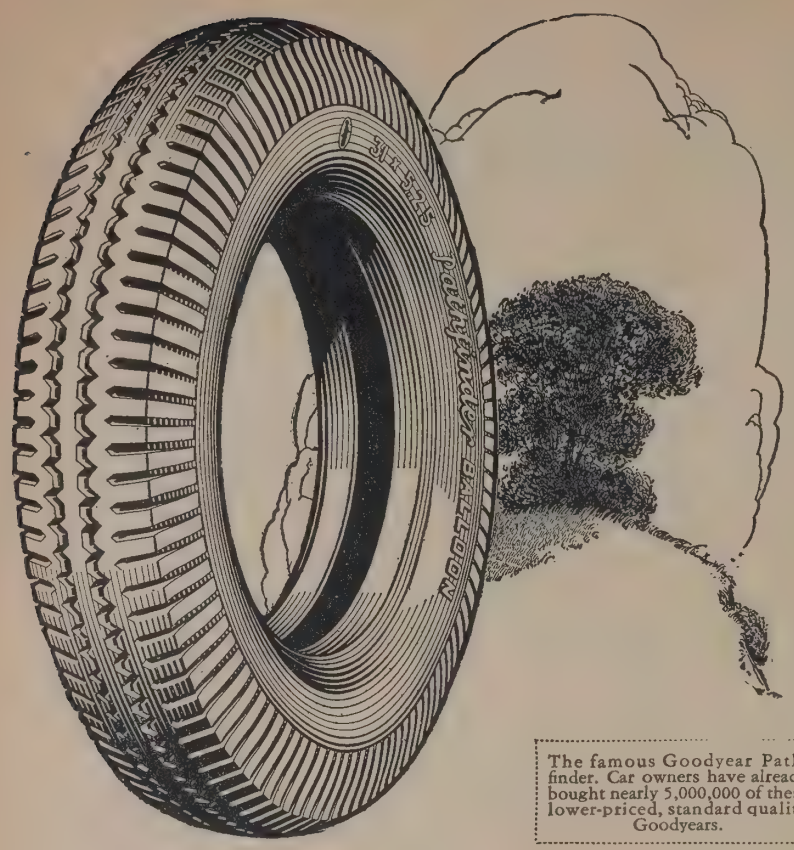
Just then Farmer Brown came running,
With the judges' records true,
Pinned on each contented beauty,
Banners gay and ribbons blue.

Side by each they trod the show ring,
Champions both, for all to view,
Homeward bound they joined in singing,
"Bossy, dear, I'm proud of you."

Iowa. H. J. RYNER.







The famous Goodyear Pathfinder. Car owners have already bought nearly 5,000,000 of these lower-priced, standard quality Goodyears.

It can not be mailed

One of the biggest benefits to you of the Goodyear policy can not be sent through the mail.

It is the *service* performed for you by the local Goodyear dealer.

He recommends to you the right size and type of tire for your car. He puts it on the rim for you. He fills it with air.

After the tire is in use he helps you give it the care it should have to deliver the maximum results.

This service means money in your pocket. It cuts down your tire bills. It is something you ought to have.

It is part and parcel of the Goodyear policy: *to build the greatest possible value into Goodyear products,* and *to provide facilities so that the user can get all this inbuilt value out.*

Goodyear makes a tire to suit *you*—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced Goodyear standard quality Pathfinder

Goodyear Means Good Wear

GOODYEAR

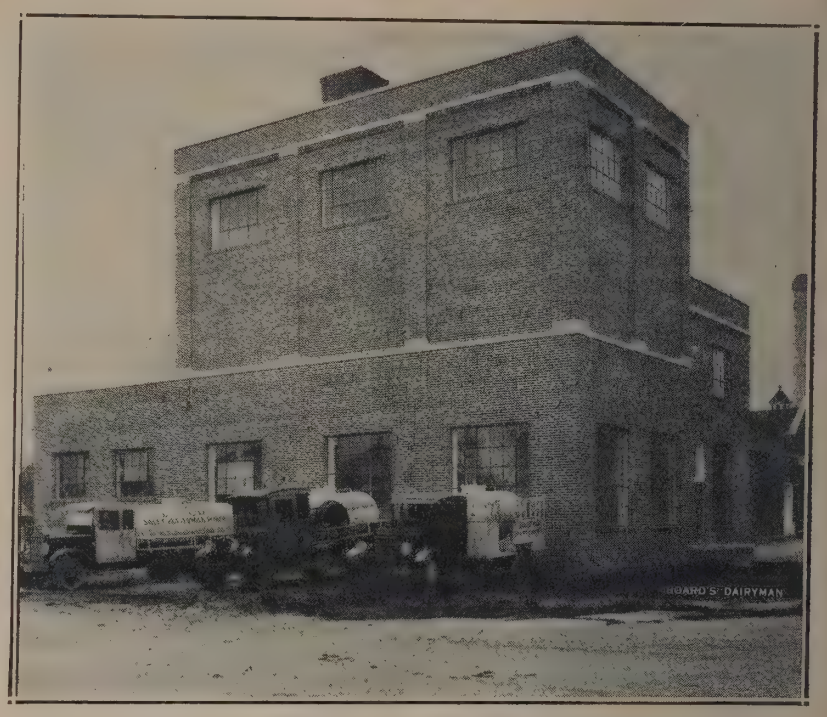
Copyright 1927, by The Goodyear Tire & Rubber Co., Inc.

Manufacturing Buttermilk Powder

MEEKER County, Minnesota, has always been quick to adopt new methods of dairying. Being fortunate in having dairy farmers and citizens who are dairy-minded and possessed with dairy leadership, it was one of the first counties to build modern co-operative creameries and equip them with improved machinery.

Farmers, bankers, merchants, and manufacturers all work together in that county to develop a well balanced agriculture, and the cow fills an important place. When the leaders were convinced that better butter could be made from sweet cream, it was not long before a considerable number of the creameries were making sweet cream butter and were distributing it through the Land O' Lakes Creameries, Incorporated.

When the creamery managers whose creameries were making sweet cream butter learned that buttermilk could be made into powder and sold, they were not long in getting their heads together to find out whether it would be a profitable adventure to construct a building and equip it with the necessary machinery for evaporating buttermilk. The building is located at Litchfield near one of the oldest and most successful co-operative creameries in Minnesota. This building was dedicated last November and from that time to this has been receiving the buttermilk from sixteen co-operative creameries. It is first passed through a separator for the purpose of recovering any fat that might have been lost in the buttermilk during the churning process; then it is made into powdered buttermilk and put in barrels and sold to bakeries and other institutions. Trucks are used for collecting the buttermilk from these sixteen factories.



A PLANT ERECTED BY SIXTEEN CO-OPERATIVE CREAMERIES IN MEEKER COUNTY FOR MANUFACTURING BUTTERMILK POWDER

The enterprise has not been under way long enough to state how profitable it will be. We are informed by the president of the Land O' Lakes Creameries, Incorporated, Mr. Brandt, and who is a farmer in Meeker County, that so far results have been very satisfactory.

Old Colantha

HOARD'S DAIRYMAN:—One-half of the Holstein herd on the University of Idaho farm at Moscow traces directly to Alaska Yukon Colantha, better known as "Old Colantha." This grand old cow, now 17 years old, has given birth to 14 calves, six of which have been females, and she now has five generations of descendants as stable mates. Although $2,845 worth of stock sales tracing directly to her have been made, there are still in the herd three daughters, four granddaughters, ten great-granddaughters, five great-great-granddaughters, and one great-great-great-granddaughter, making six generations in all. There will probably be a seventh generation before old age claims this mother of record makers. Her last calf is a great-great-great-aunt of the aforementioned great-great-great-granddaughter, although they are the same age. She is due to freshen again in November and has already been allowed to go dry in order that she may preserve her strength.

Colantha was purchased as a two-year-old from William Bishop of Washington. She is by Colantha Johanna Lad, the bull with 140 Advanced Register daughters and more granddaughters with 800-pound records than any other known sire. Her dam, Mita Clothilda P., has a 94-pound milk record in one day. Colantha was not put on official test until she was 12 years of age but she produced 15,000 pounds milk and 488 pounds fat in the year. She did this with two quarters as she lost the use of one-half of her udder when she was seven years old. The original



ALASKA YUKON COLANTHA, "OLD COLANTHA," 17-YEAR-OLD COW OWNED BY THE UNIVERSITY OF IDAHO

She is still producing and now has five generations of descendants for stable mates.

vestment of $150 has multiplied it-
lf many times in the fifteen years
at she has been in the college herd,
r the stock now in the herd direct-
tracing to her was recently val-
d at more than $2,900 by Professor
W. Atkeson, chairman of the col-
ge dairy department. She has been
ilked 3,962 days during which time
e has produced 135,123 pounds
ilk and 4,540 pounds fat. If this
ilk were valued at $1.50 a hundred-
eight, she would be credited with a
,026.50 check for milk alone. Her
verage daily milk record for every
ay she has been milked is 34.10
unds. This cow and her offspring
lustrate what can be done in the
ay of building up a profitable sized
airy herd from one or two good
are-bred females when tested sires
e used.

Colantha's first granddaughter to
eshen, Idaho Matador Dutchess,
roduced 16,280 pounds milk and 542
unds fat at two years and eleven
onths. One of Colantha's most il-
strious sons is Idaho Piebe Hero,
e main herd bull in the Idaho State
dustrial School barns.

Wisconsin. G. A. PETERSON.

Don't Quit

hen things go wrong as they sometimes will,
hen the road you are trudging seems all up hill,
hen funds are low and the debts are high
nd you want to smile but you have to sigh,
hen the care is pressing you down a bit,
est, if you must, but don't you quit.

Knowing Cows as Individuals

HOARD'S DAIRYMAN:—There is too
uch difference between the average
w and the best cow and a great deal
f this poor production on the part
f the average cow is due to the lack
f an understanding of each individ-
al cow in the herd. As an illustra-
on of this fact we would like to
ention Mr. E. S. Bird of Kentucky
nd the records that he has made
ith his cows. He joined the cow test-
g association in Kenton County four
ears ago and stayed in it as long as
e association lived which was about
ne year. During the period that the
w tester came to his farm he found
at he had a pretty good herd of
ws and that he was able to get a
rger production out of them than
er before because of the test work
at he was doing.

His experience in cow testing
owed him that each cow required
little different care and attention
om anything that he had given to
er in the past. This led him to be-
eve that he might have cows that
ere good enough to go on official
st. Accordingly he started official
sting three years ago and since then
as achieved great fame with his
erd. The first six cows that he offi-
ally tested produced an average of
11 pounds fat for the year and won
igh honors with the A. J. C. C.

The old grandmother cow that
ade a record of 616 pounds fat had
daughter that made on her first test
a four-year-old 14,515 pounds milk
nd 806 pounds fat and she in turn
ad a daughter that made 13,400
unds milk and 734 pounds fat as a
vo-year-old. This gives one strain
ithin his herd three generations of
igh producers and he has concen-
ated his efforts toward saving heif-
calves from that strain.

He tested the four-year-old cow
entioned above again as a five-year-
d and as he understood her likes
nd dislikes a little better than he did
e first year he was able to finish
is cow, Torono's Adelina 456566,
ith a year's test on April 10, 1926,
s the state champion butterfat cow
ny age, any breed, with a production
15,770 pounds milk, 873 pounds fat.

We can say that the cow test association started Mr. Bird off as a first class dairyman, capable of getting a high yield out of his cows and thereby making a better profit than he had ever made from his herd. Undoubtedly the cow testing association can do the same thing for every member of a cow test association in America.

J. J. HOOPER.

Kentucky College of Agriculture.

SIMPLEX Barn Equipment

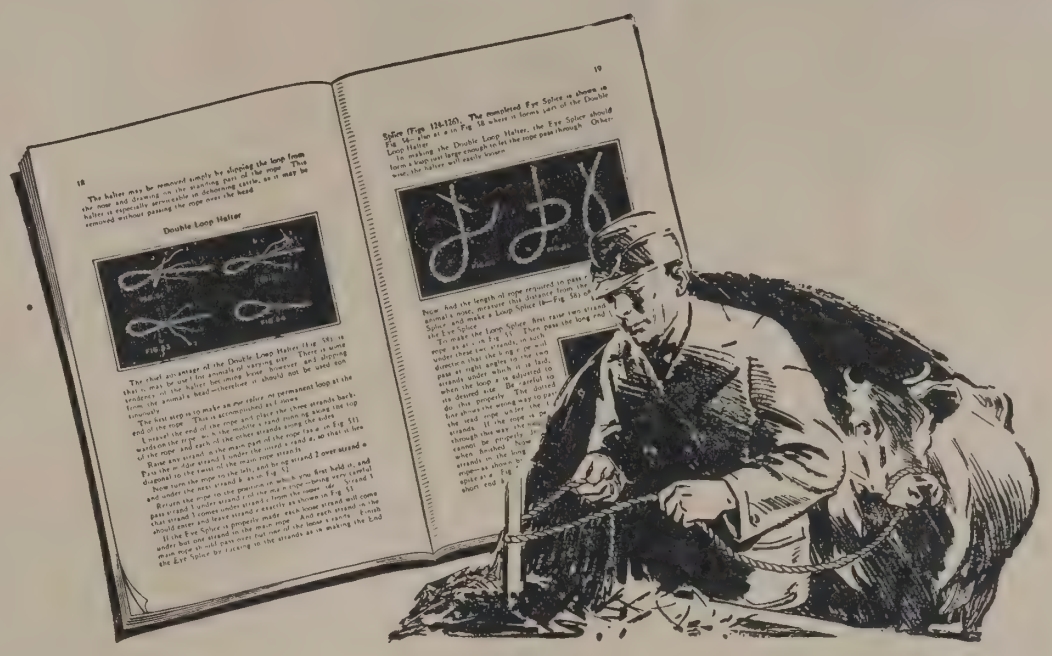
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A valuable new book on the use of rope. Send for it!

Cumbersome knots and hitches—difficult to untie—slipping at critical moments—requiring constant retying. How they do eat up the time which means so much on the farm!

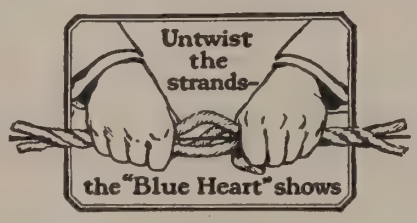
And the rope itself—so easily ruined when it is not given proper care.

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evenly spun from the best fibres — has full yardage, ample strength for binding purposes, and is treated against destruction by insects.



How to know good rope before you buy it

The better quality your rope is to begin with, of course, the greater will be your saving. Here's a sure way to know really *good, long-wearing* rope, before you buy it:

Untwist the strands of the rope. If you find a blue thread marker—the "Blue Heart"—running in the center between the strands, you may be sure that the rope is genuine H. & A. "Blue Heart" Manila Rope.

Spun by rope makers with over half a century's accumulated experience, this thoroughly good rope will wear longer and deliver maximum service in any size, on any job. For the selected fibres of H. & A. "Blue Heart" Manila Rope are drawn, spun, laid, and properly lubricated so as to insure the smooth working of every fibre, yarn, and strand.

Before you buy rope, untwist the strands and look for the "Blue Heart"—our registered trade mark. It assures you of dependable rope value not only on the first purchase, but whenever you need more of the same kind.

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For sisal rope

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*Address*_____

*My Dealer's Name*_____

*Address*_____



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Heavy Duty $1985

REO MOTOR CAR COMPANY, *Lansing, Michigan*

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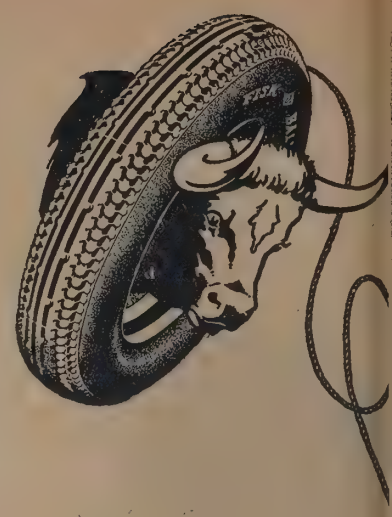
Forming A Unity Dairy Organization

HOARD'S DAIRYMAN:—Attempts are being made to form what is called a Unity Dairy Organization. This should not be confused with the committee that is holding hearings preparatory to making a report on a state-wide organization. The former had its origin in a meeting called by J. J. Dillon after the committee referred to had been appointed. This committee is frequently called the Ten Eyck Committee, as Mr. Ten Eyck is its chairman. The Unity organization has gone far enough so that Mr. Dillon called together the heads and some interested members of those groups not affiliated with the Dairymen's League or the Sheffield producers and they appointed certain directors and a president. The president is Truman Cole. A meeting was held in Binghamton at which Mr. Cole was the principal speaker.

The local chairman, Mr. Quinn, first went over the situation somewhat, saying that they were trying to save the dairy industry, and that they desired to operate at a low cost. They propose to have 24 directors each elected for one year. It is proposed to have directors elected each year by delegates from the locals of that particular district. Any help that is to come to farmers, he says, must be by the farmers themselves. Nothing can be done by legislation, he thinks. He praised President Coolidge for his veto of the recent farm relief bill. He then introduced Mr. Cole. He accepted the presidency of this organization because he wants to see farmers getting living prices for milk. Said he had been called the most uncompromising opponent of the Dairymen's League Co-operative. This organization has started out to do what the old Dairymen's League Inc. began back in 1916. He tried not to show antagonism to the present League or the Sheffield producers but he, by inference at least, laid the present low prices at the door of the League with the Bordens in its control, and he didn't give the Sheffield producers' association any credit for making conditions better. High salaries and good jobs for some seemed to be a somewhat sore spot with Mr. Cole. He used no ugly terms or expressions but he did show strong disapproval of what has been done before.

In one sense he offered some praise and gave some credit, for he holds that this new organization is to supply the only thing lacking to a strong three-legged stool, the Borden-Pool, as he was pleased to call it, and the Sheffield producers being the other two legs. The Unity is to operate on one cent a hundred or less, but local people are to take care of their local expenses and their own surplus. Members may be by locally owned plant associations or by groups where farmers do not own plants. Each is to sell its own milk, but not at prices lower than those set by the executive committee or the directors. It appears that it is the hope to have a central salesman to help those who need it. He claims not to understand much of marketing milk but hopes to learn.

The speaker tried to explain how at Little Falls they are attempting to equalize production throughout the year by a system of penalties and premiums, but as yet they get 400 cans per day in the shortage season and 1,300 cans in the flush. However, they have been able to return to their farmers there $50,300 above what the "pool" would have given them. He digressed to show how some dairymen at that point get $240 income per cow while others get only $70. They hope to educate all to bet-



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All Fisk tires made of "Fillerless" Cord —a Fisk patented process



FISK BALLOON TIRES



Reduce your feed bills

FEED your cattle Sutton's Pedigree Mangels and your dairy herd will respond with a greatly increased milk production. These famous mangels are the biggest crop producers known. An Ohio dairyman says: "Last year I planted 2 lbs. of Sutton's Pedigree Seed and harvested over 19 tons of beets. I have never had cows produce as much milk on such an economical ration as they are this year with beets in the ration."

Sutton's Pedigree Mangel Seed is selected seed, grown from parent stock that has behind it the care and experience of 70 years of Sutton experience. Send for illustrated catalog. It contains cultural directions and data on cattle feeding.

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Write today for free samples and special wholesale prices. We can save you big money. Our seed is tested. Guaranteed and sold on 60 days' approval. Investigate this wonderful crop. Grows anywhere. Cheap to sow. Best fertilizer—wonderful pasture and hay. Big money-maker. Crop often worth $60 per acre. Our superior scarified seed assures a stand with less seed. Write today for free samples and catalog. Low prices on Alfalfa, Clover, Alsike, Timothy, etc.
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r dairying. There is no holding embers in the new organization ept as they are to stay to fulfill con- acts made for their sales. If the ganization is good no one will want draw out of it. It would look as ough there is a very worthwhile ork for these people if they can ally organize these groups that retofore have apparently failed to ganize.

Director A. L. Milks of the Dairy- en's League was present and spoke ry encouragingly of any attempt get all dairymen united. The eague, he declared, would be very ad to co-operate with any organi- tion in an attempt to stabilize milk ices, as that is what they were or- nized for and have been trying to . He did not think it wise to ange directors every year but be- ves the one-third yearly election tter. Then he thinks it better to ve the entire membership vote for ery director rather than to leave it for the one representative from ch local in each district.

New York. H. H. LYON.

To Cure Overproduction

HOARD'S DAIRYMAN:—The farm- s' dilemma compared with the pre- sterous business conditions in gen- al appears somewhat in the posi- n of a stepchild, although a giant proportions. Farming is ailing ite noticeably in spite of the bul- ins issued to the contrary. Some vice published recently advocated eight-hour day for farmers to ve the ills, to produce less, which the most essential of any theory d the only one that has been ad- nced to alleviate the general farm- s worst pains.

Such advice has pulled farmers' tes, but the general farmers today still holding the sack with noth- much in it but a lot of warm air d up to use as a cushion to sit on d think it over. When an adviser d director of a state agricultural periment station makes such state- nts he does not seem to realize t the farmer's occupation is de- ident on all sorts of weather and old other circumstances.

Farm work cannot be handled like tory operations, and the man who make a success with same on an ht-hour basis will have to show us. e suggestion to the farmer to take asy and produce less is sound ad- e, but not by adopting an eight- r day, for this is out of the ques- n under general farming condi- ns. Now, why not suggest another n to cut out overproduction—one t will not endanger the nation to nine and famine prices—which be done by concerted action by farmers in the U. S. A. in a way produce more from an acre of d, with much less expense, by ar- ging a system of labor, having h farmer to do the greater part of work without the aid of outside p, by tilling two-thirds of his land resting one-third each year. By ng the summer fallow method on one-third of land you are able get it ready for the next season's p by plowing in June, soon after ing seeding is completed. This d should be cultivated several es during the summer, thus killing old numbers of insects and weeds increasing the fertility of the with less work.

uch a system would check over- duction and quite likely improve n prices by regulating, to a cer- degree, supply and demand. v, to make a long story short, ice it to say the great agricultural it has been ill for quite a number years, with a bad case of overex- on, resulting in nervous disability sing stagnation of circulation and ture of the main arteries. The patient is still lingering and pining between hope and real help—although many prescriptions were compounded free of charge with an eye for business later; other concoctions and brews were cash in advance, but, sad to say, mostly in advance. Would it not be well to change doctors and doctrines? It might even be advisable to detail a delegation of real experienced and practical wide-awake tillers of the soil with business ability to study a system of pooling farmers' grain for distribution.

Sad to say, it seems a dark and unsolved problem why so few of our professional farm papers and magazines contribute so little real practical and experienced suggestions or cast light on American agriculture's most vital problem—too much political bunk cover the various issues.

Michigan. M. W. HYENGA.

Another 1000-lb. Fat Producer

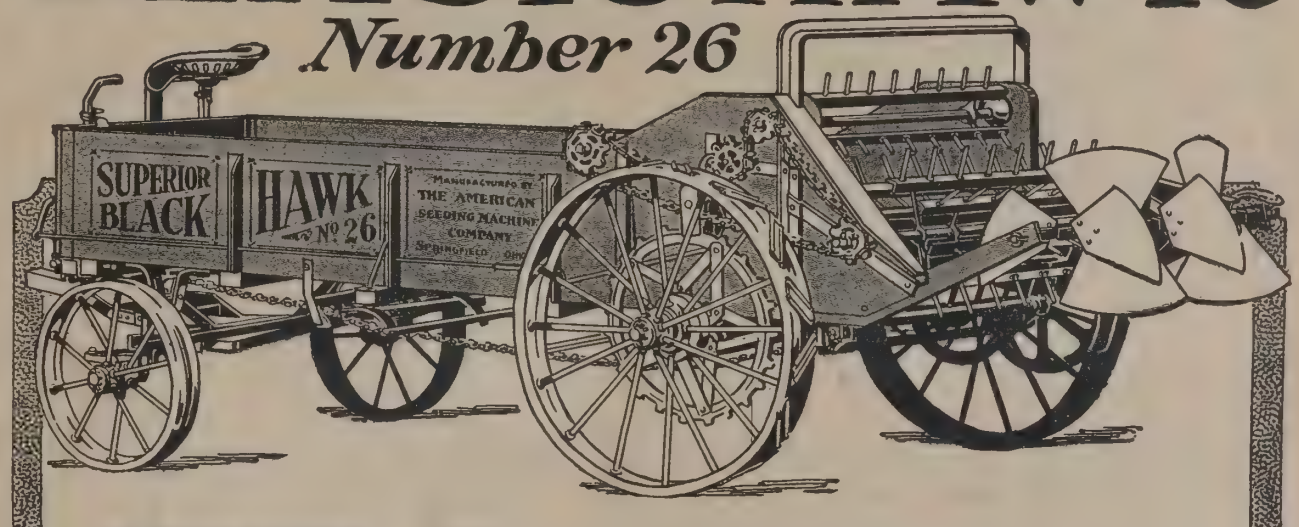
The Holstein-Friesian Association of America announces that the 111th Holstein cow to produce above 1,000 lbs. butterfat in a year has recently qualified for this honor with 28,305.9 lbs. milk, 1,015.11 lbs. fat (1,268.88 lbs. butter) produced in 353 days. This cow is Sequim Ellen Canary, bred by E. F. Gierin, Washington, and owned by the Carnation Milk Farms in the same state.

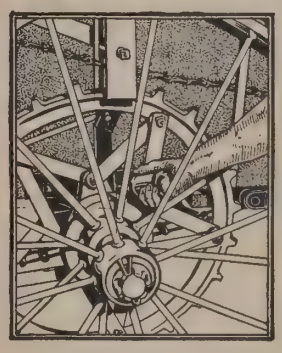
Feminine Arithmetic

The Boss's Stenographer (telephoning a girl friend): "I'm thrilled to hear you're engaged at last. I've always said a ring on the finger is worth 10 on the 'phone."—The Progressive Grocer.



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BLACK HAWK
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This is just one of the many *CP* aids to profitable dairying. We specialize in milk house equipment. Write headquarters about your problems. 320-page catalogue FREE.

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Starving Cattle in a Land of Plent

LAST summer in July we were riding with Paul Johnson, county agent, in Rice County, Minnesota. Suddenly he yanked his car up by the side of the road and said, "Look at that! Starving cattle in a land of plenty." Over the fence was a bunch of thin dairy cattle fighting flies and wondering where the next bit of grass was to come from. On the opposite side of the fence along the roadside was a luxuriant growth of sweet clover.

Since that time Paul has been building arguments for that part of his county program that seeks to promote the welfare of the dairy cow. A month ago he sent us a sample of the kind of persuasive ammunition he is using this year. It is timely; it is sound to the core. What he has to say follows:

"One creamery pays 48 cents a pound for butterfat and another creamery pays 49 cents. That's only a cent difference; not worth hollering over; not worth leaving your creamery for; not worth making one co-operative creamery a competitor of another.

"In this county I have the feed cost figures for a year on two herds of cows. The feed cost per pound of butterfat on one farm was 16 cents; on the other farm it was 32 cents. A difference of 16 cents a pound is worth hollering about. Who should do the hollering and what should he make the noise about?

"There is no secret about the cause of this difference of 16 cents a pound. One farmer had all the home grown alfalfa hay and silage his cows would eat. He fed a grain mixture of equal parts of ground oats, barley, corn, and succotash at a rate of 1 pound for each 3½ lbs. of milk produced. During the summer he had good sweet clover pasture. He fed a little grain even on this pasture. His cows averaged 346 lbs. of butterfat. He had lots of skimmilk to feed to his calves, hogs, and chickens.

"How about the other fellow? His cows averaged 206 lbs. of butterfat. His cows came off a burned up, eaten up bluegrass pasture in the fall too thin for fall freshening. During the winter he fed corn fodder, silage, and timothy hay. He fed ground corn, oats, bran, and linseed meal. He bought his protein and fed sparingly of it.

"We have 30,000 dairy cows in Rice County. We have only about 5,000 acres of alfalfa or 1 acre for 6 cows. It should be one acre each cow.

"We have two cow testing asso tions in Rice County with a memb ship of 40 herds. We have 1, herds in the county that should be cow testing associations. One herd 40 is in association work.

"We have about 3 herds out o headed by a pure-bred dairy b The scrub or grade sire never proved any herd. Rice County is porting good pure-bred dairy sires the hundreds; we need more of th at home.

"The average production of R County cows is about 186 lbs. of terfat a year. The average pro tion of cows in cow testing asso tions is nearly 300 lbs. of fat a y

"What is the solution of this p lem? Should we holler about the cent difference paid by creameries the 16 cents difference paid by cows when given a chance?

"No other crop is so necessary success with dairy cows as alfa no crop returns as much per when fed to good cows. In R County it costs less than $8 a to grow it. This winter dairymen w paying $25 or more per ton shipped in hay. Is it good busin to export our good dairy bulls import alfalfa hay? Home gr alfalfa hay is best; it is finer stem and leafier. Growing alfalfa bu up the soil; it increases corn small grain yields; it adds to the ue of your farm. You need one a of alfalfa for each cow.

"Is it good business to use 3 a of bluegrass pasture for 1 cow w we could graze 2 cows on 1 acre sweet clover pasture as some already doing? Sweet clover see cheap; the crop fits in with the tation of other crops; the growing it frequently adds several bushels corn to the succeeding corn c Sweet clover is good cow pasture; use of it helps one to put his c in winter quarters in better co tion; cows like it.

"Is it good business to main 30,000 dairy cows in Rice County an average production of 186 lbs fat or a total of 5,580,000 lbs. w we could get 5,800,000 lbs. from 000 cows if all our herds were in testing associations? The ye maintenance cost of these extra 000 cows is around $400,000 a and this divided by the 1,600 d herds in the county amounts to $ each a year. It costs about $4



THE VALLEY GEM GUERNSEY HERD SIRES IN YOKE DRAWING A WAGON LOAD OF HERDSMEN AT THE 1927 PACIFIC INTERNATIONAL

O. M. Plummer, manager of the show, is the man with the bull whip and the meditative expression. John E. Wrage, one of the owners of Valley Gem Farm, is seated on the edge of the rack.

The bulls, which have been doing farm work since they were calves, were given a dynamometer test of 1500 lbs. at one of the fairs last fall. This is equivalent to pulling three 14-inch plows at a depth of 6 inches.—The American Guernsey Cattle Club.

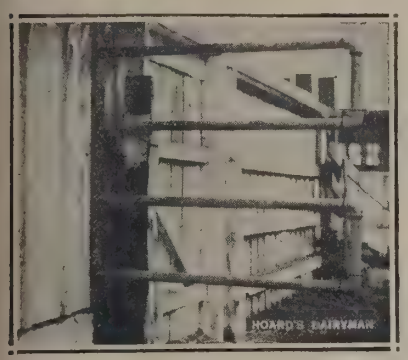
year to keep a herd in a cow testing association. You can subtract $40 from $250 and put the $210 in your pocket if you have the $250 to begin with. Let's get the $250 for each herd in Rice County by lopping off the maintenance cost of the extra 10,000 cows—the ones that are below 186 lbs. of fat a year."

Paul Johnson is not talking through his hat. He is not talking about something in a far off county. All the evidence supporting his statements may be found in the county in which he proposes to effect a program of improvement.

What he has so forcefully said about improving the production of dairy cattle in Rice County applies with equal truth to hundreds of counties whose farmers are striving to make a substantial part of their income from dairy cows.

Making the Bull Safe

HOARD'S DAIRYMAN:—We have eight registered bulls in our herd and each of them will bear close watching. In fact it was due to several near accidents that we were at last



A SAFETY DEVICE FOR BULL PENS

aroused to the necessity of working out some safety device before someone would get hurt or killed.

Each bull pen has two compartments—a box stall and an exercise yard. These are connected by a doorway about 7 feet high by 3¼ feet wide. It was this doorway, or rather the door, that gave us most trouble and caused most of the danger. Almost every time it had to be opened or shut someone had to slip into the stall to clear away the litter and straw before it could be fastened. Whoever did this took chances with the bull. Anyone who has had experience with bulls knows that this is a very dangerous thing to do, yet men who do it every day are inclined to become careless.

This danger was increased in our case by the fact that the doors were frequently broken down, sometimes knocked clear off their hinges and had to be fixed with the bull an interested spectator. That's the trouble with a bull pen door that is swung on hinges at the side. A swinging door is always an invitation to a bull. Like some boys, he dearly loves to slam a door.

Our first step toward a safety device was an attempt to fix the door so that it could be closed without going into the pen, and so that the bull could not butt it to pieces. Our first efforts in this direction failed completely, but out of these efforts came the idea of using cross bars that could be operated from the outside of the pen.

The plan finally worked out, and put into operation in four of the bull pens, is shown in the accompanying illustration: To install this device the door jambs were reinforced with new 2x8-inch planks of southern pine. Four 2-inch auger holes were then bored through both door jambs and the outside wall. These holes must be in perfect alignment to allow free and easy movement of the one and seven-eighths inch galvanized iron pipes of which the bars are made. As shown in the illustration, the outside ends of the pipes are connected in pairs. This affords some stability and furnishes a handle with which to operate two bars at the same time. In opening, the bars should be drawn just enough to clear the doorway. If drawn clear out of the door jamb there is apt to be difficulty and delay in getting them back into place. We have found that although the bars are close fitting they can easily be operated with one hand if the holes are kept greased.

This device has now been in operation almost a year and has given complete satisfaction, and so far without injury to either man or bulls. In other words, we have found it bull-proof, foolproof, practical, and safe.

DAVID A. BRODIE.

District of Columbia.

Care and Handling of Milk

We have examined a new book on "The Care and Handling of Milk" by Harold E. Ross, professor of dairy industry, New York State College of Agriculture. The book is intended as a text for dairy students and as a guide for all who are interested in the care and handling of milk, and in its use as a food. In preparing the book the author has made frequent reference to the latest investigations along the several lines discussed. Parts of the book will be of special interest to those interested in human nutrition, to producers of milk, to distributors, to milk inspectors, to managers of dairy plants, and to consumers. Of special interest to producers are chapters discussing grades of milk, the production of clean milk, and methods of cooling milk.

Copies of the book may be secured from Hoard's Dairyman Book Department. The price is $3.00 a copy postpaid.

Get a Hook

A little girl at dinner table was given a dish of noodles. The mother noticed that she was eating nothing but the soup, leaving the noodles. She asked her why she did not eat the noodles, too.

Unconcernedly she answered, "Can't catch 'em."—Christian Evangelist.

"Try an' burn it!"

A building man's advice to shingle buyers

THE blow-torch knows why some shingles are called "fire-safe," and others "fire-proof." It quickly points out the difference between so-called "enduring" shingles and those that are truly "everlasting."

Turn its truth-searching blast on a Johns-Manville Rigid Asbestos Shingle. See for yourself the kind of fire resistance, the real everlastingness these rigid slabs of permanence will bring to your roof. Before you choose a shingle, "*Try an' burn it!*"

JOHNS-MANVILLE CORP., 292 Madison Ave., at 41st St., New York. *Branches in all large cities*

For Canada:
Canadian Johns-Manville Co., Ltd., Toronto

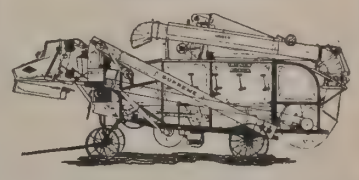


Fire-proof and everlasting, the Johns-Manville Hexagonal Asbestos Shingle shown here offers you a choice of two color effects. One side is a pleasant restful gray, the other embellished with the rich and varied colors of an autumn hillside.

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Dept. M. MARION, OHIO

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"Nothing succeeds like success," they say, but where success is constant and increasing there must be some unusual merit back of it. The continued success of the **Auto-Oiled Aermotor** is based entirely on merit. It has been made better and better year after year. Improvements have been added as experience has shown the way. The **Auto-Oiled Aermotor** of today is a wonderfully durable and efficient windmill.



The Aermotor Company, more than 12 years ago, solved the problem of complete self-oiling for windmills in such a way as to make the system absolutely reliable. The oil circulates to every bearing and returns to the reservoir with never a failure. There are no delicate parts to get out of order. The double gears run in oil in a tightly enclosed gear case.

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Heavy steel construction. Practically unbreakable. Lifetime service. No burrs, knives, gears nor rolls to dull or break. No heat, no friction. Does not heat grain. Grinds any hay, roughage, or grain—fine as wanted. No breakdowns. Always dependable. Lowest grinding cost. Unequalled as grinder—feed saver—money maker. Feeding booklet—literature—FREE. Stock in principal cities. Infringements prosecuted.

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The Severest Test *for* Lumber

Redwood is always selected for this purpose

In California are used vats for curing certain types of fruit.

These great vats are constantly filled with caustic soda, acid or brine. Year after year they serve this purpose.

Even the iron bands around them must be replaced. But the vats themselves last indefinitely. Some of them twenty years old or more are still as sound as the day they were constructed.

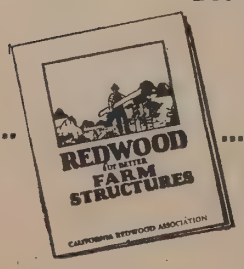
California Redwood is always used for these vats. It is the one wood that stands up under this severe test.

For Redwood is impregnated by Nature against rot and decay. It brings long life to buildings in which it is used.

It is easy to work, stays put. It is hard to ignite and slow to burn. Use durable Redwood and build for generations.

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What I Am Trying To Do on My Farm

The Farmer in Community Life

W. J. DOUGAN, WISCONSIN

IT has been a tendency of the farm to create in the minds of the farm family a sense of isolation. The farmer was alone in his fields, alone with his stock. When the curtain of night drew down the farm family was alone in its little circle.

The very abundance of the farm has developed in the rural mind a sense of self sufficiency. The farmer has been able to provide the necessities of life for his family. In the homespun days the children made their own kites and wagons and toys. The women folk manufactured from the raw material luxuries in food and finery in apparel. But those days with their blessings and their handicaps have contributed to the progress of society, and new orders are taking place.

Changing conditions make it impossible for the farmer to remain isolated and self sufficient. The farmer needs what the other half of society is producing, and the other half of society needs what the farmer produces. These changed conditions put new demands upon the farmer citizen. He is responsible for the school and the church—two institutions that must go hand in hand to insure the rightly balanced intellectual and moral life of the rising generation. He must provide time and equipment for a wholesome social life in the community; play days for young and old, and good, clean amusement safely guarded from low thought and vicious influences. He must give thought, time, and means to the boys' and girls' club work which is developing our children not only as good producers but teaching them the art of living with others; to work together and to play together. He must be a part of the co-operative movements for more intelligent farming and more systematic orderly marketing.

Even today there are too many farmers whose horizon is described by their own line fences. At best they can see only their own school district and immediate neighborhood. The farmer's horizon must be enlarged. His community vision must include the nearby town and city, as well as his own neighborhood. There is danger of the selfish spirit permeating our farm organizations, with the tenet, "Look out for the farmer, no matter what becomes of the city man."

Not long ago I was in a meeting of farmers who were planning for co-operative buying. I asked what would become of the merchants in the village. The president answered "That is not our affair. They can look out for themselves." It is our affair. What if the farmer could return to the homespun days of self sufficiency and starve out the rest of the world? It would turn back the progress of the world two centuries and we would have to again come up to this milestone. Worse than that it would be suicide to the farmer himself. We must be careful in our plans for bettering the farmer that they are constructive and for the good of all society, and not just selfish "for me and mine." The sooner both rural and urban people come to the realization that whatever affects one affects the other, the better it will be for all.

We hear much about the conditions in Europe and the effect upon the American farmer. This is an indication that our vision as farmers must still enlarge. We are world citizens.



A CONCRETE EXAMPLE OF WHAT GOOD MILK WILL PRODUCE

Are we farmers of this generation measuring up to our new responsibility induced upon us by the changing world conditions? It is a common saying that farmers cannot co-operate. Most of our failures in co-operative work have been caused by lack of efficient management and failure to pull together. We are improving in meeting these larger responsibilities. There are examples of splendid co-operatives that are working a double blessing: viz., bettering the farmer's condition and also giving a better service to society.

However great our responsibilities today, they will increase with the years. The farmer of the future must sit in council with statesmen, captains of industry, and leaders in commerce, not to fight for the farmer's rights but to help plan and direct and coordinate agriculture with all other industry that the whole of society may prosper and progress.

What training should we give our children to fit them for this larger responsibility? They must be good tillers of the soil; they must learn to work; and they must have a scientific technical education to do this satisfactorily. They must have a cultural education as well: philosophy, art, history, and literature are as essential to the farmer as are seeds and feeds and breeds.

I would encourage the youth on the farm to get the highest education ob-



MR. DOUGAN SPEAKING TO BANKERS, FARMERS, AND COUNTY AGENTS FROM THE DRIVEWAY TO HIS BARN

ainable, and then put it to the serv-
e of man through the field of agri-
ulture. Hanging over my desk at
ome is a verse by Foss that embodies
he thoughts of this talk:

Let me live in a house by the side of the road
Where the race of men go by;
he men who are good and the men who are
bad,
As good and bad as I.
would not sit in the scorner's seat
Or hurl the cynic's ban:
et me live in a house by the side of the road
And be a friend to man."

Soil Management in Missouri

The Missouri Station reports re-
ults from different soil treatments,
he figures representing decreases or
ncreases in net crop value credited
the extra expenditure and effects
f these treatments.

The accompanying table shows the
ffect of soil treatments when used in
four-year rotation. These results,
epresenting averages from all soils
hrough 18 years, emphasize the
reat significance of these soil treat-
ents in soil improvement in Mis-
uri:

il treatment	Total net return per rotation	Percentage increase on investment
gume (cowpeas or soybeans in corn)	$—0.47	—59
me (2 tons at start—1 ton every 6th year)	2.74	68
anure (8 tons before corn)	7.48	93
ne meal (150 lbs. with corn and wheat)	9.79	187
id phosphate (175 lbs. of 16% with corn and wheat)	8.36	191
ck phosphate (1,000 lbs. with corn)	—1.79	—29
tash (25 lbs. muriate with corn and wheat)	1.56	126

It will be noted that the seeding of
wpeas or soy beans in corn and the
e of 1,000 lbs. of rock phosphate
ith corn failed to make a profit over
e cost of these. The highest per-
ntage increase was with acid phos-
ate applied to corn and wheat and
xt to this was bone meal applied to
ese crops.

Bottling Restaurant Milk

HOARD'S DAIRYMAN:—The city of
racuse, N. Y., recently passed an
dinance forbidding the sale of any
t bottled milk in restaurants. Pre-
ous to that time the thousands of
rkers who lunched down town
uld get a glass of milk for five
nts. Now nearly all the restaurants
the city are asking ten cents for a
lf pint bottle.

The restaurant managers pay three
d a half cents for a half pint, or
cents a quart. At ten cents a half
nt they are making 187 per cent,
getting 40 cents for a quart of
lk that cost 14 cents! The result
rks injury in two ways. Consum-
s are using much less milk—an in-
ry to them from two standpoints,
e health standpoint and the finan-
al aspect of the question; and the
mand for milk has been cut no-
eably, a fact which reacts on the
oducers.

When Dr. Herman G. Wieskotten,
alth commissioner, was asked if
considered the gain in health
ndards from the use of bottled
lk only to offset the decreased con-
mption due to the change in price,
refused to discuss the matter ex-
pt to say that the Syracuse De-
rtment of Health is not a price fix-
g agency.

Commissioner Weiskotten has
ch to support him in his stand.
racuse is a leader in many health
tters, yet has not been among the
st to make a ruling of this nature.
man nature is such that the ruling
almost a necessity if this easily
ntaminated food is to be handled
fely, and if consumers are to get a
iform product. Under the careless
dipping of milk by the average restaurant worker the bottom of the can was bound to be of poorer quality than the top when milk was purchased by the can and dipped from the can.

Whether interested in the retail price question or not, this health department has established some facts regarding the effect the modern trend towards requiring the bottling of milk to be sold for beverage purposes—by means of a questionnaire it has sent to health departments of other cities of the country and state. This questionnaire contains two questions, the first, "Has the enforcement of this ordinance, (requiring bottled milk to be sold in restaurants) caused an increase in the price of milk?"; the second, "For what price is milk sold in your city?"

Answers returned so far disclosed that in most cases the enforcement of such an ordinance has not increased prices. Dr. Weiskotten has learned that all restaurant milk served in California must be bottled, and that many other cities of the United States have similar ordinances. Surveys before California adopted the ruling showed great variations in butterfat and bacteria content.

In Syracuse two tendencies are now manifest to sell only Guernsey milk, which commanded the higher price before the ruling; and to sell milk from sanitary, approved urns which contain stirring devices. It will be up to producers and consumers in Syracuse to deal with this move to charge too high a price.

New York. M. G. FEINT.

The Sins of Price

PRICE cutting sins against quality. Price cutting sacrifices serviceability — because low prices are often made by "skimping," by adulteration and substitution.

The United States Pure Food Law made the sins of price a crime. But this law protects you only on the things you eat.

In many other lines, the "manipulation" of merchandise to make price "baits" is not illegal—

For example, cutlery may be stamped and not hand forged. Aluminum ware may be made of light weight metal. Enamel ware may have two coats instead of the standard three. A price a few cents lower is always a tempting price.

In clothing, a cheaper lining saves 25 cents per coat; a cheaper sleeve lining alone saves 15 cents; composition buttons save 5 cents; cheaper pocket material 5 cents; a belt *not* interlined saves 5 cents.

A "skimped" pattern saves material. A leather lined coat can be made two inches shorter, with wide cloth facings—saving 50 cents per coat.

These are the sins of price.

For Fifty-five years, Montgomery Ward & Co. has sold only reliable, standard goods. Quality first — then low price —but we never sacrifice quality to make a seemingly low price.

A Price too low—makes the Cost too great.



An example of Ward Quality

This shoe has a second sole as good as the outer sole. Similar appearing shoes are sold at 25 cents less—by making the second sole of leather costing 20 cents instead of 45 cents. Such shoes are worn out when the first sole wears through. The saving in cash is 25 cents—the loss in serviceability at least $2.00.

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BERRY SEED CO., Box 655. CLARINDA, IOWA

Mention Hoard's Dairyman to your dealers.



The Dairy Farm Home

Neighborly Notes

Early this morning the telephone rang and when mother answered, a dear friend of the family said from the other end of the connection, "Oh, Esther, this is Emily Lavendar. Can't you all come over and spend the day? I attended the most original party yesterday and I simply must tell someone about it. So do come over for dinner."

After that how we flew at our morning meal, getting the children off to school with a warm breakfast inside of them, and good warm coats, caps, mittens, and galoshes all buttoned snugly on the outside. Next, mother hurried through the breakfast dishes and the milk pans and pails, made the beds in record time and straightened up the house. Meanwhile the men folk were doing up their chores and feeding up the stock. Coming in before mother had finished sweeping the floor they called to know whether or not they could wear their flannel shirts, for they simply would not go if they had to put on white ones, and also was there any hot water to shave with. Mother had to hurry for she had the little tots to wash and dress as well as herself, and the men had only themselves to do for.

But before the babies had their coats on, the car was running relentlessly at the door. Every once in a while father blew the horn to hurry mother a little. Oh, how hard it was to remember everything at the last moment with the men sitting in the car, waiting, and it running. At last the door was locked and the key placed where the school children could find it when they got home first and father actually could start the car. "Been running half an hour," he assured them. Mother sat back and drew a long breath of relief and tried to relax her taut nerves, and to get into a little less flustered state of mind ere she arrived, when suddenly she realized that she had forgotten that plant she had been raising for Emily Lavendar for a whole year. But the men refused to turn back and she had to bear her disappointment. It was such a shame for just now the plant was so pretty, too,—one of those new pink begonias all blossomed out. It was a beautiful day and the sun shone brightly on the snow, though the men predicted more snow before night. Gradually, as they rode along, a feeling of contentment and restfulness stole over mother replacing that nervous tension of the past hour.

The Lavendars were watching for us eagerly and, oh, what a lot there was to talk over. The men soon drifted to the barn to look over the stock and inspect the new team of horses. They passed their opinions upon laying mashes and dairy feeds, and compared the eggs they were getting and how their cows were milking. By dinner time they were back in the house ready to turn on the radio and listen to the latest market reports, although the women folk had wanted to hear a special organ concert at noon. Then the men must talk over the hog market and the price of butterfat. In the afternoon they walked across the fields to visit with another neighbor.

Mrs. Lavendar had been preparing such a delicious dinner, consisting of a tender roast, for they had butchered lately, and mashed potatoes, brown gravy, jelly, her famous cucumber pickles, baked beans, creamed carrots and peas, cookies, apple pie, cheese, and coffee. Now everyone ate and before we were through the babies began to nod their little heads and slump over sideways in their high chairs, and little Emmy started her little crooning which was always a preliminary to her nap. The babies were tucked in bed and the table cleared off by the time the men went out. Then the women could really visit.

"Now, tell me about the party, I am so anxious to hear all the details," mother begged.

"Well, yesterday I was invited to a party given by the Mothers' Club of the Wheeler District. They wanted to raise money and so each member invited four ladies outside of the district to come and each was to pay a quarter. But the entertainment was so unique it was well worth it," Emily Lavendar began willingly enough. "They gave a radio party. Now that everyone is so enthusiastic about radios it surely is quite an idea. And I thought perhaps if I told you about it you could use it for your club some time. Of course it was held in a schoolroom but a home could be used. The front part of the room was cleared and separated from the rest of the room by thin curtains of cheesecloth. On a table in front of us stood a loud speaker, probably a horn from someone's old phonograph. In the room of gauze a lady sat at a table with a disc in front of her that she used for a microphone. She was the announcer, and in a few minutes we heard a terrible grating and squealing sound made by someone behind the scenes, and then the lady said, 'Good afternoon, ladies. This is station JOY broadcasting our special Tuesday afternoon program for the mothers' clubs throughout the country. This afternoon we have some very special talent and feel that you will be well repaid for switching your dials onto JOY for the entire broadcasting period. The first number this afternoon is Madame Schumann-Heink Hanson who will sing for us that old favorite, Annie Laurie.' And then Myrtle Hanson appeared upon this radio stage and sang for us.

"Number after number was carried out this way. In each case the announcer had a few very apt remarks to make. We listened to Alma Gluck, and the trio with ukes from Hawaii, and even Topsy and Eva Duncan. That proved to be very good, for Bessie Ridge was dressed up to represent Topsy Duncan and had her face blacked and all of the worst combinations of colors on imaginable, and such loads of jewelry. And every once in a while the static was so bad we could not hear a thing. Of course, all of the program took place in this gauze room, but we could see it as well as hear it. But the best number of all was the men's quartet; they sang a group of old southern songs. One could work up any sort of a program and give it as a radio party and it would be new. We surely enjoyed it."

Mother replied, "Oh, I am so glad to hear about that. I have been trying to think of something rather original and different to give at our next party of the study club. And this solves the problem. You know we have been studying American composers and their music and we could work that into such an idea just splendidly. Why even the papers we wanted to have read could be read over the radio. Bless your heart, Emily, you have surely solved a problem for me."—ETHEL MORRISON—MARSDEN.

Pets

The more I see of children and their pets, the more I marvel at their parents. Many and many a mother who is considered an admirable woman in nearly every respect will yet stand by and see a helpless cat pulled around by the tail, a chicken squeezed until it later dies, a d whacked with a big stick, and all them improperly fed when fed at and will do no more than say, "O Johnnie, dear!"

I realize that it is very hard bring up pets and treat them prop ly but if they cannot be treated well as all our animal friends we meant to be treated, it is bet never to have them at all or to m cifully chloroform them. For so reason parents usually say, when boy gets to a certain age, "Well, n that Jimmie is—he really ought have a dog," so they get a helpl pup for him and their responsibil seems to be at an end.

If only pets were properly f they would be better able to sta the injustices of life but they rar are, mostly because they are unco plaining. The old dog will look hu grily in at the door and whine a lit from time to time but after abo so long he sees the food put aw realizes that he is to wait until so one gets ready to think of him, a goes patiently away and lies dow

(Continued on next page)



Design No. 2998—Desirable street dress with slenderizing lines created by front panel, com pleted with deep rever collar, which extends to waistline. The open V-neckline is extreme youthful. Silk crepe in two-tone effect, georgette, or wool rep is chic. Pattern No. 2998 ca be had in sizes 18 years, 36, 38, 40, 42, 44, 46, and 48 inches bust measure. The 36-inch si requires 3¼ yards of 40-inch with ⅞ yard of 18-inch contrasting material. Price 10c in stam or coin (coin preferred). Our patterns are made by the leading Fashion Designers of Ne York City and are guaranteed to fit perfectly. Send to Fashion Department, Hoard's Dairy man, Fort Atkinson, Wis.

Miscellaneous Fashions



No. 3000—Simplicity and Smartness. Cuts in sizes 16, 18 years, 36, 38, 40, 42 and 44 inches bust measure. The 36-inch size requires 2⅞ yards of 36-inch material with ¾ yard of 32-inch contrasting.

No. 2812—Slenderizing Lines. Cuts in sizes 18 years, 36, 38, 40, 42, 44 and 46 inches bust measure. The 36-inch size requires 2⅞ yards of 40-inch material with ¾ yard of 40-inch contrasting.

No. 2983—Interesting Skirt Effect. Cuts in sizes 18 years, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. The 36-inch size requires 2¼ yards of 40-inch material with 2⅛ yards of 40-inch contrasting.

No. 2461—Style Suitable For Stout Figures. Cuts in sizes 36, 38, 40, 42, 44 and 46 inches bust measure. The 36-inch size requires 3⅝ yards of 40-inch material.

No. 2997—Jacket Costume. Cuts in sizes 16, 18 years, 36, 38, and 40 inches bust measure. The 36-inch size requires 4¾ yards of 40-inch material.

No. 2650—Juniors are Wearing Flares. Cuts in sizes 6, 8, 10, 12 and 14 years. The 8 year size requires 2⅛ yards of 32-inch material. Emb. No. 712 (blue or yellow) is 15c extra.

No. 2786—Dainty Frock. Cuts in sizes 6, 8, 10 and 12 years. The 8 year size requires 1⅞ yards of 36-inch material.

No. 2759—Child's Combination. Cuts in sizes 2, 4, 6 and 8 years. The 4 year size requires 1 yard of 36-inch material.

No. 2312—Attractive Apron. Cuts in sizes 36, 40, 44 and 48 inches bust measure. The 36-inch size requires 2⅝ yards of 36-inch material.

No. 2769—Slip. Cuts in sizes 16 years, 36, 38, 40, 42, 44 and 46 inches bust measure. The 36-inch size requires 2⅞ yards of 36-inch material.

No. 2767—Pantalets. Cuts in sizes 16 years, 28, 32 and 36 inches waist measure. The 28-inch waist measure, requires 2¼ yards of 40-inch material.

What a devoted dog will stand from human beings is always to me a marvel.

I guess I always get pretty much "riled" when I get on the subject of dogs and horses, so while I cool off let's see what the dog really requires in the way of food. Overfeeding him is a very bad thing and even the active dog will thrive best on two feedings a day. If he is a small house dog, he is better off with one; these feedings, however, should be given intelligently and should be ample in size. In the morning all he needs is "dog bread" or table scraps but in the late afternoon he should have a regular meal—a ration made up especially for him and consisting of rice or hominy or corn meal cooked with about an equal part of lean chopped meat to which has been added salt and enough water to make it of porridge-like consistency. For the best health of the dog, some green vegetable should be added to this and, especially if he is a little out of condition, some bran. He should be allowed to eat all he wants of this in the evening. If to this you add an always available dish of clean water and a good place to sleep, and play but not cruelty from the children, you need not reproach yourself when you hear the passage read out of the Bible about doing it unto "one of the least of these." I have always thought that verse should be interpreted to include every bit of the animal kingdom that is given to our charge.—LUCY THOMPSON.

Is Debbie Right?

"Debbie Duncan was talking about those poor English women who cannot get married because there are about a million more women than men in England, and she says it's a great pity because those women will never know how well off they are."

Now, with all their shortcomings it would be pretty hard to get along without the men but, on the other hand, there is more truth in Debbie's remarks than some people believe.

It was a young woman of 32 who set me thinking the other day about old maids, unmarried women, spinsters, or whatever they like, bless their hearts. Now most girls would prefer being married but they are not all as honest as this friend of mine who frankly admits that single blessedness does not appeal to her in the least. The trouble with her is that she is much more mentally gifted than the average person and she has had an unusually fine education. She tries to conceal both facts for, according to her views on the subject (and I don't doubt she is right) men are afraid of her when they find her out as she is; they want to be the head of their houses and they are afraid they won't be able to if they get wives who are too smart. Instead of making the most of her gifts and taking a chance on marriage, this young woman hides her light under a bushel because, as she says, "She would rather be dead than go through life unmarried."

To me, there is something dreadful in that way of looking at it. We are so constituted as never to be satisfied; always we are wanting something more and that is as it should be, for life will be pretty dull when we get

(Continued on next page)

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.



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Fresh! well water to drink with one system

THINK of having running water — all you want, all the time—*both soft and hard!*

Soft water at the turn of a faucet, pumped from cistern, lake or stream—for washing clothes, scrubbing, sprinkling the lawn and garden. *Drinking water,* cool and sparkling, *pumped direct from the well.* Not just to one, but to *several* faucets anywhere around the premises! That's convenience for you!

The National stores the power—*not the water.* Air only is in the tank and serves each pump at the various sources of water supply. Strong faucet pressures are obtained against lifts up to 150 feet with pumping capacities ranging from 200 to 2,000 gallons per hour.

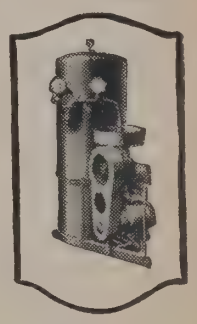
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No water storage tank to freeze; no standing water to turn stale in Summer. Water is pumped only as it is used! Put the National in unheated garage, barn, granary, milk house or basement—it may be 10 feet or 10 miles from the source of supply.

New Power Unit

Patented, sleeve-valve air compressor—the result of several year's research and testing—makes possible continuous operation, hour after hour. Banishes the troublesome check valve and air leakage; makes unloading valve for starting unnecessary. Assures quiet operation with less power consumption. A triumph as great as the "O. K." National Pump.

This shows the new National Power Unit, electric type. Also supplied for gas engine power. Air stored in tank operates one or more "O. K." National Pumps which fit 4, 5 or 6-inch casings and are also built for shallow submergence.



Free 32-page book, "Fresh Water." A real guide to anyone planning a water system for farm, suburban home or public building. Write for it today.

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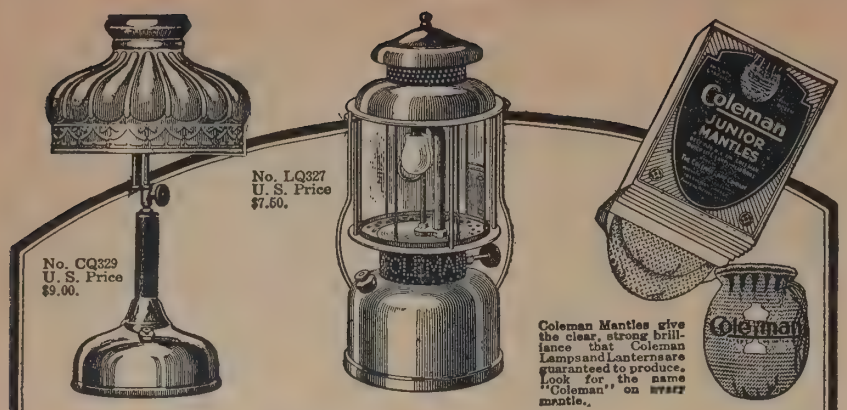


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—A Coleman Quick-Lite will give you the abundance of clear, steady brilliance that more than two million families are enjoying. You can have ***better*** light and ***plenty*** of it for any purpose—indoors or out—anytime you want it—all at less cost and without bother or work.

Coleman Quick-Lites are brighter than 20 old-style oil lamps or lanterns. No wicks to trim; no chimneys to wash; no daily filling. Make and burn own gas from common motor gasoline. Light with matches. Safe—can't spill fuel; can't be filled while lighted. Economical—more than 40 hours brilliant service per gallon of fuel. Lamp is beautifully designed, an ornament in any home. Lantern is sturdily built to stand long and hard service.

Dealers everywhere sell Coleman Lamps and Lanterns. If you dealer cannot supply you, write our nearest office and we will see that your wants are supplied promptly. Address Dept. HD22.

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The Portable HINMAN MILKERS

The Hinman Gas Engine Milker & The Hinman Electric Milker

Here are two machines you ought to know more about!

Complete milkers—power and all—ready to go to work for you the minute they arrive.

So light and compact, you can easily lift either machine—roll them anywhere—turn in narrow spaces. And you ought to see them do that milking job!



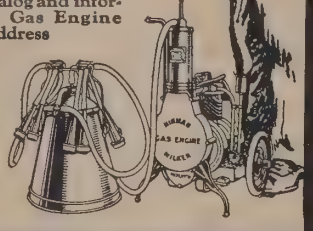
Power? Hardly anything. Cleaning? These are milkers you can *keep* clean—with ease. Dependable? *Valve chamber guaranteed for life of machine.* These are *Hinman* milkers—the machines that have helped dairymen earn better profits for *19 years straight!*

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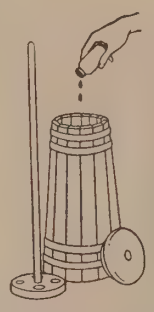


Young Typewriter Co., 654 W. Randolph D-3143 Chicago

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"Dandelion Butter Color" gives Winter Butter that Golden June Shade



Just add one-half teaspoonful to each gallon of cream before churning and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless, and meets all State and National food laws. Used for years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores. **Write for FREE SAMPLE BOTTLE.** Wells & Richardson Co., Inc., Burlington, Vermont.

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FREE→ Protect Yourself Against Lightning



Be safe from this terrible destroyer of farm homes, buildings and stock. Over $52,000,000 farm losses from lightning last year YOUR home may be next.

This New Free Book tells how you can be absolutely safe—what lightning is, its cause and prevention. Written by experts of the famous Dodd System, the nationally recognized lightning protection for almost 40 years.

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FILTERING
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FOR MILK

These disks will positively remove sediment and bacteria from milk, that no other straining medium can reach.

SIZES TO FIT ALL STANDARD STRAINERS
Free—If dealer can not supply you send dealers name to us and we will mail you free sample.
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satisfied. But we must admit that there will be something we cannot have; some will miss having as much money as they would like, some will miss health, some will miss having children—the list is infinite—and some will miss marriage. Each will think that the thing he has missed is the one big thing worth having, yet there will always be found a host of the world's fine people in any of these classes. So with the unmarried women, I hardly see how the world could have run without them for they have done some of its most important work.

The "old maid" of former days is gone forever. The girl who does not marry no longer goes to her brother's house after her parents are gone and sits in the chimney corner waiting for "the end." She would rather be married, of course; but not to just anybody; no, indeed. She is pretty independent about that and she puts on her best hat and goes out and looks around her and picks out the thing she can do best and does it. It may be nursing, or housework, or running a food or candy shop, or sewing, or selling insurance, or raising chickens, or growing fruit—there's scarcely a line of work today that does not employ some women.

Is she happy? Of course she is for she is taking her part in the world's work. A friend of ours, age 46, called a few days ago. She drove up in an expensive car, came in, took off a handsome coat and hat and decided to stay for supper. We knew that Mr. A., an interesting bachelor, had been paying her a good deal of attention. "Why not marry him?" we asked her.

"Well," she replied, seriously, "I've thought it over a good deal and I look at it this way: I've got a good job making nearly as much as he is; I have a nice home, my car, and my friends. I know where I am, but if I married I don't know where I'd be. No, I think I'll just leave him for someone else."

That is the way one so-called "old maid" answers Debbie Duncan.—LUCY THOMPSON.

A Bit of Primping Now and Then

We have heard all our lives how much more lovely we could all be to look at if we would only take a little care of ourselves. Some of us feel that we have not much to start on and that there is no use in trying to make anything of what there is, but of course we all know the answer to that, too; the less we have in the way of natural good looks, the more imperative it is that we fix up that little the best possible.

I was interested the other day in reading of what is being done by one of our great women's organizations for the immigrant wives who come to this country to meet their husbands. Many of these men have been here earning money to send back for their families to get to America on and while here they have become so used to the American women that they have somewhat forgotten the peasant ways and looks of their own women. American women have more freedom than those of any other country and they also have more leeway in the matter of dress and personal appearance. What wonder, then, that the husband after being away from them for several years is somewhat surprised and disappointed at the way his family looks.

The organization of which I spoke makes it a business to go out to Ellis Island when the big ships come in and explain to the foreign wives the ways of American women and how they dress. Some of them will have nothing to do with any change and continue to wear their head shawls and their eight or more petticoats but most of them are delighted at the chance to change and often dance before the mirror when they see the grand appearance they make in their American clothes. A little powder is patted on, the hair is rearranged, and presto! the waiting husband's anxious look breaks into a grin of delight to see the fine "American" wife he has got.—LUCY THOMPSON.

Hand Lotion

We have found a remedy for rough hands that we think worth while. We keep a small bottle of sour milk on the draining board and when we wash our hands before they are dry put on a little. The acid immediately counteracts the alkali in the soap and then can either be rinsed or wiped off. It is as good for your face as it is for your hands. I have not needed any other remedy this winter. It will leave your hair soft and glossy, too, if rinsed well.

Ohio. (MRS.) J. F. MARTT.

Take any size bottle, fill one-third glycerine, one-third bay rum, and one-third rose water; mix well. Apply every night on going to bed. Rub in thoroughly.

So. Carolina. H. A. WARD.

Here is a hand lotion we think mighty fine and have used for face as well as hands. Put in clean jars or bottles, makes lovely gifts and inexpensive, too: Two ounces glycerine, 1 dram of oil citronella, 2 drams tragacanth, 1½ pints soft water. Put tragacanth and water together for 2 days, then add other ingredients. A few drops of perfume may be added but the lotion has a very nice odor of its own.

Wisconsin. (MRS.) ALVA HOWARD.

Take equal parts of lemon juice, glycerine, and alcohol. Roll and squeeze the lemon (one lemon makes a good deal). Take the quantity to the druggist and ask him to put into the bottle one-third as much glycerine and one-third as much alcohol as there is lemon. Use it plentiful at night, wearing gloves to protect the bed clothes. It will heal and soften the hands in a short time.

Wisconsin. A. F. CHAFFEE.

One ounce flaxseed steeped in 3 gills water; strain and mix with the following ingredients: 1 oz. glycerine, 1½ oz. alcohol, 15 drops pure carbolic acid, 15 drops benzoine, and a little violet water.

(MRS.) W. W. WAKINS.

Household Necessity

Butcher: You want some brains, madam?

Housewife: Yes, please. My husband hasn't had any for a long time. —The Progressive Grocer.

Teach Her to Sew



On page 38 of our Spring and Summer Fashion Magazine, there is a picture-lesson showing how the girl can make this dress for herself.

Let your little girl see this. She'll want to make the dress. Give her the lesson in the book and let her try it. She'll be taking the first step in an art she should learn.

Send 10 cents for the book to Fashion Dept., Hoard's Dairyman, Ft. Atkinson, Wisconsin.

YOUR BUILDINGS



the ASSETS everybody sees

THE appearance of farm buildings is the visible standard by which a farmer's customers and neighbors judge his good management. Your buildings, painted white or light colors with Eagle Pure White Lead in Oil, indicate careful attention to economy. They provide cheerful surroundings that add to the health and happiness of everyone on the farm.

Farmers who have painted with Eagle know its economy in first cost. When repainting time comes, they realize another economy of pure lead paint. It wears away evenly, slowly. It is tough and elastic—does not crack or peel off—leaves a perfect, deep-anchored foundation for repainting.

Leading paint dealers sell Eagle. *The Eagle-Picher Lead Company, 134 North LaSalle Street—Chicago.*

[You will appreciate the many helpful suggestions for mixing white lead paint contained in our "Tinting and Mixing Chart." Write today for your free copy.]

EAGLE PURE WHITE LEAD

OLD DUTCH PROCESS



When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

Jersey Cattle in the United States

(Continued from page 308)

D—Rump of good length and proportion to size of body, and level from hip-bones to rump-bones	7
E—Loins broad and strong; hips rounded, and of medium width compared with female	7
F—Thighs rather flat, well cut up behind, high arched flank	3
G—Legs proportionate to size and of fine quality, well apart, with good feet, and not to weave or cross in walking	5
Rudimentary Teats, 2—	
Well placed	2
Hide, 2—	
Loose and mellow	2
Tail, 2—	
Thin, long, reaching the hock, with good switch, not coarse or high at setting-on	2
Size, 5—	
Mature bulls, 1,200 to 1,500 lbs.	5
General Appearance, 15—	
Thoroughly masculine in character, with a harmonious blending of the parts to each other; thoroughly robust, and such an animal as in a herd of wild cattle would likely become master of the herd by the law of natural selection and survival of the fittest	15
Total score	100

The ten highest butterfat and milk producers among Jeresys are listed below:

Ten Highest Butterfat Producers

Cow	Fat Lbs.	Milk Lbs.
Darling's Jolly Lassie	1,141.28	16,425
Groff's Constance	1,130.09	17,942
Prince's Emma of H. S. F.	1,109.99	18,437
Lad's Iota	1,048.07	18,632
Fauvic's Ruth	1,047.28	19,805
Madeline of Hillside	1,044.05	20,624
Plain Mary	1,040.08	15,256
Vive La France	1,039.29	15,272
Lady's Silken Glow	1,038.70	14,939
St. Mawes Lad's Lady	1,032.97	15,229
Princess Xenia	1,021.39	18,305

Ten Highest Milk Producers

Cow	Milk Lbs.	Fat Lbs.
Madeline of Hillside	20,624	1,044.05
Fauvic's Star	20,616	1,005.90
Abigail of Hillside	20,359	1,007.93
Fauvic's Ruth	19,805	1,047.28
Passport	19,695	839.26
Lad's Likeness	19,223	937.50
Eminent's Jimp's Owl	19,099	768.44
Raleigh's Torono's Meme	19,076	1,003.51
St. Mawes Blossom Rosaire	19,061	959.23
Miss Inez	18,917	952.82

Register of Merit Sires

The ten Jersey sires having the largest number of Register of Merit daughters up to June 1, 1926, are as follows:

Name	No. of daughters in the R. of M.
Pogis 99th of Hood Farm	115
Imp. Oxford You'll Do	84
Royal Majesty of St. Cloud	83
Dairylike Majesty	82
Hood Farm Pogis 9th	79
Hood Farm Torono	75
Sophie 19th's Tormentor	75
Imp. Golden Fern's Noble	65
Irene's King Pogis	63
Sayda's Heir 3rd	62

The offices of the American Jersey Cattle Club are at 324 W. 23rd St., New York City.

[EDITOR'S NOTE: This is the sixth and last of a series of articles on the dairy breeds in the United States.]

Well ventilated stables that provide pure, fresh air and that are comfortably warm in winter are equally as important to insure profitable milk production as are feed and water.—G. C. HUMPHREY.

"Is your mother in, sonny?" inquired the new minister as he stopped at the home of one of his members on his first round of pastoral calls.

"Betcha life," replied Willie. "Do you 'spose I'd be out here mowin' the lawn if she wasn't?"







W. A. James PRESIDENT

TWO Valuable Books for YOU

If you are thinking of building, remodeling, ventilating or buying any equipment for your cow or horse barn, hog or poultry house, write for these two books. These books tell how we help you plan and equip your buildings to make them more convenient, practical and economical—how we save you money by cutting down material and construction costs. These books also describe the complete line of Jamesway Equipment, Stanchions, Litter Carriers, Drinking Cups, Calf and Bull Pens—also Feeders, Brooders, Waterers, Steel Nests, etc.—a line of equipment that is unequaled for durability, service and economy.

Fill Out and Mail Coupon Now

Just fill out the coupon—tell us what you are interested in and we will send you the necessary literature containing full particulars of Jamesway Equipment and Jamesway service. Don't build, remodel or equip any farm building until you get these valuable books and learn how we can save you money. Mail coupon to office nearest you.

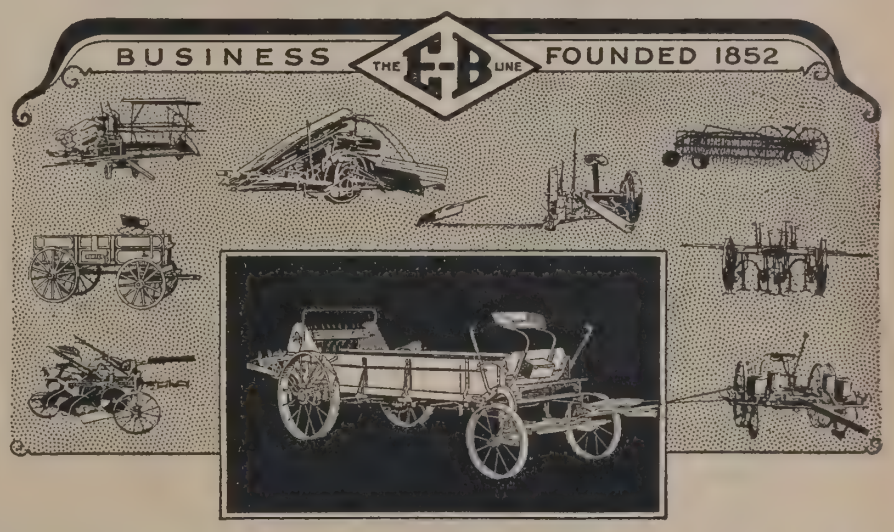
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KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**



$1.03 per year—that's all

That's the average upkeep cost of an E-B Spreader. Mind you, that is not an exceptional figure for one spreader. It's the average figure for 30,000 E-B Spreaders that have been in service for years. The E-B Spreader you buy will have the same long-lived construction as these 30,000 which have made a remarkable record for low upkeep.

Coupled with this economy of upkeep is ease of operation. The E-B Spreader spreads seven feet wide, consequently it travels only about half the distance other spreaders must travel to cover the same area. It turns a square corner, drives through a six foot door and the tight bottom saves the liquid manure. Its convenient height, 41 inches, makes loading easy. Mail the coupon for detailed specifications of this spreader and any other implement in the good old E-B line that has been saving money for farmers since 1852.

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Please send complete description of items checked.

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MAIL THIS COUPON TODAY

Plow
Planter
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Rake, Side Del.
Ridge Buster
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Tractor
Tractor Plow
Wagon



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

A Farm Boy Follows Through

Part 1

EVER notice a good baseball pitcher? What happens after the ball leaves his hand? His arm, shoulder,—yes, and his whole body, follows through. That's what makes his pitching effective.

Babe Ruth slams the cover off the ball. When he swings at the old pill his bat doesn't stop after meeting



Herbert harvests his 1925 potato project, grading as he digs. The little potatoes go into the pail for the pigs; the marketable ones into the basket.

the horsehide. If it did, Babe Ruth would never be home-run king. His bat, shoulders, and whole body follow through in a mighty drive.

Many a basketball game has been won by following through on the shots, taking another one off the bounding board before the opponents have a chance to get the ball. "Follow, follow, follow," is the cry of the hardwood court.

A football player could get neither distance nor height on his kicks if he did not follow through after his foot meets the leather. Just as the follow through is essential for success in the world of games, so is it essential for success in the game of life.

Herbert Wisch is a farm boy who follows through. His is an all around development brought about by work and ambition. Follow through! High school, then college. Now he is a Freshman at the Wisconsin College of Agriculture.

A problem is a challenge to Herbert. No matter whether it's algebra or a balanced ration for his father's herd, he is not content until the problem is solved. It may take him fifteen minutes, it may take hours; or in the case of a farm project it may take months; time doesn't matter so much. Results are what count.

All around development—that's it. Here are the counts on his score:

Number 1—Born and raised on a farm two miles north of Ft. Atkinson., Wis., Herbert walked to high school every day during his four-year course. In 1924 at the age of seventeen, he joined the Hoard's Dairyman Juniors.

Number 2—Athletics. Noon hours he played baseball, his favorite sport, and was known as a "real ball player" among the fellows. Incidentally he keeps informed on big league stuff and can discuss leading batters, fielders, and teams for hours. Now he is a candidate for the Freshman baseball team at the Uinversity.

Number 3—Music. All through high school he studied the violin and was a member of the high school orchestra. Now he finds that his music gives him both pleasure and profit and can help him earn his way through college.



Herbert Wisch helped the Fort Atkinson high school team win first in swine judging and third in judging all live stock competing with 67 teams in the 1925 state contest at Madison, Wisconsin. Herbert was third high individual in swine judging among 204 contestants. Left to right—H. A. Hovde, teacher and coach; Herbert Wisch, Earl Hartel; front—Howard Purdy.

Number 4—Debating. In his Sophomore year he earned a place on the high school debating team. For three years teams of which he was a valuable member were leading contenders for the state championship. In his junior year the teams *did* win the state interscholastic championship, and in his last year the teams were in the state finals. Maybe you think that doesn't mean WORK.

Number 5—Scholastic. For his entire four years in high school Herbert maintained an average grade of 90.16 in all his studies. WORK did it! Now he is striving for scholastic honors in college.

Number 6—Agriculture. Herb Wisch started with a pure-bred Guernsey calf in 1923. She has had three calves. He also started a potato project that year which he has carried through four seasons, and he plans to raise potatoes this year as a means of earning some more money for his college education. A pig project was conducted for two years. In 1925 Herb also grew an acre of corn. In 1926 his principal project was the management of his father's dairy herd.

When Herbert went to college last fall he had $350 in the bank, profits from his projects. Every cent of that he earned. He paid for his calf by giving his father one of her calves. He paid for his sow and her keep with part of her litters. He bought his own seed and paid for the use of the land, horse, farm machinery, fertilizer, etc.

Herb Wisch was a member of the Fort Atkinson High School Live Stock Judging Team that went to the state contest at Madison in the fall of 1925 and placed first in judging hogs competing with 67 high schools from all parts of the Badger State. The team placed third in the judging of all live stock. Herbert Wisch was



In 1925 Herbert joined the Wisconsin Grain Growers' Association and planted an acre of Golden Glow corn. Here he is, looking up to his project.

third high individual in the judging of swine.

The same year Herbert took part in a state wide seed and crop indentification contest and was one of nine boys to score 100 in forage identification.

In 1924 he exhibited five spring pigs, Hampshires, at the Jefferson County Fair. He won first on get of sire; second and third on boars and sows in the open class; in the club class first, second, and third on sows and first and second on boars. The prize money amounted to $28. In 1925 he fitted and showed two Guernseys from his father's herd and two calves from his uncle's herd, winning second on the senior yearling bull in a class of eight, first on the senior yearling heifer, first and second on the calves. He split the prize money with the owners of these cattle, winning a total of about $33.

Herbert did his project work under the supervision of his agricultural teachers at the Fort Atkinson High School, both Smith—Hughes instructors. H. S. Bingham was his teacher the first two years. H. A. Hovde succeeded Mr. Bingham and was Herbert's teacher through three project seasons.

Guernsey Calf Project—In the



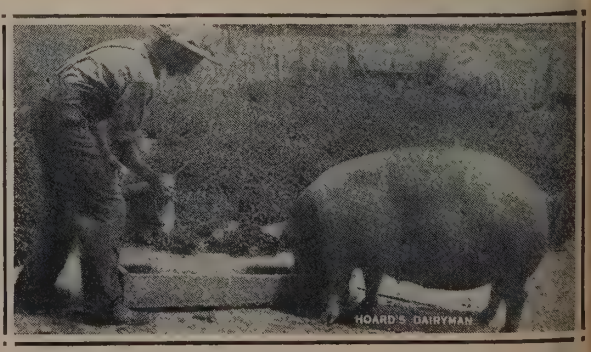
In 1923 Herbert demonstrated in his first school project that certified potato seed outyields home grown stock. A row of home grown seed produced only 145 lbs. as compared to 230 lbs. from a row the same length of certified.



In June, 1923, Herbert joined the newly organized Guernseyway Calf Club and was elected its first president. This picture was taken at that meeting. Herbert is on the extreme right. J. C. Ralston, leader, stands behind at the left.



The pure-bred heifer with which he joined the club grew well. Her first calf, a heifer, went to his father to pay for its mother. This picture shows Herbert with his club heifer, and her second calf.



Herbert feeding his Hampshire sow. "Before she farrowed," he says, "I fed her a slop made of bran, ground oats, and middlings. She got about 24 lbs. of skimmilk a day. This ration was cut down just before farrowing."

mmer of 1923 Herbert Wisch ined the newly organized Guern- yway Calf Club and was elected its st president. The pure-bred heifer hich he selected from his father's rd grew well. Her first calf was a ifer. This Herbert gave to his ther to pay for its mother. He also ve his father the milk from the ifer to pay for her keep.

The second calf by his club heifer as a bull. Herbert grew this fellow t well in nine months and then sold m for $70. The heifer freshened ain this fall while Herbert was ay at school. Herbert hopes to ll his cow so that he can add to his llege fund.

"My dairy calf was born on September 13," says Herbert. "When I



For three years Herbert Wisch was a high school debater. The Fort Atkinson debate teams shown here were Wisconsin state champions in 1924—25. Seated, left to right—Herbert F. Wisch, George Sherman, Coach F. C. Bray, John Eales; Kenneth Westby; standing—William Urban, Assistant Coach Oscar Bienfang, Ilo Gross.

rted with my calf I put her in a arate pen and supplied her with ter at all times. I put a pail right her pen. I petitioned off a corner the feed manger so I could tell w much feed she ate. I left her h her mother for about three eks to give her a good start. When weaned her I put her on skimmilk once. I started out with 4 lbs. of mmilk and kept gradually in- asing this amount until she was



Herbert Wisch was the first president of the high school agricultural club organized in 1924. This club managed the annual community fair. Can you find Herbert's smiling countenance in the front row?

ting about 16 or 18 lbs. a day. d her skimmilk until she was over e months of age.

My father always left the calves k for the first three weeks because essened the labor. I think it is ier to wean the calf right away, gh.

As soon as I weaned my calf I ted to feed her whole oats to- er with some bran. Later, when was about three months of age, I ed up a grain ration of equal s ground oats and bran with a ll portion of oil meal to condition She also got alfalfa hay and e silage."

otato Project—Some interesting lts were obtained in a compari- of the yields produced by certi- seed and home grown seed. In spring of 1923 Herbert pur- ed some certified Early Ohio seed k at $1.25 a bushel. This he ted in rows beside rows of com- mon home grown seed. All got the same care.

When he dug his potatoes at harvest time he found that a row of home grown seed produced only 145 lbs. of potatoes as compared to a yield of 230 lbs. from a row the same length of certified seed. From his 22 rows Herbert figured he was $46.50 ahead by planting high grade seed. On one acre this difference would amount to about $70 with early potatoes selling at $1.50 a bushel as they did that fall.

The method of potato culture followed by Herbert during the four years he had a potato project was somewhat as follows: For fertilizer, manure was applied to hay land, clover or alfalfa, at the rate of 12 loads to the acre. The seed was planted in furrows four to six inches deep and dragged at once.

"One of the main things in growing potatoes is to keep the weeds down by dragging before the plants come up," says Herbert. "I like to drag my potato patch two or three times before, then drag again just after the plants push through."

The first year Herb did not treat his seed potatoes before planting because they were certified. The third and fourth years he gave his seed the corrosive sublimate treatment to protect them from scab. Every season but one the potato plants were sprayed, using Bordeaux mixture for the leaf hoppers and arsenate of lead to get the "bugs."

Pig Projects—Herbert Wisch's first pig project was a spotted Poland-China sow which he obtained from his father. The sow had a litter of seven pigs, part of which reverted to Mr. Wisch in payment for the sow and her feed. Herbert later sold the sow for $30.00. The pig project that year netted $75.00.

The following spring, 1924, Herbert invested $24 in a pure-bred Hampshire sow purchased near Delavan, Wisconsin. She had two litters. Some of these were exhibited successfully at the Jefferson County Fair as already mentioned. Herbert finally sold the sow. He felt that the Hampshires didn't put on quite enough weight for market, but that

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they were fine for home killing. He recorded a gain of $60 on the pig project the last year.

"I got my Hampshire sow in February and she farrowed on April 9," Herbert relates. "Before she farrowed I fed her a slop made up of equal parts bran and ground oats with some middlings. I fed her all the skimmilk I could get which was about 24 lbs. a day. I cut the entire ration down some just before she farrowed.

"At eight weeks the little pigs were weaned. Soon after that I put the sow and her pigs on clover pasture, feeding also some ground oats, bran, and middlings about equal



"I got my Hampshire sow in February, 1924," says Herbert, "and she farrowed on April 9." Here you see Herbert proudly looking over his new sow and her little "belted beauties."

parts. As soon as the corn ripened that fall I started feeding them about an ear apiece. When I started to fatten them I gave a bushel and a half to two bushels a day to the six little pigs. I also fed them some slops."

Corn Project—In 1925 Herbert joined the Wisconsin Grain Growers' Association and received 10 lbs. of superior Golden Glow seed, enough to plant one acre.

Since his Freshman year in high school he has tested his father's see corn regularly with a "rag doll" ou fit belonging to the high school. Ju this last year Herb threw out sever ears that his father would have plan ed had it not been for the test. As result the corn did not have to planted over, while many of th neighbors who had not tested had replant. Herbert did not test th Golden Glow seed which he plante for his project. He picked some his corn for seed and the rest was fe to the hogs.

Next time we will tell you ho Herbert Wisch managed his father herd—weighing and testing the mil keeping records, and figuring bett rations to cut down the cost and kee up the milk flow.

Herbert introduced improved pra tices at home. His father had nev kept production records. He fed l guess and the ration was not ba anced. Now he weighs and recor every milking, and mixes his feed a cording to rations which Herbert h balanced.

(To be continued)

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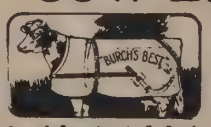
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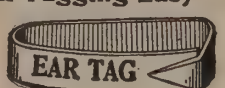


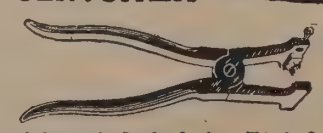
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Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

The corn borer is coming. Read about its invasion on page 237 of the March 10th issue.

When and how did the corn borer come to America? These insects came from Europe about ten years ago with a shipment of broom corn. It was introduced in three different locations at the same time, Boston, Mass.; Schenectady, New York; and St. Thomas, Ontario.

How far has it progressed? The Boston area has spread into New England; the Schenectady area has increased but slightly. From the Ontario region the borer has spread east into Western New York, Western Pennsylvania, Northern Ohio, Eastern Michigan, and Eastern Indiana. In January the corn borer was discovered in Illinois.

How does the corn borer work? The European corn borer is a worm which bores into the stalks, ears, and tassels of corn. The adult moth starts laying eggs in June and can fly as far as 25 miles. The eggs hatch in four to six days. These worms are the borers. From October to May they hibernate in the cornstalk and this is the period in which the borer must be attacked if the spread is to be stopped.

How can this insect be controlled? 1. Do not buy seed corn on the cob. 2. Use latest machinery to cut corn low. 3. Put as much corn as possible in silo. 4. Shred the remainder. 5. Plow all stubble and stalks und before May 15. 6. Before May shell all corn remaining in cribs. Burn all fence rows and refuse b fore May 15. 8. Keep cornstalks o of manure which will not be plow under by May 15. 9. Educate yo neighbor.

How is Dougan taking the gamb out of his dairying? By diversifi farming in both live stock and crop by controlling his income and e penses—using the budget syste (See page 236.)

Does sweet clover make good pa ture for cows? Yes, answer farme in Manitowoc County, Wisconsi who are growing over 10,000 acr of sweet clover for cow pasture, u der the leadership of R. R. Smit their county agent. Joe Svacina, o of these farmers, says, "I would n farm without it." (See page 240

How do they plant their sweet cl ver? According to Smith they ha had very good success by seedi in the spring with oats, barley, canning peas as a nurse crop, pla ning to pasture lightly that fall a heavy the following year. The ra of seeding varies from 8 to 16 lbs. acre. Scarified white biennial se has proved best. From one-half two-thirds of an acre per cow is lowed for pasture.

What happened to the McNar Haugen bill? This proposed measu for farm relief was vetoed by Pre dent Coolidge because he consider the bill unsound in principle and i jurious rather than beneficial to a riculture.

easonable Live Stock Notes

he South, cows are already out spring pasture; in the middle tes, some cows are out and the s of others are anxiously ready en the gate—their supply of is nearly exhausted. In the , cows must be content with si- hay, and concentrates for an- month. The important thing in g cows to pasture is not to put on too soon. To do so reduces eld of grass. It may also re- he yield of milk unless one con- to supplement pasture with feeds until the grass gets a start.

Build Up the Weak Cows

k over the herd. At this time year we find many cows de- in weight and mineral reserve. ed mineral reserve cannot be ily observed as outward physi- ndition.

ecent inquiry described a cow ng from bad feeding manage- A Jersey cow that in former gave five to six gallons of milk best got down to two gallons n her last lactation. Further- she failed to conceive with the ll service and required several s. From early last spring un- uary all she had to eat was old, ixed, wild hay. Her owner xious to prepare her for a pro- n record.

suggested that good pasture be d; that she be dried up eight before she is due to freshen; e be given enough additional ith the pasture to build her up d condition by calving time; at she be given access to a l mixture composed of equal y weight of salt, bone meal, ely ground, high calcium lime-

Bulls Should Have Exercise, Sunshine, Green Grass

eat dairy bull died recently of alacia,—a chronic, progressive characterized by a gradual ng of the bones. It would at an important factor in his management may have been ked and thus laid the founda- this nutritional disease which chronic. Now is a good time k about giving dairy bulls ing besides confinement and ds. Exercise helps to improve ctive powers but this coupled me direct sunlight and green would give bulls greater in- against the results of miner- iencies.

ial Treatment for Unthrifty Pigs

ention is always better than nt or cure. It is so with fall quently subject to the results winter rations. Where the rations have not been right alts speak plainly at this time . Pigs are uneven in size, un- rough coated; they may be re, or lame in their legs; they rtily but do not get on like farrowed pigs of the same age differently. We suggest that igs be separated from the ones; that they be given as irect sunlight as possible; that given alfalfa hay or meal; me skimmilk be fed in addi- grain; and, that they be sup- mineral mixture composed of arts by weight of salt, bone inely ground, high calcium e, and wood ashes. As soon green grass is available, get to it.

Grass Good Pig Pasture

ng pigs on to green grass re- s that one must first have the grass. One cannot have good pig pasture in the same way that one obtains gasoline from the filling station. Pig pasture must be ordered in advance of the time it is needed. If one did not attend to this last year he should try sudan grass for this year and at the same time he should seed some alfalfa for early spring pasture for next year. Try two or three acres of sudan grass this year. Prepare a good seed bed as for corn, broadcast 15 lbs. of seed per acre and harrow it in. In 6 weeks the pigs may be turned in. Sudan grass seed will not start well until the soil is warm. Seed it right after corn is planted or from then up until July first.

To Prevent Azoturia

About this time of year one hears of neighbor so-and-so having a horse go down with azoturia, or maybe it is a horse at home. The veterinarian gets on the job right away. The horse is paralyzed behind, unable to get up, in great agony, sweating profusely, unable to urinate and frequently becomes a dead victim in spite of professional veterinary skill. Prevention is less risky and more certain than cure. The disease attacks well-fed horses that have stood in the barn day after day without exercise when such horses are suddenly put to work. The disease also attacks well fed horses when put to work after short periods of idleness if they have been fed heavily of grain during the idle period. Idle periods, as short as from Saturday night till Monday morning, may be followed by an attack if the horses are full fed over Sunday. Horses affected frequently go down in the harness, hitched, away from the barn.

Daily exercise of well-fed horses is suggested to prevent this trouble, or if not this, owners are cautioned to put well-fed horses into the harness very gradually, giving light work to begin with. Cutting down the feed (grain) during periods of idleness is an important part of preventing the disease.

To Cure Scratches

March winds and the cold slush of the field and road frequently cause "scratches" on the heels, rear pasterns, and rear lower legs of horses. It is found more frequently on the rear legs than the front legs. If not given some attention the condition may become somewhat chronic and serious. Treatment consists in first cleaning the affected parts with warm water and castile soap, wiping them dry. Apply a lotion made of 2 ounces of lead acetate, 1½ ounces of sulphate of zinc, 1 ounce of carbolic acid, and one quart of water. Shake well before using. Apply daily until condition is under control.

Galled Shoulders

Heavy spring work brings with it sore shoulders for horses whose owners are careless about fitting collars properly. It is easier to prevent a sore shoulder than to cure one. The poorly fitted collar is the chief cause. In fitting collars one should see that the draft is evenly distributed over the whole surface; that the shoulder surface of the collar is kept clean. This surface should always be cleaned immediately when the collar is removed. When at work raise the collars at resting spells; keep the mane from under the collars. At night bathe the shoulders with cold water followed by a lotion made of 6 drachms of sulphate of zinc, 1 ounce of sugar of lead in 1 pint of water to toughen the skin.



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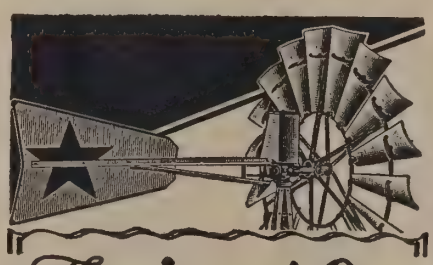
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DAIRY MARKET NEWS

February Butter

Butter prices in New York rose to 53 cents by the 19th of February and then dropped back to nearly the same prices as on the first of the month. The average for the month, however, was 51.5 cents, which is 2.4 cents above January, 6.6 cents above February a year ago, 11 cents above February, 1925, and 1.1 cents above February, 1924. The better markets are largely due to real shortages that have appeared in both receipts and storage. Withdrawals of butter from storage have been heavy, the March 1st holdings being the lowest on record for that date. Receipts at the four markets since January 1 are 4% less than for the same period a year ago.

For the first eleven days of March butter advanced from 50 to 52 cents, dropping back as this is written to 50 cents. While production, storage, and demand would indicate that the advanced price could be maintained, receipts of imported butter in fairly large amounts are largely responsible for the decrease. The market is sensitive at this time of year and even unconfirmed reports of purchases abroad that can breast the tariff wall are sufficient to cause buyers to be cautious. The latest quotations on foreign butter are 36 to 39 cents.

Creamery butter production for January was 94,346,000 pounds, a decrease of ninety thousand pounds from that of a year ago. Net imports were a million and a half pounds less, but because of a greater out-of-storage movement the trade output was nearly seven hundred thousand pounds greater than in January a year ago.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices on 92-score butter (extras) at four of the principal markets, together with receipts and storages:

	Feb. 1927	Jan. 1927	Feb. 1926
	Cts.	Cts.	Cts.
Chicago	50.4	48.1	43.1
New York	51.5	49.1	44.9
Boston	51.9	49.5	45.4
Philadelphia	52.1	49.7	45.3
*Receipts for month	37,538	36,687	38,877
*Receipts since Jan. 1	74,225	36,687	79,503
*Storage (end of month)	4,222	10,208	14,018

*In thousands of pounds at the four markets (i. e.—000 omitted).

Ninety-score butter averaged 49 cents for February in Chicago, with centralized butter at this market selling for 49.9 cents. Jobbers' prices on extras sold to retailers averaged 53 cents in Chicago, a spread of 2.6 cents above wholesale.

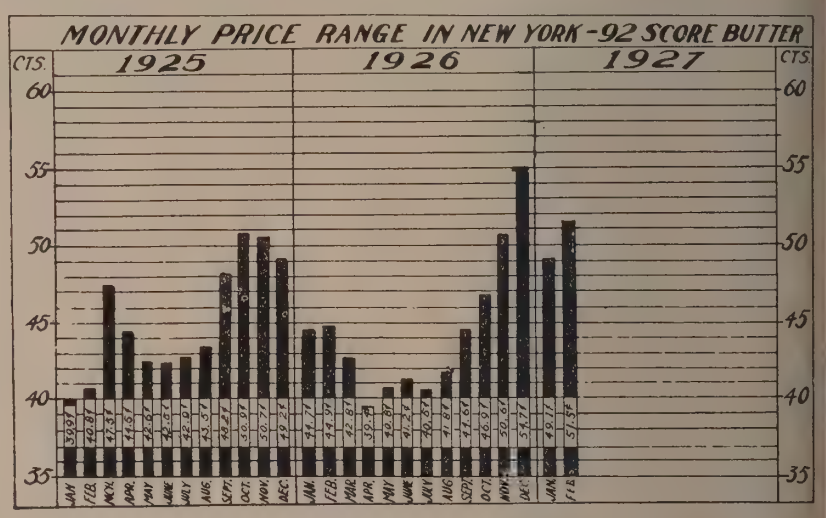
February Foreign Butter

The following table of foreign butter prices gives the average of weekly quotations published by the U. S. Department of Agriculture:

Market	Feb. 1927	Jan. 1927	Feb 192
	Cts.	Cts.	Cts
New York	51.5	49.1	44.
Chicago	50.4	48.1	43.
Copenhagen	39.2	36.1	40.
Berlin	39.1	37.1	40.
London:			
Danish	41.4	38.9	42.
Dutch	42.9		44.
New Zealand	37.4	36.4	37.
Australian	35.9	36.8	36.
Argentine	34.1	34.4	33.

February Cheese

Cheese prices on the Wisconsin Boards averaged a decline of one cent from January but at 24.2 cents the month's average is st one cent in advance of prices a year ago. further decline of three-quarters of a ce



Owing to short supplies and good demand, February butter gained over January but failed by three cents to reach the December high average.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on March 1, figures being given in thousands of pounds (000 omitted):

	Mar. 1 5-yr.-av.	Mar. 1 1926	Mar. 1 1927
	lbs.	lbs.	lbs.
Butter, creamery	19,288	26,313	8,086
Cheese, American	29,619	42,587	39,239
Cheese, Swiss	6,378	8,254	7,442
Cheese, Brick	1,229	1,605	1,547
Cheese, Limburger	774	1,192	1,467
Cheese, All other	4,736	4,537	4,230

These holdings include stocks in both cold storage warehouses and packing house plants.

Philadelphia Milk Prices

The Inter-State Milk Producers' Association announces that the March basic price for milk will be $3.29 f. o. b. Philadelphia and $2.71 per hundred at receiving stations in 51—60-m zone.

The February surplus prices were $2. first surplus and $2.20 second surplus f. o. Philadelphia. The February surplus prices all receiving stations on railroad were $2. first surplus and $1.62 second surplus.

These prices are based on milk testing 3 p cent butterfat with a differential of 2 cer for each half point of test up and down.

took place during March, the reported whol sale price on single Daisies being 22.25 cen on March 11.

Production of cheese for January was 21 496,000 lbs. as compared with 25,500,000 lb a year ago. Despite an increase of nearly million pounds in net imports and a slight larger storage withdrawal, the trade outpu was 2,441,000 lbs. less than in January a ye ago.

Daily quotations from the U. S. Departme of Agriculture show the following avera wholesale prices for American cheese on t Wisconsin Primary Market during February

	Feb. 1927	Jan. 1927	Feb 192
	cents	cents	cen
Twins	24.1	24.1	23.
Single Daisies	24.2	25.5	28.
Longhorns	24.8	26.5	23.
Square Prints	24.6	26.6	23.
*Receipts since Jan. 1	26,204	11,990	27,83
*Receipts for month	14,214	11,990	13,38
*Storage (end of month)	12,027	13,929	18,66

*In thousands of pounds at Chicago, Ne York, Boston, and Philadelphia (i. e.—0 omitted).

Milwaukee February Milk

The Milwaukee Co-operative Milk Produce announce the following prices for the mont of February:

For the portion sold as fluid milk, $2.90 p cwt.; and for the portion manufactured, $2. per cwt. These prices apply to 3.5 per ce milk delivered f. o. b. city, four cents bein added or subtracted for each one-tenth of o per cent variation in test. Sixty-eight per ce of the total receipts were sold as fluid.

January Dry Milk

(From Report by U. S. Dept. of Agri.)

The wholesale prices given below are base on reports from manufacturers governing a tual sales F. O. B. factory during January.

Dry Skimmilk: Prices ranged from 7.5 cent to 12 cents for dry skimmilk in bulk, averag ing 9.5 cents a pound for sales, totalin

STERILAC

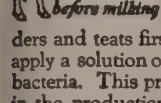
REG. U. S. PAT. OFF

An Ideal Disinfectant



Clean Barns

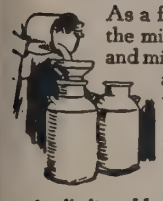
Dirt and manure teem with bacteria and mold. Remove the dirt and keep the floors, stalls, walls and ceiling clean. Apply STERILAC to all parts of the interior to destroy germs and to provide a suitable place to produce milk of low bacterial count.



Clean Cows

Wash the flanks, udders and teats first with water and then apply a solution of STERILAC to kill all bacteria. This practice is very important in the production of milk having a low bacterial count. It is a reliable procedure in the production of wholesome milk.

Clean Utensils



As a further precaution keep the milk cans, strainer, pails and milking machine and separator clean. Rinse these utensils with STERILAC solution before putting milk into them. After milking scrub thoroughly all utensils with alkali and hot water and then rinse with STERILAC solution.

Clean Milking Machines

In case the milking machine is used the metal parts should be thoroughly cleaned in alkali and hot water and then cleansed in a solution of STERILAC. The rubber tubing, rubber cups and other parts of the milking machine which are difficult to clean should soak in the STERILAC solution until ready to use. It is an easy way of keeping the machine clean.



Clean Bottling Machine and Bottles

STERILAC solution is ideal for use in bottling machines. After the bottling machine is cleaned with alkali and hot water let a solution of STERILAC run through outlets to destroy germs which may be present in the corners and other interior parts of the machine. STERILAC solution will also destroy germs inside bottles.



Sterilac for Dairy Factories

Dairymen, butter, cheese and ice cream makers will find STERILAC a most satisfactory disinfectant. It destroys the germs which produce off flavors and other forms of spoilage. Use STERILAC solution in milk vats, separators and anywhere in the factory where dairy products are produced. STERILAC destroys all kinds of bacteria which spoil milk and produce disease. STERILAC kills germs—*it does* not spoil milk which comes in contact with it. That is a very good reason why STERILAC is safe to use to produce milk that is safe to serve as human food.

Ideal to Handle

STERILAC comes in powder form—will keep its strength. Sunlight does not affect it. Special introductory offer of enough STERILAC to make 60 gallons of the strength used for ordinary sanitation $1.00. Complete directions enclosed.

Send a dollar bill today.
A trial will convince you.

The Sterilac Company
North Chicago, Illinois

4,589,672 lbs. When packed in one-pound cans the price reported was 32.5 cents a pound.

Dry Whole Milk: Prices ranged from 25.5 cents to 27.5 cents for dry whole milk, averaging 26.9 cents for sales totaling 372,077 lbs. When packed in one-pound cans the price reported was 47.1 cents a pound.

Dry Buttermilk: Prices ranged from 7 cents to 10.5 cents for dry buttermilk in bulk, averaging 9.1 cents a pound for sales totaling 1,420,937 lbs. When packed in one-pound cans the price reported was 10.8 cents a pound.

February Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers during February is based on reports made by condensed and evaporated milk firms operating approximately 98% of the total factories in the United States:

Geographic section	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.35	$2.35
Middle Atlantic	13	2.42—2.75	2.55
E. North Central	81	1.95—2.75	2.29
W. North Central	6	1.97—2.30	2.14
North Western	7	1.58—2.10	2.00
South Western	10	1.95—2.20	2.10
United States	118	1.58—2.75	2.28

Fifty-three additional factories reported prices to be based in part on the current month's wholesale butter quotation. Twenty-four factories reported prices not determined as yet and 20 reported plants closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for January:

	Range	Ave.
Condensed, per case	$5.60— 6.55	$ 6.01
Condensed, per cwt.	9.28—13.00	10.44
Evaporated, per case	3.80— 5.05	4.34
Evaporated, per cwt.	7.50— 9.80	8.85
Condensed skim, per cwt.	5.00— 7.50	6.04
Evaporated skim, per cwt.	2.75— 4.50	3.53

The Feed Market Situation

(By the Grain, Hay, and Feed Market News Service, U. S. Department of Agriculture.)

March 11—Feed prices were not changed materially during the first two weeks of March. Some feeds were becoming more plentiful but demand continued of only moderate volume and buyers generally were apparently taking only sufficient feed for their immediate needs. Farm supplies of feed grains have been adequate for current needs in most areas and prices have been relatively lower than commercial feeds. Consumption has been fairly heavy, however, and according to the estimate of the United States Department of Agriculture stocks of feed grains on farms March 1, including corn, oats, and barley, were about 375,000,000 bushels less than at the corresponding time last year.

The production of wheat feeds appears to be increasing. During the first week in March flour production in the United States was 7 per cent above that of the previous week which would indicate a corresponding increase in the production of wheat feeds. Bran for April shipment is being offered by southwestern mills at about $1 per ton below spot quotations.

Light production of linseed meal at Minneapolis has caused an advance of $1—$1.50 in the price of that feed in the North Central States.

Cottonseed meal prices were reduced about 50c per ton in the southwestern markets during the second week in March. This reduction in price has been caused more by the limited demand than from any material increase in offerings.

The market for gluten and hominy feed is also practically unchanged.

The market continues dull for alfalfa meal and demand appears to be less active than a few weeks ago. In several markets, however, mixed feed manufacturers were buying alfalfa meal in larger quantities and quotations have remained practically unchanged.

Wholesale Prices of Feeds Per Ton in Car Lots, Bagged

	Boston	Buffalo	Philadelphia	Chicago	Minneapolis	Omaha
Bran*	35.75	31.50	35.00	29.25	27.25	
Bran‡			35.50			26.00
Bran†			36.50			
Middlings	36.75	32.50	36.50	31.50	28.75	
43% C. S. meal	43.50		42.50	39.50		38.10
34% L. S. meal	50.50	45.50		49.00	43.00	53.10
Gluten feed	39.90	36.65	38.75	32.75		
Hominy	34.50	32.00	34.50	29.50		28.50

*Standard spring bran; ‡hard wheat bran; †soft winter wheat bran.

Sheffield February Milk

The cash price for February paid Sheffield producers of New York for 3 per cent, Grade B milk in the 201—210-mile zone is $2.54 per hundred pounds with the usual freight and butterfat differentials. This is equivalent to $2.74 for 3.5 milk.—C. W. Halliday, Sec.

Wisconsin February Condensery Prices

Forty condenseries reported to the Wisconsin Department of Markets the prices paid in February per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $2.19 to $2.30, the average being $2.28.

Eighteen factories sent delayed reports for January, the average being $2.31. This is 2 cents above the previously reported average of $2.29 for 46 factories.

Wisconsin January Butter

Wisconsin co-operative creameries paid producers a net price of 53.9 cents a pound for butterfat in January according to reports from 90 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 47.6 cents a pound for butter, making a spread of 6.3 cents between the price received for butter and the price paid for fat.

The range of prices paid for fat was from 47.2 to 58.2 cents, with the price received for butter ranging from 46.7 to 49 cents. The overrun ranged from 22 to 24.3 per cent. Receipts of butterfat averaged 21,699 pounds per creamery.



Let Your Boy Save You Money

"I wish you could see my 13 year old boy do the milking", writes one Perfection user. "With my Perfection he does the work of two hand milkers."

Cash in on your boy's interest in fine machinery. It will easily save you the time of one or two men every morning and evening. Time is money. You can do more in the field.

Yet the boy will do more than save labor. He will do a better job of milking because the Perfection is never lazy. Its gentle suction, followed by a downward squeeze and a period of rest, is just like the natural action of the calf. Cows like it and give more milk.

Perfection does away with all the drudgery of hand milking, and the new sanitary two piece teat cup makes it quick and easy to clean. One pull and it's instantly apart for washing.

The Perfection Milker is the old reliable, backed by 14 years successful service. On farm or dairy it is a profitable investment, and you can depend upon a Perfection to give you long and satisfactory service.

Why milk by hand when Perfection saves needed and valuable time. Send today for free catalog.



The new 2 piece Teat Cup. One pull and it is all apart for quick and easy cleaning.

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35 years record as the most economical steamer known. Do not fail to investigate the superior merits of this boiler, economical in fuel consumption, in attention and in space required. For steam or hot water for any purpose. Burns cobs, stalks, coal, or wood. Built to meet all the requirements of the different state boiler laws. Automatic damper regulator, etc. Repairs quickly and easily made by owner. Furnished with a complete equipment of fittings and fixtures. Quickly pays for itself.

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Furnishing Freight Cars When They are Needed

Good railway service to shippers consists in promptly furnishing freight cars when they are needed and moving them without delays after they are loaded. Farmers especially need such service.

In past years—even as recently as 1922—the railways were unable promptly to fill the orders of farmers for many thousands of cars, and this caused much well-founded complaint.

The railways have made great efforts and invested large amounts of capital to so improve the condition and operation of their properties as to prevent the return of such conditions. They have had valuable cooperation from the Regional Shippers' Advisory Boards.

As a result, even in the fall and winter of 1926, when freight business was the largest in history, all shippers were furnished daily an average of 99.7 *per cent* of all the freight cars for which they asked; and after being loaded the cars were moved more rapidly than ever before.

The unprecedented speed with which the large wheat crop of the southwest was rushed to the railways last summer would have caused a serious "shortage of cars" excepting for the increase in the efficiency of the railways that has been made within recent years. There would have been a serious shortage of refrigerator cars for handling the California grape crop last year excepting for the large increase that has been made in the number of refrigerator cars and the organized cooperation of the railways and shippers.

These are but two out of many examples that could be cited of ways in which increased railway efficiency, made possible by large investments of capital, has been of great direct benefit to agriculture.

The railways need the cooperation of the farmers to enable them to furnish at all times the kind of transportation that the welfare of agriculture requires.

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS

740 Transportation Building, Chicago, Illinois

We Needed One and So Do You

Many times at sales, farmers' meetings, on the street, in hotels, on trains and even at dances we have been asked for information regarding the Hoard's Dairyman herd. We missed many sales because we could not give our friends and new acquaintances all the information they wanted in definite form. In order to "be prepared" for these emergencies we planned the Hoard's Dairyman Vest Pocket Herd Book. The demand for them is exceeding our highest expectations The investment of $2.00 will come back to you many times and the satisfaction of having "your figgers" right handy is worth much more than the cost of the book.

Will accommodate 100 head. Loose leaves (easy to remove but firm during use); good leather cover; index, sketches, records breeding, service records, gestation table and blank pages for memoranda. All sent postpaid for $2.00.

A BOOK YOU WILL CARRY EVERY DAY

HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin

Trailing Holsteins to South America

(Continued from page 309)

say, "The money required to keep it in fighting trim would operate many schools for our children."

Valparaiso is the largest city on the west coast and, approaching it from sea by night, resembles picturesque Seattle from Puget Sound. It extends considerable distance along the shore and backs on an unbroken rank of high hills. But it is getting darker and darker, the lights of the city make it look more and more like a forest of Christmas trees. The curiosity of the crew is dying and, after all, Valparaiso is just Valparaiso. It is only one of numerous ports in which this wandering crew of the Humming Bird has been. Save a carouse or a few drinks, or perhaps a little jaywalking, a foreign port holds no lure for the average seaman, and in the end one shuffles away, away to his bunk and the delight of quiet, and then another disappears, and so on, until they are all gone but my friend, the second mate. Before long there is no one to witness the chaos of contesting luminaries in the heavens and the playful slapping of waves on the weatherside.

The night air grows chilly. The second mate makes pretense at a sweater in his cabin and fails to return; so, lonely, I follow in his wake. The end of the trail to South America is here, and as I go aft to turn in, I hear a squeal, stop, and go on. Lindy is massacring another rat.

P. S. The cattle have arrived at the hacienda, San Vicente, in good condition. Their new home embraces the source of Aconcaugua Valley—50,000 acres, and with irrigation makes one of the world's garden spots. Again, as in Peru, cheap, reliable labor and not even a frost in winter makes dairying loom as a great industry in this country. Laborers receive forty cents per day plus a home to live in. Most of the farm work is done with oxen, which is most economical.

All about the premises of San Vicente are arbors of flowers prettily kept, blossoming magnolia, red-flowered pomegranate, chestnut, palm, eucalyptus, poplar, laurel, hawthorne, and alfalfa in abundance. Here, the life of a catch of alfalfa is 15-20 years.

We rode plump, calico-colored horses, with English saddles, several miles up in the mountains, crossing irrigation ditches often, viewing fields of ripening hemp, growing corn, cattle, thousands of sheep, and laborers working in most any direction you happened to look. The scenery was delightful.

Operated by the Susaeta brothers—Spanish gentlemen, San Vicente is a pioneer in dairying in Chile. At present they have a 150-cow dairy which consists of pure Holsteins. They yard feed, milk by hand, and have barns with the top half of the sides open and running water in each stall. A powdered milk plant is in operation on the hacienda, and everything is strictly modern.

South America has a future with promise ahead of it. It is wealthy with natural resources and virgin lands, and there are swarms of emigrants coming in from all parts of the world. There being no restriction on the Japs, they are flocking into Brazil in great number. Chile is 3,000 miles long and 100 miles in its greatest width. The north half is barren, rainless, and mountainous; this being where the nitrate fields are. Central Chile is arid, but with irrigation produces in abundance. In Southern Chile there is ample rainfall, forests, and good farming lands. Here, there are colonies of Germans ranching it and very prosperous.

But in going to South America there is one thing one should do; and that is to learn the Spanish language. Not the way you learn it in books here, but the way they speak it to you down there. There is a difference, and without a working knowledge of their tongue you are under a big handicap, no matter where you go.

(EDITOR'S NOTE:—This is the sixth and last of a series of six articles by Mr. Beattie.)

Wisconsin High Protein Barley

HOARD'S DAIRYMAN:—In 1898 when the Wisconsin Experiment Station started the breeding of barley, we built better than we knew. We did not favor the malting or brewing market at that time, but the chief thing that concerned the station was breeding a barley that had the highest possible feeding value.

It was felt at that time that the barley needed for the state of Wisconsin was a feeding barley and that farmers should feed barley more generously than they had heretofore. With the oncoming of the corn borer, we feel that this high protein barley is going to take an important part in the controversy. If the corn borer strikes Wisconsin, we will not be able to let our crops of corn mature the way we have in the past, but in order to get silage will be forced to cut it at a rather green stage. This is going to necessitate the bolstering up of the silage by ground feeds and no grain feed is going to function so well as the Wisconsin pedigreed barley.

If farmers were fully aware of the danger that is confronting them at this time, there would be no doubt but that the barley acreage would be doubled this year so that each and everyone would be prepared for the coming of the corn borer, which is sure to reach Wisconsin in a year or two. It is fortunate for Wisconsin that we have that large body of pure-bred seed grain growers that produce sufficient pedigreed barley each year to more than plant the barley acreage of the state.

Other States Alive to the Situation

It seems strange that far-away states have sensed this danger so much more quickly than the farmers in Wisconsin. We hope before the state is entirely drained of this fine seed barley that our own farmers will wake up to the necessity of putting in a goodly acreage of pedigree barley this year on their more fertile soils.

Barley bulletins will be sent to any farmers who are interested in the growing of this great crop and lists of seed grain growers can be readily secured by writing the College of Agriculture.

Wisconsin. R. A. MOORE.



MILK WAGON IN SWITZERLAND WITH POWER FORE AND AFT

Dairy Markets in 1926 and Comparisons

(Continued from page 310)

exceeding it, cheese production will apparently be some 5 per cent less, with condensed and evaporated milk showing even a greater reduction. The immediate situation is one of actual shortage in many sections, particularly those supplying cities with fluid milk.

"One of the remarkable things all through 1926 was the active demand for dairy products, particularly butter. Even in December, when wholesale butter prices were up to 56 cents and retailers were charging well above 60 cents, the buying public continued to indicate a willingness to pay the price, providing quality was satisfactory. While high quality was commanding premiums, the same good demand did not exist for medium and low grade butter and producers of these grades suffered penalties throughout the whole year; the higher the price level the greater being the penalty.

"The close of the year finds the domestic situation on a sound basis, with the lighter 1926 production and an active consumptive demand standing out as primary elements of support. Prices are high, especially butter prices, but the inventory of reserve stock on hand suggests that it is plainly a case of supply and demand.

"Hog producers have a favorable outlook. The market supply of hogs probably will be little if any larger than in 1926, and domestic demand is expected to continue strong. Hog prices are likely to be maintained near the 1926 level. Prices now prevailing can be continued through 1928 only if farmers hold down hog production to the level of the past two years.

"Egg and poultry producers in most sections of the country may expect a fairly satisfactory year, although perhaps not as profitable as 1926.

"With beef cattle marketings in 1927 probably materially less than in 1926, and the demand for beef maintained, prices of slaughter and feeder cattle are expected to average somewhat higher than in 1926. On the whole, cattle prices are expected to continue the upward price swing begun in 1922."

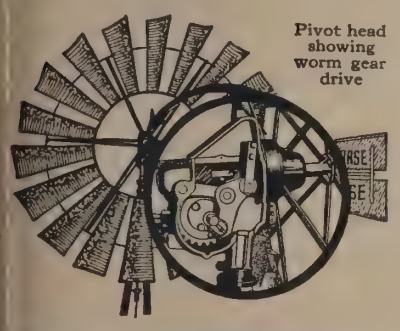
World Trade

The following statement concerning our world trade in dairy products was issued by the U. S. Bureau of Agricultural Economics:

"Throughout the three months ended January 31, 1927, butter prices have been sufficiently low in European markets to maintain a margin in favor of domestic markets equal to or exceeding our import duty of 12c a pound. Accordingly, imports of butter have been considerable enough to make a total of 8,029,000 pounds for the year just closed, which is slightly greater than the 7,212,000 pounds imported in 1925 when the duty was 8 cents a pound. Comparative cheese prices have been similarly affected, and cheese imports were increased from 62,403,000 pounds in 1925 to 78,417,000 pounds in the year just closed. On the other hand, exports of condensed, evaporated, and powdered milk declined from a total of 151,412,000 pounds in 1925 to 114,549,000 pounds in 1926.

"Foreign prices had not, as late as the end of January, shown any recovery from the level prevailing in the middle of December when the Copenhagen quotation was 19 cents lower than for 92-score butter in New York. Rather, the narrowing of the margin to 12 cents by January 27 had come about wholly by reduction in the domestic prices. Butter of 92-score grade in New York was quoted at 56 cents on December 16 and at 48 cents on January 27, while the Copenhagen official quotations on the same dates were equivalent to 37 cents.

"Production and consumption of dairy products within the United States are now so closely balanced that a peculiarly delicate adjustment tends to prevail between domestic and foreign market prices. Despite the prevailing comparatively high protective tariffs on dairy products, it is demonstrated each year that developments affecting world prices determine the limits within which domestic prices may at any time advance or decline. The prevailing import duties make for a degree of price stabilization in our markets without being prohibitive of importations sufficient to make contacts between foreign and domestic markets and thus to bring about adjustments of prices between them. Furthermore, with dependence upon foreign markets for a part of the concentrated milk output of the United States, at the same time that fresh milk and cream, cheese, and generally butter are being imported, the markets for milk and its products in this country are never wholly free from the influence of foreign price movements."



The windmill that sets its own standards

IN the Steel Eclipse Windmill you will find quality and workmanship ordinarily considered too good for a windmill. And right there is the secret of its leadership!

No other windmill has all these features: worm gear drive, machined bearing surfaces throughout, machine-cut gears, drop forged crankshaft. Only the Steel Eclipse has the compact self-oiling mechanism enclosed in a rigid cast iron housing.

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MACHINED bearings with accurate, non-binding alignment reduce friction to the minimum. So the Steel Eclipse starts in the slightest breeze. Moreover it has less load to pull in doing a given amount of pumping because its job is distributed over two-thirds of the time that the wheel is turning—as shown by the diagrams opposite. It pumps as you would pump—at the end of the working stroke it makes a quick down stroke and *keeps the water moving*. Scientific design has put almost human intelligence into the windmill!

Let service-life and proved performance be your measures of windmill worth and your next mill will be a Steel Eclipse!

Working time of ordinary windmill

Working time of Steel Eclipse windmill

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Without cost or obligation please send facts about the F-M Self-Oiling Steel Eclipse Windmill.

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How much protein

Quaker Answers This Problem for All Dairymen by Providing a Complete Line of Dairy Feeds to Meet the Individual Needs of Each Farm.

Protein requirements vary, according to the quality and type of hay, other roughage, or pasture that are available. No single feed can meet all conditions, everywhere! That's why Quaker offers you a complete line of feeds—to give you exactly the combination that will return most profit.



Quaker Boss Dairy Ration is the ideal grain ration for cows receiving timothy hay, grass hays, straws, corn and clover, or poorer grades of clover.



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Quaker Dairy Ration has no superior when cows are receiving choice clover hay, good alfalfa hay, or an excellent grade of fine mixed grass-and-clover hay; a good ration for dry stock and for young growing stock.

Quaker Sugared Schumacher Feed has a real place with dairymen when the herd is receiving liberal quantities of choice alfalfa hay. It combines beautifully with any Quaker high protein feed. For all stock—dry stock, horses, swine, sheep or steers.

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Quaker Ful-O-Pep Poultry Feeds — *Quaker Dairy Rations 16%-20%-24%* — *Quaker Pig-N-Hog Meal* — *Quaker Sugared Schumacher* — *Quaker Green Cross Horse Feed*

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Wisconsin Holstein Sales Association

Breeders from 15 Leading Holstein Counties Cooperating

600 Registered Holsteins

To be Sold April 12 to 21



AALTJE SALO HENGERVELD PONTIAC NO. 382874
A grandson of King Pontiac Champion and Pabst Hengerveld De Freule (10½ y.—39.15 lb.—1040.82 lb.). Consigned to Mauston Sale by Hattie M. Curtis.

125 BULLS—A number of 30 lb. bulls, and bulls out of dams having records up to 30 and 1000 lbs. Many of these bulls are show animals which combine high record backing and breeding to an unusual degree.

300 COWS—from 2 years to full age. These cows are splendid individuals of the practical producing type. Many of them have never been tested but are capable of making good records. On the other hand there are many richly bred cows included in this number that have good records—up to 30 lbs. There are daughters of Creator and Prilly including 20 lb. 2-year-olds.

175 HEIFERS—under 2 years. These heifers are good individuals from high producing, well bred herds. They are splendid prospects for building new herds, and are the kind that will make acceptable additions to practically any herd.

Order in which the Sales will be held is as follows:

APRIL 12 LAKE MILLS 70 Head
Breeders from Rock, Columbia, and Jefferson counties cooperating.

APRIL 13--14 MADISON 125 Head
Breeders from Dane, Iowa, Richland Counties cooperating.

APRIL 15 REEDSBURG 70 Head
Breeders from Sauk County.

APRIL 16 MAUSTON 70 Head
Breeders from Juneau County

APRIL 18-19 FOND DU LAC 125 Head
Breeders from Fond du Lac, Washington, Waupaca, Winnebago, Sheboygan and Manitowoc Counties cooperating.

APRIL 20 MARSHFIELD 70 Head
Breeders from Wood and Marathon Counties cooperating.

APRIL 21 NEILLSVILLE 70 Head
Breeders from Clark County.

Write for illustrated circular, giving more complete information on this sales series, to

JAMES R. GARVER 704 Beavers Insurance Building **Madison, Wis.**
In Charge of Publicity and Sales Correspondence.

SALE ANNOUNCEMENT!

The Entire Herds and Flocks of the Barber Stock Farm

Williamston, Mich., March 31, at 10 A. M.

CONSISTING OF

35 Registered Holstein Cattle—60 Shropshire Sheep—20 Poland China Hogs

THE HOLSTEIN HERD consists of 13 cows, mostly A. R. O. records from 22 to 30 lbs., fresh since Jan. 1st or due about sale time; 5 yearling two-year-old heifers; 6 heifer calves; 7 bulls, 1 to 9 months of age; and two great herd bulls. Sr. sire, Idlywild Johanna Pietertje Weg., whose dam averages 33 lbs. for 5 years, 1009 lbs. butter from 26,000 lbs. milk. Jr. sire, bred by Hargrove & Arnold, Norwalk, Iowa, sired by Triune Ormsby Piebe and his 10 nearest dams average 1000 lbs. butter per year. Here is a chance to buy heavy producers, show males and females of wonderful type.

60 HEAD OF SHROPSHIRE SHEEP, 40 breeding ewes to be sold, lambs by side. Sired by rams of Buttar Broughton, McKerrow & Leland breeding.

POLAND CHINA HOGS, 1000-lb. herd sire, Daddy Long Legs. Two 800-lb. sows; 14 boars and gilts from these sows and sire all prize winners.

ALL SHOW STOCK FOR 1917 in above breeds included in this complete dispersion.

Farm Adjoins City of Williamston
MURRAY & PRICE, AUCTIONEERS
FRED P. HAMPTON, HERDSMAN & SHEPHERD

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DR. C. L. BARBER, Owner **WILLIAMSTON, MICHIGAN**

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ORMSBY BREEDING—$150

I have for sale 2 bulls ready for light service, sired by a grandson of S. P. O. M. 37th. One is from a 23-lb. 3-year-old dam. The other, a real show bull, is from a well bred very promising heifer. Your choice for $150. Federal accredited herd.

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Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

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NELS PARSON, SALES SEC.,
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PURE BRED JERSEY CATTLE

PRAIRIE VIEW, ILLINOIS
Established 1913

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PROVEN GUERNSEY SIRE

To avoid inbreeding **MUST SELL LUXERI BRUNO**, my senior herd sire, a 5-year-o grand champion show bull. Sire: Dair maid Nonpariel of Iowa. Dam a daughter of Em nent of Sarnia that produced 544 lbs. fat. i 10 months at 3 years. His daughters hav excellent type and are producing 20% to 30 more than their dams. Write today for pric and pedigree.

Federal accredited herd. No abortion.
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SHOW TYPE—DAM ON TEST

We have for sale a high class year old bu sired by a son of a former world's record cow He is a real show prospect from one of ou best cows that is just starting on test. Th price is right for quick sale. Write toda

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We have for sale here in Manitowoc Count some very good calf club heifers, and se viceable and younger bulls as well as firs class cows and heifers. Write us today o come direct to Manitowoc and make your se lections.

MANITOWOC COUNTY GUERNSEY BREEDERS' ASSOCIATION.
Geo. S. Gilbertson, Sec., Manitowoc, Wi

SALE ANNOUNCEMENTS

Mar. 29—Jersey Dispersal. E. R. Hicks Herd, Oshkosh, Wis.
Mar. 30—Guernseys. Chas. E. Martin, Waynesboro, Pa.
Mar. 30—Holsteins. Sale of Grade and Registered Holsteins at Laurens, Ia. L. E. Ferugson, Manager.
Mar. 31—Holstein Cattle. Shropshire Sheep. Poland-China Hogs. Dr. C. L. Barber, Williamston, Mich.
April 5—Guernseys and Jerseys. Dissolution Sale. Greenwood & Townsend, Bloomington, Ind.
April 6—Holsteins. Dispersion of E. L. Salisbury Herd at Shepherd, Mich. E. M. Hastings, Sale Manager.
April 12—Holsteins. Lake Mills, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 13-14—Holsteins. Madison, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 15—Holsteins. Reedsburg, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 16—Holsteins. Mauston, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 18-19—Holsteins. Fond du Lac, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 20—Holsteins. Marshfield, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 21—Holsteins. Neillsville, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 25—Holsteins. U. S. National Blue Ribbon Sale at Oconomowoc, Wis. Haeger, Baird & Darcey, Sale Mgrs.
April 26-27-28-29—Holsteins. U. S. National Spring Sale at Waukesha and Watertown, Wis.
April 28—Guernseys. Dispersion of E. B. Sawyer and A. H. Hinman herds with a consignment from Brant Rancho. Fond du Lac, Wis. Chas. L. Hill, Sale Mgr. Haeger, Baird & Darcey, Sale Mgrs.
May 4—Guernseys. South western Wisconsin Guernsey Breeders' Sale at Livingston, Wis. Chas. Wilkins, Platteville, Wis., Sale Mgr.
May 5—Holsteins. Echoland Dispersal (Dr. Egil Boeckmann), White Bear, Minn.
May 9—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.
May 12—Guernseys. National Guernsey Sale at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
May 13—Coventry—Dunwalke—Florham—Rockingham, Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sales Mgrs.
May 24—Jerseys. First Annual Sale of Belswood Jerseys, Waukesha, Wis. A. F. Block, Mgr.
May 25—Guernseys—Fond du Lac County Guernsey Sale at Fond du Lac, Wis. Chas. L. Hill, Sale Manager.
May 27-28—Holstein Dispersal. Grahamholm Farms, Rochester, Minn.
May 31—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. M. B. Wood, Sale Mgr.
June 2—Holsteins. National Holstein Sale at Springfield, Mass.
June 2—Guernseys. Highlands Dispersion, W. H. Gratwick, Owner, at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 15—Guernseys. Breidablik Guernseys at Auction. Breidablik Farm, Wilmington, Del. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 15-16—The National Ormsby Sale at the Minnesota State Fair Grounds, Minneapolis, Minn. Melin—Petersen Co., Sale Mgrs.
June 16—Louis Merryman's 16th Semi-annual Sale, Timonium, Md. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.



These hogs belong to Frank Hazen of Ohio. Mr. Hazen gives his hogs clean quarters to sleep in and a clean place to eat. The feeding floor is cleaned daily.

Keeps Feeding Floor Clean

HOARD'S DAIRYMAN:—Frank Ha-n, of Marion County, Ohio, handles s feeding floor differently from ost farmers. His winter feeding gs spend most of their time in the rn that is bedded down to be sani-ry and comfortable. Here the hogs ve access to water and to minerals d to concentrates in self-feeders. These hogs do not go out into mud d filth. The picture above was apped on a soft February day, yet ybody can see that the Hazen hogs e clean and dry. The feeding floor dry also as the reader can see by ıall patches among the hogs. Twice day after feeding the floor is ɔoped off with a wide sheet metal ow shovel. If the weather is fine, course the hogs remain out in the n awhile, but when they are re-rned to the barn the floor is aned. By this frequent cleaning e job is a light one and the floor is y and comfortable for the hogs to ed on without slipping and sliding d encountering accumulating filth. These hogs are all vaccinated and r several weeks past the gains have eraged about two pounds a day. r. Hazen carries his hogs to about 5 lbs. weight.

Ohio. G. P. WILLIAMS.

Sudan Grass Pasture

The Kansas Experiment Station re-rts a feeding trial comparing al-lfa pasture with sudan grass pas-ture that should interest swine grow-ers particularly from the standpoint of supplying pasture.

This trial was carried on for 60 days from July 1 to August 30. Two lots of brood sows in good flesh were used; one being grazed on sudan grass pasture, the other on alfalfa pasture. The amount of grain fed per day per sow was the same in both lots. The average daily ration was 1.19 lbs. of corn, .13 lb. of tankage, and sudan pasture in one case, alfal-fa in the other.

These rations did not quite main-tain the weight of the sows in either case, the loss per sow on alfalfa pas-ture being 4.67 lbs. for the 60-day pe-riod, and 11.6 lbs. per sow for those on sudan grass pasture.

Not only did the sudan grass com-pare very well with the alfalfa pas-ture but a point of greater interest lies in the fact that sudan grass, be-ing an annual, may be used to good advantage as an emergency pasture for hogs during a time when other crops fall down in supplying palata-ble green forage.

Feed Laxative Feeds

A frequent cause of unrest and fe-verishness in sows at farrowing time is found in the way they are fed just previous to and immediately after they farrow. This condition contrib-utes to the loss of pigs from tramp-ing, scours, and many believe that fe-verishness has an influence in causing sows to eat their pigs.

The prevention is found in not only cutting down the amount of feed but also in changing the ration to one that is laxative. This should begin about three days before the sow is due to farrow. Plenty of water should be provided. One should not be too anx-ious to get the sows up on full feed immediately after farrowing. Crowd-ing the milk supply with feed at this time frequently causes scours, a con-dition to be avoided in young pigs.

One of the best combinations for feeding sows at farrowing time is a thin slop made from ground oats and bran. Corn should be avoided then.

Thumps

The term "thumps" calls to mind the peculiar yet well known spasmod-ic action of the diaphrams of pigs less than three weeks of age. The ex-act cause is not well known. The fat-test, best looking pigs are the ones most likely to become affected. Thumps will invariably develop in small litters whose dams are good milkers if nothing is done to prevent the condition. The best known pre-vention is to force the pigs to take ex-ercise and to give them the advantage of as much direct sunshine as is avail-able. Turn the sows into the alley two or three times a day and chase the pigs around in their pens until they become tired. This will usually suf-fice to cure mild attacks and prevent the condition.

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Investigate our attractive proposition:

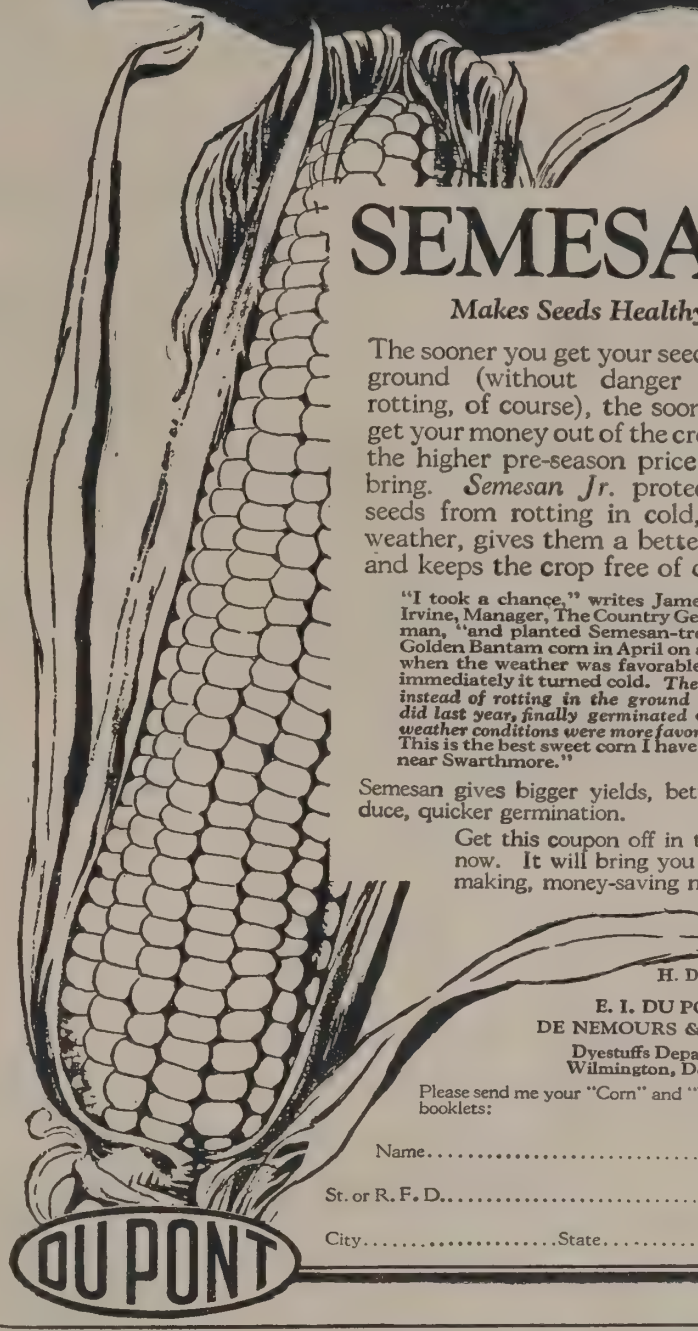
Write to us for details regarding the fertile Genesee County of Western New York. We will tell you how good farms may be bought or leased on easy terms if you own your own farm imple-ments. These farms offer most alluring prospects for farmers en-gaged in dairying, raising can-ning crops, alfalfa and timothy hay, small grain, and sheep and cattle feeders.

Good roads, nearby markets, rail-road facilities, schools and churches make these farms most desirable. Address

LEO M. ALLEN, Manager
Farm Department

LIVINGSTON COUNTY TRUST COMPANY
GENESEO, N.Y.

Earlier Planting
No Rotting of Seeds



SEMESAN

Makes Seeds Healthy

The sooner you get your seed in the ground (without danger of its rotting, of course), the sooner you get your money out of the crop, and the higher pre-season price it will bring. *Semesan Jr.* protects the seeds from rotting in cold, damp weather, gives them a better start, and keeps the crop free of disease.

"I took a chance," writes James M. Irvine, Manager, The Country Gentleman, "and planted Semesan-treated Golden Bantam corn in April on a day when the weather was favorable but immediately it turned cold. *The corn, instead of rotting in the ground as it did last year, finally germinated when weather conditions were more favorable.* This is the best sweet corn I have seen near Swarthmore."

Semesan gives bigger yields, better produce, quicker germination.

Get this coupon off in the mail now. It will bring you money-making, money-saving news.

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CHLORAMIX
THE BACTERIA KILLING CLEANSER

More Money for Milk
—Less Labor in the Dairy

Here is the product that will help you produce Grade A milk and premium sweet cream.

Milk dealers are paying extra prices for milk of low bacterial count; cream buyers pay more for sweet cream than sour. Consumers are buying on quality.

Chloramix helps you to control bacteria that de-stroy quality, that cause souring, that rob you of your opportunity to get the higher prices.

Chloramix simplifies your daily task of cleaning and conditioning utensils and equipment responsi-ble for eighty per cent of bacterial troubles. Chloramix kills bacteria as it cleanses. It de-odorizes foul smelling corners; it sweetens the whole dairy. It does not hurt the hands; is safe to use; contains no poison; no grit to injure metal; kills bacteria as it cleanses.

Chloramix costs less than cleansers and disin-fectants bought separately to accomplish the same purpose.

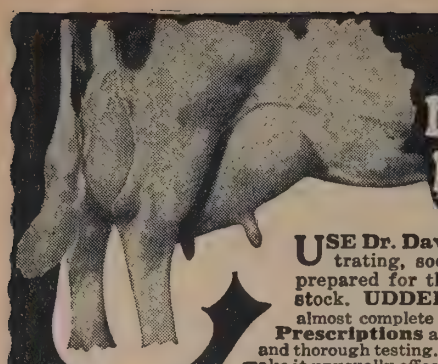
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USE Dr. David Roberts UDDER BALM, a penetrating, soothing and healing ointment especially prepared for the treatment of udder trouble in all livestock. UDDER BALM is the newest addition to the almost complete line of **Dr. David Roberts Prepared Prescriptions** and is the final result of careful experimenting and thorough testing. The peculiar properties of **UDDER BALM** make it unusually effective in the treatment of all udder trouble.

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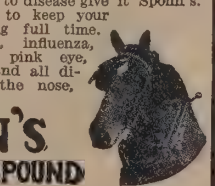
You cannot afford to be without this preparation that means relief and comfort for your cows and the satisfaction on your part of knowing that there is no udder trouble in your herd.

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Write for free copy of the Cattle Specialist and how to get the Practical Home Veterinarian without cost.

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Thousands of cows are partially or totally reduced in value by neglect of minor teat troubles. Prevent this loss

Use "Purpul" Medicated Wax Teat Dilators

When to Use "Purpul" Medicated Wax Teat Dilators

After operating a cow's teats. When teat is sore on end or inside. Spiders in teats. After removing small scabs on end of teat. Hard milking teats. Never allow a sore teat to heal or gum shut.

"PURPUL" MEDICATED WAX TEAT DILATORS are sold by druggists and dealers catering to dairy interests or mailed direct, postpaid, one dozen 25c; five dozen $1.00.

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Wonder Healing Compound FOR MAN or BEAST —It's CORONA WOOL FAT

Soothing Healing Ointment That Works Like Magic

Corona Wool Fat is made from the oil extracted from sheep's wool. It's different from any salve or ointment you ever tried. It heals and soothes, but will not smart or blister the most sensitive wound. It has healed thousands of stubborn wounds where other lotions have failed.

Hardly a day passes but what you'll find some use for Corona. For sore shoulders, sore necks, collar boils, split hoofs, scratches, sore teats on cows, caked udders, cuts, wounds, burns of any kind on man or beast it is unequalled.



LIBERAL SAMPLE FREE Corona is sold by nearly all druggists or direct from us on receipt of price — 8 oz. tins 65c, 20 oz. tins $1.25, postpaid. If you will send your name and address, we'll mail you a liberal sample and book of uses Free. We want you to see for yourself the wonderful healing properties of Corona.

CORONA MFG. CO., 416 Corona Bldg., Kenton, O. [6]

Blatchford's CALF MEAL



Save $10 to $20 on every calf!

1 lb. **Blatchford's Calf Meal** guaranteed equal in food value to 1 gal. milk! Costs only a fraction of what your milk is worth. Easy to feed. Raises big healthy calves. Used and endorsed by biggest stock farms. Most successful and economical milk substitute. Ask any user.

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Just a bit but enough to show quality. Send now.

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if your horse has a cough or cold or has been exposed to disease give it Spohn's. Use Spohn's to keep your horses working full time. For distemper, influenza, colds, coughs, pink eye, catarrhal fever and all diseases affecting the nose, throat and lungs.

SPOHN'S DISTEMPER COMPOUND

60c, $1.20 at Drug Stores—Write for free booklet

SPOHN MEDICAL CO., Dept. 4, Goshen, Ind.

END CAKED BAG!

Caked bag and sore teats yield readily to treatment with Aborno Non-Cake Salve. Relieves congestion, stops soreness, softens tissues. Every dairy farmer should keep it on hand for time of need. Send 75c for 9 oz. box, prepaid—money back if not satisfied.

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LOWELL'S COW CLEANING PRESCRIPTION



Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded It releaves GARGET and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1 a pkg. 6 for $5

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NEWTON'S Compound



Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.

The Newton Remedy Co. Toledo, Ohio.

Mention Hoard's Dairyman to Your Dealer—It Helps Us

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Louse Powders

The control of lice on cattle and other farm animals during the winter season is a problem, as liquids cannot well be used. Powders, at best, do not exterminate lice and may only be regarded as fairly effective in lessening the numbers and activity of the vermin until dipping or spraying can safely be done. Just which powder or combination of powders to apply is a question.

Powdered sabadilla seed often has been prescribed as a louse destroyer and in this paper has been suggested as an ingredient of a louse powder; but we are puzzled to know whether it is quite safe to use. We say that for the reason that a farmer whose son applied it to the cows reported that the young man was nearly killed by the powder affecting his breathing organs. It seems that he had a sore throat at the time and that the dust at once aggravated the trouble so that he had to be taken to a hospital for treatment. As to that it may, of course, be stated that a person suffering from a sore throat or affected with a bad cold or bronchitis should not expose himself to any irritating powder, dust, or gas. It seems possible, too, that a person not so affected would not suffer any material discomfort from applying sabadilla powder or any other louse powder; but we should like to hear from others who have applied sabadilla and so determine whether it must be used with great care or entirely abandoned as a louse destroyer.

In this connection it may also be well to state that some people have an individual idiocyncrasy against certain drugs, and sabadilla possibly is one of them. We have heard of a person so sensitive to the effect of ipecac that he would vomit were a bottle containing the tincture merely opened in his presence. Some people, as is well known, are peculiarly susceptible to poison ivy eruption and irritation, while others handle the weed with impunity. We have only heard of one complaint against sabadilla, but we certainly shall not feel confident in prescribing it if others report similar poisoning or irritation. The drug contains the alkaloid *veratrine* which is deadly to lice and must, in consequence, not be inhaled or swallowed. It might be better to cover the nose and mouth with a cloth, while making the application, or to apply it outdoors where the dust will not be so likely to be inhaled. The treated animal should also be blanketed immediately after the application.

No reports of bad effects have been reported from the application of powdered pyrethrum, another louse destroyer; but much of that powder is so "shop-worn" or so much adulterated with powdered ox-eye daisy flowers that it is ineffective. Knowing that, we have thought it well to prescribe a mixture of the drug with powdered sabadilla, flowers of sulphur, and powdered tobacco leaves or tobacco snuff. A mixture of equal quantities of Portland cement and flowers of sulphur has even been suggested by one cow owner as an effective louse destroyer. The latest drug suggested is sodium fluoride which has given good results in controlling lice of poultry, either when used as a powder or in solution. We have not had sufficient experience with it, for cattle louse destruction warrant recommending it for gene use and some have found it irritat at the time of application. Reports its value will be welcomed.

Books are Balanced

Can you tell me where science begins luck ends in cow breeding? I have a of forty grade Guernseys. For the past years they have brought me three he calves. I have used three bulls; bred t when coming in heat and going out, and and odd times; also bought six cows—t bred to Guernsey and three to Holstein b The three bred to Holsteins came in

NO HOLD BACK

When the milk comes hard—when t cow is nervous and fidgety—you are l ing milk you ought to be getting. A disorder or hurt to the udder or teats, matter how slight, can undo all of yo efforts to get a full milk yield.

Bag Balm is a marvelous healer of injuries to the delicate tissues of t udder and teats. Sore teats, chaps, cu inflammation disappear quickly und the soothing, penetrating action of th greatointment. For Caked Bag, Bunch Cow Pox or any stoppage of the m passages Bag Balm gives quick relief.

Bag Balm is a wonderful healer of annual sores—and it *can't taint the mi* The big 10-ounce package, 60c at fe dealers, general stores, druggists. B ware of substitutes. Order direct fro us if you have difficulty in getting B Balm.

DAIRY ASSOCIATION CO., Inc Lyndonville, Vt.



Every Day You Need KRESO DIP No. 1

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TO AID IN KEEPING All Livestock and Poultry Healthy

Kills Lice, Mites and Fleas. For Scratches, Wounds and common skin troubles.

WRITE FOR THESE FREE BOOKLETS:

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No. 157—**DOG BOOKLET.** Tells how to rid the dog of fleas and to help prevent disease.

No. 160—**HOG BOOKLET.** Covers the prevention of common hog diseases.

No. 185—**HOG WALLOWS.** Gives complete directions for the construction of a concrete hog wallow.

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ANIMAL INDUSTRY DEPARTMENT OF

Parke, Davis & Co.

DETROIT, MICH.

For sale in original packages at all drug stores

black heifer calves and from the Guernsey bulls came all bull calves. Do you suppose it will ever turn the other way?
Topeka, Kan. H. N. R.

Nature "balances her books" in such cases. Your cows may next have a preponderance of heifer calves, but there is no certain method of determining sex by breeding so that science fails. It is as certain that there is no such thing as "luck." "Sufficient unto the day is the evil thereof" and we must also be thankful for our mercies!

Osage Orange Poisoning

As tester of a cow testing association I find that among many of the members there is a strong belief that when the cows eat the balls that grow on hedge trees it will cause them to dry up. Is there any ground for such a belief? They also think the same about the pods from locust trees.
Fort Scott, Kans. C. W.

Some people are susceptible to osage orange poisoning, even when handling the leaves, but the thorn puncture is most painful and serious. Most people are not affected by the leaves. We have many times heard that the osage orange fruit causes a shrink in milk flow when eaten by cows but have no personal, corroborative evidence to that effect. However, we are strongly of the opinion that when an osage orange hedge has grown into trees which develop fruit or "balls" it has become an intolerable nuisance and should be grubbed out. There is no need to expose cows to possible danger from eating the balls. The bark of the black locust is notoriously poisonous for horses and the pods may have the ill effect you suggest, but we have no data on that phase of the subject.

"Losing Cud"

I have a 2-year-old heifer coming fresh this spring that has been sick for one month. She would not eat for the first ten days. Now she eats ground feed. She acts as though she wanted to suck or chew. When she does this she froths at the mouth. This is worse after she drinks. She gets only lukewarm water and a little separator milk. Is there such a thing as a cow losing her cud? I thought this was what was the matter.
Stillwater, Minn. O. P.

"Losing of the cud" is not a disease, but rumination (cud chewing) stops when there is derangement of the digestive organs or some serious disease affecting the system. It is resumed when the discomfort and disease subside. An artificial cud of salt pork, red herring, or some such substance, given with the idea of curing" lost cud, stimulates secretion of saliva and causes the cow to work the tongue in her mouth, and consequently may induce temporary cud chewing. There is no special merit in such treatment. In the case in question we suspect presence of some foreign object lodged in the mouth and that should be removed, or the teeth may need attention. Actinomycosis of the tongue ("wooden tongue") is another possibility and would require special treatment. Write again, if necessary, when the mouth has been examined.

Abortion

1. Is there any remedy of any value on the market for contagious abortion?
2. Will contagious abortion develop in a herd without coming in contact with infected cattle?
3. Will heifers that have not come in heat get infected same as mature cows?

I am having a great deal of trouble with my cows aborting the past year.
Melrose, Iowa. J. B. W.

1. We know of no specific or certain remedy for the contagious abortion disease, but the infection can be gotten rid of in time by putting into effect the methods of control advised in bulletins on abortion published by the U. S. Department of Agriculture and the state experiment stations which you should obtain and study.

2. The disease can only be caused by invasion of the cow's system by the casual germ which is the *bacillus abortus* of Bang. However, abortion may also be caused by accident, or possibly by the ill effects of moldy or damaged feed, or by inadequate or incomplete feeding. The chief source of the contagious disease is feed contaminated by the vaginal discharge of an affected cow. Your cows possibly were infected in that way.

3. Heifers, before arriving at breeding age, may be so infected that they abort when pregnant. To determine whether your heifers or cows are so infected, a sample of blood from each of them should be tested by the agglutination method at the state experiment station, veterinary department. Your veterinarian can attend to that. Meanwhile isolate cows that have aborted and then cleanse, disinfect, and whitewash the stable, including the floors and gutters. Have your veterinarian give discharging or barren cows such treatment as he deems necessary.

Tuberculosis Infection

If a cow has tuberculosis, is her calf liable to react also, even if it has not been fed on her milk?

We had our herd tested awhile ago and two cows out of 48 reacted. Before these two cows reacted something went wrong with their spines, so instead of cooling their milk and sending it to town, I fed it to the calves for about two weeks until they were all right again. I am therefore anxious to find out if the calves fed on these two cows' milk will react also.
South Africa. P. S.

Tuberculosis is not hereditary and the calves in question may be raised free from the infection if fed milk from nonaffected cows and kept absolutely away from infected premises and affected cattle.



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NUT size and PEA size cake
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55 Main St. West Lebanon, N. H.

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The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Holsteins—Get your next Ormsby bred bull from State Institutional herd. Bred for high yearly production. Send for free bull list. Can furnish nice lot of grade heifer calves. BOARD OF CONTROL, State Capitol, Madison, Wis. 3-6

Express Prepaid on Holstein Bulls up to 500 miles. Ages from 2 to 10 months. Yearly record dams and grandams. Prices reasonable. Federal supervision. Write for sale list. WINTERTHUR FARMS, Winterthur, Del. 5-*

Holsteins—Purebreds and grades. Area tested. Buy direct. We are breeders, not dealers. WAUPACA COUNTY HOLSTEIN BREEDERS ASSN., 112 E. Union, Waupaca, Wis. 5-6

Sir Korndyke Ormsby Piebe Mercedes 4th. Show ring type and production. Two year old daughters milking up to 50 lbs. FRANCIS NEWBURN, Eagle Grove, Iowa. 6-2

Registered Holstein Bull. Dam, 33.70. Sire's dam, 1114.22. Gentle, good individual. $250.00. ERNEST SEDGWICK, Greenup, Illinois.

For Sale—Choice high-grade Holstein heifer calves. S. J. FRICK, New Glarus, Wisconsin. 6-4

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Three handsome Holstein heifer calves, registered, $100. ALFAKORN FARM, Evansville, Wis. 2-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

Our Guernsey breeders have a big surplus of desirable Guernsey bulls, all ages, combining type and production. Prices reasonable. Write Association secretary, J. C. RALSTON, Box 266C, Fort Atkinson, Wisconsin.

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Purebred Guernseys—Ten bull calves, six heifers, seven cows. Good records. Purebred Hampshire swine. Best strain. VALLEY GEM FARMS, Arlington, Wash. 5-2

Grade Guernseys. Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years experience. Can also furnish grade or registered Holsteins. JOHN ERICKSON, Waupaca, Wis. 19-Spl

River View Guernsey Farm, Ogdensburg, Wisconsin, offers entire herd 22 young heavy producing Guernsey cows, registered bull, some calves T. B. tested, free from disease. Priced reasonable. 6-3

Wanted—An offer on my herd of 26 Registered Guernsey cows and heifers. G. W. ADAMS, 614 Shepard Ave., Milwaukee, Wisconsin.

For Sale—Two first class May Rose yearling A. R. show bulls. GUERNSEY RANGE FARMS, Edgar, Wisconsin. 6-3

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Guernsey bull calves; beautiful color; show type; record dams; guaranteed. Accredited. FRANK KLEMM, Baraboo, Wisconsin. 5-2

For Sale—3 granddaughters of Langwater Cavilier, springing; 5 young bulls. Tested. R. H. SANDERS, Delavan, Wisconsin.

Registered Guernsey bulls and heifers for sale. State your wants. See display ad page 358. LINWOOD GUERNSEY FARM, Livingston, Wis. 6-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

High Grade Guernseys. Justamere Guernsey Farm is offering your choice of herd, no reactors, 60 day retest guaranteed if they go into clean place. Fresh, springing and fall cows. Prices very reasonable. CHAS. W. BLOTT, Mukwonago, Wis. 17-*

Guernsey Bull, Registered, richly bred, fourteen months old. First check $105. ALFAKORN FARM, Evansville, Wis. 5-2

Guernseys. L. W. MILLS, Racine, Wis. 6-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

Ayrshire cows for sale. Accredited herd. L. W. McCONNELL, R. 1, Wellington, Ohio. 6-3

For Sale—Fine Registered Brown Swiss cows, two bull calves. THOMAS LOVE, Howell, Michigan. 6-2

LIVE STOCK WANTED

Wanted—One or two very high record grade Holstein or Guernsey cows. State age of cow, record both of milk and butterfat, by whom record was supervised, and price asked. KARL E. SUTHERLAND, Williamstown, Mass. 5-2

Wanted—25 head Guernsey dairy cows, fresh or springers. T. B. tested. Write me what you have. A. D. BRUSEHABER, Eden, New York.

BABY CHICKS

If you want more eggs and larger profits our Accredited high-egg yield White or Buff Leghorn chicks will be your choice. Catalog free. RIVERVIEW HATCHERY, Fort Atkinson, Wis. 5-2

Pure Bred Chicks from high egg producing breeders. All breeders Hogan tested and strictly culled for correct size, type, color, and health; correctly mated for high egg production. Write for our new free "Poultry Profits" book containing valuable information for the poultry raiser. Liberal discount on all orders booked early. Pure bred chicks of all standard breeds for immediate delivery. WEDGEWOOD POULTRY FARM, Box 188, Pontiac, Ill. 3-*

500,000 High Grade Hollywood sired White Leghorn accredited chicks. Males and females passed and banded by State Poultry Association. Sturdy and vigorous heavy producing breeders assures chicks of quality and ability. Special discount now. Catalog free. WYNGARDEN HATCHERY & FARMS, Box 26, Zeeland, Mich. 5-3

Baby Chicks from culled, inspected flocks. Satisfaction guaranteed. EVERGREEN POULTRY FARM, Kewaunee, Wis. 4-6

Tancred White Leghorns. Blood tested chicks $15.00. Eggs $8.00. Circular Dept. A, BENNETT'S POULTRY FARM, Viroqua, Wis.

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For Sale—Empire Milker, pump tank, control, three units, extra pail, cocks, hangers, pipe, and fittings for forty cows. New style pulsators, good rubber. Bargain. Address BOX 332, care Hoard's Dairyman.

Wanted—Two cow Surge Milker equipment. References. Offering bargain Jersey bull calves Register of Merit and other good dams. DOCTOR SNEED, Columbia, Mo.

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

Separator Bargain for quick sale. Seven new separators in original boxes. F. J. NICHOLS, Box 355, Lansing, Michigan. 3-4

For Sale—One double Perfection milker unit used three months. Will trade for De Laval unit in good condition. JOHN EDWARDS, Paw Paw, Illinois.

Hinman 2 single unit Milker complete, only used 6 months, $200.00. 1½ H. P. McCormick-Deering gas engine, $35.00. W. O. TREGLOAN, Amenia, N. Dak.

Four double unit Burrell milkers $40 apiece. New rubber. Will guarantee condition. Terms. S. J. BURGESS, Box 1598, Helena, Montana.

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

AGENTS WANTED

Our New Household Device washes and dries windows, sweeps, cians walls, scrubs, mops. Complete outfit costs less than brooms. Over half profit. HARPER BRUSH WORKS, 295 3rd St., Fairfield, Iowa. 5-2

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-24

We pay $200 monthly salary, furnish car, and expenses to sell our Guaranteed Poultry and Stock Powders. BIGLER COMPANY, X352, Springfield, Ill. 4-3

SALESMEN WANTED

Feed Salesman Wanted—Large, reliable manufacturing concern in middle west wants to secure the services of a responsible man to represent them in territory of Ohio and Michigan on their mixed feeds. Application must contain detailed information as to past experience, salary expected, etc. Address BOX 344, care Hoard's Dairyman.

Salesmen wanted to sell "Waukesha Mineral Feed." Exclusive territory, good commissions. Ask for particulars now. H. J. WELSH, Box 111, Waukesha, Wisconsin. 2-8

FARMS FOR SALE

Strout's Spring Farm Catalog Just Out. Complete guide to bargains everywhere. 126 interesting pages, pictures and details of money-making equipped small and large farms, boarding houses, state road business places and summer homes on mountain, river and lake. Many at prices less than buildings' value, even less than a single year's income. There's a bargain on pg. 48 in lakeside 75 acres on improved road, mile RR. town, dandy 6-room home, good barn, other bldgs. insured $3500; at low price $4200 you get auto, 8 good cows, horses, poultry, furniture, complete equipment, only $1000 cash. Be like the satisfied Strout buyer who writes "I purchased a farm through you two years ago in May; I consider it worth twice the price I paid." Write or call today for this money-saving time-saving guide. Free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

Farmers are invited to spend this summer in Oregon. Oregon is a very beautiful state with a temperate climate and all kinds of outdoor sport and recreation. Oregon is also an agricultural state—with a more diversified soil and a greater variety of crops than almost any state in the Union. You will enjoy a vacation in Oregon and perhaps, if you are contemplating a change, may find the ideal new location you have been looking for . . . mild winters, cool summers, good markets, good schools and splendid highways. Write, today, for any kind of information to the publicity dept., room 744, PORTLAND CHAMBER OF COMMERCE, Portland, Oregon.

Dairy—Have an ideal location for a dairy close to Casper. Will sell at a sacrifice, irrigated, ditches all in, water right fully paid, gravity flow from the Platte river, bottom land, sandy loam soil, under cultivation, 320 acres—more acreage can be arranged for—5 room house, large barn, fenced and out buildings. $70.00 per acre, 1-3 cash, 5 years on the balance. Casper and vicinity ship in 75% of her dairy products. 40,000 population for a market and milk wholesales at 52c per gallon. For further particulars write J. E. NELSON, 1044 E. First St., Casper, Wyoming. 4-3

Dairy farm 160 acres, Barron County, Wis. Modern 8-room house, light and water. 2 barns; 1 has cement floor, 16 stanchions; silo. Cement floor granary; machine shed; tile milk house; hog house. Soil clay mixed with sandy loam. 90 acres plow land; 70 acres pasture and wood lot. Will sell to experienced farmer at a price and on terms which can be met from income. References requested. A few other Wisconsin farms on same terms. For particulars write C. M. PUTNAM, P. O. Box 376, Madison, Wisconsin. 5-4

Canada—Farm lands for sale, between Lakes Winnipeg and Manitoba. The Municipality of Siglunes have title to about 50 quarter sections. Good for mixed farming, especially dairy and chicken ranching. Some land partly improved, some with buildings in fair condition. In reach of good town—Ashern—with creamery. 111 miles from the city of Winnipeg. Daily train service. Sale prices vary from $400 up. For particulars write S. H. FOORD, Secretary-Treasurer, Ashern, Manitoba, Canada.

2000 Middle West farmers moved to Oregon in last two years, after thorough investigation. They like our mild winters, cool summers, with no severe storms to ruin a season's work and destroy property. Fine roads and schools, productive soil, good official bulletins and illustrated facts booklet, free. Land Settlement Department, OREGON STATE CHAMBER OF COMMERCE, 265 Oregon Building, Portland, Oregon. 3-4

A Wisconsin farm home for less than the mortgage. Comfortable house, large, well built barn and other buildings. Located in famous dairy district of southern Wisconsin. $2500 cash payment, 30 years on balance. We will send you complete description Free. BANKERS JOINT STOCK LAND BANK, Milwaukee, Wisconsin, Dept. 14.

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

320 acre dairy farm fully equipped. Take part exchange, easy terms. WERNER FARM, Kenosha, Wis.

FARMS WANTED

Need several farms immediately. Must be close to school. WALT. MILLER, Carpenter Bldg., Milwaukee.

Wanted—Equipped farm; give price, etc. L. H. RAISLER, 6700 Wentworth Ave., Chicago, Ill. 3-*

Want 160 to 300 acres improved and fully equipped. WALT MILLER, Carpenter Bldg., Milwaukee.

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The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 232, G. N. Ry., St. Paul, Minn. 24-*

DAIRIES

Fully equipped dairy 1½ miles from Minneapolis city limits. Seventy head grade A cows, horses and Fordson, De Laval milker and all other necessary equipment. Will buy all the milk produced at a good price right at the place for retail routes established 15 years. 250 acres plow land, 120 acres pasture. None other than thoroughly experienced dairyman with some cash need answer. Address BOX 341, care Hoard's Dairyman.

For Sale—A thriving milk route business. With or without Guernsey cows. Will rent or sell farm. Good reasons for selling. RAY CANFIELD, Owner, Long Prairie, Minn. 5-4

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Frost Proof Cabbage and Onion plants. Open field grown, strong, well-rooted from treated seeds. Cabbage, fifty to bundle, labeled with variety name, damp moss to roots, Jersey Wakefield, Charleston Wakefield, Succession, Copenhagen, Early and Late Flat Dutch. Onions: Prizetaker, Crystal Wax and Yellow Bermuda. Parcel Post Prepaid cabbage: 100, 50c; 200, 75c; 300, $1.00; 500, $1.25; 1,000, $2.00; 5,000, $8.00. Onions: 500, 90c; 1,000, $1.40; 6,000, $6.50. Express Collect, 6,000 and over Cabbage, $1.00 thousand, Onions, 75c thousand. Full count, prompt shipment, safe arrival, satisfaction guaranteed. Write for free Seed and Plant Catalog. UNION PLANT COMPANY, Texarkana, Ark. 6-3

Bermuda Onion plants express collect 45c; Sweet Spanish 70c; cabbage 90c per thousand; 6000 per crate. LIND PLANT FARMS, Cotulla, Texas. 6-3

For Apple Trees, Strawberries, etc. send for catalog. KELLOGG'S NURSERY, Box 229, Janesville, Wisconsin. 5-3

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Jacques Seed Corn—Grown from my own pure bred select breeding stock, under my personal supervision, in North Wisconsin. Selected from standing stalk before frost, dried out perfectly in my new dry house, equipped with individual ear racks, furnace heat and forced ventilation. Every bushel carefully tested 95-100% germination and strong vitality. Inspected and certified by Wisconsin Experiment Association. Sold subject to thirty days test. Get reliable seed from North Wisconsin's largest seed corn grower. Golden Glow, Cold Resistant Golden Glow, Silver King, Minnesota Thirteen, Jacques' Northern Yellow Dent, Wisconsin 25. Also the highest grade Grimm Alfalfa in officially labeled and sealed bags, pedigreed oats and barley. Write for illustrated booklet and prices. WM. H. JACQUES, Box H, Prescott, Wis. 3-5

Winter Hardy Registered-Certified fancy grade Grimm Alfalfa seed, bags free, 35c per pound. North Dakota State Seed Commissioner has inspected, tested, sealed each sack. This Alfalfa guaranteed to conform to seed laws of your State. We still have limited supply Sweet Clover seed. Write for free samples and delivered prices on Alfalfa and Sweet Clover. Attractive special prices on club orders. NORTH DAKOTA GRIMM ALFALFA ASSOCIATION, State College Station, Fargo, N. D. Co-operative organization of over 500 growers. 6-2

Alfalfa Seed—Do you know why your alfalfa winter killed? You no doubt did not use hardy grown WESODAK alfalfa seed. The seed we market is grown by our members who live in Western South Dakota. We market from producer to consumer. We grow S. D. No. 12, Registered Grimm and Cossack, and absolutely guarantee genuineness of variety. Write for price and samples to THE WESTERN SOUTH DAKOTA ALFALFA SEED GROWERS EXCHANGE, Nick Caspers, President, Mgr., Rapid City, S. D. 1-*

Wisconsin grown Registered and Certified Seed Corn, Oats, Barley, Wheat, Clovers, Timothy, highest quality Grimm Certified and common Alfalfa seed. Seeds priced right and guaranteed to give satisfaction. Write for free catalog. POPP & LANG SEED CO., Jefferson, Wisconsin. 4-4

Buy Your Grimm Alfalfa Seed direct from the Introducer, and know that your foundation stock is pure, pedigreed seed, bred from the original Grimm strain. Acclimated to severe northwest temperatures since 1857. A. B. LYMAN, Introducer, Excelsior, Minnesota. The home of Grimm Alfalfa.

Crop 1925. Seed Corn. 110 day yellow dent. $2.60 per bushel, shelled, in two bushel lots or over. Butts and tips discarded. High germination. Sacks 35c apiece extra. Order from this ad.; and, do it now. R. W. BORDER, Kearneysville, Jefferson Co., West Virginia. 6-2

Certified Wisconsin Pedigree seeds. State inspected and tested. Quality guaranteed. Price reasonable. Write for catalogue. JEFFERSON COUNTY PURE-BRED SEED GROWERS ASSOCIATION, Fort Atkinson, Wisconsin. 6-2

Pure Certified Grimm's Alfalfa Seed direct from the man that grows it. Hardiest and best. Send postal for samples and folder for full information. TRIANGLE RANCH, Cottonwood, S. D. 27-*

Seed Corn—Dependable, vigorous. Several varieties. Experienced growers. Satisfaction guaranteed. Write for prices. Supply limited. JOHNSON & ARNESON, Dassel, Meeker County, Minnesota. 4-*

Alfalfa—Montana common 96%-plus purity, 100 lbs. $11.00. Genuine Grimm 10 lb. sample, prepaid $3.00. MONTANA SEED CO., Glasgow, Montana. 4-3

Genuine Grimm Alfalfa Seed. White and yellow sweet clover. Reasonable prices. SAM BOBER, Newell, South Dakota. 4-3

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Genuine Iowa 103 Oats will yield 90 bushels on your best ground. Pure seed, thin hulls, thick meats. Best nurse crop for alfalfa. E. M. WRIGHT, Manteno, Illinois.

Certified Grimm alfalfa seed 99% pure. $30.00 per 100. Direct from grower. 20,000 pounds for sale. WM. DeMESSEMAKER, Tampico, Montana. 5-2

Alfalfa Seed—95% pure, $6.50 per bushel; Scarified sweet clover, 95% pure, $5.50; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

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Hardy Nuts. Beautiful Shade. Grafted Illinois Pecans. Delicious. SUNNY RIDGE NURSERY, Round Hill, Va.

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We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

You can find what you want here!

TOBACCO

Homespun Tobacco—Smoking or chewing. 4 lbs. $1.00; 12, $2.25. Send no money, pay postmaster on arrival. Pipe free for ten names of tobacco users. UNITED FARMERS OF KENTUCKY, Paducah, Kentucky. 6-4

Guaranteed Homespun Tobacco—Chewing 5 pounds $1.00; 10—$1.75; Smoking, 10—$1.50. Pipe Free. Pay when received. UNITED FARMERS, Bardwell, Kentucky. 5-2

Homespun Tobacco—Guaranteed, good flavor. Chewing, 5 lbs. $1.00; 10, $1.75; Smoking, 5 lbs. 75c; 10, $1.25. Pay when received. FARMERS UNION, Mayfield, Ky. 6-2

Send us 5 names of tobacco users with order for 4 lbs. of our tobacco for $1.00 and get an extra pound free. Pay when received. FARMERS' ASSOCIATION, West Paducah, Ky. 6-4

DAIRY SUPPLIES

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer to consumer. $1.75 for Carton of 300 if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Michigan. 4-4

For Sale—One Bestov milk cooler, 250 quart capacity, good as new. Price $16.00. EARL LYTTLE, Franklin, Pa.

Churn wanted, small Minnetonna. S. KLETTE, Tolono, Illinois.

DAIRY BARN EQUIPMENT

Wanted—Forty used steel stalls complete and 300 feet track with feed and litter carriers. All or any part of same. J. H. BAINES, Lanham, Maryland.

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Pups—Satisfaction guaranteed. Registered Police: males, spayed females $15.00; females $12.50. English Bulls: males, spayed females $10.00. WILBUR DAY, Brighton, Iowa.

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

Hounds, collars, medicines, supplies. Free book. KASKASKENNELS, F18, Herrick, Illinois. 6-4

TURKEYS AND GEESE

Blue Ribbon Giant Brilliant Bronzed, Vigorous, disease-free turkeys, eggs and hardy turks, 100% arrival. Unrelated flocks. We're leaders. GREGORY TURKEY FARM, Cumberland, Wis. 5-4

Bronze Turkeys, Toulouse Geese, McCRADIE, Hendrum, Minnesota. 5-2

HATCHING EGGS

Eggs from strictly purebred (267 egg strain) Barred Plymouth Rocks and (272 egg strain) White Leghorns $1.60 per 15; $6.50 per 100, postpaid. MISS MABLE HARDING, St. Peter, Minnesota. 6-*

FARMS FOR SALE

Every farmer likes rich black prairie soil such as found in North Dakota. Your choice of a number of these improved farms of 160 acres up while they last at unheard of prices, $500 to $1000 cash, balance 36 years at 5 per cent. Write for information. FEDERAL LAND BANK, Box 20, St. Paul, Minn. 6-5

Western New York; 287 acre stock and dairy farm. 32 miles from Buffalo. Gravel loam. Sloping gently south and east. Large gambrel-roofed basement barn. Two houses, other buildings. Town improved road. Two miles to town, railroad. One of the best in Erie County. CHARLES J. BAKER, Batavia, N. Y. 6-2

Farm For Sale—In the best mixed farming district in Manitoba, Canada. Real bargain. 1440 acres highly improved, fully equipped. Excellent soil. Black loam and clay subsoil, good water and buildings. Price $30.00 per acre on reasonable terms. JNO. P. RYAN, Owner, Shoal Lake, Manitoba, Canada. 6-2

Rich Georgia Farm Suitable for Dairying—1400 acres fine land in middle Georgia dairy belt cheap. Good markets for sweet and sour cream. Will pay 10% commission to anybody who will sell it for me. Write for information. F. P. STUBBS, Ezell-Griffin Co., Eatonton, Ga. 6-4

Chautauqua County, N. Y. offers opportunity for dairy and fruit farmers equal to any. Pool price for January milk 2,732 gross per cwt. We can sell what you want at ridiculously low prices. Write, CHAUTAUQUA GUERNSEY FARMS, Bank of Jamestown Bldg., Jamestown, N. Y. 5-4

Dairy Farms—"Davidson Plan"—160 acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 3-5

Farms For Sale or Rent—Ask for descriptions of our Wisconsin dairy farms. Available now. Prices and convenient methods of financing. Write today. WISCONSIN DAIRY FARMS CO., 105 Wells St., Milwaukee, Wis. 6-3

For Sale—Quarter section central Wisconsin dairy farm, complete. $1500 cash, balance easy terms. Address BOX 325, care Hoard's Dairyman. 5-3

70 Acres Waukesha, Wis. Fully equipped. 21 cows. Address BOX 316, care Hoard's Dairyman. 5-2

For Sale—Farm of 110 acres in town of Center, Outagamie County, Wisconsin, 90 acres clear. Long time easy payments at low rate of interest. ELI DEFUET, 157 E. Forest Ave., Neenah, Wis. 6-2

Increase your income. Buy a Wisconsin dairy farm in either Dunn, Barron, Sawyer or Rusk Counties. Our own lands. Inquire FRANK CARTER COMPANY, Menomonie, Wis. 6-4

For Sale—Productive 200 acre dairy farm, 25 miles Cleveland. Exceptional buildings. $22,000. Terms. SILDEN ARMBRUSTER, Grafton, Ohio.

Wonderful opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Ga.

FOR RENT

Will rent shares or sell half interest eighty acre dairy. $500 handles if you have stock. GLEN HOUSEHOLDER, Madison, Wisconsin.

WANT TO RENT

Wanted To Rent—Dairy farm by experienced dairyman with help. State terms in first letter. Can take charge at once. Address BOX 333, care Hoard's Dairyman.

CREAMERIES

For Sale—Creamery and dairy business in city of 8,000. Doing profitable business. Death of proprietor cause of selling. If interested communicate at once with F. R. KEELER, Ross County Farm Bureau, Chillicothe, Ohio.

LUMBER

Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 909S, Everett, Washington. 5-2

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

HAY

Alfalfa Hay for Sale. Write for delivered prices. GILBERT MILLER & CO., 192 No. Clark St., Chicago, Ill. 18-*

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa—Dawson County Hay Shippers Association offers complete Federal inspection with cooperative marketing, all grades. Write for prices. Lexington, Nebr.

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Hay—Alfalfa and other kinds. Get our delivered prices. We serve you best. W. A. FERSON HAY GRAIN COMPANY, Kansas City, Mo. 17-*

Alfalfa and all kinds hay. Ask for delivered prices. HARRY D. GATES COMPANY, Jackson, Michigan. 22-*

For Sale—Alfalfa and other hay, car lots. CHAS. WING, Box 21, Mechanicsburg, Ohio. 27-*

Alfalfa Hay for sale. Get our delivered prices. R. E. HALL CO., Kansas City, Mo. 4-6

Hay For Sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 5-4

Alfalfa and Prairie Hay. Delivered prices. SUTTIE & PEDERSON CO., Omaha, Nebr. 5-2

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

MATTRESSES

Mattresses made any size, low factory prices. Catalog free. PEORIA BEDDING COMPANY, Peoria, Illinois. 3-10

MISCELLANEOUS

Raise muskrats, Mink, Raccoon for big profits. Write FUR FARMS BUREAU, London, Canada.

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, visitation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN PRINT DEPT., Fort Atkinson, Wis. 19-*

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*



Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Wanted—Experienced married dairyman capable of being promoted. Permanent position. $90 per month to begin. Children attend city schools. Fine climate, good water. Send copy of reference first letter. BOWMAN'S SANITARY DAIRY, Box 764, Trinidad, Colorado. 5-2

Wanted at Once—Farm hand willing to work and good milker for Brown Swiss dairy in St. Lawrence County, New York. State wages expected and qualifications in first letter. Address J. F. ZOLLER, care General Electric Company, Schenectady, N. Y.

Wanted—Assistant herdsman with wife to cook for men. Man must be clean and kind to cows, woman must be good cook. Steady employment. $90.00 per month, room and board. HORD BROS., Box 728, Midwest, Wyoming.

Wanted—Man on dairy 30 miles from Kansas City, Kansas. 75 cow barn, milking machine. Must know cows, calf raising and produce results in building herd. Single man preferred. State reference and salary expected. Address BOX 331, care Hoard's Dairyman.

Wanted—Man for general farm work. Modernly equipped. One-half mile from city. No cigarettes or booze. Send references. State wages and full particulars in first letter. BYRON GATES, Fort Atkinson, Wis. 6-*

HELP WANTED

Wanted—Good, steady, single man who understands caring for cows and milking machine. Steady place for right man. State wages expected. THOS. M. HUGHES, Birdville, Pa.

Wanted—Married man with small family to work and manage a 60 acre dairy farm near Racine, wife to help milk. Buildings modern. Address BOX 327, care Hoard's Dairyman.

Railway Positions—Men, 17-40, wanting positions office or on trains, $125-$400 monthly, free passes, experience unnecessary. Write BAKER, Supt., 124, St. Louis, Mo. 1-24

Wanted—Single first class dry hand milker for certified dairy. Neatness and cleanliness are essential. Wages $70.00 per month, board and room. Address H. F. RHODES, Bella Vista Farms, Ypsilanti, Mich.

Two good dry-hand milkers, between ages of 21 and 45. Wages $45 per month and board. MAGNOLIA FARM, Muscogee, Florida. 5-2

Wanted—A reliable, experienced, man for general farm work. Mechanical milker used. State age and wages in first letter. W. J. BRAY, Elkhorn, Wis. 6-2

Wanted—Woman for general housework on farm—full charge. State age. T. MILLER, 3203 W. Madison Street, Chicago, Ill.

Wanted—Man to plan and build an up-to-date milking barn. Write ATWOOD STOCK FARM, Winston-Salem, N. C. 6-3

Wanted—Married man and single man (Hollander preferred) to work on dairy farm. High wages. H. DOUWENGA, Route 5, Somerset, Pennsylvania.

Wanted—Practical middle-aged farmer or recent agricultural graduate. Foreign birth or extraction preferred. Summer home. Purebred Holsteins. Address ADVERTISER, 1433 Gas Bldg., Chicago, Illinois.

Wanted—Experienced single man for milk route and dairy work. Protestant, clean, honest and reliable. State experience, wages expected and reference first letter. Address BOX 329, care Hoard's Dairyman.

Firemen, Brakemen, beginners $150-$250 monthly; also clerks, railroads everywhere (which position?). RAILWAY ASSOCIATION, Desk M-10, Brooklyn, N. Y. 6-2

Wanted—Reliable, experienced herdsman and farm hand. Holsteins, modern equipment. References required. C. J. WILL, Templeton, Wisconsin.

Wanted—Experienced single man for general farm work. Good milker. Steady job, good wages. Address BOX 330, care Hoard's Dairyman.

Wanted—Single man of clean habits to take care of 25 cow dairy barn and assist with poultry. Highest wages. FLOYD LE MAY, Belvidere, Ill. 6-2

Wanted—Married man and son 16 years old or older to drive retail milk route. Good wages, and steady position. THE SANITARY GUERNSEY DAIRY, Rochelle, Illinois.

Wanted—Herdsman to take charge of a Guernsey herd. State experience and all information. Address BOX 340, care Hoard's Dairyman.

Wanted—General dairy and farm hand. State wages wanted. C. A. DAVISSON, Milford, Indiana.

POSITION WANTED

Herdsman Position Wanted—By single man. Lifetime experience with dairy cattle, eight years as herdsman with breeding estates and commercial dairies. Know feed and feeding, A. R. O. work. Good calf raiser. Some veterinary experience. Good manager, neat and clean. Have produced grade A and certified milk. Holsteins or Guernseys preferred. Not particular about location. Open at once. Address BOX 336, care Hoard's Dairyman.

Farm Manager wants position in East. Practice and theory of farming combined. Born and reared on farm. 4-year agricultural college graduate. Instructor in Dairying at Agri. college 2 years. Now managing 800 acre farm producing farm crops, fruits, vegetables, sheep, hogs and purebred dairy cattle. Experience in Advanced Registery and show ring. Have produced results. Best of references." Address BOX 326, care Hoard's Dairyman.

Position Wanted as herdsman or farm manager by married man with two children. Lifetime experience farming and dairying. For the past 10 years have had full charge of dairies and farms from 20 to 600 acres and from 20 to 600 cows. Now in full charge of one the finest dairy farms in the state of Ohio. Address BOX 339 care Hoard's Dairyman.

Managing herdsman fifteen years experience, breeding, feeding for production, showing and sales. Thoroughly familiar with pedigrees and high grade milk production and marketing. Salary $150.00 per month and maintenance for first year. Best of references. Address BOX 342, care Hoard's Dairyman.

Dairy Farm Superintendent—Lifetime experience in practical dairy farming, cattle breeding, production and marketing certified and high class milk products. Services available in sixty days, any section, references. Prefer Guernseys. Address BOX 334, care Hoard's Dairyman. 6-4

Agricultural graduate, married, farm raised, seven years farm management experience desires connection with farm, dairy or poultry enterprise. Northern Ohio preferred. Address BOX 328, care Hoard's Dairyman.

Position wanted on large dairy farm as working foreman by married man. Life experiences. Three years on last place. Sale of farm reason for change. References as to character and ability. Address BOX 343, care Hoard's Dairyman.

Young man wants work on dairy or grain farm. Experience in milk house and route work and can handle all farm machinery, including tractors and trucks. Reference if necessary. Address BOX 335, care Hoard's Dairyman.

Wanted—Position as working herdsman or entire charge of test cows. College training, practical experience, 35, married, no children. Address BOX 337, care Hoard's Dairyman. 6-2

Young Danish man wishes work in a creamery or cheese factory. 9 years' experience. Any place in U. S. A. Write A. PEDERSEN, 518 62nd Ave., Milwaukee, Wisconsin.

Herdsman wants position taking care small herd of cattle. Single, age 25. References. Prefer Wisconsin. BOX 338, care Hoard's Dairyman.

Capable dairy farm manager desires good proposition. Shares, or salary. GRANT E. VOLLAND, Brookfield, Wisconsin.

Experienced farm hand desires position. Do not use tobacco. State wages and fully describe work. WALTER CORDING, Boone, Nebr.

Scotchman wants job as calf man. 12 years last job. Experience at shows. JOHN McCORMACK, Iowana Farm, Davenport, Iowa. 6-2

Wanted by April 1st work on dairy, or general farming. 8 years experience. H. KITSMAN, Eau Claire, Wis.

Four Wisconsin Holstein Herds Sold

The dispersion of the Walcowis and J. W. Houard Holstein herds at Waukesha, Wis., March 1, brought out buyers from seven different states who were willing to pay fair prices for good animals.

Eighty-seven animals—the two herds—averaged $183, with the Walcowis herd of 58 head averaging $194. Carnation Milk Farms paid the top price, $410, for a 2-year-old granddaughter of Iowana Sir Ollie from a 908-lb. dam.

The average for animals of the different age classes were as follows: Five bulls of all ages averaged $194; 34 cows 4 years old or over averaged $222; 3 three-year-olds averaged $242; 8 two-year-olds averaged $240; 37 heifers under 2 years averaged $125.

At the dispersion of O'Connor & Sons' and Lawritz Larson's herds March 2 at Watertown, Wis., 100 head brought $13,180, an average of $132, with $330 the top price.

Averages for March 2 follow: Three bulls averaged $91; 34 cows 4 years old or over averaged $173; 12 three-year-olds averaged $155; 18 two-year-olds averaged $155; 32 heifers under two years averaged $70.

Haeger, Baird, and Darcey managed the sales, and Mack and Haeger did the selling.

Census of Dairy Products

The Department of Commerce announces that, according to data collected at the biennial census of manufacturers taken in 1926, the establishments engaged primarily in the manufacture of butter, cheese, and condensed milk reported, for 1925, products valued at $973,827,000, an increase of 1.9 per cent as compared with $955,350,000 for 1923, the last preceding census year.

The total for 1925 was made up as follows: Butter, 1,445,204,000 pounds, valued at $632,373,000; cheese, other than cottage, 504,186,000 pounds, $111,286,000; cottage cheese, 50,161,000 pounds, $4,159,000; condensed and evaporated milk, 1,799,694,000 pounds, $144,866,000; powdered milk, including dried and powdered buttermilk, 110,684,000 pounds, $11,865,000; "ice cream mix" or stock, 85,361,000 pounds, $9,215,000; miscellaneous products, such as butter oil, dried casein, sugar of milk, canned sterilized milk, surplus milk and cream sold, skimmilk, buttermilk, etc., $60,063,000.

Of the 6,830 establishments reporting for 1925, 2,726 were located in Wisconsin, 863 in Minnesota, 523 in New York, 417 in Iowa, 292 in Michigan, 202 in Ohio, 201 in Illinois, 164 in Pennsylvania, 162 in California, 124 in Oregon, 121 in Washington, and the remaining 1,035 were distributed through 26 other states and the District of Columbia.

Soil Management

A good example of finding out what the soil needs and then giving it the proper treatment is shown by an Indiana soil fertility experiment begun in 1913 at North Vernon. The land, although it had been receiving some manure and fertilizer, was averaging less than 30 bushels of corn to the acre. The soil was naturally wet, sour, and low in available plant food. With proper tile drainage, liming to correct soil acidity, and the application of six tons of manure and 200 lbs. of acid phosphate per acre per rotation, the average yield of corn for the four crops of corn since corn first followed clover in the rotation was 80.6 bushels per acre.



Losing?

A pound here, a pound there. Look out! Watch those little discrepancies. Often they are the difference between profit and loss.

But you don't KNOW unless you use a scale — a good, reliable scale that will tell you exact weight of everything you buy and sell.

Put this scale on your farm, as hundreds of farmers have done. It is a genuine, Fairbanks long-life scale. Has the latest improvements including Easy-Reading Poise and Arrow Tip Beam.

Have your dealer show you this scale. Quantity production permits the extremely low price.

Write for free booklet—

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FAIRBANKS, MORSE & CO.,
900 S. Wabash Ave., Chicago

And 40 principal cities in the United States

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Hollow Hill Farm

One of the show places of California, located at Colton

FOR SALE

Complete Dairy for 200 head -- Two farm houses -- 90 acres alfalfa land

Price $75,000. Less for cash. No interest in trades.

GEORGE W. WILDER, Prop., COLTON, CALIF.



FARROW CHIX FOR SUCCESS

WINTER EGGS



200 EGG STRAIN

BANKING

Buyers of Farrow Chix start banking their winter receipts sooner than raisers of unknown Chix.

Our 200 egg strain are positive winter layers

MORE WINTER EGGS

This is the cry of thousands of poultry raisers. When eggs are high and profits the greatest you need Farrow Chix to fill the egg basket. Our Star Matings White Leghorns—bred to produce 200 egg pullets—can do this for you. A few dozen eggs in winter will more than pay difference in cost of these chix and common stock.

You can't get blood out of a turnip. Neither can you expect to have laying chix from non-laying hens. Be sure of winter eggs and order our Star Matings. They are winners in egg contests. They will win for you. Tancred, Hollywood, Barron blood lines. Chix from America's Wonder Layers.

Confidence, Service, Reliability --- 3 Million Farrow Chix a Season

Quality Matings Farrow Chix March and April Delivery

	50	100	500
S. C. White and Brown Leghorns	$6.00	$11.00	$52.50
Barred Rocks, S. C. Reds, Anconas	7.00	13.00	62.50
R. C. Reds, White Rocks	7.50	14.00	67.50
Buff Orp., Wh. Wyandottes, Bl. Min.	8.00	15.00	72.50

Special Matings 3c a chick higher and Farrow famous Winter laying Star Matings Wh. Leghorns 6c a chick higher than Quality Matings. AMERICAN CERT-O-CULD

Farrow Chix produced under "American Cert-O-Culd" rules of the American Baby Chick Producers Ass'n. There are none better. Postpaid. 100% alive delivery. Write for 80 page catalog. Free.

D. T. FARROW CHICKERIES Dept. 18 Peoria, Illinois

BLOOD TESTED FLOCKS

Our flocks of Pure Bred, High Quality, Heavy Laying Fowls are annually tested FOR BOTH WHITE DIARRHEA AND TUBERCULOSIS. This testing is done by Assistant State Veterinary under University of Illinois supervision. 35,000 HENS UNDER TEST. **LARGEST PLANT IN THE WORLD PRODUCING BLOOD TESTED CHICKS ONLY.** Our Stock is selected especially for vigor and High Laying Qualities and Ancestry in both male and female. We are not State Accredited but eligible for Accreditation, when we call for it. We will have ONE MILLION OF THESE CHICKS for our customers during 1927. We also give a SEVEN DAY GUARANTEE on our Chicks. Our prices are moderate and from $12 PER HUNDRED and up according to variety and number ordered. We will also allow BIG DISCOUNTS on Brooders. **GET OUR BIG, FREE, COLOR PLATE POULTRY BOOK FOR 1927, before ordering Chicks elsewhere. Illustrates our Blood Tested Fowls in their natural colors and contains a great amount of information of value to you as well as detailed prices on our 15 leading Varieties. All Chicks Postpaid and 100% Live Delivery Guaranteed. Best of Shipping Facilities. Play Safe for 1927 by Buying our GUARANTEED CHICKS from fully TESTED FLOCKS.** Ref.—First Nat. Bank of Oneida.

LING'S HATCHERY, Carl Lingwell, Prop., Box 524, ONEIDA, ILLINOIS



CHICKS — Backed By Gold

Our chicks guaranteed by a $500.00 gold bond on deposit at Denhart Bank of Wash. You take no chances in buying Bonded, pure-bred, vigorous chicks—they are bound to make good.

Varieties Postpaid Prices:	25	50	100	500	1000
S. C. Wh. and Br. Leghorns	$3.50	6.50	12.50	60.00	115.00
S. C. Mottled Anconas	3.75	6.75	13.00	62.50	122.50
Bd. Rocks, R. C. & S. C. Reds	4.00	7.50	14.50	69.00	135.00
B. Orp., Wh. & Buff Rks, Blk. Min.	4.25	8.00	15.50	75.00	147.50
Wh. and Silver Wyandottes	4.50	8.50	16.00	77.50	152.50
Light. Brah., Wh. Min., Col. Wyan.	4.75	9.00	17.00	82.50	162.50
Blue Andulu., Silv. Spgl. Hamburgs	5.25	10.00	18.00	87.50	172.50

Mixed Chicks $10 for 100—all heavies $12. Special matings at slightly higher prices. 100% live arrival. Send for new free catalog that tells all.

BONDED HATCHERIES Box 1 Washington, Illinois

THE CHICK OF THE HOUR



CAMPBELL'S SUPER-CHIX are hatched from bred-to-lay flocks that are real egg machines, and the Chicks have the **PEP TO LIVE** and **GROW.** Customers report Raising up to 98 per cent. Males from leading pedigree trapnested Strains such as **TANCRED, MARTIN, SHEPPARD, THOMPSON, OWEN FARMS,** etc. Flocks inspected by State Vet. rigidly culled and **HOGAN TESTED. PROMPT SERVICE** or your money back.

100 Per Cent Live Arrival Guar.--Prepaid	100	500	1000
Wh. & Br. Leghorns, Heavy Assorted	$11.95	$55.25	$105.00
Anconas	12.95	59.75	115.00
Barred Rocks, S. C. & R. C. Reds	13.45	64.75	128.00
Wh. & Buff Rox, Buff Orpington	14.95	71.75	133.00

Champion Layers Winners Trapnest Records, Contest Winners.

White Wyandot, 100, $14-95-- Columbian Wyandot, 100, $15.95. Mixed Chicks, 100, $10; 500, $47.25. Order right from this ad and save time, Free Catalog. Ref.: Schirding State Bank. CAMPBELL'S HATCHERIES, Box 512, Petersburg, Illinois



MINKLER'S Hatchery

MINKLER'S CHICKS Are from good, pure-bred, vigorous flocks, bred for heavy egg production, carefully selected and cared for in a manner to insure greatest vitality in the chicks.

Full Live Delivery Guaranteed—Prepaid	50	100	500	1000
White and Brown Leghorns	$6.00	$11.00	$52.50	$100.00
Anconas	6.50	12.00	57.50	110.00
Barred Rocks	7.00	13.00	62.50	120.00
White & Buff Rocks, Reds	7.50	14.00	67.50	130 00
White Wyandots, Buff Orpingtons	8.00	15.00	72.50	140.00
Heavy Assorted	6.00	11.00	52.50	100.00
Assorted Left Overs	5.00	9.50	45.00	85.00

Order from this ad. Bank Ref. Member A.B.C. P.A. & National Hatcherymen's Assn. MINKLER'S HATCHERY, Dept. 19, Morris, Ill.



WALDBESER CHICKS~FOR PROFITS



CHICKS AND SERVICE. We have only Flocks that are **TRUE** to name Culled and Tested for diseases, which will hatch Chicks that will live, and produce large quantities of eggs. Try our Leghorns for egg production, you will be back again next season. 100 Per Cent Live Delivery.

Prepaid	50	100	500	1000
White Leghorns, Anconas,	$6.00	$11.00	$52.50	$103
Barred Rocks, S. C. Reds,	6.50	12 50	60.00	117
White Rocks and Wyandots,	7.00	13.00	62.50	122
White and Buff Orpingtons	7.50	14.00	67.50	130

White Minorcas, 50, $8; 100, $15; 500 $72. Asstd, 100, $9; 500, $43.00; 1000, $85. Order from these low prices. Chicks shipped on date ordered. Ref. Morton State Bank. MORTON HATCHERY, Chris Waldbeser Jr., Prop., BOX 23, MORTON, ILLINOIS

EXCELLO CHICKS

"VALUE FOR MONEY"

BUILD UP YOUR FLOCKS

from **UNRELATED STOCK, PURE BRED, HEAVY EGG PRODUCTION RIGIDLY CULLED** from range flocks. Full Live Delivery Guaranteed. Prepaid.

March and April Prices:	50	100	500	1000
S. C. Wh., Br., Buff Leg., Ass't'd H'vy	$6.50	$12.00	$60.00	$120.00
Barred Rocks. S. C. Reds	7.50	14.00	67.50	135.00
White Rocks	8.00	15.00	72.50	145.00
Buff Orpington, Wh. Wyandotte	8.50	16.00	77.50	155.00

EXCELLO PLUS QUALITY CHICKS 2c per Chick higher than above prices, from extra selected, high egg producing flocks. We want your continued business and will make every effort to please and satisfy you. Ref.—New Farmers State Bank. EXCELLO HATCHERY, Dept. J-7, MASON CITY, ILLINOIS.

FLOCKS TESTED FOR WHITE DIARRHEA



ALL FLOCKS TESTED FOR BACILLARY WHITE DIARRHEA

Carefully culled for heavy egg production on free range, and properly housed, fed and cared for to insure the greatest vigor in our **IDEAL CHICKS.** S. C. White and R. C. Brown Leghorns, Barred and White Rocks, S. C. Reds, White Wyandots, Buff Orpingtons, Anconas. Our many years experience and labor is **YOUR INSURANCE OF SUCCESS** with your Poultry crop this season and at our **VERY MODERATE PRICES** you take no chances when you order our Hardy, Healthy, Vigorous, Pure Bred **IDEAL CHICKS.** Get our 1927 Literature containing full information and detailed prices now before placing any orders for Chicks.

LAFAYETTE HATCHERY, INC., Dept. 34 (Formerly LaFayette, Ill.) GALVA, ILLINOIS

Poultry on the Dairy Farm



Poultry Record Work Pays Dividends

HOARD'S DAIRYMAN:—Inheriting a flock of Barred Rock chickens from another member of the family and building up the flock to a high production standard has been the experience of Mrs. C. L. Wiles of Cass County, Nebraska. Co-operation with the college of agriculture extension



MRS. WILES AND ONE OF HER RECORD HENS

service in the poultry record flock work enabled Mrs. Wiles to gradually raise the egg production of her flock from 118 eggs the first year to 123 eggs the second year, then to 132.6 eggs the third year and, finally, at the close of the fourth year in the record flock activities, to make a record of 148.6 eggs per hen.

This consistent increase in average production per bird, Mrs. Wiles attributes to the lessons secured in the record flock activities—lessons on housing, lessons in sanitation, lessons in feeding, and lessons in culling. Mrs. Wiles also appreciates the fact that being enrolled in such work gets her in touch with hundreds of other men and women who are engaged in similar work.

Asked by the writer why she preferred the Barred Rocks, Mrs. Wiles said: "The Barred Rocks, in my opinion, have about the finest meat of any breed. They are especially good as broilers. My egg records show that they are a real dual-purpose breed."

Two feeds which Mrs. Wiles regards as well nigh indispensable, especially during the winter months, are sweet milk and soaked oats, fed in connection with a regulation laying mash. The soaked oats are always fed in the morning. They are soaked all night and in the winter are heated before being fed. Alfalfa is a feed whose virtues in the poultry ration is never doubted by this poultry woman. A load of good alfalfa hay is stacked near the poultry house each fall and covered to keep out rain and snow.

Although some of her neighbors may be enthusiastic about marketing broilers, Mrs. Wiles feels that when one has a pure-bred flock of birds there is more money in keeping the fowls a little longer and selling the males and females as breeding stock. Her standard laying mash consists of ground corn, oats, bran, and salt. She does not use bone meal, feeling that the sweet milk takes its place. Use is made of plenty of wood charcoal and oyster shells at all times.

Nebraska. H. HOWARD BIGGAR.

Cod Liver Oil for Poultry

HOARD'S DAIRYMAN:—We read about feeding cod liver oil to the poultry flocks and the benefits that accrue from it, but most of these writings are not very definite in methods or amounts to be fed. For two years past we have been feeding the oil and we do not hesitate in recommending its use. It is not a cure-all but it is one of the best preventives of disease and trouble that we are acquainted with. Curing sick hens and chicks is a mighty unsatisfactory process, anyway. Prevention of disease is much better.

The usual method of feeding the oil to young chicks is by mixing with the mash. One pint daily to five hundred chicks has been the formula used; that is, one pint of oil is mixed with the amount of mash placed in the hoppers each day. This year we have tried out a different method. Just before dark the chicks are fed all the scratch grain they will consume. It is placed before them in a hopper so they can get it quickly, the theory being that the crops should be stuffed just before the long sleep of twelve or more hours. Before the grain is placed in the hoppers it is moistened with oil and worked over with the hands, until every grain has a coating. The chicks do not object to the oil, indeed they seem to like it after they get the taste. By this method we use something like one pint daily for five hundred chicks and all of them get a share. This means for chicks three or four weeks old. Each day they get practically the same amount, while the oil is always fresh. When mixed with the mash, it may become rather stale before the chicks eat it.

We are feeding a flock of laying hens in the same manner, administering the oil in connection with the last feed of scratch grain just before dark each day. We feed a certain amount of grain each day and use enough of the oil to coat each kernel in good shape. We believe we should feed enough of the oil to see results. It does not add greatly to the cost of feeding when the oil is purchased in bulk. We feed at least a half pint a day to each one hundred birds. Our plan is to pour enough over the grain to moisten it thoroughly, both in the case of chicks and old birds.

Cod liver oil is an excellent medicine for ailing birds. We had several hens come down with some trouble which appeared to be paralysis. We separated them from the flock and administered three doses of oil with a medicine dropper each day until they got on their feet and recovered. The oil has a wonderfully invigorating effect upon the appetite, hence it is valuable with the molting birds. We believe its use will shorten the time of molt very materially.

Chicks and older birds which are kept closely housed particularly re-

spond to the oil treatment. Chicks grow faster and winter broilers are ready for market several days earlier as a consequence of feeding it daily.

Cod liver meal is now on the market, but there is a question whether the oil in this form retains its potency as long as does the pure oil. Get a good quality of oil and do not be afraid to feed it without stint.

CHARLES H. CHESLEY.

New Hampshire.

Turkey House

In your Hoard's Dairyman of January 25 you show a picture of a turkey house. I would be very pleased if your could send me more particulars about it. I keep over 12 or 15 hen turkeys each year but have never had a house for them.

L. Waterford, Vt. J. W. D.

The house illustrated in Hoard's Dairyman of January 25th is just a building tightly boarded on three sides with a wire front which answers the requirements for a satisfactory turkey house in that it is draft proof, being closed tightly on three sides and acts as just a shelter for them and also aids in the protection for the birds.

A person wants in building any type of a house for turkeys, which is merely a shelter, to be absolutely positive that there is no possibility of draft occurring. I know of one instance of a turkey farm where they had a severe outbreak of roup and associated ailments in a flock and upon visiting, at their request, found that they had drawn two colony houses up, allowing a space of about two feet between them and put a bunch of roosts across there and then had boarded up the back with a roof over it, and this back was just rough boarding with knot holes in it; in fact, there were some places that were cracked two or three inches wide. This, of course, caused cross drafts which resulted in the colds. The rest of the flock which had roosted out in the trees was not bothered because they were not in a drafty roosting place. They thought they were doing them a kind act in supplying this protection, but the birds would have been a great deal better off in the open than roosting under these conditions.

The investment in a house such as this is very small, since we do not attempt to emphasize heat or uniform temperature or any of those things which we do in a regular laying house for poultry.

There are no plans that I know of that are available for buildings such as this, but I believe that the pictures given show up enough so that it illustrates this type, and the same is true of any other building which we might wish to construct.—J. B. Hayes.

Lameness

We have some kind of a disease in our chickens that I would like to have your advice on. When they first get sick they refuse to even as much as drink water. They live for about two weeks. They get lame and when they die their heads get real dark red. Is there anything that we can do to stop the disease?

Sherburn, Minn. W. B.

The symptoms given in this case are very meager on which to attempt sort of a diagnosis of the trouble in the flock.

The lameness noted is probably due to either one of two causes. When we hear of any prolonged sickness in the birds followed by death, associated with lameness, we usually suspect that it is due to avian tuberculosis. In this case you will find upon posting out one of the dead birds that the liver is spotted and you will also find this condition true of the spleen. Usually in bad cases the nodules will be found on the intestines and the bird is very, very thin and emaciated. If those conditions appear when you

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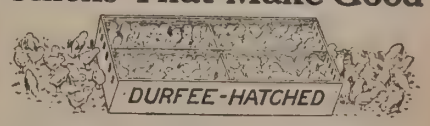
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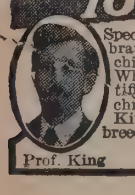
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open up a dead bird you can feel positive that it is due to this trouble.

In other cases we find that lameness is often associated with worm infestation in the flock. In these cases one can open up the caeca, or those two pouches that we find extending off the intestines or the intestines themselves and the worms will be found there in big numbers.

In cases of T. B., of course it means a clean-up of the entire flock in the spring of the year with the necessity of raising the young flock brooded under artificial conditions on clean ground, keeping them there until fall, selling off all of the old birds in the spring of the year and then not keeping any birds on the range until the stock is brought in the following fall. With this procedure one can usually clean up in one year. No medicine is of any advantage.

For worms there are two methods recommended, one the Kamala treatment for tapeworms, the other one is the nicotine sulphate capsules for roundworms. These have both worked out to the satisfaction of a great many people.

Until you are sure of what the trouble in the flock may be, I should advise that you give the entire flock Epsom salts at the rate of 1 pound to 100 birds in a moist mash or in the drinking water. If the trouble is due merely to some decomposed material that the birds have picked up, causing poisoning, this will straighten them up to some extent. I doubt very much whether this is the case, however, since poisoning usually means the death of a bird in a short time, and you state that they usually hang on for about two weeks.

It would also be well for you to check this with your local veterinarian or to send a specimen in to the Veterinary Department of your State University, providing you cannot get the advice of a local veterinarian. This would be a whole lot more conclusive than it is possible to do merely by the symptoms which you have indicated in this case.—J. B. HAYES.

Size of Brooder

My wife and I have always hatched and brooded chickens in nature's way, but this year we plan to build the 8x12 brooder house recommended by the Wisconsin Experiment Station and brood 300 baby chicks in it. Are we overestimating the capacity of the house? What size brooder would safely handle these chicks?

Blanchardville, Wis. W. R. B.

If you contemplated brooding 300 chicks as one lot it would undoubtedly be advisable to construct the 10x12 colony house rather than the 8x12, since we can never depend upon our spring conditions and it may be necessary to carry these birds in confinement over a longer period. Undoubtedly if we were sure of being able to turn them loose on range at an early period, the 8x12 house would accommodate the bunch during that time in a satisfactory manner.

For a 300-chick lot a person would be justified in probably buying the so-called "1000-chick size" brooders. The principal advantage in this is that they usually carry a larger magazine on the stove which necessitates coaling only twice a day. Many of the smaller chick size, such as the 500, carry a smaller magazine and during extremely cold weather it may be necessary to give attention to this stove three or four times a day. A recent change, though, in a great many of the stoves has been made in that the only difference between the two is in the size of the canopy and the stove and magazine are the same in each instance. The size required would be to a great extent determined by this.

Another advantage which lies in buying the larger one probably comes from the fact that if you did in the next few years plan on obtaining a larger number of chicks than the 300, they could still be accommodated under the 1000-chick size, while the 500 would be usually too small.

There isn't any general application to the rule but most of the brooder stoves are double rated, in that the 500 should be used for about 250 chicks and any number above that a person should invest in a 1000-chick size and then plan on carrying about 450 as the maximum number in one lot.—J. B. HAYES.

Worms in Poultry

We are having trouble on the farm among our several hundred W. Leghorn hens or perhaps I should say pullets only. The ailment perhaps first is noticed by drooping wings, later a staggering gait, then more or less complete paralysis. When bad they flop around helplessly till they die or maybe they will remain in that condition for a long time; a few seemingly recovering. The appetite in many cases seems good and they act like they had lots of pep though their efforts end like those of a drunken man. I surmise that we have lost half a hundred and we are not the only ones by any means.

Now we know that long worms infest them and no treatment that we have tried so far eliminates them. Where the worms came from we do not know as all the flock were secured as baby chicks and we have no reason to think that the soil was infected, for last winter the smaller flock did extremely well and we saw no symptoms.

I might say that so far as we know the tapeworm is not troubling us and we have been feeding a balance ration and they have fresh running water from the house supply which is piped to the runs.

Scottsdale, Ariz. C. H. E.

There are one or two possibilities which might be the cause of the trouble which is noted in the pullet flock of White Leghorns. The first and most prevalent, of course, is that paralytic condition in maturing stock which is indicated in cases where the birds are infested with worms, either tapeworms or roundworms. For the elimination of the tapeworm, tobacco dust has usually been recommended, but has not been giving satisfactory results. A second method, and a very stringent one, was the use of the lye treatment when given with some sort of grain.

Recently most of the stations have recommended the drug known as kamala, which has apparently been satisfactory as a treatment of tapeworm. It has sometimes been said that this could be given to a flock without any serious or noticeable after effects.

This, apparently, depends entirely upon the condition of the flock at the time it is given, since in one instance a number of the decidedly weakened birds were lost and the entire flock had quite a setback. In another instance, I know where the drug has been administered three times during the year, and aside from the loss of the very emaciated, decidedly weakened individuals, no noticeable effects were observed.

I believe that a person can take it pretty much for granted that if the treatment is going to be satisfactory in expelling tapeworms from a flock, it is going to be sufficiently severe so that a setback will be noticed in the bird, and those producing at that time will be thrown out of laying condition and the entire bunch will indicate sort of a droopy condition. There may also be some deaths in the flock as a result of the weakened



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WHITE DIARRHEA

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GLOVER'S
IMPERIAL DOG MEDICINES

ones being unable to survive the treatment. These birds will undoubtedly die anyhow, and one can be certain that the flock will not produce satisfactorily until a satisfactory worm treatment will be followed. For this purpose, kamala can undoubtedly be recommended.

We have also rather believed that there is another condition in a flock where the pullets or about half matured birds would indicate something wrong by paralysis that may or may not be associated with worms. This is noticed usually in birds that are about half matured, but I believe in most cases that we should treat them for worms even under those conditions.

As long as the young birds are running on the range that the old birds have been on, or even in case they haven't been on, there is a chance for worm infestation, and we all, undoubtedly, will soon come to a point where sanitation of poultry range will become of greater importance, and even then we will undoubtedly adopt the practice of treating our birds internally for worms, before they go into winter quarters, just exactly the same as we treat them externally for other purposes.

I rather believe that between the two possibilities the worm condition in the birds is to blame for this trouble since this indication of drooping wings and staggering gait and more or less complete paralysis is usually associated with worms in poultry.—J. B. HAYES.

Wet Picking Poultry

The wet method of picking poultry was demonstrated by H. J. Rahmlow at the recent Farmers' Week at the Wisconsin College of Agriculture. His remarks were, in part, as follows:

"You will notice we brought the chickens here alive. That is to demonstrate the first essential step—don't kill the chicken a long time before picking, as the muscles will set and it is more difficult to take the feathers off.

"The second essential is the temperature of the water. Boiling water will cook the skin and set the feathers. This is especially true with broilers, as the skin is torn if the water is too hot. Water too cool will not loosen the feathers. Scald pickers do not agree on the proper temperature; between 170 to 190 degrees Fahrenheit is all right. I prefer the lower temperature for younger birds. It will pay most poultrymen to have a floating dairy thermometer, which can be bought for less than $1.00. A good guess, without a thermometer, is one gallon of boiling water and one quart of cold water.

"The third essential is to leave the birds in the hot water for the right length of time. For fast picking a number of birds are dipped at one time. Dip until the long wing feathers pull out easily. It is necessary to try them often. Stop dipping as soon as the wing feathers pull out easily, or the feathers will set again to a certain extent and the skin will tear.

"Lay the bird on a smooth table. If the table is wet and has feathers on it, less bruising will result.

"First, grasp the wing close to the body, and with a gentle twisting motion rub the feathers off toward the tips of the wings. All feathers will come off quickly. Keep a few feathers in the hand and gently rub the feathers from the side and leg in the same direction as the feathers lie, and then repeat on the other side. The feathers on the back and neck are usually rubbed in the opposite direction.

"With a little practice any one in this audience can take the feathers off a bird in less than 15 seconds. If the bird is dipped in cold water as soon as it is picked it will improve the appearance and make it look plump.

"Scald picking has the merit of requiring less skill and being quicker than dry picking. On the other hand, it soaks the skin which seriously injures its keeping quality.

Turkeys, ducks, and geese can also be picked in this way, but it is better to dip burlap or a blanket in boiling water, and leave the bird wrapped in it for 10 to 15 minutes to steam it.

"In singeing the birds do not use printed paper, gasoline, or wood flames, as they smoke the carcass. Plain wrapping paper is all right, as well as gas or alcohol flames. If a good job of picking is done, very little singeing will be necessary."

What Good Hen Eats

What one good hen eats in a year was shown by the poultry department of the Minnesota College of Agriculture in an exhibit at the Minnesota State Fair. Of scratch grain she consumes 20 lbs. cracked corn, 10 lbs. oats, 10 lbs. barley. Her laying mash which is fed dry in a hopper totals 8 lbs. each of corn meal, ground oats, wheat bran, wheat middlings, and beef scraps with the addition of 1% charcoal and 1% salt. She eats 4 lbs. of oyster shells and 2 lbs. of grit fed separately in a hopper. Her feed bill totals $1.523 a year.

If she eats she must more than pay her board bill, says the poultry department, and they showed the yearly egg production of four different hens: 1, pays board and little more; 2, pays board and 90 cents; 3, pays board and $1.80; 4, pays board and $4.70.

Laughter is like oil to machinery—it soothes many of the hard places as we go along through life.—Mead Co-operation.

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the PERSONAL SERVICE Hatchery

Michigan Accredited 96 UNCULLED PULLETS LAY 7,611 EGGS FROM SEPT. 1, 1926, to JAN. 1, 1927, writes customer from Muskegon, Michigan. This is an average of 21 eggs per pullet per month. YOU can do the same with our stock, which is the result of 14 years of breeding for SIZE, TYPE, WINTER EGGS and HIGH FLOCK AVERAGE, instead of a few high individuals. We have HOLLYWOOD, TANCRED, and ENGL'SH type S. C. White Leghorns, SHEPPARD'S Anconas, Brown Legnoras and Barred Rocks. Hollywood foundation stock from 280-290 egg record; Tancred foundation stock from 250 up egg record stock. Ancona foundation direct from Sheppard. The very best in Brown Leghorns and Barred Rocks. Our chicks are HEALTHY, VIGOROUS, Newtown hatched chicks from free range breeders. The strongest proof of the quality of our chicks is, that we have doubled our hatching capacity over last year. With "TOWNLINE" you also get "PERSONAL SERVICE." LARGE NEW CATALOG FREE.

NOTE THESE LOW PRICES—

	100	500		100	500
English type S. C. W. Leg.	$13.00	$60.00	Anconas & Br. Leg.	$14.00	$65.00
Hollywood or Tancred	15.00	70.00	Barred Rocks	16.00	75.00

ASSORTED OR MIXED CHICKS 10c EACH.
Chicks shipped postpaid. 100% live delivery guaranteed. Discount on early orders.

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Buy your chicks from heavy laying flocks that are officially accredited by inspectors supervised by Michigan State College and of prize winners at the Holland Poultry Show. White and Brown Leghorns, Anconas, Barred Rocks, S. C. R. I. Reds. 100% live delivery, postpaid. Send at once for free catalogue, full particulars and detailed prices.

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Chicks that are hatched from free Farm range breeders fed on milk from the dairy on the same farm. Our flocks and hatchery inspected and passed by representative of Mich. State College. Refer you to State Com. Savings Bank. Order from this ad.

Prepaid prices on—	25	50	100	400	1000
S. C. White & Brown Leghorns	$3.75	$6.50	$12.50	$48.00	$115.00
Barred Rocks	5.00	8.50	16.00	62.50	150.00
S. C. Reds	4.75	8.00	15.00	58.00	140.00

Light Mixed, $9.00, Heavy Mixed $13.00 per 100. Our chicks are Michigan Accredited. 10% down books your order. Free catalog. 100% live delivery prepaid.
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WE HAVE BEEN PRODUCING AND SHIPPING CHICKS from our High Class, Heavy Laying Flocks to thousands of pleased customers all over the country and rendering Full Satisfaction. WE CAN DO SAME FOR YOU in 1927. Flocks AM. CERT-O-CULD. 100% Live Delivery Guaranteed, Prepaid

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Barron White Leghorns, mated with Impt. Males	$10.50	$20.00	$96.00	$180.00
Extra Quality Barron White Leghorns	7.50	14.00	67.00	130.00
White, Brown, Black and Buff Leghorns, Anconas	7.00	13.00	62.00	120.00
Barred and White Rocks, S. C. and R. C. Reds, Black Minorcas	8.00	15.00	72.00	140.00
White Wyandotte, Parks Ped. Barred Rocks (PC-33)	8.50	16.00	77.00	150.00

White and Buff Minorcas, 100, $20. Light Mixed, 50, $5; 100, $9.50. Heavy Mixed, 50, $6.50; 100, $12.
If you have never purchased 20TH CENTURY CHICKS give them a trial in 1927 and be convinced of the High Quality we produce. Get our 1927 Catalog sure or order direct from this ad. Member A. B. C. P. A. Ref.—Commercial Bank. 20TH CENTURY HATCHERY, Box 27, NEW WASHINGTON, OHIO

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CAPPER SHIPS C.O.D. Send no money. Pay on arrival. Per 100: Big type Wh. Leghorns $13; Wh. & Br. Legs. $11.50; Buff Legs., Anconas $12; S. C. Reds, Bd. Rox $13.50; Wh. Rox, R. C. Reds, Blk. Minor. $14; Wh. Minor. $18; Buff Orps., Wh. Wyan. $15; Heavy Mixed $11; Ass'td. $9. $2.50 dis. on 500. Super quality chix 3c higher. CAPPER HATCHERY, Box I, Elgin, Iowa.

WHITE LEGHORN CHICKS

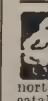
sired by pedigreed males, records 200 to 293 eggs. Low prepaid prices. Shipped anywhere C. O. D. and guaranteed. Hatching eggs, cockerels, pullets, hens, egg bred 27 years. Winners at 17 egg contests. Write for free catalog and special price bulletin.
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DeSoto Condensed BUTTERMILK

4¢ lb — 3¢ lb

A pound of De Soto Condensed Buttermilk mixed with water makes 4 gals. of pig slop. For poultry feed, use one lb to 3 gals water. Satisfaction guaranteed

10 Pound Trial Pail For 30c In Stamps.

DeSoto Creamery & Prod Co. Minneapolis Minn

125 lbs Hog — 500 lb Beef

Saves Losses **Ross Brooder House**



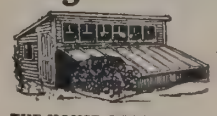
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(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

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Know what they are producing. Such knowledge pays big dividends in cash.

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Bull—dropped March 6, 1926, solid color, straight and right. Ready for service. Sire—a grandson of Sybil's Gamboge with R. M. dam. Dam—a granddaughter of Golden Majesty. She with C. T. A. record of 493.9 lbs. fat. Price $175 F. O. B. Lake Geneva.

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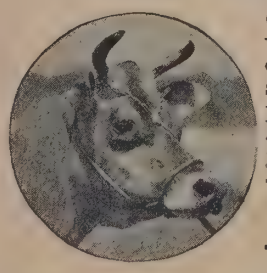
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We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

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Will sell a limited number of Young HEIFERS and BULLS.

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AYRSHIRE COWS

FULLY ACCREDITED

300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

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Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.

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A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.

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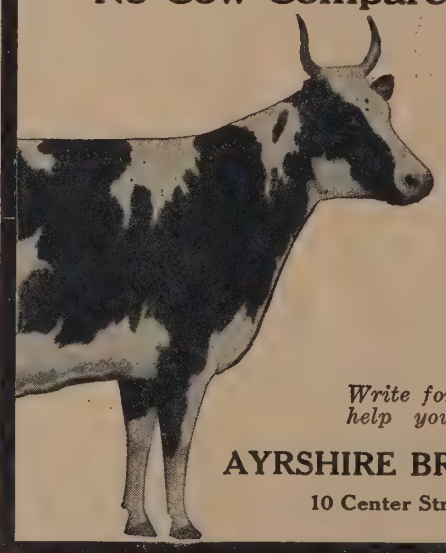
Sire—McAllister Betty's Son.

Dam—Barclay's Thistle. R. of H. record, 9159 milk, 4.02% fat, Class EE.

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FOR the Ayrshire has a certain style and beauty all her own. Strength and freedom of movement are written in every detail of her make-up. No hillside is too steep, no pasture too rough and no trail too long for the Ayrshire. The Ayrshire is always ready to meet conditions too unkind for cattle of less character.

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1877 After Fifty Years of Progress — 1927



GUERNSEYS TETHERED IN PASTURE AT LES VAUXBELETS
One of the scenes awaiting those who join the Pilgrimage party of breeders, college and press representatives, and others whose friendship and livestock interest will take them on a delightful, inexpensive voyage of education and recreation.

The Guernsey Pilgrimage

WHEN eleven charter members laid the foundation for The American Guernsey Cattle Club in 1877, they built ruggedly for the future on the principle that the Club's chief function was that of service to its members and breeders.

During the last fiscal year the Club registered as many pure bred Guernseys as during the first thirty years of its existence. This remarkable figure has been reached by steady, progressive annual increases. In practically every year the number of transfers issued has increased over the previous year, which is indicative of the market activity of the breed itself. In every year the average production of the breed has been increased by about 100 pounds of milk and five pounds of butter fat.

In proper and fitting celebration of this fiftieth anniversary year, the Guernsey Pilgrimage has been conceived and planned as an appropriate means of recognizing the growth of the Club. Leaving New York on May 14th, a specially conducted party will visit England and the Channel Islands — returning arrive in New York on June 20th. Jersey as well as Guernsey will be visited, and the principal Island Shows will be held to coincide with the time of the visit. Attractive additional tours in the live stock districts of the British Isles and the Continent are also being arranged.

Address the **PILGRIMAGE SECRETARY** for details on the itinerary, estimated costs, etc.
This is the opportunity of a lifetime. Write or wire today!

8 Grove St. **The American Guernsey Cattle Club** PETERBORO N. H.

REGISTERED GUERNSEY HERD
Offered At Private Sale !

Having decided to sell Oakwood Farms in small tracts, I am offering for sale my entire herd of Pure-bred Guernseys which was started in 1910 with three Foundation Cows purchased from W. W. Marsh of Waterloo, Iowa. My herd consists of 45 head of females and 10 males, mostly young, and in splendid condition.

My last two Herd Bulls were sons of Prince Cherub and Eminent of Sarnia. If interested in purchase of one or more Guernseys from a clean herd, it will pay you to write me for list with full description and prices.

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The Chicago Dairy Cow Exchange is offering at private sale high class dairy cows, mostly Guernseys and Holsteins. Most of them are fresh or springers. These cows come direct from herds in accredited counties, from accredited herds, or herds that have passed at least one clean test.

When you are in the market for healthy, profit producing, cows, come to the "Exchange." Write us today for complete information.

CHICAGO DAIRY COW EXCHANGE
Reid Murray, Manager, Barn 12, Union Stock Yards, CHICAGO, ILLINOIS

IARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this

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MARSH FARM, WATERLOO, IOWA

BUY LADYSMITH CHERUB BLOOD

ewood Farm offers the bull, SHOREWOOD HERO, a double grandson of Ladysmith's ub whose 19 A. R. daughters average 600 lbs. fat. Dropped April, 1926, solid fawn, good ridual. Sire—Cherub's Royal Leader of Shorewood (senior herd sire) whose dam, Pearl of eroy, has 777 lbs. fat in AA., full sister to Pearl's Dot, 965 lbs. fat AA. Leader's first daughters on test are doing exceptionally well. Dam—Cherub's Procris of Shorewood, feated 2-year-old and grand champion at 3 large shows, 1925. A. R. record 10,500 lbs. milk, lbs. fat Class G. while on show circuit. Her dam, Ma Chere Procris, National grand npion 1921, A. R. record 17,900 lbs. milk, 831 lbs. fat, Class A. A wonderful combination adysmith Cherub, May Rose and Jardinere Masher blood. Write for pedigree and price.
REWOOD FARM, CRYSTAL BAY, MINNESOTA

Buy from Hoard's Dairyman advertisers. They are reliable.

FOUNDATION GUERNSEYS
FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

MAYOWOOD FARMS
GUERNSEY BULLS

Only one left of serviceable age. We are offering several calves of Cherub and May Rose breeding at very conservative prices. Buy your next sire young and save money. Price lists and descriptions sent on request.

O. C. JENSEN, Supt., Rochester, Minn.

GUERNSEY BULLS

of MAY ROSE, GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

PROVINCE LINE FARM

BULL CALVES from 2 months to year old. Sired by our great bull, Langwater Bravery and from high producing A. R. dams. Pedigrees and prices furnished on application.

J. W. MILLER, Owner, Box 73, PRINCETON, N. J.

We want you to understand —

that Loma Farms has purchased the entire Bay Cliffs Herd, formerly at Bay Cliffs, Mich. We are carrying on the same breeding operations.

Standing back of the animals we sell is a fundamental policy with us.

Write us for low prices on bull calves.

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
MARQUETTE MICHIGAN

PENNCREST FARMS

ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pronounced by authorities as the best son, individually, of Ne Plus Ultra, whose offspring, for a number of years past, have invariably topped the sales of major importance. Near descendants of this great sire are becoming harder to secure, and in the near future will be valuable acquisitions. Breeders desiring the best there is in this blood will do well to investigate, as we are offering stock at the right price. Address inquiries to

WM. P. SMEDLEY, MGR., MEDIA, PA.

Bargains in Bull Calves
A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD LINES—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, Pa.

PRODUCTION BULLS--*Righto*

When they sire daughters which produce
A TON OF MILK A MONTH

Brookmead's Banner, sold as a youngster (Sight Unseen) for a reasonable price, is the sire of Silverwood's Diana:
December, 1925—2,158 lbs. Milk—ONE TON
January, 1926—2,187 lbs. Milk—ONE TON
Our present sales list carries equally good ones.

BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

New Vermont Guernsey Champion

Recently the Vermont State record for the production of milk and fat by a Guernsey cow was increased by a generous margin. The winner of this honor is Helen of Phillips Farm, a four-year-old Guernsey cow owned by T. Redfield Phillips. During her official record of 365 days, Helen of Phillips Farm produced 14,766 pounds milk and 786.6 pounds fat. The previous state record which has stood since 1915 was 12,399.6 pounds milk and 717.7 pounds fat by Noblesse 3d from the former Andrews herd.

By this exceptional record Helen becomes Vermont's Guernsey Queen and also leader in her own Class C (cows 4—4½ years of age) in the Guernsey Advanced Registry in Vermont. She was already champion in Class G by reason of her record made in yearling form: 10,972 pounds milk and 613.5 pounds fat. This record stands fourth in the Guernsey breed for that age.—The American Guernsey Cattle Club.

GUERNSEYS

HOLLISTON

Be Proud Of

Your Next Sire

Buy a Holliston Bull.

Prices within your reach.

D. G. TENNEY
15 West 4th St., New York, N.Y.

G-U-E-R-N-S-E-Y-S

Cows, four 4-year-olds, pure-bred out of A. R. dams and by an A. R. sire, bred to son of Lang. Hannibal. All right in every way and priced for quick sale. Only one bull calf left, born December 31, 1926, dam, a double granddaughter of Imp. Itchen Red Raider; sire, a son of Lang. Hannibal out of Imp. Mildred 2nd of les Godaines.
LONE PINE FARM,
F. J. Wolverson, Mgr., ANGUS, WIS.

FAWNWOOD FARM
SEVERAL REG. GUERNSEY BULLS FOR SALE!

One of serviceable age King of the May breeding. These animals have taken premiums in their respective classes at our county fair, one whose dam won Jr. Champion over all dairy cattle competing 1926. Accredited herd.
H. J. SCHEIDHANER, Rhinelander, Wis.

GUERNSEYS! GUERNSEYS!

Carloads of pure-breds or grades. Prices are right. Come or write.
LACROSSE COUNTY ASSOCIATION,
VILAS YOUNG, Sec., West Salem, Wis.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.
JAMISON BROS. APPLETON, WISCONSIN

Young Bulls $100 to $125

I have for sale several good young bulls from A. R. dams priced to move at once. Their breeding will suit you. The herd is clean. Write for sale list.
J. M. HARVEY, R. 2, Waukesha, Wis.

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to
FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

First Annual
AUCTION SALE
MONDAY, MAY 9
Foremost Guernseys

FIFTY HEAD, a very select offering from our federally accredited herd of 300 head. Cows in milk, fresh and bred, bred heifers, heifer calves, bulls and bull calves.
The high standard of excellence in our herd, eighty-four A. R. cows in the herd average 11,671.5 lbs. milk, 603.8 lbs. fat; Premier Exhibitor 1924, 1925 and 1926 winning 601 prizes at State, National, Sesquicentennial, and Major shows including Premier Exhibitor at National Dairy Show 1924-1925-1926, assures prospective purchasers securing animals of herd improving qualities.
Bulls bred to sire Production, Type and Reproduction.
Females worthy a place in any herd, they are especially valuable as foundation animals.

Catalogue only on request to
EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Heifers FOR SALE

The very best breeding. Accredited Herd. Write for information.
OTTO W. POST, Ensenore, N. Y.

SERVICEABLE
GUERNSEY BULLS

Advance (81175) Price $200.00. May 13, 1922. Dam's record 573.4 BF Class A. 3 Half Sisters have recently finished records as follows: 596.9 BF Class G—614.1 BF Class E. 633.67 BF Class E. Strong in length, depth, and dairy conformation.

Rose's Boy (86284) Price $200.00. October 30, 1922. Dam's record 487.64 BF Class A. This bull won 14 firsts and champions at leading state, interstate, and national shows.

Masterpiece (106746) Price $200.00. January 14, 1925. Good A. R. backing. Dam won 9 firsts, 5 Senior Champions, 5 Grand Champions at leading fairs in 1925.

Ethel's Gerar Royal (106745) Price $200 January 14, 1925. Dam's records, 510 BF Class GG, 601.9 BF Class C. Good length and depth.

These bulls are sound and right.
FERN-DELL GUERNSEY FARMS
A. W. Fox, Mgr., Green Bay, Wis.

LUXERIN GUERNSEYS
(SHERIDAN'S)
Fond du Lac - Wisconsin

TWO VERY HIGH CLASS YOUNG BULLS, born Feb. 9th and Feb. 10th, well-grown, good color, very good type (show kind) sired by Saugerties May Rose King 50343 A. R., one of Wisconsin's best sires. Dam's records 677.13 fat A. A. and 652.8 A. respectively. Accredited herd. Blood tested.

GUERNSEYS
Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.
WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address
EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

BUTTERGOLD GUERNSEYS

BUTTERGOLD CHARMER born October 12, choice bull calf, light fawn and white, good conformation, very pretty. Dam now on test, both grandams A. R. Nat. Grand Champion breeding. Fed. Accd. No abortion.
TARR BROTHERS, NEW AUBURN, WISCONSIN

Dissolution Sale!
April 5th, at Bloomington, Indiana

70 Guernseys and Jerseys—high class cows and heifers.
300 Ewes with young lambs—extra good ones.
20 Bred Sows—due to farrow in April.
40 Feeding Shoats.
1 team of good young mares.

Yellow Cab Will Meet All Trains Sale Day
For Further Information, Write
GREENWOOD & TOWNSEND, Bloomington, Ind.

LINWOOD GUERNSEY SIRES
COMBINE TYPE AND PRODUCTION



PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. CINDERELLA'S FAME OF MOUND CITY 78385. Dam: Cinderella's Josephine 909 lbs. fat.
2 REGISTERED BRED HEIFERS also 4 FINE BULLS with A. R. dams, records 740—669—634 and 624 pounds fat. Write for prices and pedigrees.
LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.
Homer Rundell Federal Accredited Herd
SOLD FOR $22,000.00

CORIUM GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.
A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.
Write for price list of our offerings.
CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

BULLS—HIGH CLASS FEMALES
SHOW TYPE—PROFITABLE PRODUCTION

We have for sale a few first class bulls, serviceable and younger from A. R. dams, and can also offer some good, young, registered cows and heifers. For several seasons our herd was successfully exhibited at the larger midwest shows. Cherub breeding. Write us or come to the farm.
L. P. MARTINY, Chippewa Falls, Wisconsin

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. A five choice high grade heifer calves express paid to your station for $150.
OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.
RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

BULL CALVES

No. 1—born 5-30-26, light fawn and white, C. T. A. dam.
No. 2—born 6-28-26, fawn and white, dam 553 lbs. fat class A.
Typy bull calves at farmers' prices F. O. B. Athens. Herd Federal Accredited and free of Abortion.
HELENDALE FARM, Athens, Wisconsin

BULLS

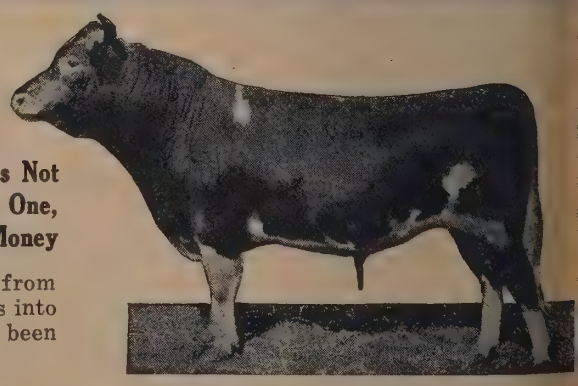
A son and grandson of Ivy Queen 41970, her record 16,-186.70 lbs. milk, 933.80 lbs. butterfat. Also others.
GEO. E. LARSON,
Amherst Jct., Wisconsin.

IF

Your Next Herd Sire is Not Better than Your Present One, You Are Going to Lose Money

Buy a young bull calf from us and instill blood lines into your herd that we have been developing for years.

Herd Federal Accredited
HOARD'S DAIRYMAN FARM
FORT ATKINSON, WISCONSIN



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when 2 years of age.
Sire, Anton's May King. Dam, Ma Chere Confidence, who has a junior 4-year-old record of 764 lbs. fat. Ma Chere Confidence is an outstanding daughter of the famous Jardinier's Mash A. K. C. sires, excellent udders, good bodies and real producers. His first 18 A. R. daughters average 406.87 lbs. fat on two times milking and at the average age of 3 years, 1 month.

Read the Other Live Stock Advertisements on Page 346

Advertisements of live stock and of live stock sales received too late to classify will be found on page 346

Canadian Holstein Affairs

HOARD'S DAIRYMAN:—Canadian olstein-Friesian breeders adopted system of Advanced Registry for emales at their annual meeting in oronto in February, and added a ecial class to their Advanced Regtry for bulls.

As with the bulls it is optional hether a breeder enters his animals r Advanced Registry or not. Those ntered will be graded into five classs in the case of females, the first ree based entirely on the confoation of the animal and her score each of the main divisions of the olstein-Friesian scale of points. The st two classes known as "Excellent" d "Gold Medal" require the cow or ifer to score 75 to 85 or over 85, spectively, in the scale of points d in addition to have a record of) per cent above the standard for alification in the regular divisions the Record of Performance or cord of Merit, or 33⅓ per cent ove the standard in the twice-a-day lking divisions of the Record of rformance.

The new class adopted for bulls d known as the "Extra" class reires that a bull must at least quali in the class that has been in effect r over a year, and in addition must ve at least sixty per cent of his ughters available for inspection aded as "Excellent" in the Adnced Registry for females, the six- per cent provision to apply only ter he has at least 10 daughters so alified.

An arbitration board is provided r those dissatisfied with the decins of the association's inspectors t no appeal has yet been made to s board from the decisions with spect to bulls.

The association passed without a senting vote an appropriation of 0,000 for extension work during coming year, an increase of $5,-0 from the year just passed. Three manent fieldmen will be employed, only association in Canada with large a staff engaged in this work.

It was a particularly good year for association last year financially they were able to pay off a mortge of about $10,000 on their head ce building and invest another),000 in stocks. Registrations toled 18,625, the largest for any ar in the history of the association d 2,625 more than last year. Transs numbered 18,090, an increase of 43 over 1925. There was a growth membership of 422 compared with the year before.

A special trophy was offered for petition at the Royal Winter Fair t year for the best provincial or te herd, the herd to consist of six mals; a bull two years old or over; ull under two years; two females ee years old or over; a two-year- heifer; and a yearling heifer. This s hoped will stimulate a competi- both from Canadian and Ameri- herds.

Ontario. C. H. HODGE.

Bulletins of Interest

Manufacture of Commercial Feed-Stuffs, by J. L. Hills. Bulletin , Vermont Experiment Station, lington, Vt.

Hubbard Squash in Storage, by M. Cummings and E. W. Jenkins. letin 251, Vermont Experiment tion, Burlington, Vt.

Giant Hill Potatoes a Dangerous rce of Seed, by A. H. Gilbert. letin 245, Vermont Experiment tion, Burlington, Vt.

Control of Smuts on Cereal Crops, H. L. Bolley. Circular 28, North kota Experiment Station, Fargo, th Dakota.

HOLSTEINS

MICHIGAN

Pure-bred Holstein Herd DISPERSAL

At the farm of the owner, E. L. Salisbury

SHEPHERD, MICH., APRIL 6

42 Registered Guaranteed HOLSTEINS

THIS HERD is pronounced by good judges one of the best of its size in the state.

EVERY ANIMAL was bred and raised on the farm except the herd sire (who is in the sale with 25 daughters).

A YEARLY AVERAGE OF NEARLY 11,000 LBS. for the 16 milkers (all heifers but 4) indicates the quality of the dairy.

A 31-LB COW with 3 daughters and 2 granddaughters, also 28-lb. and 29-lb. cows with daughters and granddaughters are in the sale.

DESIRABLE CALF-CLUB MATERIAL is represented by a dozen heifers from 7 to 20 months—extra good ones.

A NEARLY 17,000-LB. YEARLY RECORD has just been finished. This is a herd of producers.

SALE OF EQUIPMENT will precede sale of cattle. The owner is retiring from farming.

FOR CATALOG or other information write Mr. Salisbury or address,—

E. M. HASTINGS, Sale Mgr., PULASKI, N. Y.

1246-Lb. Bull For Sale!

To Avoid Inbreeding — I Offer

KING SYLVIA CAR BORN 355610

A son of Echo King Sylvia 267292, who is by King Valdessa Pontiac (6 daughters above 30 lbs.) and out of May Echo Sylvia, the world famous milk producer. Dam, Echo-Sylv Car Born 528386, Pennsylvania's champion milk producer with a yearly record of 31,970 lbs. milk and 1,246.12 lbs. butter. A splendid straight bull, born Aug. 20, 1921. His offspring are showing up fine, both those in my herd and in the Bell herd at Coraopolis. Write for further details.

R. W. EMRICK, Homestead Park, Penna.

KING PIETERTJE JEWEL ONA WAYNE

A son of the Grand Champion King Pietertje Jewel Korndyke from a dam that completed the world's record six-generation group. His first six dams in direct line have records averaging over 900 lbs. butter including his dam's record as a two-year-old for only 269 days and carrying calf 227 days. His 16 nearest tested dams average over 1,000 lbs. Born August, 1925. Ready for heavy service.

For Sale or would Exchange for Choice Alfalfa Hay

R. E. DILLON, Williamsfield, Ohio

OHIO HOLSTEINS

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N

2029 E. 102nd St. Cleveland, Ohio.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES

K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

L. E. FERGUSON, LAURENS, IOWA.



THESE TWO FULL SISTERS WERE UNBEATEN THROUGHOUT AN 8000 MILE CIRCUIT

Including The National Dairy Show, Pacific International, Wisconsin, Illinois, Kentucky and Illinois State Fairs and the Trenton Tri-State Fair. No Other Full Sisters of the Breed have such a Show Record.

We Offer You A Herd Sire of This Combination That Has Been Thoroughly Proved Out in Our Own Herd

The cow, Tillamook Daisy Butter King De Kol (see picture above, left), and her famous sister, Tillamook Lola May De Kol (right above), are All American Champions. The highest record National Champion of any breed is Tillamook Daisy Butter King De Kol, with 32,488.4 pounds of milk containing 1246.75 pounds of butter as a 4-year-old.

Our work with this combination of breeding has brought into our herd a good sized group of outstanding animals some of which are males. Naturally this presents a rare opportunity to the man searching for a herd sire that will prove safe and profitable. We have four bulls to offer you ranging in age from six months to six years. The daughters of the oldest one in our herd are milking 100 to 106 pounds a day right now and the type of all these bulls is excellent. They represent the combination above and include other All American Champions in their pedigree. Priced from $400 to $1500.

Wire Or Write At Once For Full Information

Address all correspondence to

311A CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Choice HOLSTEIN-FRIESIAN (Registered)

Cows and Bulls For Sale!

These cows hold high A. R. Records. Two score to select from.

CLAPBOARD HILL FARMS CO., Inc.
Office at New Canaan, Connecticut

FARMS AT NEW CANAAN, MIDDLEBURY, and GOSHEN, CONN.

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

JOHN H. PULS ALLENTON, WISCONSIN

HOLSTEIN BULLS of serviceable age and younger. Good individuals out of good individual record dams.

THE NORRIS FARM *Fully Accredited* **Mukwonago, Wisconsin**

GRAMLING FARMS HOLSTEINS King Pontiac Inka Lunde Korndyke, our senior sire is a son of King of the Pontiacs, a double grandson of Pontiac Korndyke. Bell Farm Chancellor, junior, sire, is a grandson of Bessie Fobes Oak Homestead from a 34 lb. 4-year-old daughter of Carnation King Sylvia. These bulls are being bred to our herd of Homestead females. We have sons and daughters of our senior sire for sale. The herd is clean.

GRAMLING BROS. DOUSMAN, WISCONSIN

DICMERE HOLSTEINS

SHOW TYPE—PRODUCTION

We have for sale bull calves 4 to 10 weeks old sired by Walcowis Ollie Abbekirk, a 968-lb. son of that grand champion, Iowana Sir Ollie. They are from 23-lb. to 25-lb. 3-year-old dams. $150 to $200 and bargains at that price. The herd is federal accredited. Write if you want a bull with type, backed by proven production.

H. E. DICKINSON, Oconomowoc, Wis.

REGISTERED HOLSTEIN HEIFERS

We offer several bred heifers due in March and April. All are sired by a 1,040-lb. Homestead sire and all are bred to a 990-lb. grandson of Iowana Sir Ollie. Accredited herd.

CHAS. HUGHES & SON, NEENAH, WIS.

SERVICEABLE BULLS— FOUNDATION HEIFERS

Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.

BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION

Frances Darcey, Sec'y. Watertown, Wis.

Quality Holsteins

Jefferson County Holstein-Friesian Breeders Association has them. Over 1000 herds to select from. Write your wants to our field man.

BERT ANTHES, Fort Atkinson, Wisconsin

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.

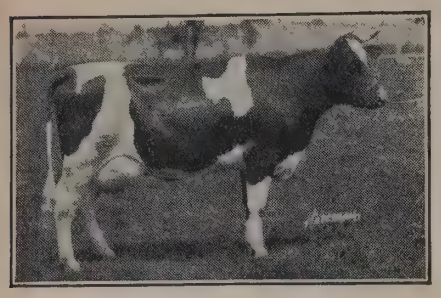
P. S. Come and make selections.

Read the Other Live Stock Advertisements on Page 346

Advertisements of live stock and of live stock sales received too late to classify will be found on page 346

BLUE RIBBON – **U.S. NATIONAL** – **SPRING SALE**

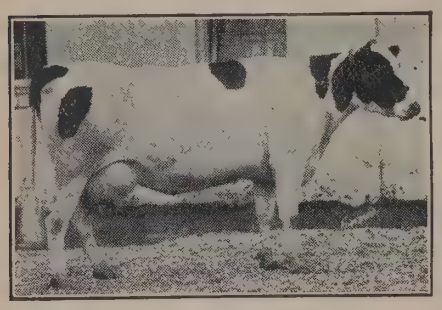
APRIL 25 OCONOMOWOC, WIS. | APRIL 26-27 WAUKESHA, WIS. | APRIL 28-29 WATERTOWN, WIS.



ORMSBY SENSATION ABBEKERK
This World's Champion junior two-year-old in the 305-day division has since come back as a four-year-old with over 1000 lbs. butter in a year. One of the breed's greatest cows.



BELLE CALAMITY WAYNE
Grand Champion at the National Dairy Show and Canadian Royal 1925 and Reserve All-American Aged Cow that year. She has a 34-lb. record and a 305-day record in the twice-a-day milking class equivalent to a 1000-lb. year record..



SEGIS SINDT FLORA BUTTER GIRL
Butter, 365 days at 4 yrs, 1197.47. Milk, 25983.70. Her dam is a 900-lb. daughter of a 1257-lb. 11-year-old.

Five Big Days of Holstein Sales

APRIL 25 — OCONOMOWOC, WIS.
U. S. National Blue Ribbon Sale

APRIL 26-27 — WAUKESHA, WIS.
U. S. National Spring Sale

APRIL 28-29 — WATERTOWN, WIS.
U. S. National Spring Sale (Continued)

This important series of Holstein Sales has been set ahead one day and will be held on the dates given above instead of as previously announced in the Holstein and Dairy Press.

This will be the most unusual opportunity ever offered to secure highclass Holsteins—*real seed stock*—with the desired combination of Production and Type. A few sample offerings are pictured here. In addition to these super-animals that will be in great demand as breeding stock for the more highly developed herds of the country, *there will be many that might be described as the highest class of commercial dairy cows—all registered Holsteins and proven profitable producers—the kind that will make good as a strictly dairy proposition.* Clean cattle, fully guaranteed, valuable as replacements for TB losses or as foundation animals for purebred herds.

A Sale of Wonderful Bulls

Some of the greatest young bulls in the country have been consigned, as well as several great proven sires. Many of them are from 1000-lb. dams and all of them are bulls that are bred for production and type. Some choice show bulls among the number.

Write today for illustrated circular

R. E. HAEGER Algonquin Ill. | **W. L. BAIRD** Waukesha, Wis. | **FRANCIS DARCEY** Watertown, Wis.

U.S. NATIONAL SALE — R. E. Haeger, W. L. Baird, Francis Darcey

U.S. NATIONAL SPRING SALE
America's Best Holsteins

SMALL ACCREDITED HOLSTEIN HERD
OFFERED AT PRIVATE SALE!

Dissolution of partnership makes it necessary to offer one of our herds for sale. It includes 26 registered Holsteins,—8 cows, 5 to 7 years old; a 4-year-old; three 3-year-olds; eight 2-year-olds; 4 yearlings; one heifer calf and one bull calf. The 8 cows and one 3-year-old are bred to Sir Ormsby Skylark Pontiac Segis, a 37-lb., 1,199-lb. grandson of Duchess Skylark Ormsby and King Segis Pontiac. The others are sired by him and bred to Sir Longfield Neeltje Segis, an excellent 30-lb. bull with good year record backing. Herd is accredited and free from abortion. This is an opportunity to buy what you want, one or a carload. Write or come to the farm.

C. A. SCHROEDER & SONS WEST BEND, WISCONSIN

Sir Bess Ormsby Fobes

Head Your Herd With a "Sir Bess" Bull

We have for sale a few very good young bulls by Sir Bess or from Sir Bess daughters and by Creation. If you want breeding, type, and long time production we are sure one of them will suit you. Write us or come to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) **DOUSMAN, WIS.**
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

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When you buy cows, heifers or bulls do you consider their freedom from abortion?

At the present time we take pleasure in announcing the fact that we have passed our third consecutive Agglutination (or blood test) without a single positive reactor in a herd of over 200 animals. Our herd is also under Federal Supervision for T. B.

IT PAYS TO BUY FROM CLEAN HERDS

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MILWAUKEE COUNTY INSTITUTIONS FARM, E. C. THOMPSON, Farm Mgr., **WAUWATOSA, WIS.**

Springers and Fresh Cows

HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

MILFORD MEADOWS
Where long-distance records and high test counts

Our daughters of King Bess Burke Ormsby (1164 butter) and Marathon Aaggie (1,250 butter) are most all bred to
SIR TRIUNE PANSY (1,317 lbs.)
First to freshen in January. You will be pleased with this combination of type and production.
W. W. KINYON, Mgr., LAKE MILLS, WIS.

HOLSTEIN Bulls - Females

YOUR PICK OF 150 HEAD. Abortion tested and T. B. free. First prize National Dairy Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.
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The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
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Buy from Hoard's Dairyman advertisers and tell them you saw their ad in Hoard's Dairyman.

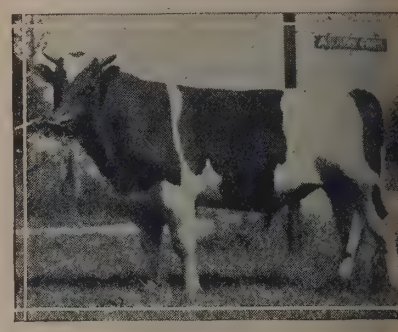
NATIONAL ORMSBY SALE
JUNE 15-16 1927
Minnesota State Fair Grounds
Minneapolis-St. Paul.

125 HEAD

Representng the "K P O P," "Sir P O M," "37th," "41st," "Triune," "Pride," "Piebe," and other noted strains of the great ORMSBY family.

For Further Information Write
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King Piebe 38th
Blue Ribbon Grandson of K. P. O. P.



Three "line bred" Ormsby Bess Burke bu ready for service, sired by King Piebe 3 and Marathon Fobes Ormsby, both grandso of K. P. O. P.—from good yearly rec granddaughters of Sir P. O. M. 37th. G individuals—well grown and priced to sell.

E. B. ADAMS & SONS
"Adams Farm" Racine, Wiscon

STATE and FEDERAL TESTED **HOLSTEIN**
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-b bulls—serviceable age, priced from $125 $1000. Two entire pure-bred herds—own have some of the best blood but for good r sons are quitting farming. 500 herds of best bred grades to select from.

Write or wire for information or appointments.
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Come to St. Croix County a Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-b and grades of all breeds. One or a carl Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, W

Calf Club Calves
Registered Holsteins $50 to $7
Fine quality good and straight males and females. Full time fieldman at your servi Write
ARTHUR V. JENSEN, Fieldman,
SHEBOYGAN CO. HOLSTEIN ASS
PLYMOUTH, WISCONSIN

2 Good Sons of Count Walk Homestead Segis

FOR SALE at my HIGHLAND FARM at L GENEVA, WIS. Count you know is a son of great cow, May Walker Ollie Homestead. One born April 24, 1926 is from a 670 lb. 2 year granddaughter of Little Gift of Spring Valley. other, born July 7, 1926, is from an 859 lb. daug of King Fan of Rock. Write today.
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Jefferson County Holstein Sales Associat

can assist you in purchasing good, clean dairy ca Grade or pure-bred in any number you wish. D all correspondence to A. F. GAFKE, secretary, J FERSON, WIS.



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Holsteins stand supreme as butterfat producers. Holsteins in most instances are leaders in cow testing associations, both in individual and herd records. Under official test the important records for butterfat are all held by Holsteins. Their ability to produce butterfat, milk and calves economically, make them consistent producers of cash.

Write for Holstein Literature and Facts

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN Association of America

230 E. Ohio St. Room 601 CHICAGO



EAR TAG 3105
Born June 24, 1926

THIS SHOW BULL FOR SALE

The sire is closely related to Bess Johanna Ormsby (the only 4 times 40-lb. cow) and the dam is a granddaughter of King of the Ormsbys (102 A. R. O. daughters). She made 18.56 lbs. butter in 7 days at 2½ years and is still under semi-official test, making 350 lbs. in 188 days. First check for $200 takes him.

WINTERTHUR FARMS, Winterthur, Delaware

Healthy Holsteins

You are in the market for grade or registered Holsteins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.
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Serviceable Bulls

We have two young bulls ready for light service for sale. Both are by Segis Prospect Eminent, a 30-lb., 1165-lb. grandson of Matador Segis Walker and Segis Pietertje Prospect.

No. 1. Born Feb. 20, '26. An excellent individual nearly white. Dam, De Kol Nethermere Homestead, 25.19 lbs. butter, 440.3 lbs. milk in 7 days. Price $200.

No. 2. Born May 7, '26. A very good, straight, well bred calf priced at $150 to sell quickly. The herd is clean. Write today.

THE W. T. RAWLEIGH COMPANY
Pres. Rawleigh's Ideal Farm, FREEPORT ILL.

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We have a choice selection of Bull Calves on hand that will be ready for service before next winter. These prices NOW represent a handsome profit for raising them. The selection is greater. Herd five miles in Ogle County C. T. A. Federal Supervision and Blood Tested."

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FORCED TO SELL! I am sold out of serviceable bulls but have some excellent bull calves 2 to 4 months old, priced right. They have the type and breeding that will suit you and are from A. R. dams. Write today. Entire herd blood tested for abortion without a reactor.

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We are offering BULL CALVES rich in Ormsby breeding from tested dams. These are from six to eleven months old. Some priced as low as $100.00. Write for pedigrees and further information. Herd under federal supervision.

BINGHAM BROS., Arlington Heights, Ill.

VARWOOD FARM HOLSTEINS

YOUNG BULLS FOR SALE

These youngsters are sired by a 1000 lb. grandson of Sir Pietertje Ormsby Mercedes 37th and are from our best producing cows. Write today if you want a bull with type and backed by productive breeding.

FRED LANDORF, GLEN ELLYN, ILL.

BULL BORN SEPT. 23, '26

Sired by a 24-lb. two-year-old with 460 lbs. of butter. He is sired by a good proven bull. He is about ¾ white and a real individual. Send for pedigree and price.

ELLWOOD & NELSON
DEKALB ILLINOIS

Hyde Park Farm

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Ross Park - Illinois

With our fully accredited herd of high-producing registered Holsteins is headed by a splendid son of Maplecrest from a 35 lb. dam. We sell our Bull Calves at reasonable prices to local dairymen.

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HYDE PARK FARM - WORTH, ILL.

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WASHINGTON, D. C.

OFFERS FOR SALE at reasonable prices from the first accredited herd in the United States, PURE BRED HOLSTEIN-FRIESIAN MALE CALVES from one month to seven months old, from yearly tested dams and sons of General Piebe 323266 H. B. One of the richest bred sons of the well known K. P. O. P. whose descendants have in the past eight seasons won no less than 553 first prizes. His five nearest dams, all have 1,200 lbs. butter in 265 days. Also sons of Grahamholm Colantha Pauline Lad 297377 H. B.

HOLSTEIN BULLS FOR SALE

EAR TAG 272—Born Aug. 29, 1926. Marked half and half. Two nearest dams average 32.27 lbs. His dam is a 27-lb. cow with a 30-lb. daughter. His sire is by Sir Korndyke Ormsby Piebe and from a 37-lb. cow. PRICE $250.00.

EAR TAG 255—Born March 31, 1926. More white than black. Dam is completing record of 800 lbs. Sire of calf is a 30-lb. bull and a maternal brother to a 42-lb. cow. PRICE $250.00.

EAR TAG 273—Born July 1, 1926. Marked about half and half. His sire was the Grand Champion at the 1926 Minnesota State Fair and was by Sir P. O. M. 14th. Dam of the calf is a granddaughter of Sir P. O. M. 41st. PRICE $150.00.

Act quickly if you need a bull. Pedigrees and further particulars sent on request.

FEMCO FARMS
F. E. MURPHY CO.,
Box 336-B, BRECKENRIDGE, MINN.

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

A GOOD BABY BULL

Sired by ST. OLAF ORMSBY SENSATION No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

AKONA HOLSTEIN FARM

BULL CALF born Jan. 9, 1927, very good type. Sire's dam, 1,016 lbs. butter in year, dam's record 637 lbs. Accred. herd. Price $85.

B. A. NORRIS, ANOKA, MINN.



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MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
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SERRADELLA DUTCHLAND COPLAND 480221 — Born Nov. 4, 1925

SIRE—Sir Dutchland Colantha Denver whose dam is Dutchland Colantha Denver, the best 36—1300 daughter of Colantha Johanna Lad.

DAM—Copland S S Echo; butter, 7 days, 2 years of age, 20.96; butter, 7 days, 4y 9m 16d 28.56.

Straight top, well built, ready for service bull, at a moderate price.

SERRADELLA FARM, Federal Accredited Herd, OSCODA, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

Michigan State Herds

offer young bulls ready for service sired by BELL FARM KING SYLVIA, a show son of the famous 1113-lb. show cow, "White Susie." Tag No. 223 was born March 3, 1926. His dam is a 29.5-lb. Jr. 4-year-old with a good year record. His three nearest dams average 950 lbs. butter and 24,515 lbs. milk in a year.

Send for pedigree.

"MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Department B, Lansing, Mich.

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

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"The Herd With Straight Top Lines and Perfect Udders"



$250 — Dean Segis Bess Ormsby — $250

BORN AUGUST 26, 1926

We offer this week, a nice straight typy bull calf, eight of whose fifteen nearest dams, average 1070 lbs. butter for their 305-day or yearly records.

SIRE—Dean Colantha Segis Ormsby, a richly bred Ormsby show bull of 1000-lb. breeding.

DAM—Lashbrook Bess Ormsby, with a junior two year old record of 552 lbs. butter in 305 days.

You will like this bull. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

Sons and Grandsons of Dutchland Creamelle Colantha Lad

We have several excellent youngsters for sale, a very few near serviceable age. Most of them are from good record dams and many carry the blood of Grahamholm Colantha Segis Maid, world record daughter of "Dutch." Write today for sales list.



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Soon Come *and Gone!*

The rich pasturage of spring stimulates sudden increased production. But its benefits do not last.



Perpetuate the Season's Gains

Spring promises too much. It stimulates increased gains for a short time only. Soon, without the proper concentrates to supplement pasture, the animals begin to draw on their own bodies for nutriment. For no animal can eat enough grass to produce lasting gain.

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Linseed Meal perpetuates the beneficial effects of pasturage. It is rich in protein. It is slightly laxative. It has certain other beneficial elements which help it make better use of other feeds. It produces that "bloom" so essential to success—either in everyday farm practice or in the show ring. And it pays the feeder as high as 100 per cent profit year after year under wide and varied conditions. It pays with *all farm animals*—and with poultry.

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is the title of a brand new book that will prove of great value to every one who buys, feeds and sells hogs, cattle and sheep. It emphasizes the fact that skillful marketing is equally as important as skillful feeding. It shows how Linseed Meal enables the feeder to market his live stock thirty to forty days earlier than otherwise, but is primarily a book of "pointers" on the best weights, the best time and the best place to buy and sell. By all means get this book—and the others, too, if you do not already have them.



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This book written by successful dairymen, feeders and breeders—practical men who have learned by the hard knocks of experience the "100% value" of Linseed Meal.

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 7 Fort Atkinson, Wisconsin April 10, 1927

The Ball-Bearing *Cream Separator* is McCORMICK-DEERING!

Some of the points in
McCORMICK-DEERING
construction:

1. Ball Bearings
2. Easy Turning
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4. Greater Capacity with Less Labor
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8. Improved Oiling
9. Easy Bowl Adjustment
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11. Spun Metal Anti-Splash Supply Can
12. Improved Tinware

Made in 5 sizes. Hand-operated or power driven.

WHEN you invest in a cream separator let one thing be your guide: *See that it has ball bearings.* In the old days the turning of the best machine was a man's work—work requiring strength and endurance, day in, day out. That day is past; the swing is all toward the easy-turning, durable, ball-bearing cream separator. In every state, in every county, the popularity of the machine equipped with ball bearings—*McCormick-Deering Primrose*—is advancing. The good news travels.

McCormick-Deering brought in this great feature, by far the greatest improvement in separator design in recent years. Any woman can turn the McCormick-Deering Primrose with the greatest ease—the children can turn it easily too. Friction in the cream separator for the first time is reduced close to the vanishing point. And ball bearings *keep* the machine that way—plain bearings can never be so satisfactory.

Light-running durability is in keeping with McCormick-Deering quality and efficiency throughout. Years of steady service in every community testify to clean skimming, sanitation, easy cleaning, and a faultless splash lubrication system (positive, automatic, to every moving part). This machine comes to you to earn the money that pays for it—our 12 months' payment plan will help. Don't fail to have the McCormick-Deering Ball-Bearing Cream Separator demonstrated. And compare it with others. Sold by the McCormick-Deering dealer in your town.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA
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THE *Ball-Bearing* McCORMICK-DEERING MAKES CHILD'S PLAY OF A MAN'S JOB



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The engine of a tractor is a complicated mechanism that must have proper oil protection. Polarine provides it!

Polarine is one of the major products of the Standard Oil Company (Indiana). There are different grades of Polarine especially made for different types of tractors. One of these grades is exactly right for *your* tractor.

Polarine was produced by careful scientific work. Men of long experience and training in the Standard Oil Company (Indiana) studied farm lubricating problems *on the farm.* They developed an oil to meet *farm needs.*

Polarine is the result—an oil which gives maximum lubricating efficiency at a minimum cost. Polarine is a money-saver.

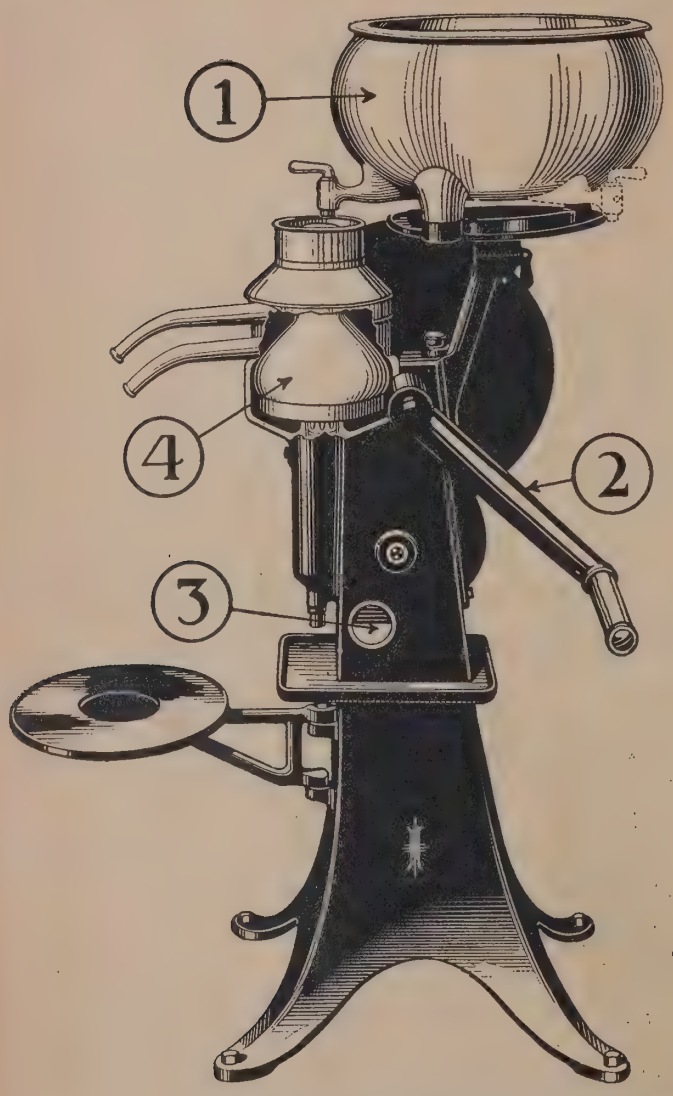
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The NEW 1927 SERIES DE LAVAL SEPARATORS



Ask your agent to show you a new De Laval. Try one side-by-side with any other machine. Not one in a hundred who does so fails to choose the De Laval. Sold on easy terms. Trade allowances made on old separators.

THESE brand-new De Laval Separators are **now** on displa by De Laval Agents. We invite all cream separator user to see and try them, for we are confident all who do so will agre that they are the best cream separators ever made. They ar the crowning achievement in nearly 50 years of separator manu facture and leadership. **New** features are:

1. Turnable Supply Can. The supply can may be turn ed so that tinware and bowl may be put in place or remove without lifting the supply can from its position on the separa tor. Every user will like this feature.

2. Easier Turning. For three years the De Laval exper imental and engineering departments have been conducting ex tensive tests, to develop still easier turning separators. The re sults of these tests are embodied in this new series, which bot start and turn easier than any other machines of even les capacities.

3. Oil Window. The new oil window enables you to se at all times the level and condition of the oil. It shows at glance whether or not the separator is being properly oiled.

4. Floating Bowl. All new De Lavals have the wonderfu "floating bowl," now used in De Laval Separators with suc wonderful results. It is self-balancing, runs smoothly withou vibration, with the least power and wear, skims cleaner an delivers a richer, smoother cream.

The De Laval Separator Company

NEW YORK	CHICAGO	SAN FRANCISC
165 Broadway	600 Jackson Blvd.	61 Beale Street

See and try the new ~ De Laval

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ed at Fort Atkinson, as second class matter.

Semi-monthly

Three Years $1.00

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olume 72 FORT ATKINSON, WIS., APRIL 10, 1927 Number 7

BOVINE TUBERCULOSIS IN HUMANS

DR. C. H. LOCHEAD, Mayo Hospital, Minnesota

UBERCULOSIS in cows is a cause of tuberculosis in humans. It is necessary to rete that because there are still le, some of them pseudo-scienwho deny it. And also while it old story to all of us and all le generally have been told it y times, human nature is prone rget.

om every part of the world rets have come to us within the few months for facts conng the danger of milk tuberculous cattle. In places hearings are being on the protests of milk ucers or milk distributors nst the laws passed for the ction of human health; from the large number of s from which requests for mation have come one t be led to suspect that propaganda was being ed on to lower the bars nst tuberculous milch cows, pite of the fact that even the economic standpoint rculosis in cattle is a ge to our stock raisers, irective of its influence on an health.

e danger of bovine tuberis to man was greatly exrated by well-meaning but enthusiastic workers; and ty-five years ago, just t the time when people becoming accustomed to new idea, like a thunderout of a clear sky came the ouncement by the great that tuberculosis in cows not cause tuberculosis in ans.

The Answer to Koch

eat and all as Koch was in e tuberculosis world, his ments were questioned and ually from all over the l came contradictory statens and evidence to dispute mpressions, even from his land, Germany. The Ger- government had appointed mission to study the ques- which reported that 25 per cent e cases in children studied by had derived their infection from e sources.

e British government also aped a commission to inquire into elationship, if any, between boand human tuberculosis. After ing the question for nine years, reported unanimously that, the germs are not exactly alike, germ can and does cause disin the other animal and that botuberculosis spreads to man gh infected milk and meat.

ch was answered by work done e state live stock sanitary board nnsylvania. Evidence was also ced by the Bureau of Animal Industry in Washington, by the New York City laboratory; and as time has gone on, each year has brought word from many sources opposing Koch's impressions.

Some of the most brilliant and conclusive work to prove the error of Koch's statements was done by Fraser and Stiles. These observers had under their care many cases of surgical tuberculosis in children in the Royal Edinburgh Hospital for sick children. Fraser very carefully examined the material obtained from the cases of surgical tuberculosis and determined whether it was due to the human or bovine type. He proved that 62 per cent of a series of definite bone and joint tuberculosis owed their origin to the bovine type of bacillus.

An excellent summary has been made by Rosenau who reports that out of 2,527 cases of tuberculosis studied by several observers, 16.2 per cent were bovine. In people over 16 years there were 2.9 per cent bovine; between 5 and 16 years 28.9 per cent; and under five, 32.4 per cent. There were 1,079, or 42.8 per cent, pulmonary cases, of which six were bovine. There were 1,437, or 57.4 per cent, other forms of tuberculosis, of which 28 per cent were bovine.

Tuberculosis in Children

As is well known to the medical profession, pulmonary tuberculosis of bovine origin, especially among adults, is, so far as proven by any investigation, of extremely rare occurrence. In non-pulmonary tuberculosis, especially among children, however, the facts are different. Fishberg says, "Under five years of age 61 per cent of cervical tuberculous adenitis, 58 per cent of abdominal tuberculosis, and 66 per cent of generalized tuberculosis and meningitis, which may be of alimentary origin, are caused by the bovine virus." Dr. A. Stanley Griffith, of London, has in a recent series of tests tabulated 1,068 cases of tuberculosis, finding 20.7 per cent showing bacilli of the bovine type. He found the percentage to be much larger among children under ten years of age. Of 221 children less than five years old examined, 37.55 per cent showed the animal germs. Of 312 children between five and ten years old examined, 29.45 per cent showed animal rather than human germs. Of the total of 1,068 tubercular children examined, 216 showed purely bovine tubercle bacilli, 847 showed purely human tubercle bacilli, and the remainder showed bacilli of both sorts.

Studies of this subject by German and French authorities, while less recent, are no less conclusive. French tests have shown 33 per cent, and German 24 per cent of tubercular children examined, suffering from bovine infection.

Chesley of Minnesota reports, "In children 23.8 per cent of generalized tuberculosis, 40 per cent of tuberculosis of cervical glands, and 49 per cent of abdominal organs are due to infection with the bovine variety."

From such figures there can be no doubt that a considerable proportion of tuberculosis affecting children is of bovine origin, more particularly those forms involving primarily the abdominal organs and the cervical glands. Even in adolescents and adults so large a proportion of the cases investigated show the presence of bacilli of the bovine type as to inicate that the same sources of infection are possible at other periods of life than childhood. The more deeply we go into the subject, the bovine side of the question comes to take a larger place especially in connection with surgical and abdominal tuberculosis, not only in the child but also in the adult. Children, of course, are especially susceptible to the disease and as a rule the younger the child the greater is its susceptibility.

There is still some difference of opinion as to the actual danger—that is, the proportion of children who are actually infected by the bovine germ—but that it does occur is doubted by no one. It is not too much to say that there is no scientific man of any standing in any part of the world today who questions the transmissibility of bovine tuberculosis to human beings. Bovine tuberculosis is undoubtedly responsible for a large percentage of non-pulmonary tuberculosis of childhood, which means that it is also responsible for a large percentage of tuberculous cripples, and it may so materially affect the health of the children that they will be seriously handicapped throughout life.

While bovine tuberculosis disfigures, cripples, and handicaps hu-

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SCENES FROM OUR NORTHERN TRAINING CAMPS OF THE AMERICAN AND NATIONAL LEAGUE FARMERS

What I Am Trying To Do On My Farm

To Get Life As Well As A Living

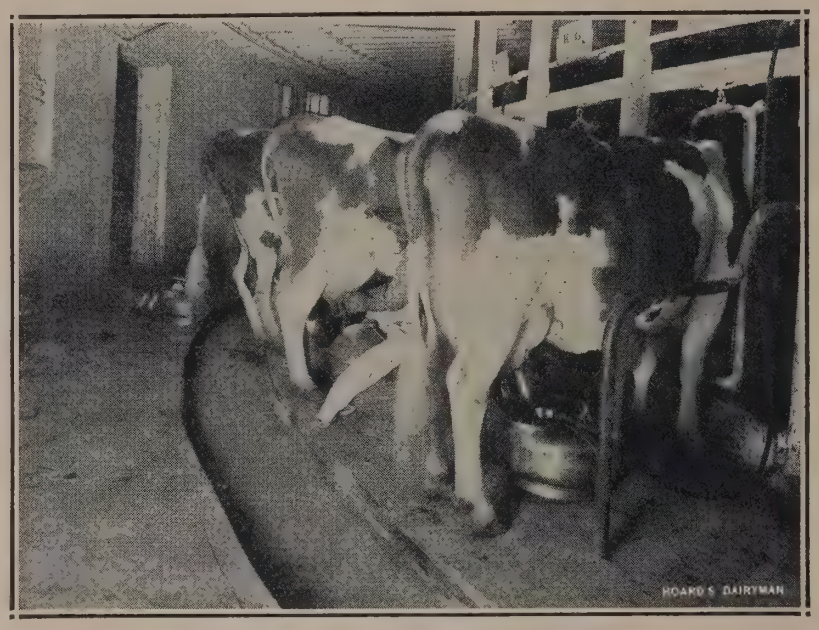
W. J. DOUGAN, WISCONSIN

To discuss getting life on the farm, we must come to an understanding of terms. What is life—human life? It is easy to understand the life of the lower animals: enough to eat and a comfortable place to sleep. Physical comfort—this seems to be the total of life for the hog. Physical comfort is not the total of life to man. He has a complex nature; the aesthetic, social, and spiritual as well as the physical natures are to be considered.

Our problem, then, as farmers is: How to secure time, means, and equipment for the development and enjoyment of this complex life. There are some conditions, in working out this problem, peculiar to the farm.

First, the farm cannot provide unlimited wealth to satisfy our longing for beauty. We cannot move mountains, create lakes, and build villas, nor can we revel in works of art. Neither can the farmer be released from service to gratify his aesthetic tastes. The farm family must develop their higher natures in and through their work and in their surroundings. They must learn to enjoy the simple pleasures and to utilize all nature about them. The farm has many natural advantages that are free for the taking. The sweep of the landscape, the open sky, the forest and field and stream, as well as all animate life, will lend themselves to our plans.

It has always been a fixed purpose on our farm to so manage the work, secure conveniences, and develop the beautiful that we might get life on the farm as well as a living. We are trying to develop the beautiful, first, by eliminating the ugly. A rusty, rotting old farm implement under the tree in the corner of the yard, or a few loose sticks and boards scattered about will mar an otherwise desirable scene. A lopping door will make the whole building look shabby. Every farm needs a junk day occasionally; a day in which to scrap the unusable and to bury the worthless, or to get it out of sight. We try to conceal the unsightly by hedge or building, or, if possible, change its face to beauty.



MILKING TIME ON THE DOUGAN FARM

The other way we are trying to develop the beautiful is by taking advantage of natural beauties. I love wide, open yards studded with a few majestic trees. I lay out the field in order and keep the corners clear. I cherish a wild plum hedge at the end of one field, and a sumac hedge that hides the railroad across another field. There is one natural beauty that no place has a monopoly on; we all can claim our canopy of blue. I have my dwelling so placed in the home site that there is an unobstructed view of the sky from sunrise to sunset.

In the home we have an abundance of light, some inexpensive art, music and literature, and, withal, a home spirit.

I am trying to get life on the farm by conveniences to make the home work lighter and more enjoyable such as running water, bath, drain, light, airy kitchen, electric lights, electric dish-washer, etc. It reaches back to our material problems. We have always to keep in mind that the farm must pay a profit sufficient to get some of the requisites of life for the farm family.

I try to cultivate social life by bringing guests of character and culture into the home, and by mingling with my fellows in community life.

The endeavor to cultivate these higher tastes and to satisfy the higher nature reacts to ennoble the ordinary work. Some of the most exalted moments of my life have been while doing common tasks on the farm and communing with God through the natural life about, and enjoying the beauties in God's natural world.

May we farmers plan to get life on the farm and not be a King Midas, turning everything into gold.



THE HOME AND MILK HOUSE OF W. J. DOUGAN



THE BARNS AND SILO ON THE DOUGAN FARM

Decentralization of Industry Would Help Agriculture

FAR-SEEING men of every generation have issued warnings against concentration of industry and crowding people into small areas. Up to a certain extent, centralization of industry is economical, but it is the judgment of many manufacturers that it has been carried too far.

In a recent address before the National Electric Light Association, General G. E. Tripp, chairman of the Westinghouse Electric & Manufacturing Company, in part said:

"Industry in this country is over-centralized. The day of the huge manufacturing plant and the crowded industrial city is passing. The future will probably see much of our manufacturing done in small unit plants scattered throughout the rural districts. This will directly benefit the farmer in many different ways.

"The farmer must pay high prices for the things he buys," said General Tripp, "but because of these high costs he cannot sell his products with satisfactory profits in the world markets where he must meet the competition of other countries where costs are lower, and in his home market he as an individual is confronted as to the bulk of his products by highly efficient organizations whose guiding principle is to buy at the lowest price and to pass the benefits to the consumer. This is a natural and perfectly honest process, but to the farmer the picture is that most of our industries are so well organized that they are passing the heaviest burden of society on to him.

Industry's Problem

"On the other hand, consider a large industrial city which contains scores of factories and employs thousands of people. As these factories grow, congestion increases until a point is finally reached when newcomers find it impossible to obtain satisfactory homes in the city itself except at prohibitive prices, and the transportation facilities from outlying points become intolerably overcrowded. Wages, therefore, begin to increase, but without benefiting the wage earners because their expenses likewise increase.

"Under these circumstances considerable economies for both industry and wage earner can be secured by establishing relatively small unit plants in the small towns of the rural districts. Not only are new sources of labor thus opened up, but production costs can be reduced, certain managerial difficulties can be minimized, and the workers can live comfortably and more inexpensively within easy reach of the plant.

Decentralizing Now Going On

"While labor conditions form the most important factor favoring decentralization, others are also influential, such as the reduction in rent and taxes, nearness to sources of raw material, and so on. The outstanding example of the operation of these forces is the movement of the cotton mills to the rural districts of the South. California is already dotted with small industrial plants, and it is not improbable that many of the great manufactories of the Atlantic Seaboard and the Middle West will care for their growth in small unit plants, each devoted to the production of certain standardized parts.

Increasing the Farmer's Earning Capacity

"Under present conditions the farmer's family usually has no alternative between working on the farm and going to the city, which means that either the family as a unit will be uneconomically employed, for the

(Continued on page 423)

Modern Way of Dairying



FARMSTEAD OF LEO SENNER OF NORTH DAKOTA, ON A 1400-ACRE FARM OWNED BY J. B. SENNER FARM CO.



A DEVICE TO KEEP FLIES AWAY FROM MILK STRAINER. WHEN THE STRAINER IS USED THE CLOTH IS LIFTED BY THE FOOT.



FARMERS' CO-OPERATIVE CREAMERY, MEDFORD, MINN.



GOOD COWS IN A CLEAN, MODERN BARN HELP MAKE DAIRYING A PLEASURE



A CONCRETE TANK WHERE MILK MAY BE COOLED QUICKLY



A GOOD MILK HOUSE IS ESSENTIAL IN THE PRODUCTION OF GOOD MILK

HOW EUROPE FARMS

A Holland Dairy Farmer

HERBERT R. COX, NEW JERSEY



MR. BOER STANDING ON THE HIGHWAY IN FRONT OF HIS HOME
There is a canal between the road and the house.

IMAGINE, if you can, a dairy farm which is eight feet below sea level, entirely and permanently in grass, worth $650 an acre. This is the case of a farm which I visited this summer and which is not a freak farm. It is typical of the intensive dairy section of the province of South Holland in the neighborhood of The Hague, Leyden, and Utrecht.

The farmer's name is Willem Boer of Bodegraven, and he owns and operates 69 acres of land surrounded and bisected by ditches and canals. Most of his land is only about a foot above the level of the water in the ditches but some of it is a little higher. It must be understood that about 40 per cent of the Kingdom of Holland—the western part bordering the North Sea and the Zuider Zee—lies not more than three feet above mean sea level and would be inundated if the sea broke through the barrier of dunes and dykes. Some of this land is as much as sixteen feet below sea level, the water being removed by several series of pumps at different levels.

Mr. Boer converts his milk into cheese. It would be more proper to say that Mrs. Boer does this, since she has charge of the cheese manufacturing on the farm. The kind of cheese made is Gouda, a 45 per cent full cream cheese, one of the varieties which has made Holland famous. This cheese is sold under close government inspection and every piece made must bear a serial number so that it may be easily traced to its source in case it falls below the percentage of butterfat or is deficient in other respects. At the time of my visit this farm was producing four cheeses a day of 35 pounds each. The cheese is kept at home to ripen for a period of four weeks before it is taken to the cheese market at the village of Bodegraven.

If you stand off and take a general view of this farm you will note that it is typically Dutch. Beyond it in all directions extend similar acres of absolutely level land in grass with windmills dotted here and there and with scattered trees along the canal and ditch banks. Mr. Boer's home is a large brick structure with a high, steep tile roof. In one corner of the farm is a small orchard of apple trees under indifferent care. The farmers here are dairy specialists and have no time for anything else.

The machines that produce the milk on this farm are 39 head of cows. There are also 15 head of one-year-olds, 2 head not in calf two years old, 16 calves, and 1 bull; a total of 73 head, all registered Friesian Holsteins and as nice a looking herd as you will see in many a day. We might add that this farm also carries 70 sheep, 120 hogs, 20 chickens, and 2 horses. When we state that the Boers have five children, all youngsters, we have completed the census of the farm.

The general scheme of management is rather simple. The cattle and sheep are fed on the grass, both pasture and hay, together with purchased concentrates. The whey from the cheese making is fed to the hogs. It is a system that is quite general in this part of Holland. To get all the work done on this farm requires the services of



A FEW OF THE 73 PURE-BRED FRIESIANS, AS HOLSTEINS ARE CALLED IN HOLLAND

THIS FARM IS EIGHT FEET BELOW THE SEA AND IS AS LEVEL AS A FLOOR



A GOUDA CHEESE MADE ON THIS DUTCH DAIRY FARM

Mr. and Mrs. Boer, three men t year round hired by the day, and house servant who helps with t milking.

About 24 of the 69 acres are cut f hay every year. After haying, t aftermath is pastured. The manu produced, of which there is a lar quantity, goes on the grass. Litt else is needed to fertilize the land, b Mr. Boer usually applies about 5 to of a complete fertilizer every yea most of it to the area to be cut f hay.

Mr. Boer is a true cow man. Stan ing nearly six feet high in his wood shoes, he took me to t pasture where the co were being milked. G ing from one to anoth he would state the pr duction of each and gi her pedigree for gener tions back, all with t gleam of the enthusia in his eye. It was rath difficult for me to foll him here even with t aid of a very efficie interpreter.

The hogs constitute important source of re enue on the farm. T pigs are not raised b are purchased wh young and sold wh

(Continued on page 421)

A SEVERE WINTER ON CLOVER SEEDINGS

Dairy Farmers Should Try Soy Beans

R. A. MOORE, WISCONSIN

REPORTS are coming to the college of the killing of clover from many portions of the state. The freezing and thawing weather during the middle of the season and this spring has had a very detrimental effect especially upon clover fields where the snow had been blown off, and many farmers will be disappointed this year in finding that although they had a fairly good stand of clover last fall, it has winter-killed severely. The dairy farmers of Wisconsin rank among our best clover growers and it is nothing short of a calamity for them to lose their leguminous hay.

Those who do not have alfalfa fields should immediately begin thinking about getting a crop put in for leguminous hay as they cannot afford to be without it. No crop fits into this place better than the soy bean. Soy beans are becoming grown generally throughout Wisconsin as a hay making crop. Soy beans, when cut and cured properly, make a grade of hay that is even more nutritious than clover hays and ranks almost equal with alfalfa.

The following varieties are used from north to south in the state: Manchu, Black Eyebrow, and Ito San in the southern half of the state and Pedigreed Blacks and Mandarins for the northern part of the state.

Method of Planting Soy Beans

When the farmer feels that his stand of clover is so damaged that it will not pay for him to grow it, he should immediately plow his field, prepare it nicely, and plant his soy beans about corn planting time. The planting can immediately follow corn planting to very good advantage as there is no real object in getting the soy beans into the ground before the soil has lost its winter chill. Spring plow land, roll quite heavily; clay should be planked or corrugated roller run over the same so as to firm the soil. Soy beans can be planted with corn planter, or with a regular grain drill. When drilled in rows, from twenty-four to thirty inches apart, between the rows one can use the regular grain drill, stopping up the intervening holes so that the beans will drop the desired distance. When beans are put in twenty-eight or thirty inches apart between the drill rows and dropped about two inches apart in the row, one bushel of soy beans will plant two acres.

Soy beans are then cultivated the same as corn and they grow so rapidly that the broad leaves spread out over the rows and the field looks almost as if it were a solid field of beans. Level cultivation is practiced so that the mower can be run over the land. Soy beans should be cut just after the little beans are beginning to develop. The stand is then in the best possible condition to make into hay. Many farmers have made the sad mistake of cutting soy beans too late in the season as the soy bean stems become woody and the pods had fully developed beans in them.

The soy bean is not so very different than any other legume and we know that clovers and alfalfa and many of our other legumes are cut when in full bloom. The soy bean is just a little past the blossoming stage when it can be cut to the best possible advantage.

Another factor that prompts us cut the soy beans somewhat earli than has been advocated in the pa is that the bean, in order to cu properly for hay, must be cut in go hay curing weather. Where farme have left soy beans until the pods a all filled out, it took them way in the latter part of September wh the nights were cool and the da were beginning to become short a the hay could not be made in t best possible way. Soy beans usua reach the proper stage for maki hay the latter part of August or fi week in September. It is then ni and warm and the hay can be cut a made just as readily as clover hay.

Another method of planting s beans is to let them run the regul width of the grain drill. This may six, seven, eight, or nine inches whatever it happens to be on t grain drill that the farmer happens have. Beans are dropped about fo inches apart in the drill row. usually takes about a bushel a three pecks to two bushels of s bean seed to plant an acre when p in in that way. Many prefer putti them in broadcast rather than putti them in the thirty-inch drill row,

(Continued on page 422)

THE L. P. BAILEY COMPANY

The Story of a Family That Pulled Together and Built a Successful Business on Quality Products

SOME folks chase rainbows all their lives looking for pots of gold but Mr. and Mrs. L. P. Bailey of Belmont County, Ohio, nailed down the end of a rainbow and dug out a pot of gold at the end of it.

The L. P. Bailey Company which now represents the material pot of gold dug out by this hardy, pioneer couple is a unique institution in affairs among American farmers. It represents a desire on the part of parents to keep their children near them; it also is a means whereby members of the Bailey family may invest themselves and their savings at home in a regular incorporated business if they so desire.

The business of this concern is to produce high quality foods and sell them direct to consumers or to them through retail grocery stores. The chief foods produced are Jersey butter, Hampshire pork products, cottage cheese, buttermilk, eggs, dressed poultry, and vegetables.

Let us go back over half a century to the time when Mr. and Mrs. Bailey began nailing down the end of the rainbow and follow the story through.

In 1871, when L. P. Bailey was 21 years old, he married Elizabeth Stanton who was 24 years old. Both were born and reared in Belmont County. Love was just as blind then as it is now for the groom had to and did borrow $65 with which to give his bride a glorious wedding trip. At the end of a week they returned. Their beginning cash capital was less than nothing but their faith in each other and in what the future held for them knew no bounds.

In 1872 they rented a farm of 70 acres for $150 cash rent. In 1873 they bought a farm of 115 acres and paid $7,500 cash for it, though nearly all the cash belonged to farmers for which the borrowers agreed to pay 8 and 9 per cent interest. In the next 6 years they learned something about the abuse of credit and they also learned that a farmer's suspicions are easily aroused, especially if he has loaned one money. It was a battle to keep the money lenders satisfied.

At the end of 6 years an opportunity came to sell 50 acres of the land, including the buildings, for $100 an acre cash. They sold, they paid up their debts, but had no place to live.

They rented again, this time tacking 240 acres for an annual cash rent of $400 on a 5-year contract. The land was very thin and the buildings poor on this farm. The owner would do nothing to improve these conditions. With his own hands and the help of one hired man, Mr. Bailey built a pole stable large enough to house 28 cows. He put in stanchions and made a gutter behind the cows; he made a loft overhead for hay and bedding. They stayed on this farm 5 years and when they left, the owner, though he may have realized the value of a good tenant, gave Mr. Bailey no compensation for improving his property.

The previous experience in farm ownership told them they were not ready to buy a farm. They rented again for two years and then bought the farm they were on. A deciding factor in buying this farm was a barn very much to the liking of Mr. Bailey who had, about this time, learned to appreciate the dairy cow. This barn, while not built to house dairy cattle, could be converted handily to serve this purpose. It was the talk of the countryside when built. This farm is now the home of The L. P. Bailey Company.



THE L. P. BAILEY FAMILY

Top row, left to right: J. S. Bailey and wife, Lydia M.; Fred R. Bundy and wife, Clara (Bailey) Bundy; O. J. Bailey; Laura E. and Alva C. Bailey. Bottom row, left to right: Clarence R. Patten and wife, Anna (Bailey) Patten; L. P. Bailey and wife, Elizabeth Stanton Bailey; Lillian M. Bailey and husband, E. M. Bailey.

Mr. Bailey became interested in the dairy cow more through the persuasion of his wife than by any choice of his own. During the time they were moving about from one farm to another and paying cash rent, Mr. Bailey found it necessary to supplement the farm income. In 1878 he became the owner of a threshing machine and operated it successfully for 2 years after which he traded it for a pure-bred Jersey bull, a cow, and a heifer. Mrs. Bailey had also been supplementing the cash income and she finally convinced her husband that her way was best. She liked cows and from two common ones had been making butter. It was such good butter that it soon created a demand beyond the supply. In 1881—ten years after they were married—the first print butter that entered the Pittsburg market was from Mrs. Bailey's churn. It sold as "Bailey's Best" for 35 cents a pound on yearly contract. The Jersey cows were just what she wanted.

By accident Mr. Bailey got some grade Jerseys. Needless to say that this also pleased his wife. She continued to make more "Bailey's Best" butter. Her husband became interested in pure-breds. In fact he had become quite fully convinced that the dairy cow offered greater possibilities than running a threshing machine. Furthermore, he became convinced his wife could make good butter.

In 1887 Mr. Bailey took a 20-lb. tub of Bailey's Best butter to the Madison Square Garden, N. Y., Dairy Exposition. There were 200 entries in the class. He stayed 5 days asking questions all the while but not once saying he was an exhibitor. The Bailey entry won third and a cash prize of $30 which amount was duplicated by the Vermont Farm Machinery Company because Mrs. Bailey had used a Cooley Creamer manufactured by this company.

Since then many samples of milk, cream, and butter have been entered in national competition. It is said that this farm has won more prizes on dairy products at national and state dairy shows than any farm in the United States. For example, in 1914 a sample of cream won second place at San Francisco in a class of 2,500 entries. At the National Dairy Show held at Columbus, O., in 1917, a sample of cream scored 98.5 and had a bacterial count of 100 per c. c.

Mr. and Mrs. Bailey have not built this splendid business alone. Four sons and two daughters have all had a part in the development. The business has been built on the principle of producing a product just a little better than any one else was producing it. The family members have all pulled together. With team work and quality products the business has prospered.

Like all parents Mr. and Mrs. Bailey desired to keep their children near them. To do this a company was incorporated in 1924 and capitalized for $150,000. The paid up capital is now $80,000. The stock is all owned by members of the Bailey family.

At the time of incorporation Mr. Bailey gave each of his six children $500 and each of his 24 grandchildren $100 in stock certificates of the company. The oldest son, E. M. Bailey, put in $17,000 in the stock to help finance the business though he is not actively engaged in it. He is retained on the board of directors, however, for his wise counsel in business affairs.

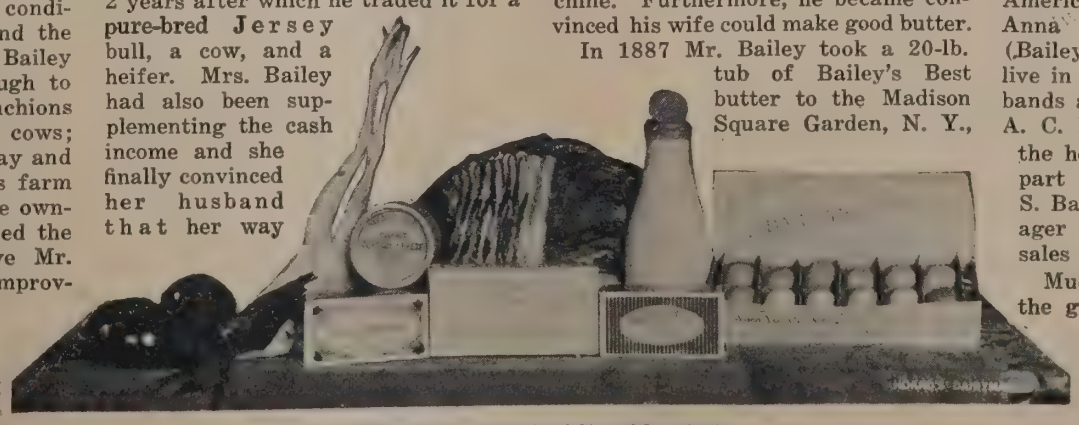
The oldest son, E. M. Bailey, is a milk distributor and manufacturer of ice cream in Pittsburg. Besides this he is president of the American Dairy Federation, president of the Pittsburg Dairy Council, and vice-president of the National Dairy Products Company. The second son, O. J. Bailey, owns and operates a farm near the company farm. He spends considerable of his time in local and state farm bureau affairs, representing his state as a voting delegate at the last annual meeting of the American Farm Bureau Federation. Anna (Bailey) Patten and Clara (Bailey) Bundy, the two daughters, live in the community and their husbands are on the board of directors. A. C. Bailey is general manager of the home farm or of the producing part of the company's business. J. S. Bailey, the youngest son, is manager of the manufacturing and sales part of the business.

Much of the work is now done by the grandchildren of Mr. and Mrs. L. P. Bailey. They receive wages and may buy stock when they have saved money to do so. While it is made

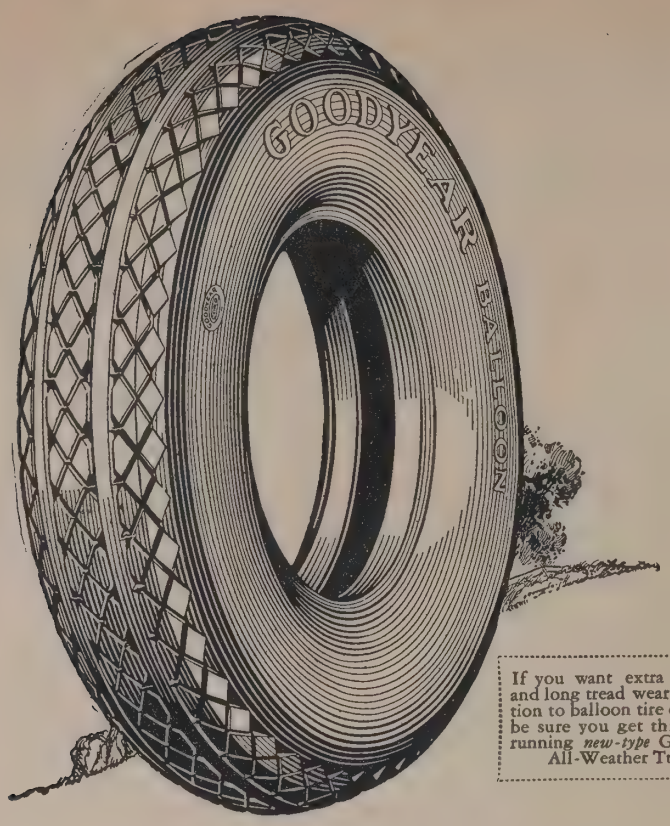
(Continued on page 422)



THE FARMSTEAD OF THE L. P. BAILEY COMPANY



"BAILEY'S BEST" FOOD PRODUCTS



If you want extra traction and long tread wear in addition to balloon tire comfort, be sure you get this quiet-running *new-type* Goodyear All-Weather Tread

Costly NOT to Have

When it comes to the lowest possible mileage cost, a good tire is only half the battle.

The other half is the *service* performed for you by your local Goodyear dealer.

He makes sure the tire you buy is the right size and type for your car. He mounts it on the rim for you. He fills it with air.

During the whole life of that tire he is pledged to help you give it the care it should have to deliver the maximum results.

This service cuts down your tire bills. It saves you money. It is something mighty costly *not* to have.

It is part and parcel of the Goodyear policy: *to build the greatest possible value into Goodyear products,* and *to provide facilities so that the user can get all this inbuilt value out.*

Goodyear makes a tire to suit *you*—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced Goodyear standard quality Pathfinder

Goodyear Means Good Wear

GOODYEAR

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The Silo and the Corn Borer

HOW the silo can be used to combat the European corn borer, analyzing the cost of producing silage, and methods of reducing the cost of filling a silo were discussed at the National Silo Conference at Chicago on November 30 and December 1, 1926.

Its value as a means of fighting the corn borer and the work done by the federal government in eradicating the pest were discussed by L. H. Worthley of the U. S. Department of Agriculture.

The pest's life history is roughly as follows: During the winter it is in a worm stage. About April 15 it becomes active and in May it enters the pupal stage. About July 7, it becomes a moth, when it lays eggs. (Each moth lays approximately 350.) The eggs then hatch into worms which feed on the leaves and the tassels of corn, and then eat their way into the stalk under the tassel. They continue working downward until the second frost, when they are within one or two inches of the ground.

If the stalks are left in the field, the farmer provides winter quarters for the worm. The most practicable way for him to fight this menace, if it is a local evil, is to cut his cornstalks an inch or two above the ground and to make ensilage of them. The resulting fermentation kills these worms and thereby helps destroy the pest.

During the discussion, Dean G. I. Christie of Purdue University said, "The borer can be eliminated. If it multiplies, it will increase the cost of growing corn from 10 to 15 cents a bushel."

Regarding filling costs: Professor F. W. Duffee of the University of Wisconsin stated that the average filling cost on 282 farms in Southeast Wisconsin was $2.06 per ton. This figure represents approximately 40 per cent of the cost of silage, and includes such items as silo depreciation and repairs, ensilage cutter depreciation, and interest on silo and equipment.

Of this cost, 58 cents went for man labor and 46 for machinery. Both these items showed wide variation on the farms studied. Man labor had a low cost of 27 cents and a high of 9[illegible] cents, while machinery charges ran from 31 to 88 cents.

One step recommended by Professor Duffee to lower costs is the building of larger silos, since the number of men on a crew is usually the same on all sized silos. A 150-ton silo he says, is usually filled at a cost of 50 cents per ton less than a 60-ton silo. By building the silo from four to six feet higher, it will not be necessary to have a man inside to pack down the ensilage, since if the taller one is filled to the top, the packing can be taken care of by natural settling without reduction in capacity. By this simple method the cost of one man's labor is eliminated.

On the farms from which the cost of filling silos was studied, it was found that 10.6 per cent of the total expense went for silo depreciation and repairs. As this was an average, it is probable that this figure varied greatly between farms. In other words, the item of repairs and depreciation may be a highly important one, or it may be minimized. Sound construction with good materials will materially decrease the depreciation rate and minimize the repair bills.

It is very often possible, he declared, to cut down the number of men on the machine. A skillful planning of the work often makes a saving possible here. Another method of saving which he suggested consisted in having a slanted feed table for the cutter so that the corn could slide down by the action of gravity.

The conference led to the specific value of ensilage. While no single feed is in itself all-sufficient, ensilage should form a part of all balanced rations. Roughly, there are six major considerations in selecting feed: Economy, balance, succulence, palatability, bulk, and variety. Ensilage ranks high in economy, succulence, palatability, and bulk. It saves 40 per cent of the corn crop that would otherwise be lost in the field. Through manure, it returns many of the natural elements of the soil.



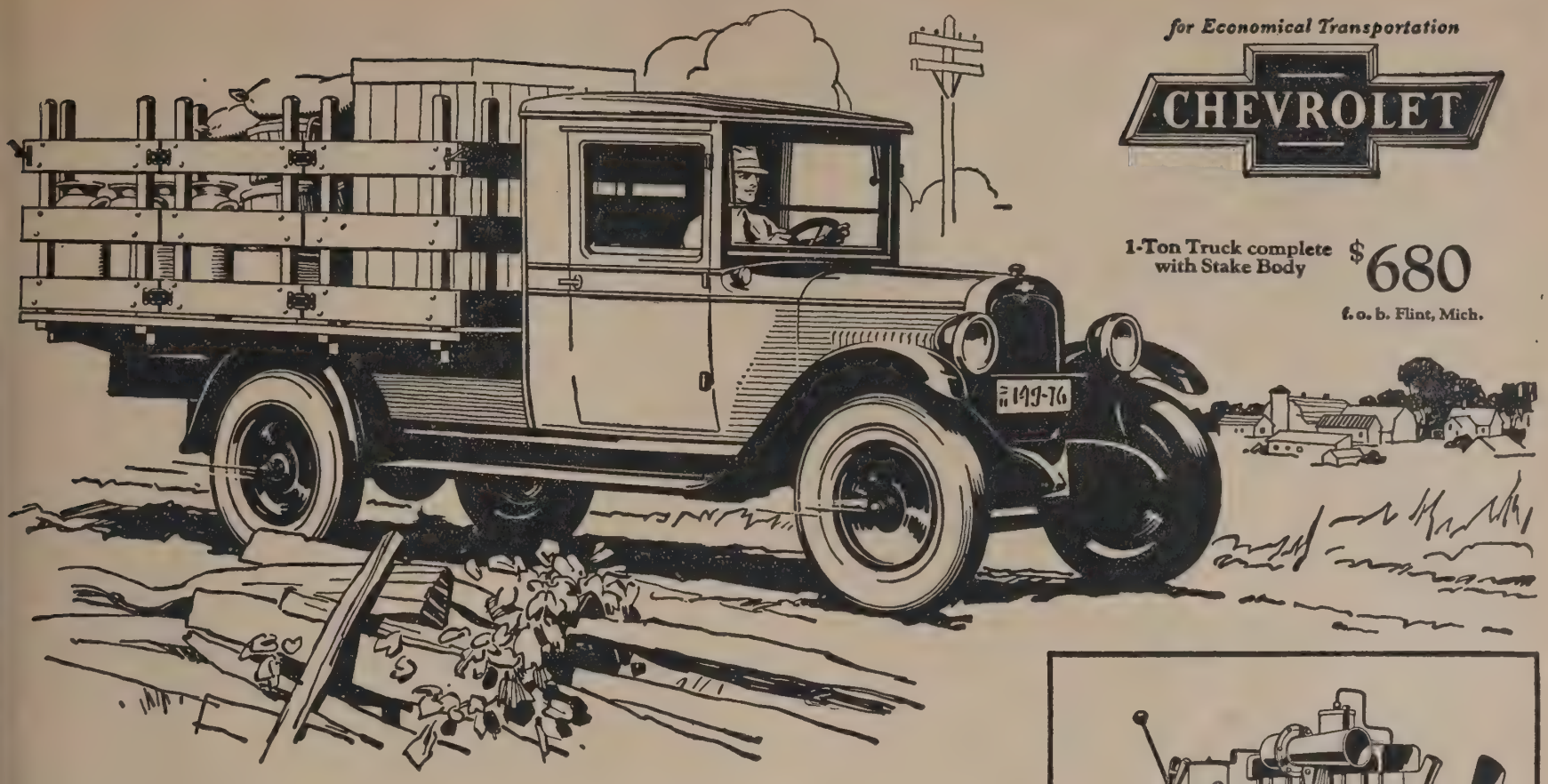
STATUE TO A GUERNSEY COW

A creamery company in Los Angeles has just completed this large life size statue of a cow which has been set up on a prominent highway entering the city. The statue is primarily for advertising pure certified milk and also to create a wider use of milk. The sculptor used a real cow for a model in his studio while preparing the original of this statue. Other statues will be erected along the important highways of the district. At last the faithful cow will have a statue in her honor and thousands of people will remember that life would be very much hampered without bossy to furnish them with their daily supply of milk.—WILLARD D. MORGAN.

for Economical Transportation

CHEVROLET

1-Ton Truck complete with Stake Body $680 f. o. b. Flint, Mich.



Quality Features of the world's most popular gear-shift truck!

Chevrolet is the world's most popular gear-shift truck because it offers, at amazingly low prices, scores of quality features not found on any other haulage unit in the low price field.

These all contribute to the modern design which has made Chevrolet Trucks famous the world over for dependable, economical transportation, slow depreciation, handling ease and driving comfort. Included in the list are numerous recent mechanical improvements of the utmost importance, such as—AC oil filter and AC air cleaner to protect the motor from excessive wear and to maintain at its peak efficiency the smooth, effortless power for which Chevrolet's motor has long been famous.

Other new features are an improved transmission and new gear-shift lever; a new and more conveniently located emergency brake; crowned fenders; a new radiator of greater cooling capacity; a new 17-inch steering wheel —and even bullet-type headlamps have been added to give a distinctive touch of smartness.

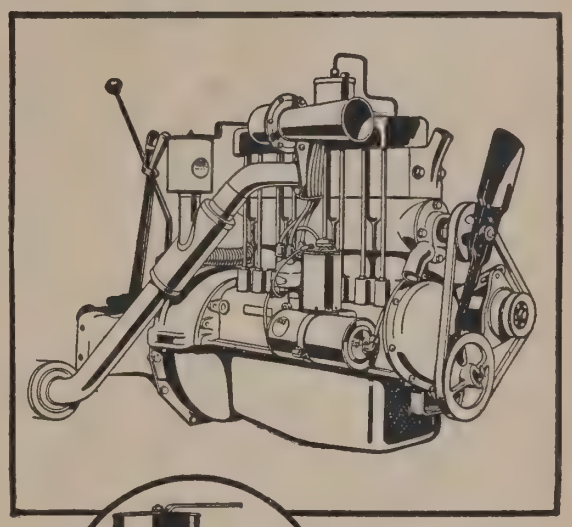
These are but a few of the many new quality features offered you in Chevrolet Trucks—in addition to the 6-inch channel steel frame, super-rugged rear axle, oversize brakes, semi-elliptic springs set parallel to the load, and numerous other examples of truck-type construction that long ago swept Chevrolet to unrivalled sales leadership in the field of gear-shift trucks.

If you want the utmost in commercial transportation combined with true economy, see the nearest Chevrolet dealer. Have him show you why Chevrolet Trucks have been the choice of so many thousands of buyers—from men who operate only a single unit, to large companies which maintain huge fleets. Have him give you a trial load demonstration—*have him prove the advantages of buying a Chevrolet Truck!*

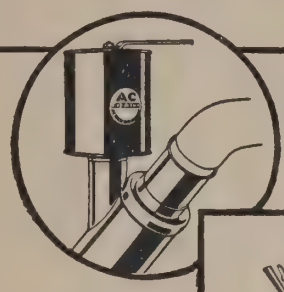
CHEVROLET MOTOR COMPANY, DETROIT, MICH. *Division of General Motors Corporation*

1-Ton Truck Stake Body $680	1-Ton Truck Panel Body $755	1-Ton Truck Cab and Chassis $610
1-Ton Truck Chassis $495	½-Ton Truck Chassis $395	*All prices f. o. b. Flint, Mich.*

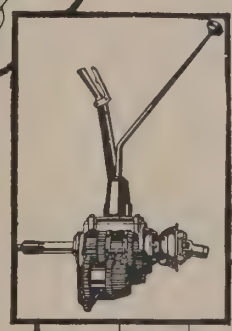
In addition to these low prices, Chevrolet's delivered prices include the lowest handling and financing charges available.



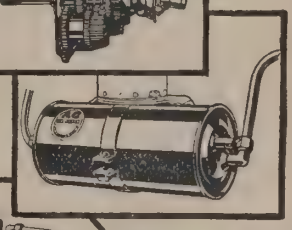
The Famous Chevrolet valve-in-head motor has been made even more dependable--with even greater operating economy.

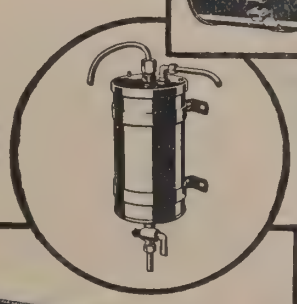


A new AC Air Cleaner prevents dirt and grit getting inside the motor—assuring longer life.



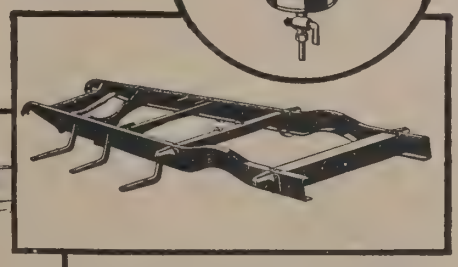
A modern, 3-speed transmission provides proper gear ratios for maximum power under every condition.



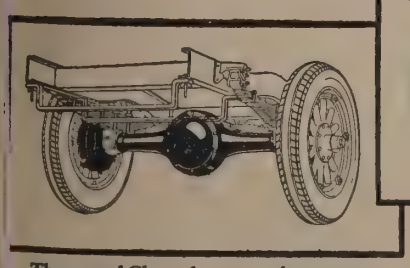


Modern Vacuum tank assures constant supply of gasoline to the carburetor on every grade.

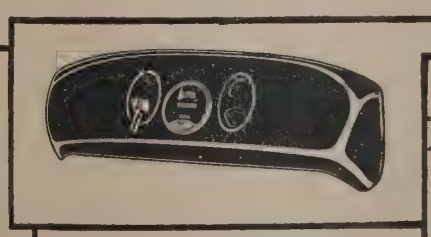
The new AC Oil Filter removes all foreign particles from the crankcase oil—providing for fewer oil changes and longer engine life.



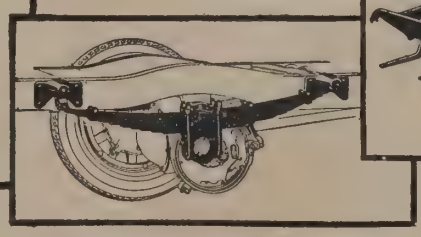
A husky, 6" channel steel frame is a contributing factor to the long life and faultless performance of Chevrolet Trucks.



The rugged Chevrolet rear axle possesses abundant strength and stamina for the heaviest haulage duty—giving faultless performance under every condition.

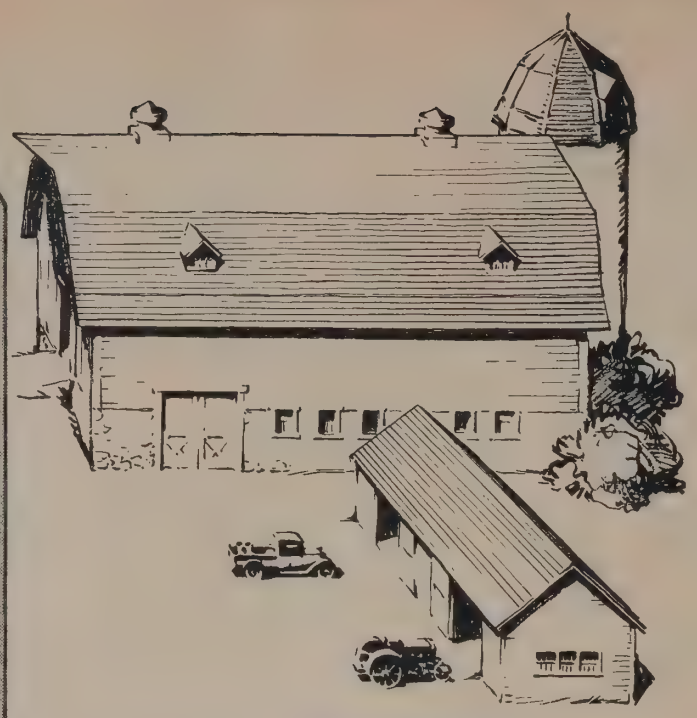


The instrument panel is conveniently located and is complete with speedometer, oil gauge, ammeter.



Heavy, extra-leaved semi-elliptic springs—set parallel to the frame—effectively cushion the load and chassis against road shocks.

World's Largest Builder of Gear-shift Trucks





Whatever you build build FIRESAFE!

Firesafety is the biggest value you can build into any farm home or building. Sheetrock, the *fireproof* wallboard, provides that safety-value in walls and ceilings.

And Sheetrock does that easily and at low cost.

FIREPROOF . . INSULATING . . VERMINPROOF . . NON-WARPING . . TIME-TESTED . . TAKING ANY DECORATION . . EASY TO PUT UP AND PUT UP TO STAY

Sheetrock is made from pure gypsum, 3/8 inch thick, specially surfaced, and made with the USG patented folding edge for nailing strength.

It will not burn, and therefore provides maximum protection where fire so often originates, in the work buildings of the farm.

Where you want decorative results—in your home—Sheetrock with the USG reinforced joint system that seals and conceals all joints, provides smooth, flat surfaces that take wallpaper, paint, or *Textone*, the plastic paint.

You can always tell Sheetrock by the USG Sheetrock brand on the back of every sheet, with the Underwriters' stamp of approval. Made only by the United States Gypsum Company. Your local dealer has it in stock or can get it for you promptly from our nearest mill.

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Please send me booklet, "Sheetrock Walls."

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Cutting Labor Costs

J. HOWARD CLIFFE, PENNSYLVANIA

I NOTE an inquiry requesting information regarding labor-saving methods, particularly in haymaking and silo filling. I would heartily second this request for I have noted that many short cuts are used in one section which are totally unknown in another.

Regarding the silage harvester-cutter, I would say that one of my friends who has a half dozen silos to fill uses one and is well pleased with it. The cost of the machine (about $700) is too high for the man with only one or two silos. I am, however, convinced that when one of the big machinery companies puts out a machine of this sort, operating from the power drive of the tractor and priced under $500, that it will sell like hot cakes.

A method which we used last year to fill our 10x45 silo requires a minimum of labor, as it can be worked intermittently by two men and a boy, over the stubs to carry them to t wagon.

The disadvantages are:

1. The work proceeds slowly w so small a crew.

2. The tractor must be lined anew to the cutter each time t wagons come in.

3. The outfit in the field has wide turning radius. It will tu toward the wagon as sharply as t wagon wheels will permit, but to tu toward the binder, the wagon m be dropped back by two or thr feet by a short piece of chain that the binder can swing o in front of it without hittir and even then the turning radius large. For this reason, the way begin a field is to cut a couple rows through the middle by har and sufficient turning space at t ends, and then turn toward the wa on each time, gradually working t field out from the middle and tur ing idle at the ends. A 1,000- field will make a load to the rou



TRACTOR HAULING BINDER AND LOW DOWN WAGON

or continuously by five men and a boy. The equipment needed consists of tractor, corn binder, three low flat wagons, silage cutter, and two horses. The tractor is used in the field to draw the binder and wagon. A wagon tongue is hooked to one side of the tractor drawbar, and the corn binder to the other side of the tractor drawbar, using in the binder a stub tongue of such length that the bundles are discharged against the front corner of the wagon. Two men are on the wagon. They take turns in catching the bundles and piling them on the wagon. Very large loads can be easily put on.

When the wagons are all filled, the tractor takes two of them and the team one, and brings them in to be cut. This makes a short half day's work and the silage will mount about a foot to the load. No one was in the silo, but at noon and night the silage was levelled off and tramped a little around the edges. No spoilage has resulted. Of course the last three or four feet were levelled and tramped well as filled. The advantages of this system are:

1. Minimum crew of five men.
2. Minimum horses.
3. Two men load a wagon faster than three men can load when picking up from the ground.
4. The corn is loaded as cut and does not lie on the ground to wither in the sun for several hours. This is important when the corn is becoming rather dry for ensiling.
5. The labor of loading is vastly lighter than when the loader is on the ground, stooping to pick up the heavy bundles and then stumbling

(varying of course with size of co and size of wagon) and this is ve desirable.

In regard to the second matter- haying—I would recommend the u of a modern windrow loader. T draft is very much lighter than wi the old push-bar types, and the h is much easier to pull loose as it delivered to the wagon.

When mowing away, there is a d vice for distributing the hay in t mow which I have used for two yea and can recommend. The princip is this: When the fork or harpoon set ready to take up a bunch of ha a spear or "needle" with a rope a tached is thrust down through t bunch and anchored in the hay r maining on the wagon. Thus wh the bunch of hay goes up, this ro is threaded vertically through t middle of the bunch and is take and snubbed around a hook at t side of the mow. Then when t forkful is released, instead of falli straight down on the middle of t mow, it slides down the rope over one side. But little hand forking necessary, and one man in the mo is sufficient. The hard center of t



LOADING SILAGE CORN ON FARM OF J. H. CLIFFE, PENNSYLVANIA

ow under the track is done away th, but the sides are packed tight-

The device is especially helpful a wide mow. It does not work ll with very short, slippery hay, as s will fall apart instead of sliding wn the rope. In heavy, tangled y, however, it saves a great iount of heaving and pulling in the w, and will actually pack more ly in a given mow, as we have und later when we came to bale it t.

The accompanying illustrations e some idea of the hook-up which have recommended and indicate w little lifting and carrying of ndles is necessary. A little cau-us experimentation will show how hook up these machines as closely possible without chafing or strik-g each other. The method is too nple not to have been discovered others than myself, but it does t seem to be generally known en where corn binders are com-only used.

An Advanced Register for Milk Goats

HOARD'S DAIRYMAN:—The Ameri-n Milk Goat Record Association s recently adopted requirements for Advanced Register equivalent to ose enforced by the dairy cattle eeds. Hitherto any registered doe at gave a certain minimum amount one month could be admitted. Now, e must show a yield of a minimum 1500 pounds during ten consecutive nths or, as an alternative, 52½ unds butterfat. Under the old rules, e month's yield was computed on e basis of the result of four days' ilking (not consecutive). Now, the tual yield for ten months, as shown the owner's daily record of every ilking, and checked by the official pervisor each month, determines lmittance to A. R. and is entered on e certificate given, together with e amount of butterfat produced.

Lack of confidence in the claims of oduction made by breeders of milk ats has been a serious drawback to e progress of the industry. It will w be possible for records to be of-red that are authenticated in the me way as those of dairy cattle. hat section of the public intelligent-interested in live stock will have liable data on which to base their dgment of the efficiency of the milk at as a producer of milk. Those oking for breeding stock will be le to locate the best strains by udying the records. The conscien-us and painstaking breeder will be couraged to persevere when pro-cted from the competition of those ho are turning out scrub pure-breds rapidly as possible, and foisting em on the public by misleading ad-rtising.

While this Advanced Register con-rms in general to those maintained the various breeds of dairy cattle, ere are some significant differences. dual standard, making it possible r a breeder to select either quanti- of milk or amount of butterfat as s way into the A. R., is necessary cause both Swiss and Nubian goats ust be considered. The heavy milk-g Swiss breeds give milk much low-in butterfat than that of the Nu-ans. If the Holsteins and Jerseys ere in the same record association, e situation would be a parallel one.

Nubian doe giving 7% milk would t in on an annual yield of 750 unds, while a Saanen in the same ass would require 1,500 pounds of ½% milk. This ratio may not be e one ultimately used when suffi-ent data accumulate to enable one test it thoroughly.

Any daughter of a registered sire may be registered in the A. M. G. R. A., and consequently be eligible to the A. R., if she can meet the requirements. It matters not who or what her dam was, scrub or Angora, she is listed as a member of the breed her sire belongs to and will be rated higher in the A. R. than any pure-bred of the same age that does not give an equal amount of milk or butterfat. This would seem sufficiently democratic but the door is opened still wider by the admission to registry of the male offspring of the fifth cross of a pure-bred sire and an unregistered doe as an "American Pure-bred." Distinctions of breeds and grades are made quite clear in all papers and literature sent out but there is some danger of confusion in the minds of those who think of "registered stock" as an expression meaning the same as "pure-bred."

California. GEO. CAMPBELL.

Use of Milk Powder Increases

Milk powder and condensed milk are replacing whole milk and evaporated milk in the manufacture of confectionery, ice cream, and bakery products, the Bureau of Agricultural Economics of the United States Department of Agriculture has announced. The reason for the shift is that the concentrated products are easier to transport and store.

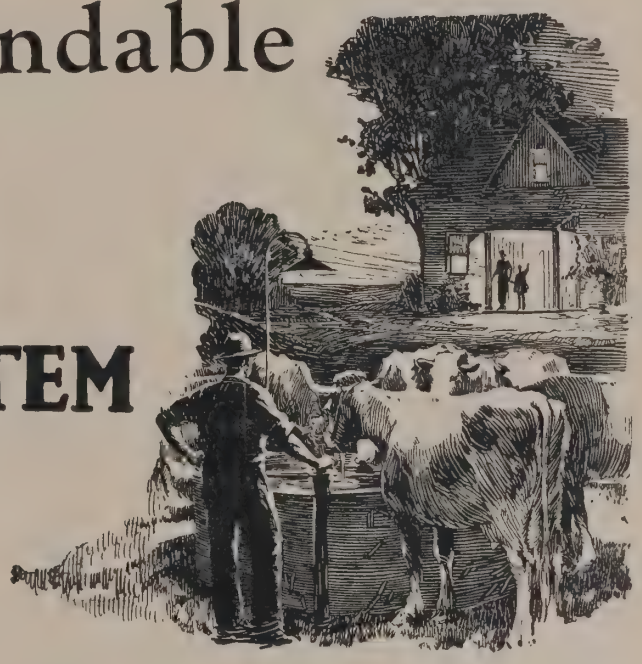
Figures collected by the bureau show that 66 manufacturers of milk chocolate used 171,542,708 lbs. of whole milk last year as against 228,-821,543 lbs. used by 61 manufacturers in 1925. The quantity of evaporated milk used to manufacture milk chocolate last year was 2,912,-639 lbs. against 3,037,669 lbs. in 1925, and of skimmilk 26,689 lbs. against 6,168,287 lbs.

Consumption of milk powders, on the other hand, shows an increase. The 65 manufacturers used 6,652,127 lbs. of whole milk powder last year, as against 4,396,231 lbs. used by 61 firms in 1925; of condensed milk there was used 5,499,095 lbs. against 4,369,769 lbs., and skimmilk powder 3,270,577 lbs. against 1,437,810 lbs.

The consumption of all products reduced to the common equivalent of whole milk used in the manufacture of milk chocolate last year shows a decrease of about 10 per cent under 1925.

Save time—save work—with a dependable

WATER SYSTEM



ON THE stock farm, a dependable water system is more than a convenience. It is a time-and-labor-saving necessity.

When you have a D-L Water System, you turn a faucet and you know you are going to get a strong, steady flow of water any time of day or night. D-L Water Systems give you the kind of reliable service that is demanded on the modern stock farm.

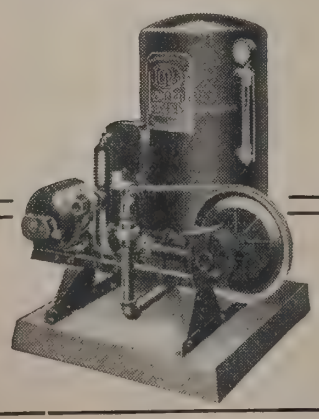
D-L Water Systems Low in Price

D-L Water Systems are designed and built to give years of service—without repairs, without attention and without interruption. They are available for use with either central station or farm electric plant current. Capacities range from 200 to 400 gallons per hour capacity and they are priced as low as $83, f.o.b. Dayton.

Product of General Motors

D-L Water Systems are built by the makers of the famous Delco-Light electric plants. Both are products of General Motors, with all that that means in conscientious design and construction. Like all products of General Motors, D-L Water Systems may be bought on the convenient General Motors plan of deferred payments.

Mail the coupon below for more specific information.



400 gallons per hour—every hour

DELCO-LIGHT COMPANY
Subsidiary of General Motors Corporation
Dept. E-114, DAYTON, OHIO

DELCO-LIGHT COMPANY
Dept. E-114, Dayton, Ohio

I would like to know more about D-L Water Systems. Please send me the booklet, "Water."

Name.....

Address.....

EDITORIAL COMMENT



WISE breeding of dairy cows means to so direct the currents of heredity by a union of male and female as to constantly increase the dairy power and productiveness of each generation of cows. In other words, we must aim to make the heifer a better cow than her mother. We must breed to strengthen and enlarge the dairy current.

THE question is sometimes asked whether cows with yearly records made in a cow testing association will sell for more than those of good type and without records.

According to a recent quotation, best grade springers with records are selling for $130 to $170, and best grade springers without records from $100 to $135. Cows with records average at least $150 apiece and those without records about $120.

DR. H. C. Sherman of Columbia University recently stated that there could be an almost unlimited extension of the dairy industry in this country. Investigations, he said, show that the full allowance of a quart of milk a day is needed for the development of children up to the age of 15. He also stated that milk is just as important to the vigor and resistance of the adult as it is to the child. He recommends a quart of milk a day for every child and a pint for every adult.

In sections of this country where little or no fluid milk is consumed, there is opportunity to develop a dairy industry of sufficient size to provide consumers with the dairy products they need. This will require an educational campaign to get the consumer to use the required amount of milk. If this were done the production of dairy products could be materially increased without causing an overproduction and a break in the present prices.

A DAIRY FARM STATEMENT

We would call our readers' attention to a letter we are publishing on another page under the above title. It may be that Mr. Charles was unusually fortunate, but it is interesting to know that a man with no unusual markets, but with a good producing herd, can make a labor income of nearly three thousand dollars. And this was done despite the fact he credits his farm with only $332 for rent and food supplied by the farm. Many a city laborer would be happy if rent, milk, potatoes, and green vegetables cost no more than this.

But our particular reason for calling attention to this report of farm income and expense is to ask others to send in similar reports of their farms. For the three best prepared reports, not highest profits shown, we will pay five dollars each. The name of the person sending the report will be withheld from publication if desired. We will also pay three dollars each for such other reports as we deem worthy and find space available for publication.

THE CORN BORER

The corn borer is threatening the corn crop and has already done enough damage to show what it is capable of doing if permitted to have its way. Congress has made an appropriation of $10,000,000 to destroy it and plans for battle are being laid. Just how difficult it will be to subdue this insect is problematical. We are sure its destruction will be accomplished, but just how and when we would not care to venture an opinion. The job at present seems large and puzzling, but it will be done.

We remember the chinch bug and its destruction to wheat, corn, and other crops. It seemed for a spell nothing could be done to stay its destruction, but now it is little heard of. The Russian thistle caused many a man in the grain sections of the Northwest to declare it would ultimately take possession of that country. But it has not. The boll weevil of the South was for a time a threatening pest of the cotton crop, but it was considered both a blessing and a curse. It promised to force the cotton grower to practice diversified farming and it did in many instances—that was a blessing.

All these insects and weeds which caused the farmer alarm for a time have been subdued to a sufficient extent that no one is concerned about them. We are prepared better now than ever to fight the corn borer and we believe it will be effectively handled. The dairy farmer with a silo will be able to protect himself from heavy losses and plans being laid by the federal government and authorities in the several infected states to control this insect should prevent severe losses to other classes of farmers.

SAVING AGRICULTURE

President Glenn Frank of the University of Wisconsin, in an address before the annual meeting of the Wisconsin Cheese Producers' Federation, made the following statements:

"These are the times of ready solutions; we want the solution handed out a finished product—like rabbits out of a hat. But a magician is a showman, not a statesman. Wisconsin doesn't need a showman. It needs a statesman.

"The problems of the farmer can never be solved by government subsidies, laws, or ready-made articles built around personal and political ambition. The solution of the farmer's problem will come just as soon as he takes into his own hands the distribution as well as the production of his own products.

"Farmers will never succeed with any marketing scheme they aren't big enough to think out themselves. Here is one thing I want you to remember, if you forget everything else I say to you today: Relief for agriculture must come from the bottom up, not from the top down."

It is not out of place to carefully consider these statements of President Frank and not be carried away by ready-made schemes to save agriculture. Some of them sound plausible, but it is well to remember that no industry is saved from without but rather from within—by those engaged in it.

TWO DAIRY FARMERS

The chief ambition of Hoard's Dairyman is to help develop a dairy industry that offers opportunity for those engaged in it to make a good living, to provide well for the family, and lay aside a competency for old age. The progress made in the past few years toward this accomplishment is most encouraging. As year succeeds year we find more dairy farmers with good cows; better systems of feeding practiced; more suitable crops grown for building rations; and an increased number of organizations for marketing dairy products. But with all this, not all farmers are making money.

Recently our attention was called to two dairy farmers operating farms under practically the same conditions, but with entirely different results. Both handled most of their work alone; sold milk and hogs chiefly and patronized a co-operative creamery. One made a labor income of $1,200 and better than 10% on his investment in 1926; the other did not quite make expenses. The farmer who made a profit keeps 20 good cows and knows how much fat each one produces. The other farmer keeps 12 cows but does not know their yearly records. The farmer who finds dairy farming a profitable business sells three or four grade cows each year at prices ranging from $150 to $250 apiece; the other farmer sells none. The successful farmer also turns off each year a good bunch of hogs raised at minimum cost; the other farmer has hard luck with his swine.

How can we help the farmer who is unable so far to make any money on the farm? His family desires things that make life more pleasant ; we would like to help him. He doesn't read v any purpose or will he put into practice impro methods. He works hard with his hands but head is idle.

These men well illustrate two classes of d farmers, the successful and the unsuccessf those who are students of their business and t who are not.

THE GAS TAX

According to the Minnesota Highway Ne good roads save from 2 to 3 cents a mile on automobile, tires, and gas, and more if tim considered. The gas tax is a good investm The chief purpose of the gasoline tax is to b and maintain good highways, and anyone objects to raising money in this way to build g roads has not considered the fairness of a of this character and the amount that can saved by building good roads.

On the average, a gallon of gas will carry automobile about 15 miles. If the road is m of concrete or other hard material, there wo be a saving of at least 30 cents in the use o gallon of gas. If the tax on gasoline is 2 ce the motorist will be ahead 28 cents, to say noth about the time and temper saved.

A tax on gasoline is not only a good investm for the motorist, but is a sound, fair way of r ing money to build good roads. The larger car and the greater distance traveled, the m road is used and at the same time the greater be the tax. We wish it were possible to figure a system of taxation for all purposes that is equitable as the gas tax and at the same time turn so much for money invested.

LIKING ONE'S JOB

A few weeks ago we went with a friend call on some farmers to present a plan for eradication of tuberculosis from poultry flo The majority of those to whom the plan presented were interested and agreed to co-o ate in the work. One woman flock owner was interested and could not be persuaded. The r son given for not being interested was v simple; it satisfied us and we departed. "I d like chickens," was the answer given us.

We pondered over this statement after we ca away. We applied it to other things than to r ing chickens. We tried to analyze the psychol of it in relation to the influence it may or n not have on one's success.

This flock owner does not like chickens. fewer there are and the farther away they s from her the better she likes it. Because of t the flock gets little help from its owner. shifts for itself; it fights its own battles agai disease and it gets its food like scavengers in night time. It gets nothing and gives everythi

Do we realize the tremendous importance t "liking one's job" has on the outcome of o efforts? Does this attitude of mind have a c mercial value? We believe it does. We beli profits are not made altogether from and beca of feeds and physical exertion but partly f the mental attitude of "liking one's job." W Because it is the ignition spark that fires us i action to do the things that count most in fluencing the returns from flocks and herds.

It is a good thing occasionally to take stock one's working equipment and methods. If a chine is out of order, we must repair it befor can be used; if a method is wrong, it must made right to get better results. Do we incl "mental attitude" in our study of working eq ment and methods? We venture to suggest t on every farm where the returns from pou and other live stock are not satisfactory, th is something wrong in the department of "lik one's job."

Treating Oats for Smut

ever treated oats for this and would like to know ow it is done. Will you please give the method?
New Richmond, Wis. C. H.

The following method is practical and effective hen properly done: (1) Thoroughly fan the oats remove foreign material, light oats, and smut eces of any size. (2) Mix one pint of formalin ith 10 gallons of water for 80 bushels of oats to e treated. (3) Sprinkle the solution over the ts, using one pint to each bushel, and mix thorghly. (4) Pile the oats up in a cone shaped le and cover with blankets, canvas, or sacks to event the escape of the formaldehyde gas. 5) After two hours uncover the oats. If they ve been thoroughly mixed they will have abrbed the moisture so thoroughly that they will be y enough to sow at once in a broadcast seeder or ill. (6) If oats are not seeded at once they ould be spread out in a thin layer and stirred ocsionally to allow the escape of the formaldehyde s. Do not put the oats back into infected sacks bins after they have been treated, if they are t seeded immediately after treatment.

Using Liquid Manure

I recently noticed that some one had written askg whether or not it would pay to build a cistern om which to handle liquid manure. Would you ease give me the plan in use on Hoard's Dairyan Farm?

One of the plans I have noticed in use was a stern in which they used a pump like the ones ed on a thresher tank wagon. They had a large x on top of the cistern on which the pump was cated and the hose was lowered into the urine ring the process of pumping. The pump on the x made it possible for the water to run into the nk. I do not know whether the plan was satisctory or not but I never could detect any odor.
Des Moines, Iowa. W. C. C.

We have been unable to locate very many stos of the use of liquid manure cisterns and anticate that the factor that has kept down larger use liquid manure has been the labor involved in ndling it and the fact that there are some other thods that are reasonably satisfactory and effint in conserving the liquid manure.

An ordinary large diaphragm pump will work tisfactorily where the liquid manure only is ained into the pit. If a large quantity is to be ndled, it would possibly be desirable to get a mp similar to that used by ditch diggers in empng their trenches of water. Some of these mps operate by engine, but you can secure a nd pump of this character that should prove ry satisfactory.

We have an occasional report of unsatisfactory sults from the attempted use of a liquid manure ctern. That is, the application of the liquid mare has not brought the anticipated results. We ticipate that this may have been due to the fact t the cistern was not tightly covered, with the sult that fermentation destroyed much of the tilizing constituents. To secure the best rests, the cistern should be well covered and so anged that there will form a body of carbon oxide over the top of the liquid and so retain the ses that might otherwise escape.

On Hoard's Dairyman Farm, we make it a practe to haul out the manure every day except durig certain periods of the summer when the cows e on pasture and it is impractical to attempt haul manure to the field. In this case merely store the manure in a well-built pile in te barnyard. We use considerable quantities of dding and also make use of the waste litter m the horse barn in the gutters so as to assist i the absorption of the liquid. In this way, very le of the liquid manure is wasted. We believe t on most farms where labor is usually at a emium, this will be found quite as efficient and re economical than to attempt to handle the uid through a cistern.

Curing Legumes Difficult

On account of living in Webster County, West rginia, we have so much rainfall it is impossible f us to cure red clover, beans, or alfalfa, and I a wondering if we could cut such and put in the s with corn. Would this take the place of leme hay for roughage for cattle?
Cowan, W. Va. J. H. F.

The legumes, such as red clover, beans, and alfa, are best suited for hay, and the attempt uld be made to so cure them if this is at all ctical. This can be done even in rather rainy weather if advantage is taken of prompt methods of handling. The hay can be cut, if necessary, when still wet with rain, but preferably after it has dried off. It can be raked up with a side delivery rake in 24 hours, or in some cases what has been cut in the morning can be raked up late in the afternoon. While it would be preferable to allow it, as a general rule, to cure in the windrow for two days, we know of many men who make it a practice, particularly in catching weather, to get the hay into the barn as soon as it has reasonably cured in the windrow.

The side delivery rake puts the hay in a loose windrow that dries out and cures the hay very quickly, particularly if there is warm, dry weather. Even if it is rained on in the windrow, after the top portion has dried off the side delivery rake can be used to turn the windrow over, and after this has been dried out the hay can be brought into the barn. An additional convenience for prompt handling of the hay is the use of a hay loader.

Where it is found impractical to cure these legumes as hay, they may be converted into silage with reasonably satisfactory results. The main trouble with most legume silage is that the green hay contains so much moisture that it will not cure out properly in the silo. To overcome this, it is the general practice to allow the hay to stand in the windrow until it is well wilted and partially dried out. It is then raked up and hauled to the cutter to be put into the silo.

The major difficulty of attempting to ensile legumes with corn is the fact that these two crops do not frequently reach their best maturity for feed at the same time. The result is that there is the danger that one crop may be too old and dry and the other too young and wet. If the attempt is made to make this combined silage, it would be preferable to let the corn reach its usual maturity and allow the legumes to be somewhat beyond the usual stage of maturity when used for hay purposes. If the legumes are allowed to reach the greater maturity, they will not contain as much moisture and it may not be necessary to allow them to dry out quite so much in the field.

However, as previously stated, we would make a serious attempt to cure these legumes as hay and only ensile them when weather conditions make it impractical to make hay or when there is anticipated shortage of corn for silage.

Emergency Hay Crop

I will be in need of hay for the coming year. What crops will make good hay the first year seeded? My soil is heavy clay; it will grow clover. Which variety of sweet clover do you recommend, if any?
Clear Lake, Wis. W. P.

This inquirer is located about fifty miles northeast of Saint Paul, Minn. For that location the following recommendations are suggested:

We would give first consideration to soy beans because the hay is more suitable for feeding cows due to its high protein content. The Wisconsin Black, Black Eyebrow, Manchu, and Ito San varieties in the order named are suitable for this location. These varieties will mature for hay in 90 to 100 days. The seed bed should be prepared as for corn and as many weeds killed by surface cultivation as possible before the crop is seeded. The seed may be drilled in rows 30 or more inches apart and the plants cultivated, or it may be drilled in rows about 14 inches apart by plugging every other hole in a common grain drill, or it may be broadcasted. If drilled, from 40 to 60 lbs. of seed per acre are needed, and if broadcasted from 60 to 80 lbs. are needed. Seed should not be put in too deeply—about 2 inches is deep enough. Seeding should not be made when soil is wet. Seed should be inoculated and this culture may be secured from the Wisconsin College of Agriculture or from seedsmen. After plants are up three or four inches, one may harrow field to kill weeds, doing this in the afternoon when soy bean plants are toughest. Harrowing may be repeated when plants are about six inches high. A yield of from 1 to 1½ tons of hay per acre should be secured in this locality from varieties suggested. This hay is equal to alfalfa hay in feeding value. It is usually a little more difficult to cure than alfalfa, due principally to less desirable curing weather at the time the crop is ready to harvest. Seeding may be made between May 20 and June 20, the earlier date being preferred if soil is warm.

The next crop to be considered is sudan grass. Though not a legume it produces an acceptable dry roughage for cows when properly supplemented. The seed bed should be prepared as for corn. No advantage is gained by early seeding. The first week in June is suggested for this locality. About 15 lbs. of seed per acre is the best rate of seeding and this may be drilled or broadcasted, there being little advantage in either method. The Iowa Station reports an average of 4 tons of hay per acre from seedings made June 7. Sudan hay fed with silage requires a concentrates mixture containing about 18 per cent of digestible protein to properly balance the ration.

We would next recommend a combination of oats and peas seeding at the rate of about 1½ bushels of each kind of seed per acre. The seeding may be made early as for oats. A yield of about three tons of hay per acre should be secured from this combination. The crop should be harvested when the oats are in the milk stage. The medium to early varieties of oats are best and the Canadian field pea generally gives satisfaction. The pea, being a legume, makes the hay of this combination a good roughage for dairy cattle.

Oats seeded alone and cut when the seeds are in the milk stage make a fairly good emergency hay crop.

The common millet is suggested though it should be the last resort for it is not as good as the crops previously mentioned. If used for feeding cows, it should be supplemented with a concentrates mixture containing 18 to 20 per cent of digestible protein if no legume hay is fed with it.

We do not recommend sweet clover for hay. Alfalfa is much better. For pasture, we recommend the white biennial sweet clover. It should be seeded this spring for next season's pasturage.

Heating Water With Feed

I have been reading the series of articles on feeding cows and from the information have formulated a concentrates mixture of 200 lbs. of bran, 100 lbs. of middlings, 100 lbs. of linseed meal, and 200 lbs. of gluten feed to be fed with timothy hay. This mixture contains about 19 per cent of digestible protein but because of unheated water I am planning on substituting 200 lbs. of ground corn for 100 lbs. of bran in a 1,600-lb. mixture in order to provide additional heating material for the water and to feed this mixture at the rate of slightly more than 1 lb. daily for each pound of fat produced weekly. What do you think of this plan?
Newald, Wis. H. G. G.

If these cows are not warmly housed and are offered water under conditions that they will not drink all they need, as when watering them but once a day from cold water, it is advisable perhaps to make the change in the concentrates mixture though this is an expensive way to warm water.

A better way is to house the cows in fairly warm quarters and to give them opportunity to drink three or four times a day even though the water is not as warm as desired.

The important thing about watering cows is to offer the water under such conditions that they will drink all they need. This does not necessarily mean that when the water is not warmed a part of the feed energy is used specifically to bring the water up to body temperature though indirectly this is what occurs. A certain amount of heat is produced in the process of mastication and digestion. The proportion of this that is used to raise the temperature of water up to body temperature depends on how warmly the cows are housed and on how much water is drunk at one time. If a cow is watered but once a day and she takes in a comparatively large quantity of cold water, there may not be enough heat produced from the ordinary process of mastication and digestion to warm this water, in which case additional feed nutrients are used for heating. After the water is once warmed there may be a surplus of heat produced in the body.

If it is desired to include corn in the mixture we suggest the following: 200 lbs. each of ground corn and of bran, 100 lbs. of middlings, 200 lbs. each of linseed meal and gluten feed, and 100 lbs. of cottonseed meal. This mixture contains 19.3 per cent of digestible protein and is better suited to be used with timothy hay. We would feed this mixture according to production. If the cows are housed and watered under conditions that require some additional heating assistance from the feed, give each cow a pound extra of corn meal daily. Cobs, coal, wood, or oil are cheaper than corn to warm water for cows. Also, cows will not drink all the water they should if it is very cold even though they may be highly fed.

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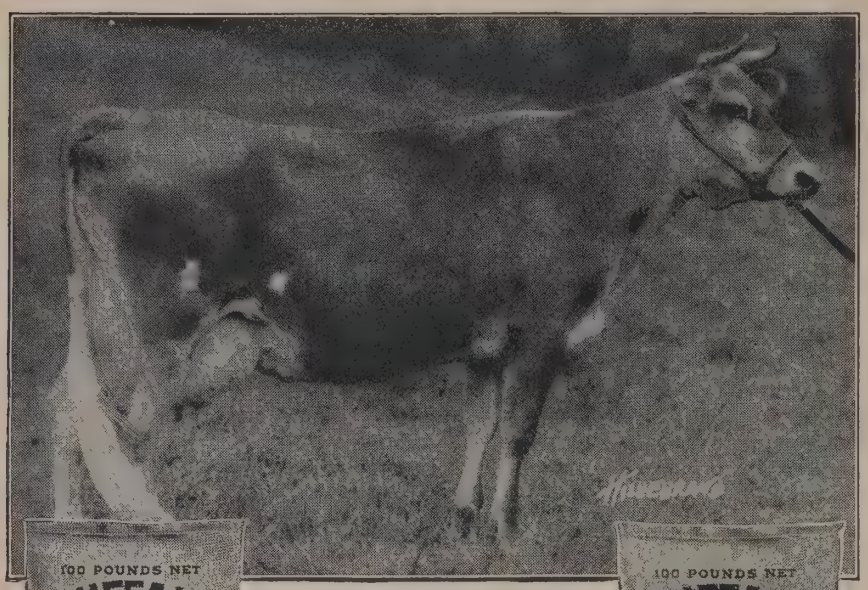
only one result is possible, a great record in milk production. For the past 7 years, Sophie's Emily, a Jersey cow owned by Randleigh Farm, Lockport, N. Y., has been getting

Buffalo Corn Gluten Feed

as the big protein ingredient of her ration. In these 7 years Sophie's Emily has yielded to her owners 110,193 lbs. of milk and 5424 lbs. of butter fat. Her latest and best test ended with the great mark of 17,393 lbs. milk, 838.93 lbs. fat for one year.

Production of this kind, year in and year out, shows beyond any question the worth of the feed as well as the greatness of the cow. Mr. T. E. Grow, Supt. at Randleigh Farm writes: "We have always used Buffalo Corn Gluten Feed in our test ration, and it is our opinion that when used in connection with other good feeds it has no equal as a source of protein.

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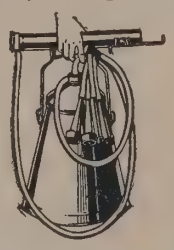
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Cream Grading in Ontario

J. W. WHEATON, ONTARIO

CREAM grading and payment of cream on grade came into effect in Ontario in May, 1926. There are around two hundred and fifty creameries. With perhaps a dozen exceptions, all began grading at the time decided upon by the government. So for a movement involving as it does so many radical changes in the operation of the business it has come into force with less friction than any other innovation for the improvement of dairying in this country.

The cream grading act expressly stipulates that each shipper's cream must be graded at the creamery. This means an individual can for each shipper and which must be delivered to the creamery. Formerly individual cans were not necessary for all shippers. Where cream is gathered by trucks the truck driver formerly sampled each shipper's cream and dumped it in with other cream in the large carrying cans on the truck. This cannot be done under cream grading. The shipper's cream in his individual can must be carried to the creamery to be graded.

The Grades

The different grades and the regulations generally are very similar to those in force in other countries where cream grading and paying on grade is in operation. There are four grades of cream—"Special," first, second, and third or "off" grade. "Special" is cream clean in flavor, of uniform consistency, with not more than thirty-one hundredths of one per cent acidity when graded and not less than 28 per cent fat content. First grade cream must be reasonably clean in flavor, of uniform consistency, acidity not more than sixty-one hundredths of one per cent when graded. Second grade is cream that does not meet the requirements of first grade as to flavor and consistency or has an acidity of over sixty-one hundredths of one per cent. "Off Grade" is all cream that does not qualify for second grade and therefore should not be made into butter of any kind. This grade is returned to the shipper.

Price Differential

The price differential for the different grades are briefly as follows: Special commands a premium of one cent per pound of butterfat over first grade and first grade a premium of 3 cents per pound of butterfat over second grade cream. There is of course no premium for second grade over "off" grade as the latt is not accepted by the creameries.

Grading Done at Creamery

Grading of cream is done by t buttermakers in the creameries or the case of some of the large ce tralized concerns by some employ specially trained for this work. Du ing 1925 creamery instructors dev ed a large share of their time training buttermakers and others the proper grading of cream. The men are now grading cream und the Act and the creamery instructo supervise, checking up on grading each of their visits to the creameri

Before the Act came in for many of the larger creamer strongly insisted that grading shou be done by government graders. Th is the plan followed by provinces Western Canada where cream gra ing and paying on grade is in for It is, no doubt, the ideal plan if can be effectively carried out. T western provinces, however, ha comparatively few creameries compared with Ontario and therefo the employment of government gra ers to do the grading is not a ve difficult matter, as comparatively f men are required to take care of the creameries.

Definite Improvement in Qualit

With one season's experience grading to look back upon it is pos ble to size up, to some extent, least, its effect in improving t quality of Ontario butter. In doi so, however, we have some defin figures to fall back upon. John Scott, chief creamery instructor a official grader, in his report gives t following comparison covering t first six months of cream gradi The percentages under "cream" a for first and special grades as seen the instructors from day to day the creameries; the percentages u der "butter" are for first grade b ter as graded from day to day at t Butter Grading Station:

	Cream	Bu
May	66.8	6
June	76.3	7
July	73.8	7
August	78.8	7
September	80.6	6
October	84.6	7

Why there was a falling off in t percentage of first grade butter September with over 80 per cent the cream Canada received grad first and special, the report does n say.



GUERNSEY BULLS, OWNED BY VALLEY GEM FARMS, WASHINGTON, HAULED BAND AROUND THE RACE TRACK AT THE SKAGIT COUNTY FAIR, WASHINGTON

Cow County, U. S. A.

Most folks think of Waukesha County, Wisconsin, as Cow County, U. S. A., but it is much more than that. It is the workshop and playground of several hundred farm families who have learned that some things can be done better collectively than individually, that self-help is also a good thing, that business men are not nearly as bad as vote-seeking politicians and front-page farm leaders would have them believe, and that all work and no play makes Jack a dull boy.

On March 15, the sales pavilion at Waukesha, where their annual dairy and agricultural show is held, opened its doors for the ninth time to admit exhibits and serve patrons. We asked the secretary how many people he expected. He replied, "Between 10,000 and 12,000."

The show is open four days and each day is concluded with an evening program. This year the climax was reached the last evening when all the good looking males of the community dressed up as women and put off the figures of the day by putting on the "Womanless Wedding."

Something is going on all the time. Fred Thomas, the secretary, isn't trying to rescue cars from the red tags of the Waukesha police because of their being parked on the sidewalk, but is quietly making sure that some of his more than a hundred committeemen and women are on the job when and where they should be.

We never saw such good co-operation and so much of it. These progressive dairymen have found out that it is hard to get something out of a dairy show unless they put something into it. They give of their time and talents without reserve, taking in lieu the satisfaction of doing something that needs to be done for the benefit of the community.

The dairy cow is, of course, the main attraction. We dare say there were more people at the ringside than watched the judging at the National last fall at Detroit—at least, at times. The pavilion accommodates about 150 head of cattle for show purposes. The five breeds were represented as follows: 16 exhibitors with 58 Holsteins, 7 exhibitors with 38 Guernseys, 3 exhibitors with 20 Jerseys, 4 exhibitors with 20 Ayrshires, 3 exhibitors with 7 Brown Swiss, 37 exhibitors with 143 cattle in all. W. W. Yapp of the University of Illinois did the judging.

Classes were open, also, to sheep, swine, and horses. Several entries were made.

All in all, the Waukesha County Dairy and Agricultural Show is the best managed affair of its kind we know of. It must be seen to be appreciated and is worth going many miles to see.

Oleomargarine Legislation

A new generation has come on the scene since the time a few earnest men put up a valiant and winning fight for what was then considered a minor part of agriculture. They secured federal legislation that compelled oleomargarine to sell for what it was and not adopt the livery of butter. State laws were also enacted, but with the passing of time there has been some let down and the dishonest sale of oleomargarine to unsuspecting consumers is again a matter of moment.

To meet this situation, the National Dairy Union has made a survey of the oleomargarine legislation of the several states and has prepared suggestions for state laws that may be more effective in securing the highest merchandizing of oleomargarine. A brief synopsis of the suggested legislation is as follows:

1. Defines oleomargarine in terms identical with the federal statute. This is an important provision to secure strict and uniform enforcement.

2. Prohibits use of tax-raised funds in any institution to purchase imitations to be used in place of butter.

3. Makes false advertising of oleomargarine a misdemeanor.

4. Requires a state license for every manufacturer or dealer, hotel keeper or boarding house keeper who sells oleomargarine and prohibits manufacture and sale of all oleomargarine which is colored to look like butter.

5. Provides fair but strict terms for licensing and fixes the fee which the state collects to provide funds for inspection and enforcement.

6. Provides for mandatory display of licenses and placing of signs on all oleomargarine offered for sale.

7. Provides for uniform bookkeeping showing purchase and sales, subject to public inspection.

A copy of the pamphlet containing a discussion of oleomargarine legislation and the proposed law may be secured by writing the National Dairy Union, 631 Pennsylvania Ave., Washington, D. C.

Tommy is fond of squeezing toothpaste out of his shiny new tube.

"Don't take too much this time, dear," his mother said to him one morning when he was cleaning his teeth.

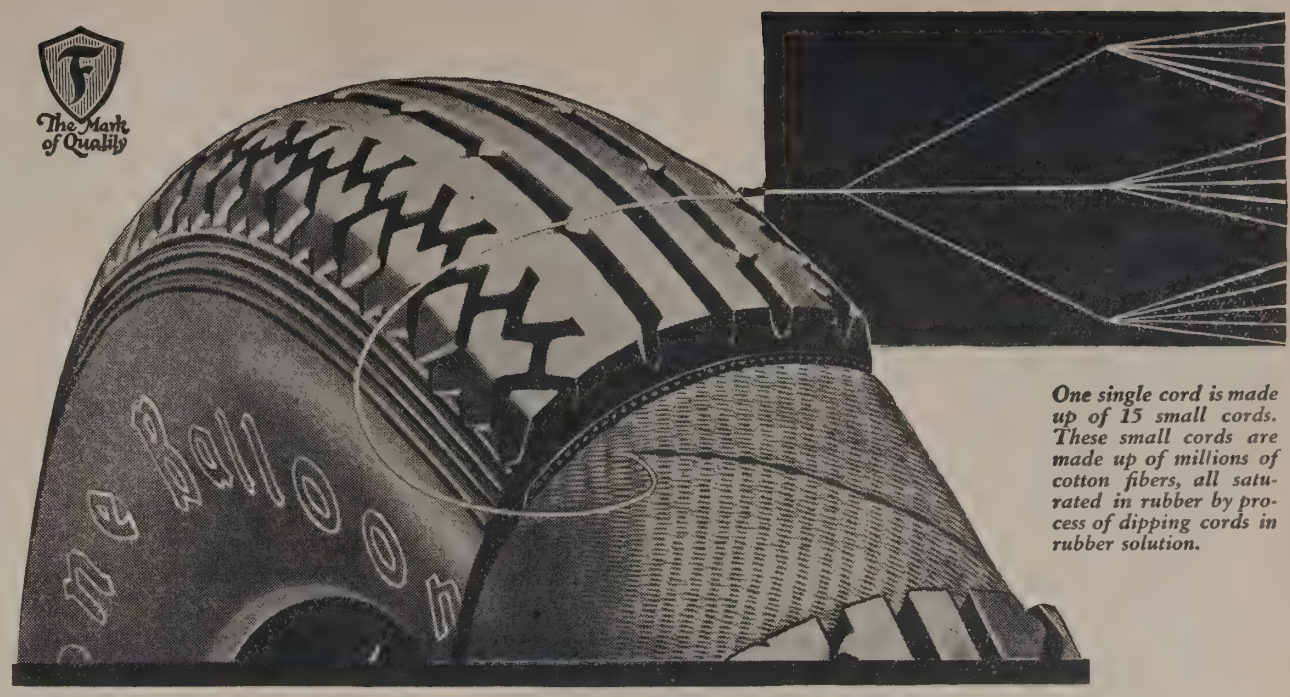
"How much may I have?" asked Tommy.

"Well, I should think a little bit, perhaps as big as a bean."

Tommy gave a great pinch and out shot the paste.

"Oh, oh!" exclaimed his mother, "not all that, Tommy. Didn't I say as big as a bean?"

"Yes," replied Tommy, "this is a stringbean."



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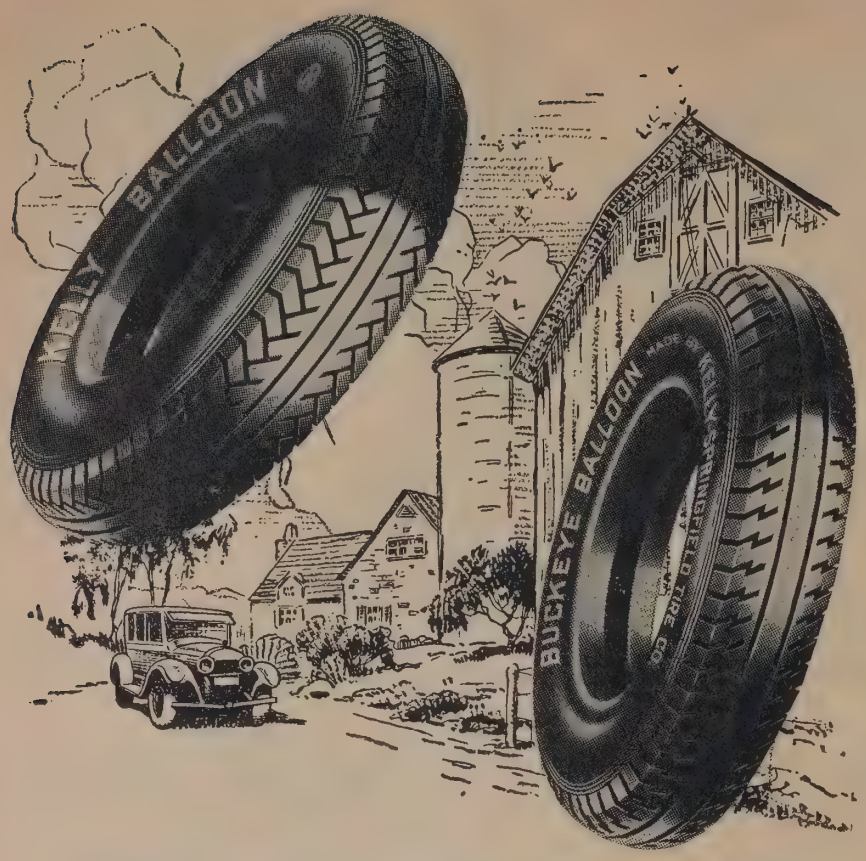
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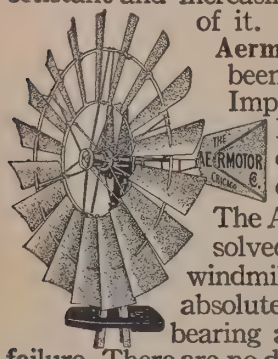
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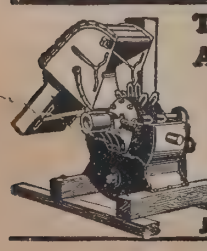
"Nothing succeeds like success," they say, but where success is constant and increasing there must be some unusual merit back of it. The continued success of the **Auto-Oiled Aermotor** is based entirely on merit. It has been made better and better year after year. Improvements have been added as experience has shown the way. The **Auto-Oiled Aermotor** of today is a wonderfully durable and efficient windmill.



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CHICAGO KANSAS CITY **AERMOTOR CO.** DES MOINES OAKLAND DALLAS MINNEAPOLIS

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Lowest Operating Cost—Longest Life



The "Jay Bee" Humdinger Will Outlast Any Feed Mill Made

Easy Payment Plan

See the Humdinger at work on your farm without cost to you. Prove to your own satisfaction it's the best, fastest, most economical mill made. 4 sizes—7 H. P. to 30 H. P. *Ask about our easy payment plan.*

Heavy steel construction. Practically unbreakable. Lifetime service. No burrs, knives, gears nor rolls to dull or break. No heat, no friction. Does not heat grain. Grinds any hay, roughage, or grain—fine as wanted. No breakdowns. Always dependable. Lowest grinding cost. Unequalled as grinder—feed saver—money maker. Feeding booklet—literature—FREE. Stock in principal cities. Infringements prosecuted.

J. B. SEDBERRY Inc., 268 Hickory Street, Utica, N. Y

Opinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyman assumes no responsibility for opinions expressed.

Wants Profits of Middlemen Lessened

HOARD'S DAIRYMAN:—I note in the O. B. & B. column a letter written by a man who signs: "Just an American Citizen." In this letter he refers to my position as "absurd." Now, of course, I don't know this man—he does not mention his name, but as the heading of the letter states, "Cut Out Government Control," I must take exception to the reference to my letter of some weeks ago in this manner. I have in no way advocated government control.

To reiterate, I suggested that legislation should be passed that would restrict the amount of profit that could be taken by brokers, commission men, etc., on food products in this country. This can be a law and need not call for government control.

I don't pretend to have a detailed scheme but a theory that the best method of helping the American farmer is not by facilities which enable him to obtain money to raise more food and sell it at a loss but, in place of this, arrange such laws that assure him of some of the excess profits now accruing to the so-called middleman.

If a western farmer, for instance, gets about $1,400 for a car of beans and the so-called bean broker in Chicago gets a commission (?) of about $500 on the same car, that is all wrong. And, further, I read in Paul L. Vogt's book, "Introduction to Rural Economics," that a retailer gets 54% on Connecticut onions and the producer gets 28%. Certainly that is not fair when it is recalled that the producer furnishes land, fertilizer, seed, labor, money, etc., and all for a net profit that is less than labor pay.

Of course this is somewhat beside the point. I mean I intend to refute the inference that I have advocated any degree of government control. My impression of such control is that it involves actual administration by government employes or a commission under the direction of a government employe. Such is not the case in the idea I have in mind. To reiterate again, I want a law to prohibit the taking of more than a small per cent off the price of food products by so-called middlemen.

It would be interesting to have some of the other farmers that read Hoard's Dairyman have a say regarding this matter and of course "Just an American Citizen" should explain.

Michigan. OSCAR C. GOTTESLEBEN.

Care of Dairy Cows

HOARD'S DAIRYMAN:—Would like to write a short note for the O. B. & B. column regarding the care of dairy cows. Every one agrees that the first requisite for dairy success is the comfort and health of the cows. We hear and read a great deal about cow comfort but my observation is that the comfort is chiefly for the owner or caretaker, not for the cow. My first point is that the confining of cows in stanchions for the long winter is very injurious to the health and vigor of the animal. I do not believe any form of stanchion, even the so-called humane variety, should be used and some other method allowing the cow more freedom, exercise, and comfort must be worked out. How long would a man retain his health and vitality if confined in stanchion for six months every year? Still we expect the cows to do so.

The system of allowing the cows to run loose, as advocated by Professor Fraser in Hoard's Dairyman last year, appealed to me. I am sure the correct housing of the cows is just as important as the feeding if not more so, if the health and vigor of the animals are to be maintained. I would like to see more articles written on this subject from those with experience. Am sure in the future we will get away from stanchions and evolve a new system of cow comfort not measured by the amount of steel and concrete in our barns but by the amount of freedom, exercise, and sunshine the cows receive.

Wisconsin. FRANK HUSER.

Breeders as Salesmen

HOARD'S DAIRYMAN:—This is the reply I got to a letter asking information on some pure-bred Holstein heifers which I saw advertised. I specifically asked about the breeding and the production record behind them:

"The breeding would be hard for me to outline but we have always tried to keep good bulls, and our herd of cows are good producers. Used to belong to the cow testing association, but we did not have any boarders so we don't belong now. Also had some official testing. I don't know if this answers your question on breeding. We don't value pedigrees so much as individuality but, of course, both together should be all right."

This man is in a business which he does not understand. Apparently he is satisfied not to know anything more about it. A salesman who knew a little about the goods he was selling would starve to death.

Our small breeders frequently make the mistake of not studying their pedigrees, not following up their breed in their breed and dairy papers and when asked about their stock they reply "Wait—I've got the papers in the house. I'll see if I can find them."

Socrates wisely said, "You've got to know your onions."

Minnesota. S. A. ALDRICH.

Appreciates Hoard's Dairyman

HOARD'S DAIRYMAN:—We certainly appreciate your most valuable farm and dairy paper. I do not see how we could farm without it. One of our neighbors made us a year's subscription as a present—that is how we got acquainted with it. It is worth many times its price each year. Too bad every farmer and dairyman in the United States do not have it come to their homes regularly.

Some articles written in the O. B. B. Dept. are quite amusing and also very instructive. I certainly admire the writers on the Sabbath question in issue Feb. 10. I think they surely hit the nail on the head on the Sabbath question. It looks to me like the Saturday or Sabbath keepers would learn after awhile. I feel sorry for them that they are so blinded, for about all they seem to see or do see is we should keep the Sabbath and the old ten commandments when Jesus' teaching is so much better and is for us now. God bless them and help them to see what He has for them in His precious word.

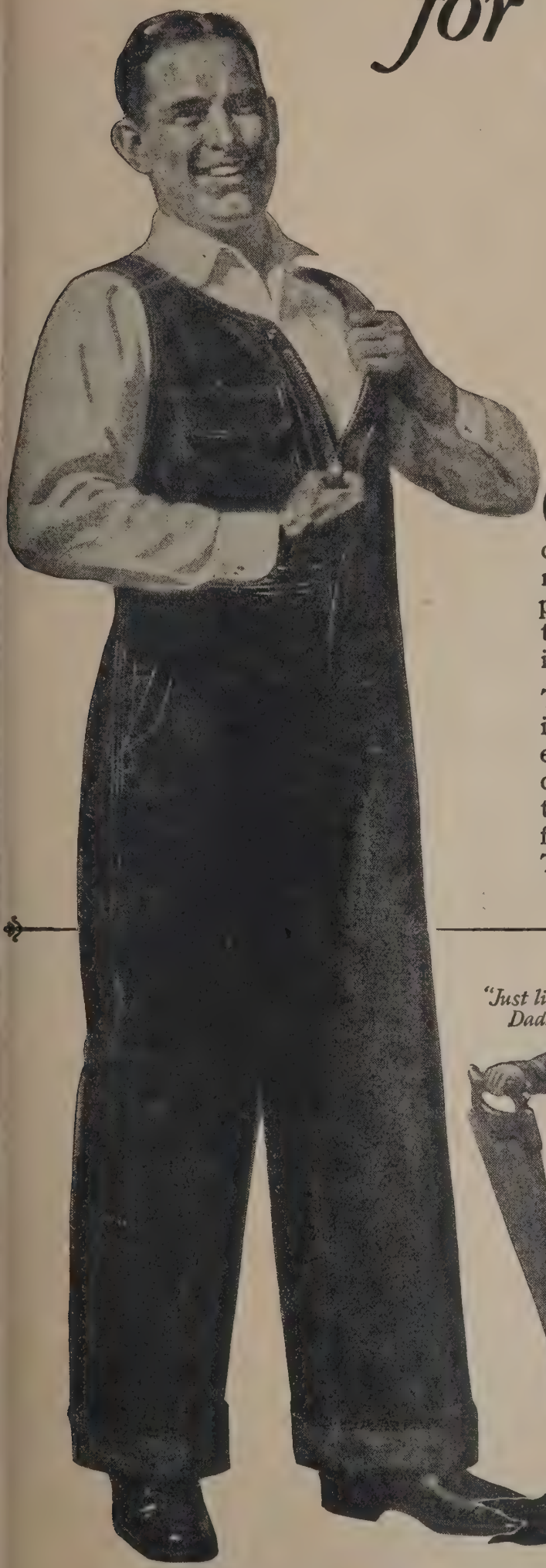
Idaho. FRANK ALTENEDER.

$1,000 for a NAME

for Lee *Buttonless*

Union-Alls, Overalls Play Suits

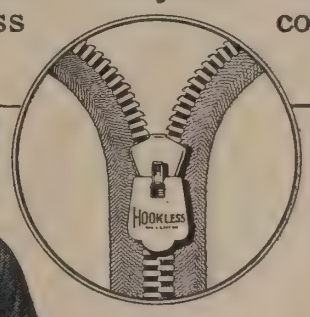
Presto . . . it's open!
Presto . . it's closed!

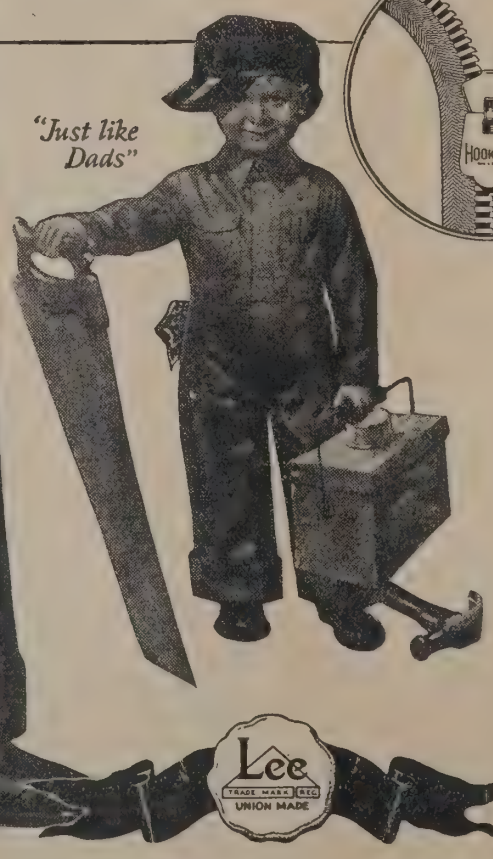


ONCE more Lee leads the world in improving work clothing. Think of it . . . no more worrying buttons. One pull and it's fastened better than buttons ever could fasten it. A time saver . . repair saver.

The Lee Hookless Fastener is the greatest improvement ever made in work and play clothing. It is combined with the superior long wear Lee fabrics introduced last year. The Hookless Fastener will not jam, rust or break and launders with perfect safety. It can be had in Lee Union-Alls, Overalls and Play Suits. The same garments available with buttons also.

Ask your dealer to show you the new Lee Buttonless Union-Alls, Overalls and Play Suits. Inspect them . . . try them on . . pull the Hookless Fastener up and down. Then enter the $1,000 cash prize contest.





$1,000 *in Cash Prizes!*

First Prize	$250
Second Prize . . .	125
Third Prize	75
Fourth Prize . . .	50

One Hundred Prizes of $5 Each

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1. These prizes will be given for the best names received for Lee Buttonless Work and Play Garments, together with reasons for the name, written in not more than 25 words. Any number of names may be submitted but each name must be accompanied with reasons.
2. All names with accompanying reasons must be written on a Lee Official Entry Blank. Entry blanks can be secured from any dealer in your town handling Lee Union-Alls, Overalls or Play Suits. There are Lee dealers in nearly every city and town in the United States.
3. You can get many valuable suggestions for a name by carefully inspecting the Lee Buttonless garments at any Lee store and by talking to any man or boy who wears Lee garments.
4. Send your entries to Prize Department 125, The H. D. Lee Merc. Company, Kansas City, Mo. No entries returned.
5. In the event of a tie for any prize offered, a prize identical in all respects with that tied for will be awarded to each tying contestant.
6. Contest opens March 1st and closes June 1st, 1927. Anyone may compete except Lee employees and their families.

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Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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"The making of butter and cheese is no profitable calling for an unthinking man. It demands brains."—I. J. CLAPP.

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., March 26—The decision reached some weeks ago that the failure of the second deficiency appropriation bill left the Department of Agriculture without money to put the Lenroot Milk and Cream Import bill into effect seems to be final. Some emergency matters left without funds are taken care of by roundabout methods of using other funds, but the officials are of the opinion, apparently, that this is not an emergency. There are prospects for a deficiency bill in the first weeks of the next session of Congress, making money available perhaps as early as the holiday vacation.

Agitation over tariff matters continues coming up from new angles almost every day. There is so much agitation and so many requests that it seems to be moving very rapidly toward efforts by Congress next winter to make major changes in the law. At the same time the Republican leaders in both House and Senate Committees, Chairman Green of the Ways and Means Committee, and Chairman Smoot of the Senate Finance Committee have issued statements stating that no major tariff legislation would be considered in the next Congress. Canadian reciprocity has been again suggested by officials of the Dominion and is an international problem now laid on the doorstep of the President. The proposal is said to be that "natural products" of both countries should flow without duty either way across the line. The query is natural as to the inclusion of milk, cream, butter, cheese, and other manufactured dairy products in such free movement, and the results which might come. There is a big demand here for increasing the duties on several agricultural products including tomatoes, cherries, nuts, and just this week a new application for an increase in the duty on flaxseed. While the farmers are making these requests, there is a growing demand from other organizations for lowering rates of duty on manufactured articles.

The increasing surplus in the Treasury, now estimated at well toward a half billion dollars, has created a situation which positively requires a revision of the federal tax laws. There will be tax reduction, the open question being at what point in the long involved tax schedule the big cuts will be made which will save some of the taxpayers a big part of the half billion dollars. The biggest effort for a special place in the reduction program is being made by the automobile industry which still bears a burden of the war tax on automobiles and accessories. They pass this tax along to every buyer of an automobile or auto part, and base their claim for special reductions in tax rate—or complete wiping out of their tax—on the fact that this will be a direct reduction to every purchaser and owner of an automobile, of which 22,000,000 are now registered in the U. S. The next most aggressive effort is in behalf of reducing the tax on corporation profits. These profits are now subject to a tax of 13½ per cent if they are distributed; but if not distributed, that is, held as surplus or undivided profits, are not taxed at all. This tax on distributed profits is held to be a very heavy handicap on small, active corporations such as make up the bulk of the business of the smaller communities manufacturing and merchandising, and which includes all of the butter manufacturers not co-operative. Other special interests which are presenting demands are the organization opposed to inheritance taxation which under the leadership of former Congressman Mondell is alleged to have collected a big war chest to fight for reduction, the Commercial Travelers who are trying to wipe out the Pullman surcharge and the theatres that are asking total remission of admission taxes. Then there is a political party controversy in the air between Democrats who demand greater exemptions and lower rates on all low bracket income taxpayers, and the Republicans who seem to insist on more uniform reductions for both low and large brackets of the income tax rate schedule.

Secretary of Agriculture Jardine has made the following statement relative to the Dairy Pilgrimage, under the auspices of the American Dairy Federation, to be held here April 26, 27, and 28.

"I shall be very glad to welcome the representatives of the Dairy Industry. The American Dairy Federation is doing a great service to the Department of Agriculture, and, I feel sure, to the dairy industry also, in bringing these men and women ere so that we can all learn at first hand what we can do to assist in the progress of this essential part of American agriculture. I should like to see many more such pilgrimages to Washington and to our Department."

The Bureau of Animal Industry lists something over 874 cities now having ordinances requiring T. B. test for all cattle supplying milk thereto. An inspection of these lists shows that there is a majority of those listed which are less than 25,000 inhabitants. Many of the cities so listed have changed from non-T. B. testing to T. B. testing in the last year or so. In one state there seems to have been nearly ten times as many cities with the test requirement as two or three years previously. This survey was started over a year ago, and completed after several months' wait. The changes are so many and rapid that plans are now being made for a survey as of July 1 this year, for the information of the next session of Congress.

"There is not a boy in this town as clever as my Charles!"

"Go on, how is that?"

"Well, look at those two chairs. My Charles made them all out of his own head, and he has enough wood left to make an armchair."—Good Hardware.



The Elevator Out and In

F. L. CLARK, IOWA

"HERE is no elevator business any more in this part of the country," said the owner of elevator in a Northeastern Iowa vn recently. "A couple of years a farmer drove a load of grain



Harry Kreg, assistant manager (left), d H. P. Schmidt, manager, have run the est Union elevator for five years and ve seen its business double in that time.

to our elevator. When I told him at I could pay for it, he shook his d as he stood on top of the load, l said, 'I can't do this any more. e got to bring my grain in on the f.' He has never hauled in anr load. The same thing has hapled with all our old customers. y are feeding everything they se, and selling it as butterfat, s, beef, and pork."

The same story is heard in hunds of towns in the corn belt. Eleors where, as late as ten and fifn years ago, lines of teams used wait their turn to unload grain, no grain at all any more. Some closed down. Many others are sale at a fraction of what they t.

Do these offer an opportunity to farmer?

At West Union, Iowa, it has turned that way. There, farmers own l operate an elevator which was d them for a song twelve years because the owner considered iness gone. Not a single car of in has been shipped out in over r years, yet the elevator is known one of the busiest places in West ion, and farmers think it is a real n to farm business.

t was in 1912 that West Union mers to the number of 175 orized a company and each put in) to pay for one share of stock. th the proceeds the elevator was ght for $1,700.

A year ago this elevator, whose busis was gone in 1912, did a business $339,722 under farmer manageent. It has no debts, and on March 1926, it had a sinking fund of 483.86 to its credit. Two or three usand dollars more were added this fund last March, for the npany doesn't believe in doing bus-ss on a shoe string.

A manager on a salary of $150 a nth with an assistant who is paid 5 a month are the permanent bus-ss force. Extra help is hired when ded. The company does business der the name of the West Union -operative Commission Company. is capitalized at $10,000 and its mer stockholders have grown from 5 to 200.

n the early years of farmer manement the volume of business was small, and about ten per cent had to be charged to take care of the overhead and build up a sinking fund. By increasing the business, it has been possible to reduce this charge to seven per cent. With the business growing every year, further reductions are anticipated, though never to a point where a substantial amount will not be earned to add to the sinking fund each year.

The elevator functions in several ways. It is a clearing house for the farmers. Rye, oats, wheat, barley, rape, timothy, clover, and soy beans are delivered by farmers to the elevator, but not for shipment. The grain which is brought in from farms where there is a surplus, goes back to other farms of the community where there is a shortage.

Farmers have found it convenient to have the elevator force handle shipping of live stock, since the stockyards are just across the railroad tracks from the elevator. This makes for economy in stock shipment.

The elevator is the farmers' buying agent. Feed, flour, oil meal, oyster shells, tankage, posts, twine, and bags are shipped in. When this buying was first instituted by the elevator the demand was so small that the company could not buy in carlots. Now the demand has so increased that no buying is done except in carlots, and the farmers have the advantage of this large saving in freight. The result is that because they can buy feed more cheaply, they are feeding more, and each year the elevator is shipping in more cars of feed. The more feed that is consumed on the farms, the more hogs and cattle there are for shipment. Business at the little co-operative elevator is working in a cycle. The more it does, the more it attracts and the better it is for the farmer members of the company.



Elevator of West Union Co-operative Commission Company at West Union, Ia.

On the Edge of the Range

HOARD'S DAIRYMAN:—The way in which western farmers are turning to milking is interestingly shown in the case of the Burwell Butter Factory of Nebraska. This co-operative concern is located in a town of about 1200 people on the edge of Nebraska's famous sandhill range country. It buys cream, eggs, and poultry, and ships in a small amount of fruit for sale to its patrons.

In 1922 the factory bought from the farmers 23,179 dozens of eggs and made 136,720 pounds of butter. The past year it handled 74,352 lbs. of live poultry, 49,478 dozens of eggs, and sold 239,986 pounds of butter, which is a substantial increase in all departments. This factory follows the practice of always paying the same price for fat as the seven competing cream stations pay. The past year they also paid back to the farmers 6c per pound rebate on all butterfat purchased, making their total rebate payment $11,970.

The real lesson in the history of this creamery, however, is found in a study of the rebate checks which Manager R. E. Brownell showed me. The farmer who secured the largest rebate check—for $260.98—has done so for the past four years. In 1926 he sold 4,350 pounds of butterfat, "and that man is milking close to forty cows," Mr. Brownell said. Another farmer who stood second and sold 3,474 lbs. of fat has only twenty cows on his farm, and they are all Shorthorns. Very few cows of dairy breeding are in the herds that supply this creamery with fat, though dairy bulls have been purchased in the past three years. Many of these cows run in the stalk-fields with little grain feed and only sheds for shelter. I have seen farmers, twenty-eight miles from the railroad and on a small sandhill holding, milk twelve or fourteen cows and two of us could carry it all to the separator in one trip.

These men are but beginning to milk. On the smaller holdings they will continue and good breeding will replace the beef blood that is there now. They can buy corn at $25 a ton, cottonseed meal at $38, and alfalfa for $12. Pasture is cheap (as land can be bought from $10 to $100) and the weather is mild. Many days in January and February the writer went to his school and about the immediate country without topcoat or hat. In addition to these advantages they are less than 300 miles from Omaha, the largest buttermaking city in the world.

When sections of this nature turn to dairying in earnest, the farmers in regions of higher priced land and feed must cut production costs to compete.

Nebraska W. H. FORSYTH.

AMERICAN STEEL & WIRE COMPANY



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Ask our dealer in your community. His stock insures quick delivery.

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1 Railroad rail design reinforced with a heavy steel backbone.

2 Easy to attach line wires. 7 clamps supplied with each post.

3 Large slit wing anchor plate anchors the post like a rock. Permits immediate fence construction.

4 Entire post protected with best quality paint made of pure linseed oil base.

Banner Steel Posts are not affected by frost. Your fence is grounded wherever a steel post is used and danger to your stock from lightning is greatly reduced. With Banner Steel Posts the fence line can be burned off every year, thus getting rid of weeds, insects and rubbish. The clean farm grows the best and biggest crops and with the least labor and expense.

Provoked Customers Don't Stick!



DO you make your dairy customers pry and gouge old style caps off the bottles that carry your name? That is no way to hold customers. Give them bottle caps that are easy to lift.

Certified Caps for milk bottles have flaps made of tough, red fiber. They are easy to see and to grasp. They lift off the caps easily every time. They're stapled on to stay. They are distinctive. A mark of better service in hundreds of dairies that are making new customers every day.

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Dept G-34 Washington, D. C.

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Pat. 7-2-07 & 9-10-18

ANTI-COW KICKER

Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H. Topeka, Kansas

It's Here!

NEW! Low Model MELOTTE



NOW!—for the first time, the farmers of America have a chance—*if they act quick!*—to see and USE, on 30 Days' Free Trial, the NEW Low Model Belgian Melotte Cream Separator.

For three years past this NEW Low Model Melotte has been in such demand in Europe that it has been impossible to secure even ONE shipment for America.

AT LAST!—2000 have just arrived! Going fast! You must act quick! Mail coupon NOW! This great NEW Low Model Melotte retains all the best features of the World's Leading Separator, including the wonderful Self-Balancing Melotte Bowl,—plus—the NEW Swinging Waist High porcelain-lined Supply Tank and many big NEW features that have started the whole dairy industry of Europe talking. Mail coupon now.

Don't Pay for 4 Months

Ball Bearings—of course the NEW Melotte has Ball Bearings. The Melotte Separator has always had ball bearings. It has had ball bearings for 38 years.

Special Introductory Price

Right Now—we are making an especially Low Introductory Price on this NEW Low Model Melotte. The price may be higher later. You must Act Quick—mail coupon now and get this NEW Low Price. Get the Free NEW Melotte Book. Learn how we will ship this NEW Melotte direct to your farm for a 30 Days Trial—FREE—with NO obligation to buy. Learn how you do not have to pay one cent for 4 months after you receive it—OR—you can pay for it on small monthly payments. But you must ACT Quick. Mail Coupon NOW!

Send for Free Book!

That's the first thing to do. Get this Big Free Book. Even if you feel you won't need a new separator for some time you owe it to yourself to find out all about this wonderful NEW Melotte *right now!* Don't Delay! Mail Coupon Today *sure*, before this first shipment is *all gone*.

The Melotte Separator, *H. B. BABSON, U. S. Manager*
2843 W. 19th St., Dept. 28-54 Chicago, Ill.
2445 Prince St., Berkeley, Calif.

Please send me Free NEW Melotte Separator Catalog and your "Don't Pay for 4 Months." Offer and Special Low Introductory Price.

(Print Your Name and Address plainly)

Name.....

Post Office.....

R.F.D.....State.....

How many cows do you milk?.....

WHAT PRICE MILK

WAYNE DINSMORE, Secretary Horse Association of America

NEW YORK distributors in 1925 delivered to their patrons an average of 4,311,800 quarts of milk daily. In 1917 their average daily deliveries totaled 1,600,722 quarts. Cost prices in the decade went up also; in 1916 a quart of Grade B milk cost the consumer nine cents; in 1925 he paid 15 cents for it.

The dairy industry has grown to be highly specialized. Milk comes into the metropolis from six states: New York, Pennsylvania, New Jersey, Vermont, Massachusetts, and Connecticut. It is unloaded at ten terminals.

The transportation of milk from the farm to the city dealer is either direct by truck or by truck to the country receiving station and via railroad to the city, whence it is transported by tractor-truck, truck, or wagon to the pasteurizing plant or distributing station. Very little milk is brought into the city by truck, because the distance between producer and distributor is so great. The railroads transport 98 per cent of it.



READY FOR THE DAY'S WORK

In some instances the distributor owns the trucks that collect the milk from the farmer, although generally men are hired to collect and haul the milk by truck to the station, operating over a definite route schedule and serving a certain number of customers. Compensation is based on the hundredweight and ranges from five to fifty cents per hundred pounds, depending upon route conditions. This is paid by the consumer.

The dealer performs an exacting role in the distribution of milk, overcoming many obstacles in making his deliveries each morning, regardless of the weather. Usually he is required to maintain cooling stations in the country for receiving milk from the farmer. Upon its arrival at the terminal in the city, it is unloaded on to large receiving platforms by railroad employes, or direct on to the distributors' vehicles for conveyance to the city pasteurizing plant, distributing station, or direct to the consumer.

In case the distance to the plant is short, bottled milk is sometimes carried in large wagons pulled by four-horse teams, hauling from 250 to 300 cases of milk or cream. At the plant the team is transferred to an empty wagon and sent for another load.

Two kinds of power figure decisively in the plant-to-pantry distribution of New York's milk supply—man power and "flesh-and-blood" horse power. Between 1:30 and 5 a. m. the horse is backed into the shafts and horse and driver set out upon a circuitous journey of streets, alleys, and boulevards to get milk and cream upon the doorsteps of the four million homes before the family awakens to a desire for breakfast. This delivery is generally completed by 7:30 a. m., and in Greater New York is accomplished entirely by horse-drawn vehicles, which experience has proved to be most economical and efficient.

The collection of bottles, payment for milk, and the return of empties to the plant usually consume the remainder of the time between 7:30 and 10 a. m. or 12 noon. On Mondays and Tuesdays, when cash collections are made, some wagons are out on their routes until 3 to 5 p. m.

The delivery of milk to stores—"loose" milk—is generally made between 4 and 9 a. m., and in this trucks share with horse-drawn vehicles. Payment is collected daily—at time of delivery if the store is open; otherwise, on return trip to the plant. As a rule, the collection of bottles and moneys from stores requires almost as much time as the delivery of milk, but storekeepers could reduce this time by giving the milk salesmen prompt attention.

It is true that in some sections, notably in lower and upper East Side of Manhattan borough, the stores handle large quantities of "loose" milk. People in these sections are too poor to buy the more sanitary bottled milk and come to the store bringing their own containers for the eleven-cents-a-quart "loose" milk.

Retail milk salesmen are generally paid $35 per week, plus two per cent commission for six days per week work. Wholesale bottled milk salesmen receive $37 per week, plus two per cent commission for six days per

Products	No. of lbs.	Butter @ $.3884 skim @ $.75	Butter @ $.3884 skim @ $.50	Butter @ $.3884 skim @ $.00
Surplus	582,945,000			
Butter (82% fat)	25,649,580	$9,962,286.87	$9,962,286.87	$9,962,286.67
Skimmilk	512,991,600	3,847,497.00	2,564,998.00	
Buttermilk	44,303,820			
Total receipts		$13,809,783.87	$12,527,284.87	$9,962,286.67
If sold as milk at $2.44 per 100 lbs.		$14,223,858.00	$14,223,858.00	$14,223,858.00
Loss		$ 414,074.13	$1,696,573.13	$4,261,571.13
Loss per 100 lbs. surplus		.071	.291	.731
Loss per qt. surplus		.00153	.00626	.01572
Loss on surplus applied to entire supply per qt.		.00042	.00173	.00436



"Hello!
FISK BOY TALKING"

The New Fisk Extra Heavy Balloon is the greatest tire ever built.

This tire is in a class by itself for appearance, mileage, safety and satisfaction. It is the outcome of the Fisk effort to improve tires that have won a reputation for quality and long life.

With its unusual strength and its size, the New Fisk Extra Heavy Balloon is the easiest steering balloon tire on the market today.

Tell the local Fisk dealer you want to see it.

The Fisk line is complete and includes a tire for every road and load condition and at a price to meet every purse.

FISK
EXTRA HEAVY
BALLOON

eek work. Wholesale "loose" milk lesmen receive from $41 to $45 per eek in salary and sometimes a com-ission. In addition, the salesmen e sometimes paid a bonus.

The system of paying salary plus mmission may not mean that the lesman receives a greater total mpensation but the practice is to commended, because the sales-an's earnings depend upon his own ility and efficiency as a salesman. he welfare of his employer is his n welfare.

Salesmen of retail milk are allowed grant one week's credit to their stomers, making their own collec-ons. In some cases payments are ade once a month. Distributors, wever, frown upon the 30-day edit plan and a request for more an one week's credit is usually re-rred to a credit manager.

Critics of present methods of dis-ibution are wont to refer to the utes as inefficiently managed be-use every wagon does not carry a pacity load. The amount of milk ld per route usually depends upon rcumstances outside the control of ther distributor or salesman. The rgest sales are made in large ele-tor apartment house districts, the west sales in "walk-up" apartment, scattered-individual, house dis-icts. There is a limit to the num-er of stairs even an energetic sales-an can "do."

New York distributors at different mes have tried to increase the load r wagon by putting a helper on ch wagon. It was necessary to ake the salesman responsible for e work of his helper, and salesmen jected to this. Mistakes were more equent, losses greater, salesmen ss efficient. These things counter-lanced the reduction in horse and agon cost and the practice was andoned.

Milk is the most regularly pro-ced and consumed food commodi-. Milk production is a daily job erywhere the year around, Sun-ys and holidays included, though e consumption of milk is more gular than the production. Pro-ction, ironically enough, goes up consumption begins to wane. The nited States government report for ay, 1926, shows that consumption aches its peak in June each year, clining from then until low ebb is ached in December. Greatest pro-ction of milk is achieved during e summer season as the result of tural causes. Some provision must made, therefore, for utilizing the erproduction, to insure an average ofit to the producer.

Fluctuations in consumption are ought on by such things as heat aves, thunder showers, holidays, eek-ends—and the producer has to prepared for them, either with ad-tional quantities of milk available, with facilities for taking care of a rplus rejected by patrons. Over a riod of five years in New York it as found that the amount of surplus ilk totaled 582,945,000 lbs. per ar. Surplus, of course, is utilized far as possible in the manufacture butter, cheese, and other salable oducts.

The table on preceding page, taken om the report of the New York ayor's Committee, 1917, shows what e loss due to surplus milk amounts Such unavoidable losses, ranging om .0015 to .01572 cent per quart, d materially to the cost of distribu-n.

The chart shows the amount of oney which would have been re-ived had the surplus of 582,945,-0 lbs. been made into butter from per cent cream and had the but-and skimmilk been marketed.

Milk sold in New York City must be pasteurized, and this also adds to the expense of distribution.

A distribution of the cost of a 15-cent quart of Grade B milk in New York City is as follows, according to government report:

	Per quart
The farmer	$.06
Cost of operating country receiving station	.008
Freight 200 miles to city	.011
	$.079

As the milk arrives at the city terminal, leaving a spread of approximately $.07 from terminal to consumer:

	Per quart
Trucking from terminal to city pasteurizing plant	$.005
Pasteurizing plant expense	.015
Trucking from pasteurizing plant to retail sales branch	.006
Retail branch cost, including delivery to doorstep	.042
Company's net profit	.003
Total	$.15

This distribution gives an idea, too, of how many persons must handle the product between the time the chore boy sets out with his milk pail and three-legged stool for the milking shed and the time the horse halts before a bungalow of the suburbs and the driver sets a bottle of gleaming white milk upon the steps.

No food of equal nutritive value is purchasable at a price as low as that of a quart of milk. The value of milk, in relation to the value of other food commodities, is as follows:

Milk at c a quart	As cheap as Sirloin steak at c a pound	Eggs at c a dozen
7	16.3	17.6
8	18.6	20.1
9	21.0	22.6
10	23.3	25.1
12	27.9	30.2
16	34.9	37.7

The following prices and percentages for foodstuffs, taken from the Bureau of Labor Statistics, show that the price of milk has increased 66.66 per cent from 1913 to 1926, while the average increase of the eight food commodities is 81.32 per cent. While milk has increased in price from 9 cents to 15 cents, it is still 14.66 per cent below the average for the entire group:

	1913	1926	Increase
	cents	cents	per cent
Steak	23.8	42.5	78.57
Bacon	23.6	50.6	114.40
Milk	9.0	15.0	66.66
Butter	41.2	53.6	30.09
Eggs	31.8	49.5	55.66
Bread	6.0	9.6	60.00
Potatoes	2.3	6.2	169.56*
Coffee	27.5	48.3	75.63
Average increase			81.32
Milk increase			66.66
Milk below the average			14.66

*1926 price has dropped since above calculations.



50 miles per hour



5 to 25 miles in 8 seconds



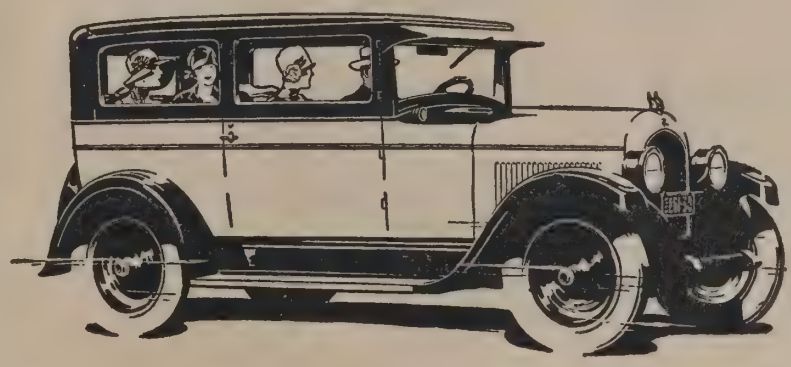
25 miles to the gallon

The only full-sized car in the world that gives these values at this low price - $750

Full-Sized, Sturdy Construction With Ample Seating Capacity For 5 Adult Passengers. Mohair plush upholstery. Chrysler smartness and beauty of line and color. Full balloon tires. Low-swung bodies. Special spring front engine mounting.

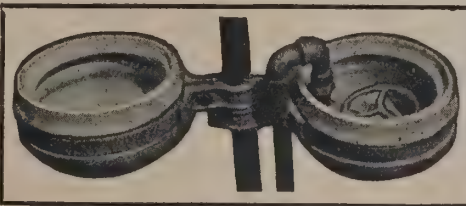
Coupe, $750; Coach, $780; Roadster (*with rumble seat*), $795; Sedan, $830; Landau Sedan, $885. *All prices f. o. b. Detroit, subject to current Federal excise tax.*

All Chrysler dealers are in position to extend the convenience of time payments. Ask about Chrysler's attractive plan.



The overwhelming superiorities of the full-sized Chrysler "50" at its amazingly low price are important reasons why Chrysler has been thrust ahead from 27th to 4th place in the short period of three years.

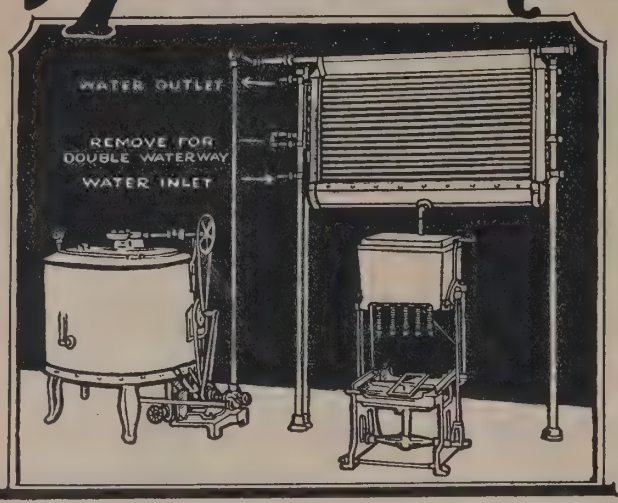
CHRYSLER "50"



The Last Word in Modern Barn Equipment

SPECIAL PRICES GLAZED STONEWARE WATERBOWLS, and SALT and MINERAL FEEDERS. This sanitary equipment is guaranteed against breakage by cows, and is very practical and efficient. Highly ornamental. No expense has been spared to make these goods the best that human skill can produce, regardless of price. We fit any make equipment, and sell direct where no dealer. Phamphlet and information free. SALESMEN WANTED. Inquire IDEAL SALT FEEDER CO., Morristown, Minn.

VICTOR DAIRY PASTEURIZER



for the FARM DAIRY and SMALLER PLANTS

REALIZING the need for a simple, efficient and economical milk pasteurizing outfit for smaller plants and farm dairies, *CP* offers the Victor, illustrated above.

The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

With a Victor Outfit the small dairyman can produce good, wholesome pasteurized milk just as cheaply and efficiently as the big city dealer. Pasteurization provides safe milk and will increase your business. The Victor is a business builder. Write for full information and prices.

THE CREAMERY PACKAGE MFG. COMPANY
(World's Largest Dairy Supply House)
1245 W. Washington Blvd. CHICAGO, ILLINOIS
Sales Branches in Principal Cities

The Foundation of All Spreader Value

FORTUNATELY for the farmer, there has been *one undisputed standard of spreader value*—for the past twenty-eight years! Step by step, whenever improvement was possible, the way has invariably been shown by

NEW IDEA Spreaders

No matter what the point in question—efficiency, durability, simplicity, ease of handling, light draft, ease of loading, perfection of dealer service—the very foundation of all spreader value is contained in the NEW IDEA. Starting as an *original invention*, the NEW IDEA has steadily maintained both its originality and its leadership—establishing an unbroken record of success.

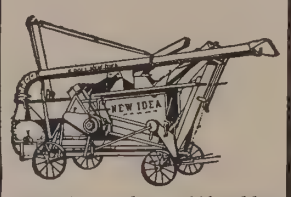
NEW IDEA dealers are easy to find. They constitute a service army, itself of tremendous value to the farmer. Go to the nearest one and let him show you the up-to-date Model 8. You will understand why NEW IDEA users remain steadfast in their loyalty.

All New Idea products are fully protected by patents.

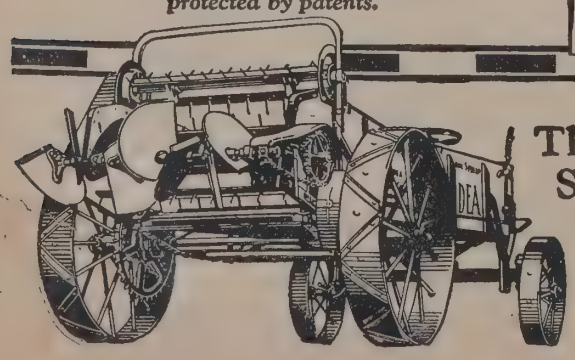


New Idea Transplanter

All New Idea products are noted for their *practical originality*



New Idea Husker and Shredder



The New Idea Spreader Co.
Dept. 15 Coldwater, O.

Largest independent spreader factory in the world. Not in any trust or combination. Over 4,000 agencies. Branches everywhere.

Pastures Stimulated by Sulphur

H. B. HOWELL, OREGON

FIFTY pounds of sulphur fertilizer per acre has increased the carrying capacity of my irrigated white clover and bluegrass pasture 300 per cent," said a real dairy farmer to a group of listeners. Sulphur as a fertilizer for alfalfa and clover hay crops has become an established practice over much of the Pacific Northwest, and reports of increased yields of from 50 per cent to 100 per cent as a result of using 50 to 100 lbs. of crude sulphur per acre are very common. However, the use of sulphur as a fertilizer for pastures of white clover and bluegrass is a rather recent innovation that has given astounding results.

Ed. H. Allen, dairy farmer, who lives near Grants Pass, Oregon, has long been a booster for irrigated pastures of white clover and bluegrass, and among his neighbors has the reputation of having some of the best pastures in the community. But he was not satisfied, and began experimenting with fertilizers to improve his yields, and remembering how the legume hay crops in his section responded to the use of sulphur, tried out one part of his pasture with sulphur at the rate of 50 lbs. per acre. This was broadcasted by hand about February 1st, and the trips across the field were made at intervals of si paces.

Imagine his surprise as the seaso advanced, in noticing dark strips o higher growth across the field as i indicated in the accompanying photo graph. It was some time before M Allen really remembered that pe haps in broadcasting his trips acros the field had been too far apart, an that some of the area had really re ceived no sulphur. Careful checkin revealed that these darker and faste growing strips were just where h had walked in broadcasting.

The unfertilized strips showed tha the white clover present was makin practically no growth and there wa a tendency for the bluegrass to be come "sod bound," while on th strips fertilized the white clover wa three to four inches tall and blue grass in proportion, in spite of th fact that the herd of dairy cows wa on it at the time.

Irrigated pastures are developin very rapidly in the Grants Pass terri tory, as they are in all of the irri gated section of Oregon, and th news of Mr. Allen's pasture soo spread so that one day late in Jul the pasture was visited by 125 farm ers who were out on a "crop tour conducted by the county agent. I was at this time that Mr. Allen mad the remark credited to him above.



WHAT SULPHUR DOES

A demonstration of what applications of sulphur did on white clover pasture on the farm of E. H. Allen of Oregon.

Milk Stool Philosophy

J. J. SPRENGER, MINNESOTA

HALF of this world has a big supper and no appetite, while the other half has a big appetite and no supper at all. One of our great blessings as a people is in the fact that we need not know what poverty is. But while we have no poverty, we do have a feeling which is akin to poverty and that is the feeling that we are not getting our just share of reward for our work.

Strangely, too, this feeling of inequality seems to become worse instead of better as our general prosperity increases, so it really seems that dissatisfaction is the result of prosperity as often as it is the result of hardship. The most contented people it was ever my lot to meet were the early settlers who had the least to do with. The unhappiest people are often those who have the most.

But how do we get equality in life and what must we do to get what is coming to us?

There have always been those who believe we must have organizations and laws to prevent the rest of the folks taking or diverting the things we think rightfully belong to us. Ye there are still those who believe tha one of the fundamental principles upon which this universe is run i that in the end true efficiency is al ways rewarded. We may expect t secure help in both ways, but as soo as we become chiefly interested i getting our own instead of doing ou best it always weakens us, whil brooding over inequality is sure t weaken us.

Evidently economic laws have thei own leveling tendencies, but they are not well understood and are therefore mistrusted. I believe that in life the man who works the most does not al ways earn the most, but the man who works the most always accomplishes the most.

Yet I suppose that for all time to come the mass of men will worry themselves into nameless graves while a few great souls forget themselves into immortality.

Judson P. Mason

J. P. Mason, a prominent dairy farmer of Kane County, Illinois, died at his home Saturday, March 12. Mr. Mason was born March 31, 1850, on the farm which he operated all his life. He was not only a successful dairy farmer but devoted much of his time in assisting to bring the dairy industry upon a sound basis. To this end, in later years particularly, he gave much of his time in attending dairymen's conventions and farm institutes. His talks were always sound and they gave much encouragement to those who were looking for light.

One of the things he emphasized for successful dairying was quantity



JUDSON P. MASON

production. As a young man he comprehended that no money could be made with a poor cow or by producing only a small quantity of milk. He invariably discussed milk production by the acre and that in order to get a large yield per acre the right kind of feed must be raised and the right kind of cows kept to eat it. He was not satisfied with a herd unless two cows produced daily at least 68 lbs. of milk. One can of milk for each two cows was the standard he set and one that he reached in the later years of his dairy work. He usually kept about fifty cows and unless his wagon carried away twenty-five cans of milk each holding 68 lbs., he considered himself falling down on the job. He grew well-to-do and followed no other occupation but that of a dairy farmer. He considered farming the best business in all the world and he received the greatest satisfaction by being able to bring about forces which would make his farm operations profitable.

High Testing Seed Corn Scarce

HOARD'S DAIRYMAN: — The year 1926 was a trying one for seed corn and under the best possible conditions corn is running a little lower in test than in previous years. However, corn that will give 90 per cent or above is considered good and can be readily purchased with the expectation of giving a good performance when planted a little heavier than usual. Where planter drops 42 inches apart between the hills, it is well to use planter plates that will drop 4 to 5 kernels to the hill. If drilled, the corn should be dropped seven to eight inches apart in the drill row.

There is no real advantage in planting while the ground is yet cold and out of condition. However, every farmer should plan so as to get on his corn field just as soon as machinery and team can be placed thereon without difficulty. The early disking and dragging of the ground will do much in the way of sprouting weed seeds and warming the ground so that corn can be put in under best conditions. Corn is very sensitive to chilled conditions of the soil and farmers make a great mistake who attempt to leave their corn fields until just about the time they desire to plant the seed. It is extremely hard to get the ground in good tilt after it has become baked on the surface and is out of general good condition.

There is also another advantage by getting the land in condition several days before planting the corn and that is there will be more available fertility in the soil if it has been worked a few days in advance. Fields that are planted in this way usually gain from a week to ten days over fields that are just cultivated and put in without previous preparation. In years such as we have been having, it means a great deal as to whether a field will mature eight or ten days earlier than the general average of corn fields. This is particularly true of those who make it a business of putting up more or less seed. Now is the time for farmers to begin to secure and test their seeds and get their farm implements prepared for rapid use in the early spring.

Wisconsin. R. A. MOORE.

An Iowa Creamery

The annual report of the Littleport Farmers' Co-operative Creamery Company of Iowa shows that the average price received for butter shipped during 1926 was 44.5c. The cost of manufacturing butter was 2.886c and patrons were paid an average of 49c a pound for fat delivered to the creamery. The overrun was 22½ per cent for an average cream test of slightly over 30 per cent. The creamery received 241,368 pounds butterfat for which it received a net income of $126,383. Fifty-three of the 120 patrons received in excess of $1,000 each for cream delivered.

NASH

Leads the World in Motor Car Value



The New Style in Body Design

and Featuring a 7-Bearing Motor

It is emphatically apparent today that Nash has created a new era in American enclosed body artistry with this distinctive body design.

With its new gracefulness, its beautiful French-type back and French roof design, and its rich array of costly car features, the new *Special* Sedan pictured above possesses magnetic appeal for those most keenly appreciative of motor car style and quality.

The steering wheel is of real walnut in fitting harmony with the walnut finish of the inside window mouldings, door panels, the instrument board and the crowned panel above.

The upholstery is genuine Mohair Velvet, deeply tufted. And Nash powers it with the big 7-bearing motor—*the world's smoothest type.*

So that in supreme power-*evenness* and *quietness*, and lightning-fast "pick-up," and in easeful roadability on the straightaway or climbing, together with a world of speed, it stands out as the most notable car of its field.

As standard equipment there are Gabriel Snubbers at front; 4-wheel brakes, of special Nash design, with the front wheel brakes completely enclosed for safety's sake; and five disc wheels.

And the price is set at such a moderate figure as to be agreeably surprising.

A large *Special* Sedan on the Advanced Six Chassis, reflecting the same unsurpassed quality throughout, is also offered at a most favorable price. (5371)

"VAN'S EVERGREENS"

Our Stock is of the Choicest Quality and Our Prices Will Please You

White Pines, 15-inch average, $5 per 100, $35 per 1,000; Hemlocks, 15-inch average, $7 per 100, $45 per 1,000; Pines, 2½-foot average, $15 per 100, $100 per 1,000; Hemlocks, 2½-foot average, $20 per 100; $125 per 1,000; Pine, Hemlock and Cedar, 3-foot and over, all one price—3-foot average, 50 cents each, 4-foot, $1, 5-foot, $1.50, 6-foot, $2; Balsam Fir, 18-inch average, 50 cents each, 2½-foot average, $1. A discount on all Balsams and Evergreens of 3 feet and over will be given—10 per cent on lots of 50, 25 per cent on 100, 35 per cent on 1,000. We also have the old-fashioned Lilac, 3 in a cluster, 4 to 7 feet, $1 each. Hard Maple shade trees, 9 to 10 feet, trimmed for transplanting, $2 each. Balsams and all trees of 3 feet and over will be baled and burlapped.

Months for transplanting are April, May, September, October and November.

These prices are F. O. B., Hornell, N. Y. Address

FRED VanGORDER
41 Bennett Street **Hornell, N. Y.**

more EMPIRE Milking Machines



than any other make—why?

WHEN a national farm paper recently asked its readers whether they owned milking machines and what they thought of machine milking, *more reported owning and preferring Empire Milking Machines than any make listed.*

Why? In letters to us, farmers have said:

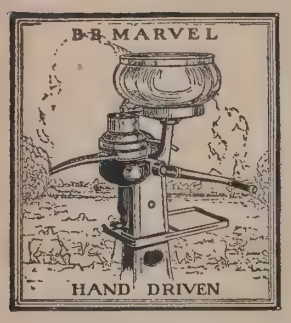
"Cows are less nervous and give more milk per day, for more days, when they are Empire-milked."

"One person can milk more cows in less time with an Empire than two or three expert hand milkers."

"Cows keep healthier and milk is cleaner."

"The wages and keep of a hired man are saved by the work an Empire Milking Machine does."

"It makes dairying a pleasanter, more profitable, better business."



Sold on easy payment plan. Send for booklet—mail the coupon today.

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The improved, permanently balanced bowl of the new B B Marvel gets extra cream from every can of milk—more cream without more cows. It gets all the cream all the time. The bowl does not vibrate nor tilt because it is mounted on an automatically oiled ball-bearing spindle, supported by a stationary shaft. It has no neck springs nor bushings to wear out and cause trouble. It skims cleaner and lasts longer.

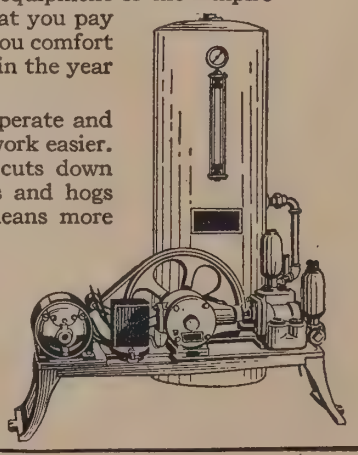
When you run the skim milk from any other separator through a B B Marvel you too will want the extra cream. See a B B Marvel in action. Sold on easy payment plan—a size for every herd. Mail the coupon today.

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Complete motor, pump and tank equipment of the Empire Water System costs only about what you pay for a first-class radio set. It gives you comfort and saves time and work 365 days in the year —lasts a lifetime.

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Raising Cross Bred Seed Corn

EUGENE KELLEY, IOWA

HYBRID seed corn of four inbred strains won the 1925 Corn Yield Contest in Iowa. It yielded seven bushels more to the acre than the highest yielding strains of Reid's Yellow Dent on the same land and under the same conditions.

Hybrid seed corn will be available for a limited number of corn growers in 1927, which marks a new advancement in this industry. Last year it was grown at a few places in Iowa on a commercial basis. The largest plot is that of J. J. Newlin. He had a forty-acre field planted with inbred strains. He carefully detasseled all the corn of one strain so that a complete cross would be made with the other. The corn produced on the detasseled stalks are the hybrids which are saved for seed.

The field which Mr. Newlin used to grow his seed corn yielded about 80 bushels to the acre. This yield is about a 14-bushel increase over the Krug corn which he had planted on the same field the year before, a far better corn year. Krug corn is one of the best yielding varieties of corn that is not a hybrid.

Experimental work has been done on crossbreeding corn for more than the last twenty years. Dr. D. F. Jones of the Connecticut Experiment Station is one of the pioneers in this phase of corn production. The Iowa Experiment Station started an extensive program in this field in 1922 under the supervision of M. T. Jenkins. Sixteen strains or varieties which were known to possess high yielding qualities were used for the experimental work. Ten to fifteen thousand self pollinations have been made annually on the college experimental plots, and 470 different crosses were made between the various varieties this season. A search for the combinations between the varieties or strains of corn that will give the highest yield per acre under average conditions, is the underlying object of all the experimental work being done on this subject.

To describe the work done in the crossing of inbred strains for the production of high yielding hybrids would require a very lengthy discussion. To make it as brief as possible I will explain the procedure that has been carried out by Mr. Newlin. Strains which possessed high yielding qualities were inbred by means of self pollinations to obtain strains that are pure and true breeding. Inbreeding causes the strains to decrease very rapidly in vigor; the plants become weak and spindling; and the ears are small and oftentimes susceptible to disease. After the strains were inbred for from four to eight years, they were crossed one with another on small plots which was done to restore the vigor. This is done by planting three rows of one inbred strain which is detasseled and one row of another inbred strain which



DETASSELING TO PRODUCE CROSS BRED SEED CORN ON THE NEWLIN FARM IN IOWA

furnishes the pollen. The corn produced on the detasseled rows is a cross between the two inbreds. The seed corn from this first cross is very high yielding, and in most cases will outyield the strains from which it was produced by a good margin. But this seed is not practical because the expense of growing it is enormous. To lower the cost of production Mr. Newlin made another cross on another plot with two other inbred strains. These first hybrids of inbred strains were again crossed the next year which produced a hybrid of a double cross. "This seed is the hybrid that won the 1925 Yield Test," Mr. Newlin said.

In the field where Mr. Newlin had his high yielding hybrid corn planted, I noticed many outstanding features that this corn possessed. The plants were all vigorous, large, and thrifty. Every stalk had a good sound ear, free from disease. The uniformity of the ears was remarkable, and the stalks were all standing erect. In one field Mr. Newlin had some of his hybrid corn planted next to a strain of



SEED CORN DRYER

An oil burning furnace at the left sends hot air through a pipe into the bottom of these four cribs on the Newlin Farm in Iowa, and is said to be very efficient in drying corn to 12 per cent moisture in four days.

Reid corn. The stalks of the Reid corn had been partly blown over by the wind whie the hybrid corn was standing erect Many stalks of the Reid corn were barren, and many had produced only nubbins. On the hybrid corn every stalk had an ear, and the ears were practically uniform in size.

Mr. Newlin showed me his artificial seed corn drying plant. "I can dry 100 bushels each day with this plant and with less trouble and expense than the rack method," he said. The moisture of the seed corn is about 35 per cent when it comes from the field, but by the use of this plant Mr. Newlin is able to lower it to about 12 per cent in four days, which makes the seed more than safe from freezing weather. The heat furnished for the drying comes from an automatic oil-burner furnace. The hot air at not more than 110 degrees Fahrenheit is blown through the corn which is in bins. The quick drying seems to have an added advantage in the killing of diseases before they can affect the germination of the seed. After he installed his drying plant Mr. Newlin said that his corn showed a germination of 100 per cent as compared to 60 to 80 per cent that he obtained in 1925 when using the rack method.

The tests so far have shown that this hybrid corn the first year will give a much larger yield than the ordinary seed corn, but the corn seed gathered from the hybrid corn will not continue to yield well. Hence, each year the farmer will be compelled to buy new hybrid seed if he wishes to maintain high yields.

Farm Tax Exemption

HOARD'S DAIRYMAN:—Dairy farmers in Georgia will receive exemption from taxes for a period of ten years if legislation now proposed is passed by the 1927 state legislature and ratified by the people.

The plan, which originated with the Atlanta Chamber of Commerce, and which has the approval of Eugene Talmadge, state secretary of agriculture, and other officials, is to give tax exemption for ten years on every improved farm not exceeding 100 acres in extent and not exceeding $5,000 in equipment value. Farmers with larger holdings and absentee landlords will not be exempted nor will holders of unimproved lands.

Those interested in the proposition claim that it will help to solve several serious farm problems in Georgia. In the first place, it will tend to break up large and unworked holdings, for the absentee landlord will be taxed more heavily and the small farmer will get off tax-free under the plan.

In the second place, it will help to solve the age-old problem of the tenant farmer, for many holders will break up their large plantations and tenants will be able to secure land of their own on very reasonable terms.

And in the third place, it will help to re-populate the abandoned farms of the state, which is the most serious problem with which Georgia agriculture is at present confronted. Leaders in the state are very anxious to get experienced live stock farmers from the North and West not only to take over the farms left by cotton planters but to serve as demonstrators of successful methods in dairying and live stock. They realize that a transition must be made from all-cotton planting to diversified farming, including live stock production, and that this is going to be difficult without the presence in each community of experienced live stock farmers to lead the way.

Thus the proposal offers something more than mere relief from taxes for the farmer. It offers a practical solution to at least three serious farm problems. If the measure, which is now being drawn up by a special committee, is passed and later ratified by the public, a fund of $50,000 will be provided with which to advertise Georgia throughout the North as "the state without a tax on farmers" and it is expected that thousands of farmers will be induced thereby to move to Georgia.

It is estimated that the tax exemption will cost the state $750,000 in taxes out of a total of $23,000,000 collected, but it is pointed out that the increase in the number of farmers and the products produced will repay this loss many times over. At any rate, this is a practical way of offering relief to the dairy farmer and of solving the principal farm problems at the same time and as such it merits attention.

Georgia. J. W. REED.



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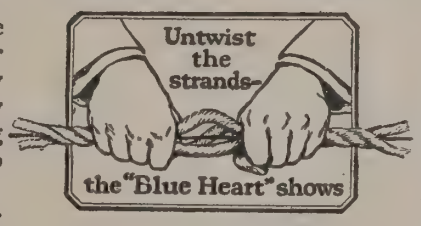
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How to know good rope before you buy it

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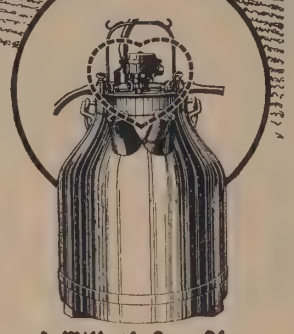
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ONTARIO IRON WORKS, Box 287 **PULASKI, N. Y.**



A scene sketched from a photograph taken on the farm of Charles Scothan, Lee Center, N. Y.

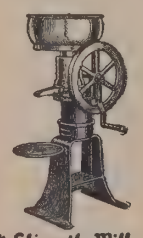
This Pulsator Gives Teats *Complete* Rest Between Sucks



It Milks the Cows Clean

"During my long experience with the Burrell Milker, my cows' teats and udders have kept in excellent condition. I believe this is mainly due to the way in which the Burrell Pulsator gives complete relief to the teats between pulsations."—Charles Scothan, Lee Center, N. Y.

NATURAL circulation is essential to keep the teats and udders of your cows in good condition. A long period of suction, without complete relief, causes congestion, and teat and udder trouble. Nothing except *complete* relief is safe.



It Skims the Milk Clean

For many years, the wonderful Link Blades of the Burrell-Simplex Cream Separator have made it famous as the *closest skimmer*. It has a greater capacity for the size of its bowl, for the speed at which it is operated, and for the power required to run it than any other separator. It is simple, light and easy-running. But, above all, *it skims the milk clean*—and that's what you want in a cream separator. Four sizes—350, 500, 750, 1000 lbs.—hand or power driven.

Safeguards Your Cows

The Burrell Positive Relief Pulsator creates sharp, definite, positive, intermittent periods of *complete* relief. Between sucks, the vacuum in the teat cup drops completely to zero, the teat hangs free, and circulation is normal and natural. This feature of the Burrell Milker safeguards your cows, and it alone is sufficient to justify your choice of the Burrell Milker.

4 Exclusive Features

There are four exclusive features which make the Burrell the *perfect* milking machine. The first three are interdependent—each increases the efficiency of the others. (1) The *Automatic Controller*, which regulates the suction to suit exactly each individual cow; (2) the *Air-Cushion Teat Cup*, which supports and compresses the teats by air alone; (3) the *Positive Relief Pulsator*, which gives complete rest between pulsations and assures natural circulation; (4) the *Sanitary Moisture Trap*, which entirely prevents contamination from the pipe line.

The Burrell Milker is noted for its simplicity. It is a single tube system, with only half as many rubber parts as the ordinary type of milker.

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Here are two valuable, illustrated books that are free to dairymen. One pictures and describes the Burrell Milker and explains how *"It Milks the Cows Clean"*. The other tells about the Burrell-Simplex Cream Separator—all about its simple, sanitary, rugged construction, and how *"It Skims the Milk Clean"*. Every dairyman should have both of these interesting, practical, helpful books for handy reference.



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MILKING MACHINES AND CREAM SEPARATORS

Seasonable Live Stock Notes

MANY a young horse has been knocked out for the season by a shoulder sweeny. The cause of some sweeny is purely accidental but many of them are not and so could have been prevented. Sweeny is more common among young horses that have not fully learned how to apply themselves under varying conditions. It is caused by ill-fitting collars, by hitches that cause uneven draft, by sudden jerks on the shoulder as when the plow strikes a root or stone, and sometimes by a hard blow from the tongue as when the front wheels of the wagon strike obstructions not at the same time. The characteristic symptoms are lameness, soreness, swinging the leg instead of lifting it, and the wasting away of the muscular parts over the shoulder blade. It takes a long time to restore a shoulder so injured to full usefulness. Prevention is advised above everything. If there is indication that a shoulder is about to become sweenied give the horse rest immediately. In the early stages if swollen apply cold water. Fasten a folded blanket over the part and keep it wet with cold water. Follow this by use of a good blistering liniment. Spanish fly, two or three drachms mixed with one ounce of lard, is good for this purpose. Vigorous rubbing of the shoulder is advised.

Getting the Best From Sweet Clover

How high should sweet clover be before cows are turned in to graze? The answer depends on how many cows are to be grazed on a given acreage, on how good the stand is, and on the growing conditions at the time and for two or three weeks after the cows are turned in. For example, if the acreage is as much as one acre for each cow and the stand reasonably good, one could turn in when the clover is not over four or five inches high. Another case where one should turn in when the clover is not over this high is when unusually favorable growing conditions prevail. If the acreage is as little as one-half acre for each cow or less it is advisable to hold the cows off until the clover is ten to twelve inches high.

If, for any reason, the clover is permitted to get more than twelve to fourteen inches high, the best quality and greatest yield will not be obtained. Getting the greatest yield of good feed from sweet clover requires some experience and close observation on the part of the herd owner. Many farmers have lost the best part of a sweet clover pasture by letting the growth get too far along.

Pasture Alone Not Enough for Young Calves

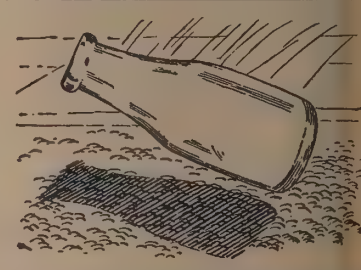
Mistakes are frequently made in growing dairy calves by forcing them to pasture alone as the only feed at too young an age. Not only has the calf not learned to graze large quantities of grass but also its digestive system has not been developed to take care of as much bulk as is required when grass alone is fed. Young calves should be continued on skimmilk, hay, and grain until they are 4 to 6 months of age. When they are turned to pasture at this age the grain and hay should be continued for a month or so until the calves learn to adjust themselves. There is no harm in continuing the feeding of skimmilk in diminishing amounts. To successfully switch dairy calves over from winter feeding to pasture is no job for an amateur. Within the next month the question of what to do with the calves must be answered in one or another.

Save One-tenth of the Pig Fee

The most important thing r now in the management of swin to keep the young pigs and t mothers out of the hog lots that badly infested with worm eggs disease germs. Last year on e farms in an Illinois county where sanitary practice was used, 100 of pork were made from 399 lbs grain and other concentrates. eight other farms in the same co where the pigs were raised the style wormy way, it took 501 lbs grain and other concentrates to m 100 lbs. of pork. If losses f worms and necro have been exp enced during the past few years young, susceptible pigs are turned to the same yards this spring, the no reason to doubt that this ye pig crop will become infected. ing one-fifth of the feed is good for keeping the pigs clean.

The "Cheep," "Cheep" of the B Chick is Here

Baby chicks are now arriving farms by the thousands and them important responsibilities their care and feeding. When stop to think that an egg may laid in one state, shipped to anot state to be hatched, and the yo chick then hustled into a box sent several hundred miles into other state to be mothered, is it wonder that things sometimes



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Superior Quality
MILK BOTTLES

ong? The marvel of it is that t re is great chance for success if t right things are done at the right t e. Brooder stoves should be set u and operated before the chicks a ive to make sure that they will d the work satisfactorily. The b oder house should be thoroughly c aned and disinfected. A supply of s table feed must be on hand when t chicks arrive. After they are p ced in the brooder house under t hover it is wise to "stick around" a l see that they stay in the right p ce. Close attention for the first f r days is essential if the risk from l s is to be reduced. Yes, thousands o chicks are arriving. Are you ready f them?

Feeding Cows Grain on Pasture

The question of feeding grain to c rs on pasture is timely. Under w at conditions is grain feeding p fitable? This question opens the h rt of the problem. Before answer- i it let us agree on the possible b efits derived from supplementing p tures. There are two of them, in- c ased production and better con- d ion of cows for their next lacta- t n. Both are important. A slight i rease in milk from feeding grain d s not necessarily mean that it is t profitable. The return for this g in will likely come back in the s ceeding lactation because of the b ter condition of the cows.

There is a wide range in quality a l quantity of pasture offered cows. T ere is a wide range in the ability o the cows to turn feeds into milk. G od cows cannot make a lot of milk f m poor pasture. Poor cows can- r make a lot of milk even from g d pasture. In theory it is easy t suggest that poor pastures be r de good and that low producing c vs be eliminated. This is sound p ctice but it cannot be done over n ht. As between poor pasture and g d pasture it goes without argu- m nt, we think, that some grain must b fed to cows on poor pasture. The a ount fed is governed by the pro- d ing ability of individual cows— t their ability to turn feed into m k. With good pasture available it i doubtful if it pays to feed grain t cows not capable of producing o r a pound of fat a day. Cows b ter than this will usually pay good p ces for limited amounts of grain. I t all the return from summer g in feeding is put in the milk pail d ing that lactation. Some of it s ves to keep cows in better condi- t n than they otherwise would be in a l this value gets into the milk pail t following lactation.

Treating Potatoes for Scab

The hot formaldehyde method of t ating seed potatoes for scab, black r rf, and blackleg is now generally r commended in preference to the o l method which required more time. I at this method will control these d eases within practical limits is s own by some results obtained at v rious experiment stations. The t eatment was devised by Dr. I. E. J lhus of the Iowa Station in 1918. I Wisconsin, where many potatoes a e grown, the treatment has proved v ry effective. For example, a Wash- i gton County demonstration where a seed used was 61 per cent affect- ed with scab, it produced a crop that d only 1 per cent of scab after the s d was treated. At the Spooner b anch station seed that was 24 per c nt affected gave a crop with only 1 per cent scabby potatoes. At R ookston, Minnesota, untreated seed p oduced a crop that was 24 per cent s abby, whereas the treated seed s owed only 5 per cent scabby. A t ree-year test in the Kaw Valley of Kansas gave an increased yield of 41.6 bushels per acre for treated seed.

The method is simple. One pint of formaldehyde is mixed with 15 gallons of water. This is heated to 125 degrees F. and held at this temperature. The potatoes are placed in sacks in convenient amounts to handle and held in the water for 2½ minutes after which they are drained, removed from the drain, and covered with canvas for one-half hour. They are then ready to be cut and planted. After treating, potatoes should not be placed back in infected sacks or other containers.

"The word 'Wisconsin' applied to butter should be but another name for all that is excellent."—C. R. BEACH.

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Extra safety made possible by Engineering Leadership



The Whippet is the only light four-cylinder car regularly equipped with four-wheel brakes. Year after year at the National Automobile Shows the number of chassis shown with four-wheel brakes has been steadily increasing. In January, 1927, over 86% of those exhibited had 4-wheel brakes. The Whippet with 4-wheel brakes is more modern than any other light four-cylinder car.

In addition to this greater safety, you get fuel economy that no other light car can offer . . . and superior beauty of low graceful body lines . . . and more leg-room than in any other light car.

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Touring $625; Roadster $695; Coupe $625; Sedan $725; Landau $755; f. o. b. factory. Dealers offer convenient terms. Prices and specifications subject to change without notice. Willys-Overland, Inc., Toledo, Ohio.

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MILKS 18 to 40 COWS an HOUR

ONLY $35 Puts it to work for you. Costs nothing to install

Ready to start soon as uncrated—Comes complete with 2 HP engine or electric motor. No extras to buy—No installation cost. Saves hours of work—equal to four milk hands. Milks 2 to 4 cows at a time—clean—convenient. Milks just like the human hand—Easy on cows. 10 year guarantee. Used and endorsed by hundreds of dairymen and farmers.

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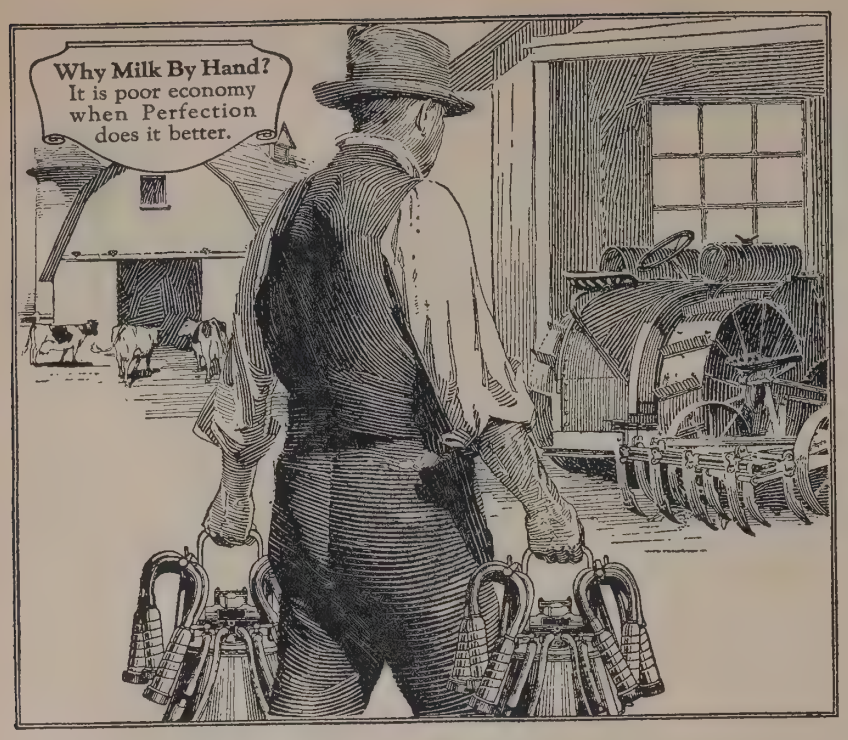
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"MY Perfection Milker is just as good as ever" writes Lynn Bradford of Sparta, Michigan. "It hasn't missed a milking in the six years I have had it. As you know, I got it second hand—its factory number is 647. I should like to know if there are any older machines in use at the present time."

"The ten cows that I have had on test at the West Kent Cow Testing Association were high herd for both milk and butterfat—12100 lbs. of milk and 418 lbs. of fat. Four of them were first calf heifers. I also had high cow for milk and butterfat."

Mr. Bradford's Perfection was seven years old when he bought it second hand. So it is now going strong after thirteen years. Its cost of upkeep is practically negligible, "less than any other tool on the farm," and Perfection milking takes only a fraction of the time that hand milking takes.

The new sanitary teat cup has only two pieces. One pull and it's all apart. That's why the Perfection Milker is so easy to wash and keep sanitary.

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The new 2 piece Teat Cup. One pull and it is all apart for quick and easy cleaning.

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Wayside Musings — Changing a Nam

JOSEPH S. MORRIS, WISCONSIN

ONE of the appealing and inspiring stories of the Old Testament of the Bible is the story of Jacob. Jacob is a very human character. He had not dealt fairly with his brother. Away from home and serving his uncle he more than meets his match in shrewdness. But Jacob is always the fighter, the man who fights for mastery, for victory; the man who does not give up his struggle for the thing he is after.

The years pass by and Jacob is headed back for the old home. He knows that he must meet the brother he had defrauded and we can imagine how this approaching meeting fills the mind of Jacob with doubts and misgivings.

And then he does the greatest thing any man can do—he gets alone by himself and fights the thing out. His sleep is disturbed by a wrestling match in which it seems that an angel comes and wrestles with him throughout the night. Jacob hangs on and as the dawn approaches the heavenly messenger would leave him. Not much! Jacob insists that he will not let go unless he gets the blessing he is after.

And so the heavenly messenger asks Jacob his name. Jacob gives his name which is supposed to mean "one that takes the place of another." The angel says, "Thy name shall be called no more Jacob, but Israel: for thou hast striven with God and with men, and hast prevailed." What a name! What a man! A man who came to have power with God and with man! A man who was unafraid; who fought his way through to the finish; who would not break before the mysteries of life; who would not admit himself outgeneraled in the fight; who held, "we fall to rise!"

Jacob's name was changed to suit his character. What if our names were changed to suit our character? What would be our new name? It is certainly a suggestive inquiry.

In men who are made of the right sort of stuff there is a constant struggle going on. Before the problems, and mysteries, and perplexities of life they demand the right to know. They will not take "No" for an answer; they will not be denied; they demand the fullest measure of self expression.

I confess that I am thrilled by such men. I know that they are often wrong. I know that they seem to be stubborn and bull-headed, but I admire them for their determination to make a place for themselves. The world's greatest victories have been won by such men and they have not always been men of greatest physical strength. Steinmetz, the electrical wizard, made a great place for himself in spite of physical hand The world's greatest victories not always been won by men have had the greatest educa opportunities. Sometimes, as case of Lincoln, the great ema tor, they have had to chisel thei cation out of the solid rock a went along. The great fact i they were determined to "get They would not be denied.

Our world is not a soft worl is a hard world. The conditio mand men of undaunted spirit mind reverts at this moment D. Hoard. A great idea ca him. It was made fun of. Oth sues than the main issue confr him but he held true to his c How right he was we now kno would be a great stimulus t farm youth of the land to rea life of Hoard by Rankin. We just this sort of thing to heart in times of struggle.

The faith of a man's life signed to help him interpret meaning of this struggle. Religio courages a man to hope, to pr dream, to meditate, to worsh pit himself against all oppositi make his character such that a name will not fit him.

Science is cold-blooded, impe al, unemotional. Its business describe what it sees, and ye fact that a man is concerned wi story that is hidden in the rocks not rob him of the capacity t the poetic beauty of the landsca

You and I will probably carr name received at baptism unt day we die but that name wi always mean the same thing. tion the name of one man and i thoughts of success, victory, co in the face of obstacles; mentio name of another and it spells d discouragement, pessimism, an both may have had relatively same starting chance.

I believe that there is a po value in hero-worship thoug need not have our heroes paint spotless saints. It does us good our lives full of the struggle of men to make progress. It is a tive tonic to feel the thrill o struggles of other men. It en ages us to dig in and see what of a "fist" we may make of lif

Right now, you and I are w the meaning of our names! do they mean? Are we inclin say, "I am too old; it is too la begin!" Let's not say it. It i years that count but heart and It is a glorious thing to fight on down to the last moment, and li all the more fun and thrill in it the fact that we would not be d Tired? Crippled? Defeated? on! Insist upon the blessing of life.



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Raising Calves on Minimum of Mi

ARIZONA dairymen, like many dairymen of other sections, have a difficult problem in rearing heifer calves to replace their herds because the demand for whole milk is such that its use for calves is prohibitive.

The value of skimmilk is recognized but the supply in that state is very limited. Because of this problem the Arizona Station conducted some feeding trials to determine whether calves could be successfully raised on gruels made from calf meals using a minimum of milk. The calf meals were mainly composed of feeds usually available in that state.

At first a calf meal was made of corn meal, alfalfa meal, wheat bran, linseed meal, blood meal, and ground bone meal but this was not successful because most of the calves were affected with scours. The meal mixture was changed and three lots of calves fed until they were 153 days old.

The calves were fed by three different methods. One group received a home-mixed calf meal plus a minimum amount of milk; a second group had a commercial calf meal plus a minimum amount of milk; a third group had the same calf meal mixture as the first group plus a more liberal amount of milk.

The home-mixed calf meal was composed of 2 parts corn meal, 4 parts wheat middlings, 2 parts oat flour, 1 part linseed meal, ½ part blood meal, 2-10 part ground bone meal, and 2-10 part salt. The gruel was prepared by adding 1 pound of the meal to 1 gallon of water at about 100° F. and stirred thoroughly.

The first group of calves was fed whole milk until they were 10 days old when the milk allowance was gradually reduced until each calf received 1 quart daily when 25 days old. Following this each calf received 1 quart daily until 35 days old when the milk allowance was gradually reduced so that the calves were entirely off milk at 40 days old. As the milk was reduced an equal amount of the gruel replaced the milk reduction. As soon as the calves would eat hay and grain they were permitted to do so. Good quality alfalfa hay and a grain mixture composed of 140 pounds wheat bran, 140 pounds rolled barley, and 50 pounds linseed meal were provided.

The second group of calves was fed the same as the group just mentioned except that a gruel made from a commercial calf meal was used instead of the home-mixed meal gruel.

The calves in the third group received a full ration of whole milk until they were 30 days old, after which the milk was gradually reduced one-half and continued to 60 days old, after which the milk was gradually reduced to one quart per head daily. This amount was fed to the close of the experiment. The home-mixed gruel, the hay, and the grain mixture were fed same as in the first group.

The average of feeds consumed and the average total cost of feeds to 5 months of age of the 3 groups are shown in the following table:

Group	Whole milk	Calf meal gruel, dry wt.	Alfalfa hay	Dry grain mixture	Feed cost
	Lbs.	Lbs.	Lbs.	Lbs.	
One	290.4	178.8	265.6	197.4	$22.16
Two	220.2	151.4	301.7	153.8	23.75
Three	645.8	104.3	291.2	235.3	31.35

The gains made and the feed cost per 100 lbs. gain of the calves i different groups are as follows:

Group	Birth weight	Weight at 5 mos. of age	Total gain	Gain per day	C 1 g 5
	Lbs.	Lbs.	Lbs.	Lbs.	
One	72.5	274.6	202.0	1.32	$
Two	72.3	267.1	194.8	1.27	
Three	71.4	317.9	246.5	1.60	

The gains made by these compare very well with what th mal growth should be as report Eckles in Research Bulletin N of the Missouri Station.

It was noted that the calve a minimum amount of milk di look as good at 5 months of a the calves fed more liberally of but these differences were les parent as the calves grew olde finally there was no difference i or general appearance.

The prices of feeds used in th periment were as follows: m cents a pound, home-mixed calf 3.5 cents a pound, commercia meal 7 cents a pound, dry grai cents a pound, and alfalfa hay ton.

Illinois Jersey Champi

Carnation Pretty Maid, bre owned by B. T. Adkins, is th champion Jersey two-year-old i nois. She produced 544.3 lbs. b fat, 8,721 lbs. milk in 365 day calved in time to qualify for a medal.



Grand Champion Holstein Cow Milke by Universal

THE Grand Champion Hol cow at the National Dairy S last fall was from a herd tha been milked by Universal Mil Machines for the past three y

A milking machine that is goo enough for champion cows is mo certainly good enough for everyda milking of ordinary dairy cow

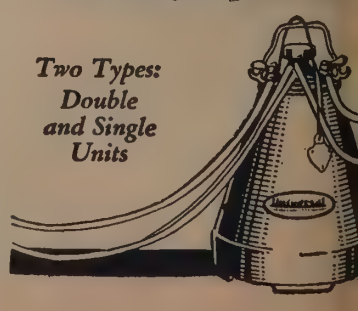
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Progress in Control of T. B. in Sioux City Territory

HOARD'S DAIRYMAN:—Testing of ttle for tuberculosis and removing actors has greatly improved the arket run of cattle and hogs at oux City, Iowa. There were 40% ss cattle retained for this disease the market during 1926 than there re four years ago. Last year 1.8% all cattle slaughtered (not includg reactors) were retained by the vernment for tuberculosis at Sioux ty, while in 1922 there were 3.0% tained. Almost as large a reducn was found in hogs. During 1926 ere were 13.3% of the hogs reined for tuberculosis and in 1922 ere were 18.03% retained.

During the year just closed a large mber of counties in Iowa were accredited and now receive 10 cents r cwt. premium on their hogs.

The accredited counties have 76% s losses on hogs from carcasses beg condemned and sterilized and % less retentions for tuberculosis Sioux City than are found in the arket run. The removal of the eased cattle has greatly reduced ses in hogs from tuberculosis, but s not removed the entire source of fection of hogs. Hogs also contract berculosis from poultry.

To determine more accurately the nount of tuberculosis in poultry in iner County, South Dakota, an accredited county, the State Department of Agriculture and the United ates Bureau of Animal Industry berculin tested 72 flocks in two wnships in the county. The testing s done last October and out of the farm flocks tested, 67 of them conned birds with tuberculosis. In sting 5,587 mature birds, there re 31.7% tuberculous, while only % out of 9,127 spring birds were nd to have tuberculosis.

If farmers would remove all birds the poultry flocks over two years l, carefully cull out any unhealthy es, and perfectly disinfect poultry ses and clean up yards twice a ar, undoubtedly the large losses m tuberculosis would be greatly duced in poultry and would also re ve the source of infection of hogs. wever, the only sure way to eradie tuberculosis in poultry is to start ew flock with baby chicks or eggs new ground and use perfectly an houses.

Premium Hogs From Accredited Counties

Osceola County, Iowa, during the nth of January received $1,328.28 premiums for hogs at the Sioux y market. This extra price was d by the packers over and above regular market for the hogs beuse Osceola County was recently lared a modified tuberculosis free a by the government. There re 6.1% of these hogs retained for berculosis when slaughtered, while 13% of the regular run of hogs in 26 were retained. Thus the accdited county hogs showed an imovement of 54% over the regular n.

During January this year there re 9,961 accredited hogs slaughted at Sioux City of which 6.1% re retained. This also shows 54% iprovement over the market run of gs at that market.

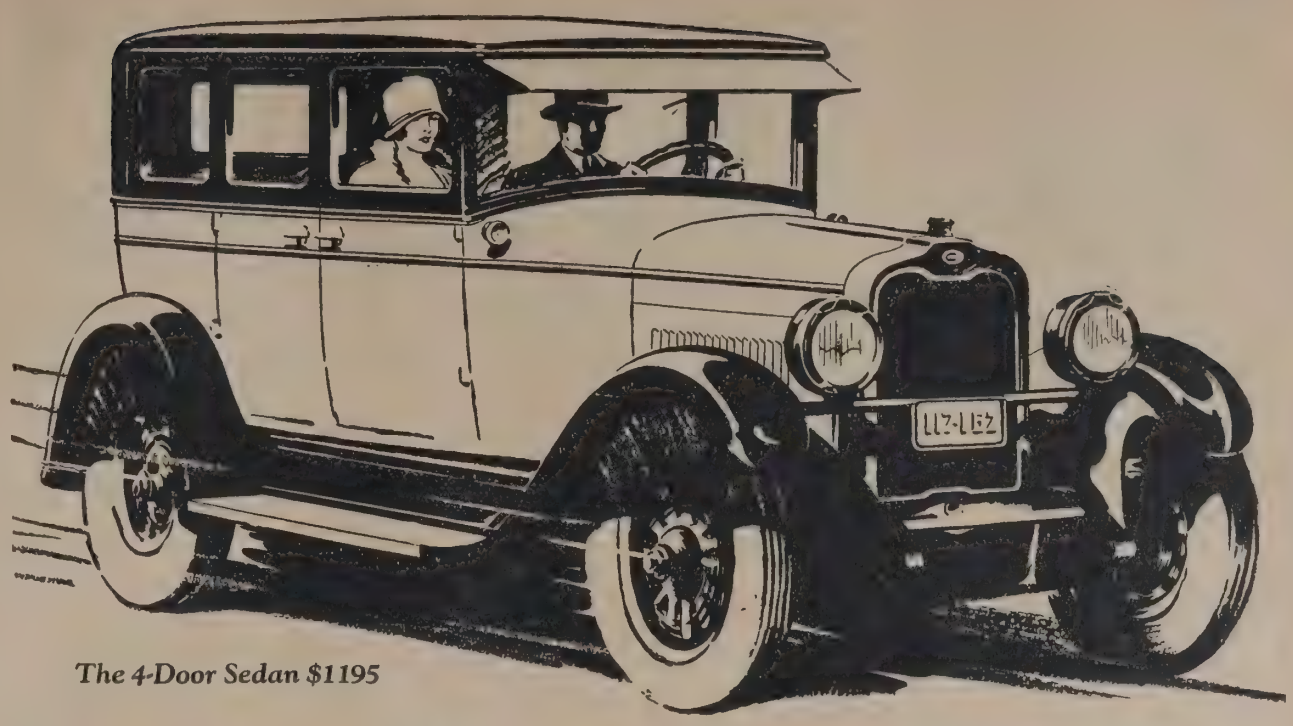
During the year 1926 several accdited counties in the Sioux City ritory received premiums at the ctral markets sufficient to pay a ge part of the cost of testing cattle f tuberculosis. Murray County, nnesota, farmers received $10,47.37 in premiums on 45,156 hogs t year. Burt County in Northtern Nebraska was paid $10,992.06 premiums on hogs for 1926 and ner County, South Dakota, accredited April 25, 1926, has received $4,288.68 in premiums on hogs.

HARRY J. BOYTS,
Live Stock Commissioner.

A Creamery Report

The Jefferson (Wisconsin) Co-operative Produce Company reports that in 1926 it handled 544,533 pounds of butterfat. It received an average of 42.9 cents a pound for butter and paid its patrons 48 cents a pound for fat after deducting all costs of operation but not including hauling charges for cream.

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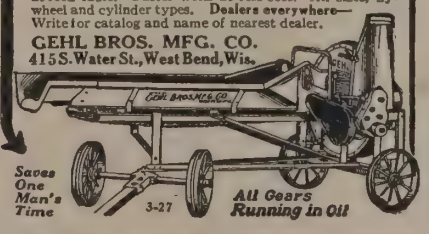
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Detouring the Scrap Heap

"Have you lived a good life?" asked Saint Peter of a trembling female who knocked at his gate.

"I was good at only one thing," answered the woman with a doleful shake of her head. "Cooking."

"Come right in, then," said Saint Peter. "Good cooks have saved more men from perdition than a dozen missionaries. There is nothing around here in the shape of blessedness that you are not entitled to."

This bit of wisdom is at the top of a chapter of one of the most interesting little books I have seen in a long time. As I read it, I thought of one thing and another that I wanted to pass on to you until finally I had so many notes that I gave up because the notes themselves threatened to make another book!

There are, however, so many valuable things in the book that I decided on a sort of review of the various chapters which I thought would interest you most. The book is "Byways to Health" by Thomas D. Wood and Theresa Dansdill (D. Appleton and Company, New York), and I shall just hit the high spots, so to speak, and leave off the quotation marks; you'll know why if you are an amateur typist like I!

Nutrition

Ignoring laws of science and hygiene makes deficient food that repels the appetite and half starves cells and tissues. Shall the potato be a fluffy ball or a gray sodden mass? Shall each vegetable be cooked to conserve its wholesome ingredients or shall they be lost in the cooking? Shall meat retain its nutritive juices or shall it be a tough, imitation food? The answer depends greatly on the cook.

When Frances Willard began studying intemperance among the laboring classes, she said, "They are poor because they drink," but later she said, "They drink because they are poor," and she began teaching the wives how to prepare wholesome food and where they could purchase it reasonably. Poor cooking, unwise buying, and needless waste lessened the efficiency of the small funds which the homekeepers had. The ill-prepared food helped make half starved bodies and to create a craving for stimulants. Sirloin steak costs more than round yet a like portion of round furnishes the body with more protein and fat. Cheese costs less than meat and furnishes at least as much protein. Orange juice is valuable but when the price of oranges soars tomato juice can be used to furnish practically the same value.

Health, energy, and well-being depend very greatly on the quality and quantity of food consumed. Who knows how many nervous breakdowns, how many unhappy homes are the result of poor food which has helped to lower vitality. Who can tell how many illnesses had their beginning in inferior cooking? Blessed is the home where she who presides serves wholesome, attractive, well-balanced food. It may be humble but she who serves it gives something that can help bring sunshine to the heart, laughter to the face, comfort to the body, and peace to the soul.

Dr. Robert McCarrison spent several years working in a remote part of the Himalaya regions where he was impressed with the unusual health of the people living there. He reports that in his nine years' stay he never saw a case of dyspepsia, gastric or duo-denal ulcer, appendicitis, or cancer and he attributes this remarkable state of affairs to the fact that babies are reared on mothers' milk and that the people live upon milk, eggs, grains, fruits, and vegetables, with very little sugar. Their manner of living also requires vigorous outdoor exercise. "I find myself in accord," he wrote, "with the men who affirm that the two chief causes of disease are food and drink!" Intelligent water drinking is an aid to digestion, the amount needed each day depending on the occupation, the season, the daily food, and the individual. Under ordinary conditions the habit of eating too much and too rapidly can be overcome within a short time if we recognize that we would be better for so doing, but we must do this gradually. Do not throw a habit out the window. Lead it out a step at a time.

Occasionally we find a person who cannot eat certain things, but on the whole every person who has not a definite disease can eat beneficially any wholesome food. If everyone who has no organic digestive disturbance would put aside his worries and eat reasonable portions of wholesome food, he would soon find that he was recovering from his imaginary ills. A mother who teaches her child to eat without comment any clean, good food is conferring a benefit on humanity as well as on the child.

Constipation is in most cases a curable disorder. The rules for the average person are few and simple. Upon arising brush the teeth and cleanse the mouth. Drink one or more glasses of water—you may need even three or four. Take the water hot if it seems to act more quickly. Water is an important factor in the elimination of waste from the body and is especially beneficial when taken before breakfast. About fifteen minutes before breakfast try to effect a movement of the bowels but do not strain and if after five minutes the effort is not successful, give it up, and unless a desire comes later do not make any further effort for the day. Repeat next day, being sure to drink plenty of water throughout the day and to eat a good supply of vegetables and fruit. Take sufficient rest, exercise in the open air, cultivate wholesome mental habits, and constipation can be overcome. Keep in mind that you are establishing a habit, that worry, anger, and fear hinder that habit. It takes training and one should not worry if the habit is slow in forming for muscles cannot be trained over night. If there has been no bowel action at the end of the third day, an enema consisting of a quart of water at a time should be taken but the routine of drinking water, making an effort to move the bowels, and so on, should be kept up daily.

The question of fat and thin is another that is bound up with nutrition. The majority of people who are overweight are so because of too much fattening food, too little exercise, and too little expenditure of energy. In the case of underweights the reverse is apt to be true though there are many exceptions to both cases. Records from insurance offices show that when a man or woman is in the best possible physical condition, the weight at that time is the normal weight. If you sleep well, eat adequate food, eliminate properly, do not tire easily, recuperate quickly, and are comparatively free from moods, irritation, and worry, you are healthy. A race horse and a Percheron were never meant to be the same weight and in the human race it is much the same; some persons are meant to be thin while others are born to be fat. Reducing is in many cases necessary to health or even life but sudden reduction of weight is always dangerous and no decided reducing should be undertaken without expert advice. Underweight is due to many other causes than lack of sufficient food, among them being defective teeth, diseased tonsils, infected sinuses, weak abdominal muscles, overexcitement, worry, anger, and severe mental strains. One of the first lessons the majority of underweights needs to learn is relaxation with long hours of sleep in the open air and frequent rest periods. The best gain, the one that is apt to be permanent, is the slow, steady one.

Here I have used up all my space with volumes still to say, so maybe we can continue the discussion another time.

It seems a pity in such a subject as this not to be able to go into detail about cookery, about purchasing, about definite ways to gain or lose flesh, but readers' needs are so varied that it would not be possible. If you are interested in learning more of any phase of this subject write for bulletins to your state department of health at the state capital, or to your state agricultural college, or to the department of health at Washington, D. C. Material that is vitally valuable can be had free from any of these places.—LUCY THOMPSON.

Spoiled Children

It is not uncommon to speak of a grown-up as behaving "like a spoiled child." Wives say it, or think it, of their husbands and husbands return the compliment about their wives. Parents complain of adult children in the same way and some children are forced to describe an unruly parent's conduct in identical language. Always the person referred to has displayed a lack of self-control, selfishness, and has allowed emotions to dominate reason.

Now comes Dr. James J. Walsh and Dr. John A. Foote, in a recently published book, "Safeguarding Children's Nerves" (Lippincott), with the admonition that faulty training in childhood results in the failure of such individuals to grow up to un-

(Continued on next page)

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Miscellaneous Fashions



No. 2990—Bolero Frock. Cuts in sizes 16, 18 36, 38, 40, and 42 inches bust measure. The 3 size requires 3½ yards of 40-inch material wi yard of 27-inch contrasting.

No. 2996—Individual Coat Dress. Cuts in siz 18 years, 36, 38, 40, 42, 44, and 46 inches bust ure. The 36-inch size requires 3½ yards of 4 material with ⅝ yard of 18-inch contrasting.

No. 2984—Well Played. Cuts in sizes 16, 18 36, 38, 40, and 42 inches bust measure. The 3 size requires 2¾ yards of 36-inch material.

No. 2321—One-Piece Dress. Cuts in sizes 16 36, 38, 40, and 42 inches bust measure. The 3 size requires 3 yards of 40-inch material.

No. 2848—Slender Lines. Cuts in sizes 18 36, 38, 40, 42, 44, and 48 inches bust measure. 36-inch size requires 3⅝ yards of 40-inch mate

No. 2502—Junior Frock With Flared Skirt. C sizes 6, 8, and 10 years. The 8-year size requ yards of 36-inch material.

No. 2959—Bloomer Dress. Cuts in sizes 2, and 8 years. The 4-year size requires 2⅝ ya 36-inch material with ⅝ yard of 18-inch contr and 2 yards of binding.

No. 2916—Junior Sports Dress. Cuts in si 10, 12, 14 and 16 years. The 8-year size requ yards of 40-inch material with ¼ yard of 3 contrasting.

No. 2165—Comfortable Step-In. Cuts in siz 40, and 44 inches bust measure. The 36-inch si quires 2¼ yards of 36-inch material.

No. 2761—One-Piece Apron. Cuts in one siz and requires 2¾ yards of 27-inch material w yards of edging.

"Why is she so fond of that l clerk?"

"Because opposite her name on register he wrote, 'Suite 16'."

Steaming **Hot Water**



from the

kitchen pump

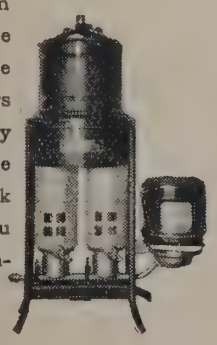
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derstanding and unselfishness in their social relations.

"Spoiling," say these author-physicians, "may be commenced extremely early. It is no exaggeration to say that a child may be potentially spoiled before he is even born into the world. Being a 'good baby' is really not so simple and so easy an accomplishment as it might appear. The human family is a complicated co-operative society and we cannot accomplish even the simplest things without some help and assistance from other men and women. And the complicated task of making the intricate biological machine known as a new baby run so smoothly that it is at the same time noiseless and efficient is also an achievement impossible of attainment without intelligent co-operation and help from many sides."

Plenty of rest and quiet is urged for the baby. Jumping him up and down, watching him blink at lights, using him as a toy are practices that may seriously injure the delicate nervous mechanism just beginning to develop. Playing vigorously with him just before bedtime, exciting him, and then banishing him to bed in a storm of crying are practices that should be tabooed.

You must begin early to teach children to consider others if you want to make their way easier for them in later life.

"They should never be allowed to realize that either the justice or tenability of a father's or mother's decision is open to question," advise Drs. Walsh and Foote. "This imposes a high standard of living and thinking and talking on the parents, but that in itself is far from a disadvantage." Herbert Hoover has said wisely, "A great many parents need bringing up." Displays of anger or irritability by a father or mother are the worst possible example for a child of any age. The sense of injustice is acute in the child; he is, of course, prone to self pity.

Make the children realize you mean what you say, and that your judgments are wise. It is possible to accomplish this without harshness or lack of tenderness toward them. Usually it imposes a task of self-control on the parent that carries with it its own reward.

Coaxing Isn't Necessary

If a child resists, or is disobedient, as for instance at being undressed for a bath, or when being taken upstairs, do not spend time in coaxing or pleading with him. Tell him quietly, even if

(Continued on next page)

What Size, Madam?

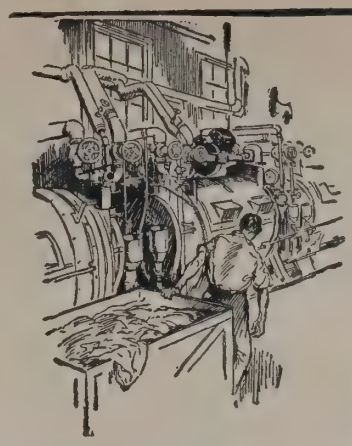
If you are size 46, you will find some styles designed especially for you on Pages 12 and 13 of our Spring and Summer Fashion Magazine.

And then, throughout the book, you'll see styles such as the one illustrated above which is by no means a special for a stout. It is a style equally becoming to the woman who takes a 46 or her slim flapper daughter.

There are many such. You select the one which appeals to you and then order your pattern in the size you need. In the case of the style shown above, you'll find a picture dressmaking lesson showing how it is made.

You need this book. The small cost you will save over and over again on clothes. And you'll look more attractive for the book will lead you to the correct styles. Order your copy now. Send 10 cents to Fashion Dept., Hoard's Dairyman, Ft. Atkinson, Wis.





Many farm women, too, now have electric laundries.



Rural electrification
—a fact on more than 260,000 farms

As the result of cooperative investigation carried on in twenty states, electric light and power companies are now building rural lines as fast as circumstances will permit.

On 260,000 farms rural electric service is in successful operation today.

The same force which has done so much for industry will soon be available to an increasing number of farms. The resources and experience of more than forty years of successful city service are back of this movement to bring the farmer the greatest practical help he has ever had.

With the desire to make full use of all the benefits of electric service, and with the development of new equipment, rural electrification will open a new era on the farm.

Rural lines cannot be built everywhere at once, but the light and power companies are ready to extend service to groups of farmers, which together, can use sufficient power to justify the building and maintaining of rural lines.

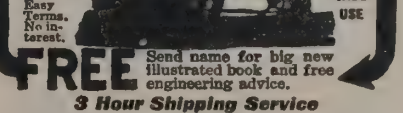
Rural electrification can come quickly—where farmers and the light and power companies work together for the same good end. Ask your power company for information and cooperation.

The Committee on Relation of Electricity to Agriculture is composed of economists and engineers representing the U. S. Departments of Agriculture, Commerce and the Interior, American Farm Bureau Federation, National Grange, American Society of Agricultural Engineers, Individual Plant Manufacturers, General Federation of Women's Clubs, American Home Economics Association, National Association of Farm Equipment Manufacturers, and the National Electric Light Association.

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he is not even a year old, why you wish him to do this certain thing and then firmly but gently proceed to do it and get it over with as soon as possible. This will avoid long, drawn-out emotional ordeals for both the child and mother. After a while the child will realize that obedience is the easier way. Children are the most impressionable beings in existence. They are also the most imitative.

To teach the child how to realize and how to observe the personal limitations which are necessary under even ordinary conditions of social life, without at the same time forcing him into a rigid pedagogical groove, is the problem which confronts every parent.

If an infant has been spoiled it is probable some one has devoted ti and attention to the work of spoili him. The same measures that p vent spoiling children, assert c authorities, will also serve to unspl them, though the work is not an ea one. Many a violent outburst a emotional crisis will probably have 'be undergone before the child lear self-discipline. And this is an acco plishment, we are told, that is best f all taught by personal example of t teacher.—Certified Milk.



No. 2986—Plaited Panel Treatment. Cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 2⅞ yards of 40-inch material with ⅞ yard of 36-inch contrasting.

No. 2570—One-Piece Dress. Cuts in sizes 16 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 3 yards of 40-inch material.

No. 2992—Unmistakably New. Cuts in sizes 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 4¼ yards of 40-inch material. Emb. No. 729 is 15c extra.

No. 2997—Jacket Costume. Cuts in sizes 16, 18 years, 36, 38, and 40 inches bust measure. The 36-inch size requires 4¾ yards of 40-inch material.

No. 2989—For Smart Daytime Wear. Cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 2¾ yards of 40-inch with ⅜ yard of 32-inch contrasting material.

No. 2904—One-Piece Dress. Cuts in sizes 6, 8, 10, 12, and 14 years. The 8-year size requires 2 yards of 40-inch material.

No. 2942—Smart Plaited Model. Cuts in sizes 6, 8, 10, 12, and 14 years. The 8-year size requires 1⅞ yards of 40-inch material with ⅜ yard of 32-inch contrasting bias plaid.

No. 2932—Youthful Apron Design. Cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 3¾ yards of 36-inch material with 7 yards of binding.

No. 2718—Junior Frock. Cuts in sizes 6, 8, 10, 12, and 14 years. The 8-year size requires 1⅞ yards of 36-inch material with ⅜ yard of 36-inch contrasting.

No. 2916—Junior Sports Dress. Cuts in sizes 8, 10, 12, 14, and 16 years. The 8-year size requires 2 yards of 40-inch material with ¼ yard of 32-inch contrasting.

No. 2767—Pantalets. Cuts in sizes 16 years, 28, 32, and 36 inches waist measure. The 28-inch waist measure requires 2¼ yards of 40-inch material.

No. 2769—Slip. Cuts in sizes 16 years, 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 2⅞ yards of 36-inch material.

All patterns 10 cents each in stamps or coin. Send to Pattern Department, Hoard's Dairyman, Fort Atkinson, Wis.

A New Freedom

I should like to see women fre from clutter, from the care of u less bric-a-brac, from the care of t many kitchen utensils, from the c standard of housekeeping whi made one woman afraid to have a other woman discover a speck of du or a cobweb in her house.

I should like to see such simplici in furnishings as is in keeping wi the income so that we might get r of that awful bogy of "keeping w with the Joneses" and being forev behind on paying our bills. I shou like to see self-expression and co fort in the household furnishin rather than slavish following of pr vailing styles. More independence choosing what life offers of value us and seeking it out, letting t Joneses do what they will.

I should like to see more sincerit more genuine friendliness, and le pretentious display in our homes.

The ideal home life of today tak into account the furnishings of t house for comfort, convenience, ea of being cared for, beauty, and ass ciation. We like to have in o homes those things which remind of pleasant experiences and peop who have a place in our affection This idea is expressed effectively in little poem entitled, "Earth-born. The first verse is a follows:

"Do you think God will make us forget—
When we wake up in Heaven—
All the queer, little earth-fashioned things
That are sacred as archangels' wings
Or the stars that are seven?
Our books, our green china with posies,
My white wedding gown with its roses,
The candles we light
In our wee house at night,
Your father's old clock with its wise friend face,
Any of my mother's old lace—
Do you think Love can ever forget?"

I believe we can find enjoyme in cultivating an appreciation f these things which mean so muc more than appears on the surface.— LITA BANE, University of Wisconsi

Cook Pork Well

We used to visit in a home whe one of the girls had a habit of eatin raw salted pork whenever she coul sneak away and get it. Her mothe was always warning her that sh might get some bad disease by doin this but the girl concluded that s she never had, she never would. never heard whether she did but have learned something about th disease her mother meant. It is calle trichinosis and is caused by a tin parasite that lives, even in health hogs, in the muscular tissues.

The disease, say experts from th U. S. Bureau of Animal Husbandry is similar in symptoms to typhoid fe ver and often goes through a whol family. To avoid having it is simpl and involves only that all pork eate should be well cooked. A practica rule is to cook it until the pork ha lost all red color throughout or unt the fluids of the meat have becom well jellied.—LUCY THOMPSON.

Correct

Teacher: Johnny, name a collectiv noun.

Johnny: A vacuum cleaner.—Goo Hardware.

Farmers Should Work Together Like Business Men

HOARD'S DAIRYMAN:—Now that the McNary—Haugen Bill has been vetoed, what are farmers going to do about it? Whether or not you and I think this bill would have helped the farmer, we never will know. Whether or not any proposed farm legislation is ever again brought up in our national congress, we may now feel fairly certain that nothing will ever be done. What are we going to do about it?

We know that the price of a suit of cotton clothes is high enough so that the manufacturer makes a profit in spite of the fact that there are quite a number of competing manufacturers. The same is true of plows, binders, steel, furniture, manufactured food products, silos, corn, oil, wheat, flour, and cigars. There are two or three reasons for this in addition to any advantages that manufactured articles may have over raw products, as to tariff. First, there are fewer manufacturers, jobbers, wholesalers, and retailers than there are producers of raw products. Second, they either get together and agree (or are independently wise enough) not to overload the market or cut prices below a margin of profit. They make the tariff and business conditions operate to their benefit.

Farmers can do the same and it is about the only recourse farmers have. They might just as well make up their minds to follow illustrious examples and well proven methods of big business, or go off their farms.

Some people think there are too many farmers to co-operate, but don't forget that there are hundreds of thousands of stockholders of the United States steel corporation and the railroads and the American Telephone and Telegraph Company and the other companies whose stocks are listed on the New York Stock Exchange. These concerns all have stockholders scattered over the entire United States and business establishments all over the United States, and have centralized control. As a general rule, when undisturbed by war or similar conditions, they return pretty fair profits to the stockholders and certainly serve the public well. It has taken years to build them up and it would take years to build up the marketing of farm products on the same scale, but a big thing is just a little thing multiplied and there is nothing impossible about co-operative handling of all farm products.

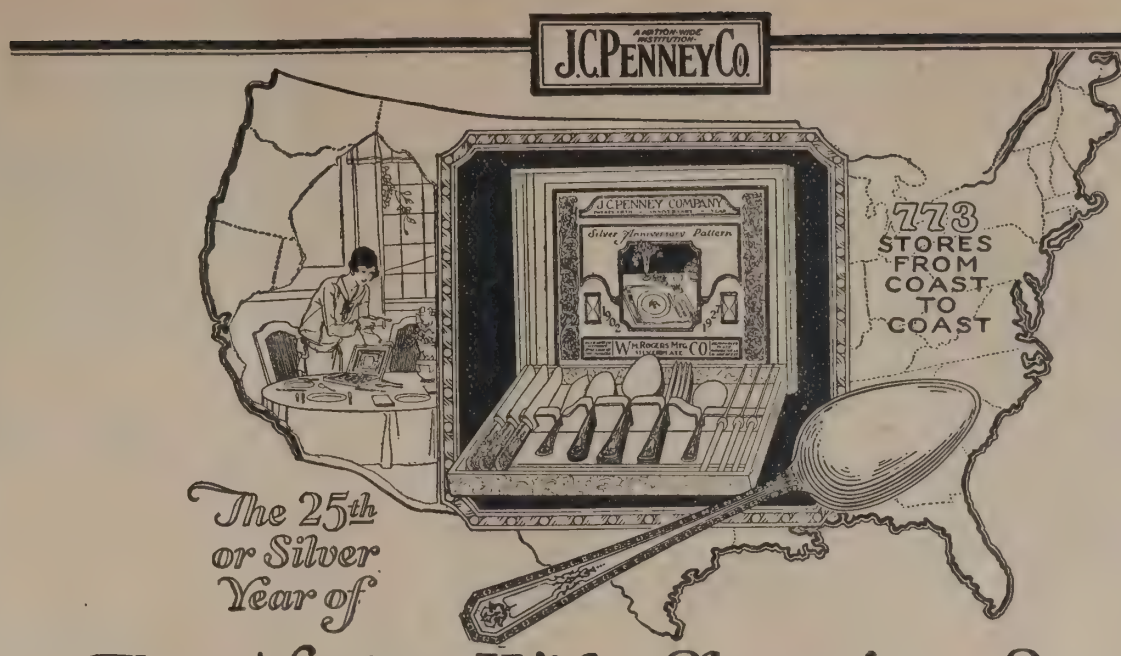
They say farmers haven't the ability and can't co-operate. George Washington, Abraham Lincoln, President Coolidge, and some others I have heard about all come from the farm and have shown pretty fair degrees of ability. I believe the farm has furnished more successful city business men than any other one American institution, or, if you prefer, place of birth. Farmers are no more individualistic than other people. Their wide separation does make their problem a little harder of consummation, but all American business has had to go through the same path of development that is now open before the farmer.

If you will look through the reports of co-operatives, printed by the Bureau of Agricultural Economics at Washington, D. C., you will see that a wonderful growth, both as to number of co-operatives, membership, and volume of business, has taken place in the last fifteen years. Co-operation is on the way. You can't stop it and farmers might just as well begin now to plan to dig down into their flat pocketbooks and furnish the necessary money for handling their own business or plan on turning their farms over for the mortgage.

It is surprising what a few cents on a hundred pounds milk, or a few cents a bushel on grain will do toward buying a creamery or an elevator. Farmers should run their co-operatives like regular businesses in town, which have to be built up from small beginnings. A farmers' co-operative isn't something to be bled to the bone at every opportunity. It is an agency of the farmer in producing funds for the farmers' benefits, and should be nursed along and cared for and helped in its growth as much as the fertility of the soil or the development of a high grade herd. Farmers' co-operatives should unite with the central selling agency or if there is no such, then they should organize with other co-operatives for forming such a central agency. When enough money has been saved to pay for the receiving station or the elevator or the creamery, a little surplus should be put away and then a little more should be saved to invest in the milling business or the feed business or milk distribution and ice cream manufacturing. It will take years but farmers couldn't be much worse off than now.

The First National Bank in our town is seventy years old and has been growing every one of those seventy years. If farmers would start to co-operate to handle all of their products at the present time, it wouldn't take them nearly as long to own the whole business from their farms to the consumers' back doors as it has taken the banks to attain their present size. Farmers also would find that the years and the money invested in co-operative development have not been wasted but have returned a steady profit over the old way all the time that they were growing.

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Whichever way you come, take time to see how Californians farm in the Great Valley and neighboring valleys, and ask them how they like it. Go up into the cool mountains, two hours' drive from almost any valley farm, and see the peaks and meadows, the lakes and streams, that we who live here own as a part of our vast National Forests. See how California farm families lighten their farm labor and housework with cheap and plentiful electricity. Notice the rural schools that you pass—there are none finer in America. Stop a while in some of the towns, and run down to San Francisco Bay where a million people live.

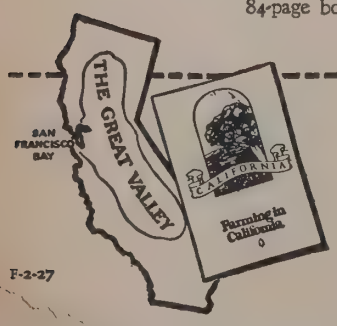
Then, when you have seen the richness of California in summer, imagine the always-sunny days turning to warm, gentle, rainy days, the temperature still far above freezing, the fields green and snowless, the roses in bloom and the oranges ripening—and you can picture a California winter!

How would you like to live here all the year? You can. California needs more good farmers, with enough capital for a fair start. We cannot raise enough of many things for our own needs because our cities are always growing faster than our farms. Yet we can offer the farmer year 'round pasturage for his dairy herd, his poultry and his hogs, the highest average production of butter per cow in the United States, and 20% *higher butterfat* prices than the national average. California, which feeds the world with fruits and vegetables, imports 25% of its butter and 75% of its pork, and pays higher prices for them than you get at home. And you can quickly find out how much easier and more profitable it is to raise them here.

Your family will like California. Life is better here in every way for each of them. And for the average man, all statistics show that Californians are about twice as prosperous as the average American elsewhere.

Low summer round-trip fares to California beginning May 15

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Wide Range Shown in Cost of Producing Pork

Wide variations in the cost of producing pork are shown in a survey made by the Department of Agriculture of farms in Henry County, Iowa, and Warren County, Illinois, said to be typical of corn-hog farms throughout the corn belt.

The gross cost of producing 100 pounds of marketable pork on 44 farms in one year ranged from $3.07 to $13.55, with an average of $5.49. Production costs on 39 farms in another year ranged from $4.86 to $10.02, with an average of $6.32. The figures are for the years 1921 and 1922 and are presented merely as showing the variation in costs.

The variation, the department says, indicates the influences of care and management in the hog lot. The farms were within a short distance of each other; it was possible to follow very similar methods within the region, and yet some farms shipped hogs to market costing more than twice what they cost other farms.

Detailed results of the survey have been published in Department Bulletin No. 1381, "Cost of Producing Hogs in Iowa and Illinois," copies of which may be had free, as long as the supply lasts, upon request to the Department of Agriculture, Washington, D. C.

To Settle a Dispute

A Wisconsin reader has had an argument with a neighbor over the feeding value of corn for pigs after it has passed through the digestive tract of a cow. It raises an interesting subject for discussion.

If the question raised is as to whether there is or is not any nourishment in the corn contained in the dung of cows, the dispute is easily settled. There is some nourishment in such corn. If the dispute is over the amount of nourishment, it is not so easily settled.

The feeding value of corn in the dung from dairy cows is ordinarily less than is true with beef cattle because of the more common practice of grinding the grains for dairy cows. Because of this, less effort is made by dairymen to salvage the nourishment with pigs.

It is a common practice with steer feeders to run pigs after steers being full fed on corn, roughage, and other supplements. The gain on the pigs is frequently the deciding factor between profit or loss on the steers.

The number of pigs that may be run after a given number of steers depends on several factors, the most important of which are: (1) the age of the steers fed; (2) the proportion of corn making up the ration; (3) whether the corn is fed snapped and whole, husked and whole, or ground; (4) whether silage with considerable grain in it is fed; (5) and somewhat on the quality of the corn fed.

The range is from 1 to 3 pigs per steer on snapped corn, 1 to 2 per steer on husked ear corn, about 1 per steer on shelled corn, and 1 pig to 2 or 3 steers on crushed or ground corn. The younger the steers, the better they chew and utilize their feed and the smaller are the gains made by pigs following. In addition to the feed gotten in this way, it is advisable to feed pigs from one-fifth to one-third of a pound of tankage per head daily.

With dairy cows fed on ground grains and with the roughage frequently composed entirely of hay or of hay and silage made from immature corn, it would not pay to run pigs after them for what they would get from the dung, though one can not say there is no feeding value there.

Another factor must be considered in running pigs after dairy cows and that is one of tuberculosis. Pigs should not be allowed to follow a herd of cows that has not been tested and freed from tuberculosis. To do so invites the probability of infecting the pigs.

Value of Weanling Pigs

In dairy sections the exchange of weanling pigs is a business of no small importance. Estimating the value of weanling pigs has been more or less of a speculative nature. Competition in communities or at public auctions is the yardstick by which the value of weanling pigs is most frequently measured. Sometimes the yardstick is too long and the buyer comes out on the small end of the deal. Sometimes, too, the producer of pigs thinks the yardstick is too short.

The Oregon Experiment Station throws some light on the value of a weanling pig in proportion to the finished hog by calculating the total cost of producing a hundred pounds of market pork in terms of grain.

According to this data it takes the value of 618 pounds of grain to cover all the costs of producing 100 pounds of pork. Of this value it is estimated that 30 per cent is required to cover all the costs of bringing a pig up to weanling age. For example, the value of 1,236 pounds of grain would cover the total cost of producing a 200-pound market hog. If grain is worth one and one-half cents a pound the cost of the 200-pound pig is $18.54. Of this amount 30 per cent or $5.56 is represented in the cost of producing the pig to weanling age. One year with another, this represents a fair basis for estimating the value of weanling pigs. There are some, however, who will always want to gamble that the price of market hogs will go up.

"Why is it that a red-headed woman always marries a very meek man?"

"She doesn't. He just gets that way."—Dry Goods Economist.

A man's disposition is never well known until he is crossed.—LORD BACON.

A Dairy Farm Statement

HOARD'S DAIRYMAN:—Since reading your review of dairy markets in 1926 I thought you might be interested in my farm report for that year as it seems to prove your statement that it was a good dairy year. I found 1926 the most profitable year I have ever had since starting for myself in 1917. After paying all expense of operation, including wages for myself at $100 a month, the farm returned 11.2% on its total inventory value.

My farm consists of 120 acres in Southern Wisconsin, with 40 acres in pasture. On the average I raise about 35 acres of corn, 25 acres of alfalfa and clover, and 20 acres of grain and sundry crops. I keep something over 40 head of grade and pure-bred dairy cattle, about half of which are milk cows. I sell cream to the local co-operative creamery, feeding the skimmilk to calves and hogs. During the cow testing year completed in 1926 (present year nearly up) my herd of 19 cows and heifers averaged 305 lbs. fat at a feed cost of $64. At the prices then prevailing this gave me a profit over feed of $82 per cow, not counting the value of skimmilk. With this explanation I first give my inventory for the past two years, as follows:

	Jan. 1 1926	Jan. 1 1927
Land (120 acres)	$12,500	$12,500
Buildings	5,821	5,796
Live stock	4,685	5,634
Feeds	1,756	1,500
Equipment	709	845
Total	$25,471	$26,275

I inventory the land and buildings at their cost in 1917, plus the cost of improvements and repairs and less the usual depreciation charges. Equipment is inventoried at cost less depreciation, and feeds at the prevailing farm price on January 1. Grade cows are inventoried at $100 each and pure-bred cows at $250, with younger animals in proportion. I have carried the same figures for grades since I purchased the farm so as not to show an inventory profit that may not be realized, although my selling prices are 50 to 100 per cent above this. Pure-breds are valued at 50% of the cost of the original cows and comprise less than half the herd.

My account for 1926 is as follows:

Received	
5,428 lbs. fat at 47.3c	$2,566
Dairy cattle sold*	1,778
Beef and veal	52
Hogs	1,214
Crops sold	108
Total cash	$5,718
Inventory gain	804
Farm credits†	332
Total receipts	$6,854

*2 bulls, 7 cows, and 6 heifers and calves.
†House rent, garden, milk, etc.

Paid Out	
Feed	$710
Live stock bought	260
Veterinary	64
Fees, commissions, advertising	150
Seed	88
Harvest expense	134
Hired help and board	516
Taxes	230
Insurance	20
Repairs and supplies	344
Equipment	221
Sundry	54
Total cash	$2,791
Salary credit	1,200
Total paid	$3,991
Net profit	2,863
	$6,854

In the above statement I have assumed that the combined work of my wife and I was worth $100 a month, and after charging this in I had a net profit of $2,863, or 11.2 per cent on my 1926 inventory of $25,471. Another way to figure would be to charge the farm with 5 per cent interest on investment ($1,274), making total expenditures of $4,065. This would leave my labor income as $2,789.

I would appreciate figures from other dairymen who have kept books, as also criticism of my bookkeeping. I feel as though I was particularly fortunate this past year both in good markets and relatively low cost. I have also been fortunate in the past two years in having more than half my calves heifers, which means a good deal when one good item is the sale of surplus cattle.

Wisconsin. JOHN S. CHARLES.

Tramping Silage—Rusty Pipe Partitions

HOARD'S DAIRYMAN:—When I saw E. H. Hobson's method of tramping silage with goats I fully intended writing what I thought of his method. I have been filling from one to three silos for the past fifteen years. Henry A. Ochnser has given my opinion, with the exception of not wanting one man in silo just to carry the distributor so the grain and fodder will be mixed uniform. The last two years I have not used distributor or had a man in silo. Once each day for the first week after filling I go over it and do not think it dries out as deep as when not gone over.

When the partition pipes between cows rust off at the concrete, instead of throwing them out I cut a smaller pipe eighteen inches long and put it inside of the broken pipe. Any one would not know they had rusted off. When I built my barn I believed the partition was worth putting in, and still believe it worth keeping in.

Virginia. H. T. PATRICK.

GRAHAM BROTHERS TRUCKS

$670
¾-Ton Chassis F.O.B. Detroit

$1245
1½-Ton Chassis F.O.B. Detroit

$885
1-Ton Chassis F.O.B. Detroit

$1445
2-Ton Chassis F.O.B. Detroit
Dual Rear Wheels Optional at Same Price

Quality— Volume— Low Price

Ask your local Dodge Brothers dealer for the Vocational Book which features the use of trucks and commercial cars in your particular line of business.

SOLD BY DODGE BROTHERS DEALERS EVERYWHERE

WHY PAY MORE ?

Improved model is greatest milking machine value on the market. Only quantity production makes such prices possible. Expertly designed. Highest quality throughout. Heavy presses seamless aluminum pails. New Departure ball bearings. Easily cleaned. Cows like it and give more milk.

J. P. Johansen of Ia., one of the hundreds of happy users says, "I am milking 20 cows and have 3 single units and cannot praise your machine too much."

Send for Booklet No. 20
showing models for every purpose: single, double, double single, double double, etc. *Agents:* still some open territory. Write for attractive proposition.

Myers-Sherman Company
213-15 N. Desplaines Street, Chicago, Ill.

New Improved **Fords Milker** $90 *Single Unit* Complete *Electric or Gas Engine*

Sell your surplus cows, poultry and other live stock with an ad on our Special Opportunities Page.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

A Farm Boy Follows Through

Part 2

HERBERT Wisch lives on a 43-acre Wisconsin farm. There are something over a dozen head of good Guernseys, pure-breds and grades, in his father's herd. One of Mr. Wisch's cows was included in a shipment to the Hawaiian Islands two years ago. The cream is marketed at the creamery.

Mr. Wisch usually raises enough roughage, alfalfa hay, and corn for silage, to take care of the needs of his cattle. But when it comes to raising enough concentrates on 43 acres—that's different.

During his senior year in high school, Herbert studied dairy rations in his agricultural class. Naturally he wanted to see just what kind of a ration his father was feeding and if there might not be a chance to improve it. With the aid of a table showing the analysis of feeds, such as was published on page 6 in the January 10th issue of Hoard's Dairyman, he figured it up and found that his dad's ration contained nearly enough protein but the total digestible nutrients were "lamentably weak," to use Herbert's own language.

Right then Herbert decided upon his project. He would weigh, test, and keep records on the herd. From these records he would figure up balanced rations. He would see if he couldn't cut down the cost of feeding without lowering the production. So Herbert secured a milk scales, a record book such as cow testing association members use, and ruled off a sheet of paper for a barn record.

He took a sampler and several sample bottles home from school one day in March and collected a sample of each cow's milk, taking some from the evening's milking and some from the morning's milking. He labeled the bottles, took them back to school, and tested each by the Babcock test, recording the percentage.

This was something new on the Wisch farm. His father had never kept records. As long as he got a "good mess of milk" from his cows, he was content. Mr. Wisch was interested in the project, however, and co-operated eagerly.



2—Herbert secured milk scales, a record book, and barn sheets. He then weighed the milk from each cow in the herd.

Six cows completed full time records. One cow went dry six weeks after the records were started and two heifers freshened in June. The total production of butterfat from April 15 to August 1 was 868.1 lbs. The income over feed cost for the herd in this period was $214.-29. While Herbert discontinued testing soon after this to get ready for college, his father has been recording the weights of every milking. It is significant that the largest milk check ever received by Mr. Wisch came in October, a direct result of the better feeding practices introduced by his son, Herbert.



1—With the aid of a table showing the analysis of feeds, Herbert figured up his father's ration and discovered a chance for improvement. He decided at once to make the feeding and management of the herd a school project. After that he spent considerable time balancing rations, always striving to keep up production and cut down feed costs. He has a copy of Hoard's Dairyman close at hand.

Herbert says, "When I took over the feeding and management of the cows they were somewhat thin. This meant that they had to divide their feed and energy between the milk pail and regaining their condition. Then, too, most of the cows were due to freshen in the fall which meant that their lactation period was well along and the peak of their production period had already been passed."

Being of an inquiring mind and a boy who follows through, Herbert found out several important facts from his herd management project. 1. That feeding grain to cows on pasture pays not only in better returns during that period, but in keeping the cows in better condition for their next lactation, building a body reserve so that the demands of calving and motherhood upon the cow will not "run her down." 2. That profits in dairying depend on obtaining a maximum production at a minimum feed cost. 3. That changing to a balanced ration late in a cow's lactation period will not necessarily bring immediate increase in production. The only fa comparison for improved feedin practices is to compare with the san period in the following lactatio 4. That the amount of fertility whic is returned to the soil depends c what and how you feed.



3—He took a sampling outfit home from school and collected samples from the morning and evening milking of every cow in the herd.

"I found out that variety is impo tant in the ration," says Herber "The cows like a change occasional and if it is one that suits them the will respond at the milk pail. Anoth thing, you have to be careful not feed your cows too much. You ha to watch them and see that they clea up what you give them. I discovere that it pays to feed all the goo roughage the cows will eat."

How did Herbert tackle this fee ing proposition? How did he figu out the rations and get them to ba ance? How did he cut down on th feed cost and still keep up the pr duction? That last question is mighty important one and mea added profits. With the answers these questions, you boys who are i terested can proceed to apply them c your herd at home.

We might say that "The Feedin of Dairy Cows" has been complete discussed in a series of articles pu lished recently in Hoard's Dairyma under that title, commencing in th October 25th issu last fall. Herbe says that anybo can figure ratio after readin these articles.

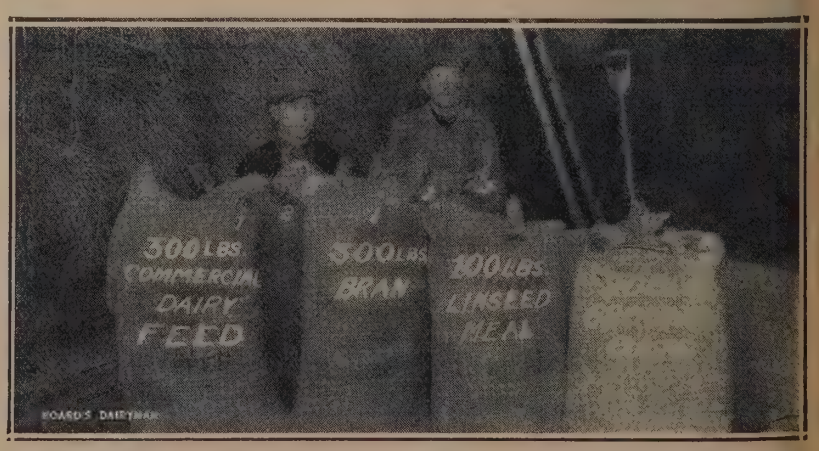
Herbert use Henry and Mor son's feedin standards whic give a range f both digestib protein and tot digestible nutr ents. For instanc there was Sta His figures show her requiremen for maintenan and production b tween 2.112 an 2.424 lbs. of pr tein and betwe 15.9205 and 17.00 lbs. of total d gestible nutrient In like manner determined the r quirements for every cow in the her

But what was Star getting in th way of protein and total digestib nutrients before? Remember, He

(Continued on page 405)



4—Mixing new concentrate combinations on the barn floor, Herbert put his figures to work. "I found out that variety is important," says Herbert. "The cows like a change occasionally and will respond at the milk pail. It pays to feed all the good roughage they will eat."



5—Herbert started his father keeping records and feeding better rations. Mr. Wisch "got the idea" for this mixture from his son's work. While home from college at vacation time Herbert balanced several rations for his dad. Father and son are kneeling behind the feed.

With the Birds at Lake Ripley

ANGIE KUMLIEN MAIN, WISCONSIN

T was with great anticipation that the children and I left the farm to spend the week-end at Lake Rip- in early May, 1926. The children nt out to play in and around the ater of one of the prettiest and fest little lakes in Southern Wisconsin, while I went out to study and enjoy the birds.



ngie Kumlien Main rs. Herbert A.) is wife of a Wisin dairy farmer. uncle and grandher, Kumliens, e well known natlists. Mrs. Main the author of rd Companions."

At dusk a screech owl began his day's work of food hunting, accompanied by weird and wailing cries to his mate and family of owlets in a hollow burr oak tree near the cottage.

At daybreak the next morning I was awakened by the sad wolfish call of a loon from the lake. Hurrying to the window I scanned the surce of the lake for the owner of this imitive cry and with the aid of the ass saw a loon or a great American er riding on the water. Some call s lone cry of the loon a storm sig- but this day was calm and glori- s with sunshine.

I noticed several flickers on the ound in front of the cottage; they med to be very busy at something. closer observation they were seen run their long bills into small ant ls and when the ants rushed out e flickers caught them with their g, sticky tongues. This was quite easy way to get their breakfast.

I never saw so many kinds nor so ny woodpeckers in one small place I saw this morning. Several redded woodpeckers played about the d; the downies and hairies seemed re serious as they hunted their d from the tree trunks. Here were four members of our drum corps one lawn.

These trees being very old and newhat decayed furnished insect d in plenty and many choice nest- sites had been chiseled out from r to year.

Bluejays flew about the place and r into the swamp and back where y were bent on some mischief. eir cries of "Thief, thief" warned smaller birds to be on their guard.

While we sat eating our breakfast the back porch, a beautiful Baltire oriole put in his appearance. gay plumage of flaming orange l black lit up the oak like a bright er. He gave us a sample of his h full voice.

Killdeers flew from the lake shore the field over the way, the while ing their "Killdee, killdee." Here y gracefully ran about picking up ir breakfast on the newly sown field.

Cowbirds stalked about keeping an out for other birds' nests where y might lay their unwelcome eggs. nze grackles walked about, their ow eyes ever on the watch for d. Chippie sparrows were as tame e as they are in my own door d.

ong sparrows, known as the flowof their family, sang their sweet ody. These versatile musicians g in all kinds of weather and are ed for their cheerful dispositions. oing over into the field back of the age I found vesper sparrows who and flew before me, keeping just about so far ahead, their outer white tail feathers identifying them.

In a tall black oak tree, a brown thrasher, from the top most branch, repeated twice over each phrase that he sang. When I said to him, "Who are you?" He sang, "Pretty good fellow, pretty good fellow."

White-throated sparrows or peabody-birds, as they are known in some parts of the country, were on every hand. They sang their famous clear whistled song, the charm of which lies in its rythm. I could easily fit to the song the old time words of, "Old Tom Peabody, Peabody, Peabody."

High overhead a kingbird made known his standing in the bird world as he chased a crow, who was more than twice his size, over the trees in the swamp.

A meadowlark walked around showing his buff, black, and yellow to good advantage. From one of the bogs he lifted his flat head and sang his plaintive song which sounds like, "Spring o' the year."

As we had driven away from home the afternoon before, a western meadowlark had sung for us from near the barn yard his wild, sweet song which is far richer and more musical than our own meadowlark's.

A bobolink, close nesting neighbor of the meadowlark in the meadow, gave me samples of his tinkling music. This great singer is at his best while with us. Here he wears his gay nuptial suit and sings his lively music, while in the South he wears his dull colored coat and does not sing a note.

Barn swallows, tree swallows, bank swallows, and purple martins flew over the meadow with their mouths open for insects.

Several mourning doves flew around the cottage lawn and back and forth to the woods. Their flight was rapid and accompanied by an audible whistling noise.

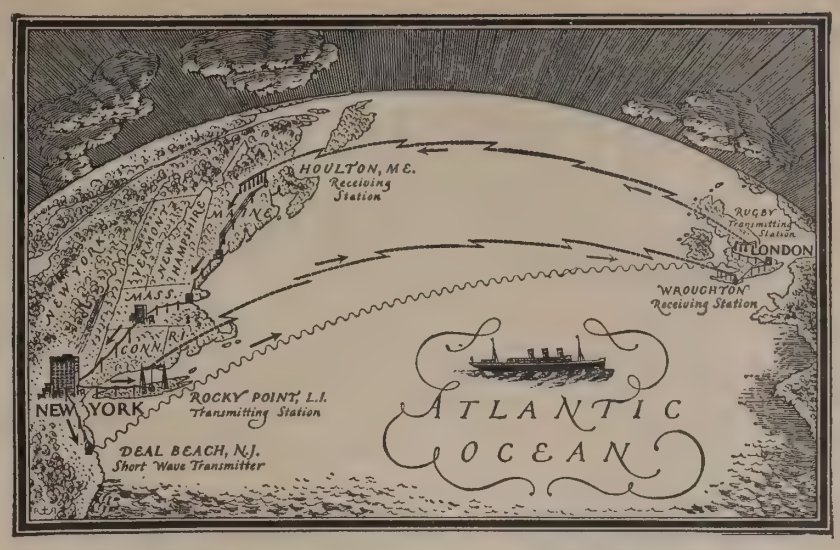
As I neared the swamp I noticed three or four large dark birds flying overhead which at first sight I took to be crows, yet these birds did not fly like crows for they held their wing tips straight down. As they came nearer I noticed that they made curious sounds like "skeow" and a whispered "wowoogt" and a "k'w," which told me that they were not crows. Before I reached the small tamarack swamp, I could see several nests made of twigs that were placed high in the tamaracks.

After a struggle over the bogs, I reached the swamp but the birds became more wary and flew to the tops of the trees where it was hard to see their markings. I experienced a joyous thrill when, with the aid of the glass, I discovered these birds to be green herons. Several of the nests were old and unoccupied. Only three or four pairs of herons were found to be nesting.

I will never forget the picture they made with their glossy, dark green crested heads, the crest feathers falling over their bare necks in the back, their green backs, wings, and tails, rich chestnut on sides of heads and necks, with lower surface of bodies ashy brown, and narrow streak of yellowish white on throats.

Fragrant white violets were growing abundantly in the swamp, although in some places they came up through a carpet of dried tamarack needles.

A kingfisher flew from the lake to his hole in a bank back of the swamp.



The Radiophone's Meaning

An Advertisement of
the American Telephone and Telegraph Company

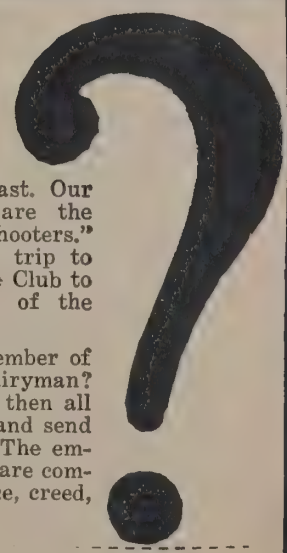
AN ADVENTURE in communication was made last January when transatlantic radio telephone service was established between New York and London. There had been previous tests and demonstrations. Nevertheless, the fact that at certain hours daily this service was made available to anyone in these cities from his own telephone, created such public interest that for several days the demands for overseas connections exceeded the capacity of the service.

It was then demonstrated that there was a real use for telephone communication between the world's two greatest cities. It was further demonstrated that the American Telephone and Telegraph Company, with the co-operation of the British Post Office, was able to give excellent transmission of speech under ordinary atmospheric conditions.

In accord with announcements made at that time, there will be a continued effort to improve the service, extend it to greater areas and insure a greater degree of privacy.

It is true that static will at times cause breaks in the ether circuit, but a long step forward has been made towards international telephone communication and more intimate relationship between the United States and Great Britain.

Have You Joined the Hoard's Dairyman Juniors



We want you with us. Our club is growing fast. Our membership is world wide. Our members are the "doing kind," the "live wires," the "square shooters." A Hoard's Dairyman Junior recently won a trip to Europe given by the American Guernsey Cattle Club to the outstanding Guernsey calf club member of the United States.

Are you under 20 years of age? Is some member of your family a regular subscriber to Hoard's Dairyman? If you can answer these two questions, "Yes," then all you have to do to join is sign the application and send it in. No membership dues, no costs to you. The emblems of our club will be sent to you when you are completely enrolled. Get your watch fob or necklace, creed, and pin right away!

HOARD'S DAIRYMAN
JUNIOR EDITOR
FORT ATKINSON, WIS., U. S. A.
Dear Sir:—

I hereby apply for membership in the HOARD'S DAIRYMAN JUNIORS' CLUB. I agree to read the Junior Department of Hoard's Dairyman regularly and do all I can to make the Juniors' Club a success. Please send me the Watch Fob [ ] Necklace [ ] mark (x) after your choice, the Pin, and the Creed.

My name is ..... My address is .....
[Write distinctly or print] [R. F. D.]
..... I am ..... years old. Hoard's
[City] [State]
Dairyman comes to my home addressed to .....
My favorite breed of dairy cattle is ..... My father's name is
..... Do you belong to a Boys' and Girls' 4-H Club?
..... If so, what kind? .....

4-10-27

Good Fencing Makes Intensive Farming Pay

HAVE you revamped your fences to correspond with the new program of diversification of crops?

If not it's time to do it now.

The man who uses the same ideas and tools of 20 years ago is on the sure road to no profits.

Profits leak through run down fences. Valuable cattle break into growing crops and you lose part of your crops and often valuable animals as well.

Animal losses of this kind would buy a lot of fence. These are losses the farmer cannot recover but he can prevent them.



With the RED TOP Post Driver one man can drive 200 to 300 posts in a day

Red Top
GUARANTEED
Steel Fence Posts

Good fences are not an expense but an investment.

The new method of farming depends on good fences.

With good fences you have "control" of your farming operations. You can rotate, not only your crops but your stock also—giving back to the land much of the fertility taken from it by the crops.

Your stock benefits by frequent change of pasture and disease has less opportunity to get a foothold.

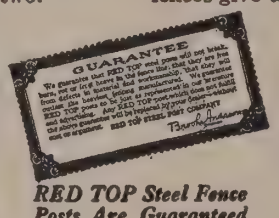
Good fences, too, promote the salvage of grain by turning in stock after harvest—a practice that will almost pay for that fencing the first season or two.

And good fences depend on good posts. Be sure you get RED TOPS—because RED TOPS are made of tough, springy, long-lived railroad steel—a quality that makes it so easy for you to drive RED TOPS through any condition of soil—a quality that makes RED TOPS hold the fence with the same steady security year after year for many years.

RED TOPS outlast 4 or 5 ordinary wood posts. No repairing, restapling nor replacing each year—time and expense saved. And RED TOPS are so easy to drive that one man with a RED TOP Driver, can drive more posts in one day than two men can set ordinary wood posts in a week. RED TOP posts are easily drawn and redriven in new locations—making easy the changing of a fence line or erecting temporary fencing for "hogging off" corn.

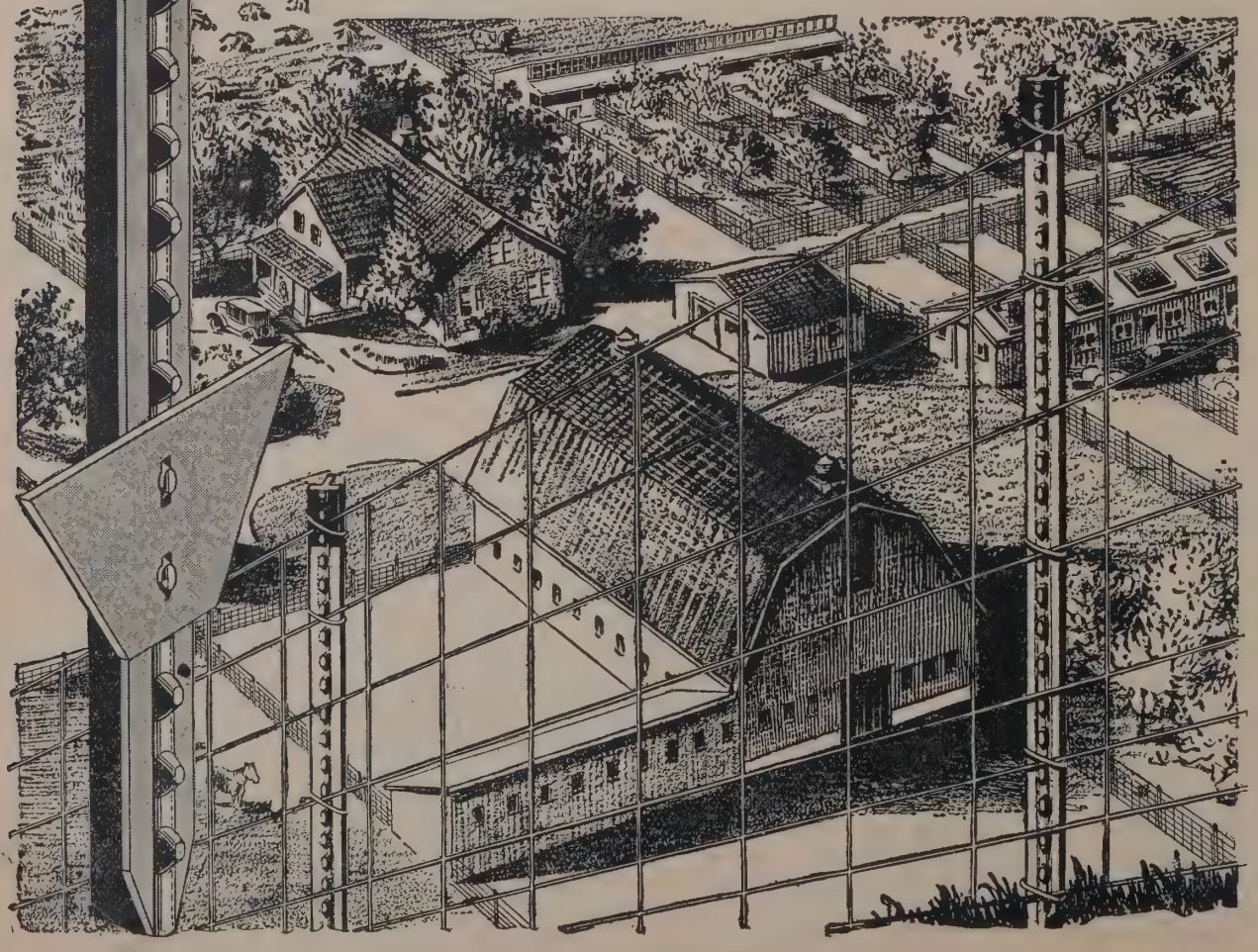
RED TOP posts in boundary, and cross fences give that "well kept" appearance to the farm that substantiates the idea that the farm owner is progressive and successful.

Go to your RED TOP dealer. He *knows* all about fence posts. Ask him to show and tell you why RED TOPS, in the long run, are the cheapest post you can buy.



RED TOP Steel Fence Posts Are Guaranteed

RED TOP STEEL POST COMPANY
38-R South Dearborn Street, Chicago, Illinois



This feathered fisherman had a r
at the end of this dark tunnel.
blind, naked young, when hatch
would probably lie on a pile of
bones. When he came out to ret
to his fishing grounds he greeted
with his noisy rattle as he flew o
the swamp.

A phoebe watched for flying
sects from a wire fence. His sw
dexterous movements as he cau
his prey on the wing made up in p
for his plain looks and petulant vo

A white-breasted nuthatch and
chickadee couple had their nests
holes in the trees near the swamp
pair of bluebirds were building i
hollow fence post. No wonder Th
eau said, "The bluebird carries
heaven on his back."

In a narrow strip of woods r
the swamp I found an olive-bac
thrush, a veery, and a hermit. N
of them sang for me as they do
sing until they reach their breed
grounds.

While passing back through
cottage yard I noticed a wren go
the boat house through a knot h
The owner of the place told me l
that the wrens nested in the
house every year. Wrens and mar
were very numerous at this lake
occupied bird houses put up for th

A red-eyed vireo and a warb
vireo sang persistently from the
oaks and other trees.

A crested fly catcher filled the
with his piercing angry whistle.
wondered if he and his mate w
make use of one of the dese
woodpecker holes in the oaks.

On a horizontal branch of on
the oaks a nighthawk was found
asleep. It was only an accident th
found him, his wood coloring ma
ing so well the branch on whic
was resting.

There were seven distingui
warbler travellers resting and f
ing in the trees and bushes.
were the cape may, myrtle, the b
and white creeping, black-thro
blue, the palm, the redstart, and
handsome blackburnian. In a few
the lake would know them no
until fall when they would again
for a short time on their return

Following the shore for a m
entered Kargen's woods where
shore was marshy and covered
rushes where I hoped to find some
ter birds. I found a seat on or
the Indian effigy mounds belongi
a group here, which was built in
historic times by the Winnebag
dians, on a high bank overlookin
marshy shore. Here I watched
listened to the red-winged black
sing in chorus as they teetered
swung on the rushes. To me
spring song of the redwings is
of the pleasantest sounds of na
the liquid notes of which sugges
swishing of water.

Black terns flew over the
where they gracefully skimmed
water to pick bits of food fron
surface.

Two pied-billed grebes or helld
showed me how they came by
common names as they disapp
under the water and came up
a ways from where they went do

A couple of coots or mudhens
out into the lake and back int
rushes again where they gabbled
the others.

A king rail was concealed in
rushes but I knew him by his cl
ing, hen-like call.

With a last fond gaze at this
lake with its fringe of many kin
trees mirrored in the water, I le
home with an added love for the
out of doors.

Work is kind to its friends but
ing to its enemies.

A Farm Boy Follows Through

(Continued from page 402)

said she was getting about gh protein but the total digesti- nutrients were "lamentably ." This is Star's old ration:

	Lbs. Fed	Lbs. Protein	Lbs. T. D. N.	Cost
a	6	.636	3.034	$0.048
ilage	30	.33	5.04	.105
	3	.375	1.713	.0465
d meal	2	.604	1.39	.05
		1.945	11.173	.2495*

25 cents.

is ration is light in amount, lacks riety of concentrates, and while produced 26 lbs. of 4.4% milk is ration when the first test was , it is a question as to how long ould continue this production on ld ration without drawing heav- her own body for milk material. ration is cheap—too cheap in the run. When you get a properly ced ration that costs around 30 a day, that is about as cheap economically possible when the are not on pasture. Now, see Herbert worked that ration over lance it:

	Lbs. Fed	Lbs. Protein	Lbs. T. D. N.	Cost
a	10	1.06	5.05	$0.09
	31	.33	5.04	.105
	2	.250	1.142	.031
d meal	1	.302	.8565	.025
y	4	.28	3.02	.062
	3	.194	1.312	.0525
		2.416	16.4305	.3553

u will notice he has 10 lbs. of ntrates. In reality he only fed bs. of this mixture, which brings ost down to a little better than nts. Not bad. The 10 lbs. given e ration indicate the proportions e concentrates mixture. Herbert ncreased the cost of the old ra- some, but look at the results— concentrates instead of two, means more variety and great- latability. Then he has brought at total digestible nutrients col- five pounds which brings it up requirements. The nutritive ra- r this ration is 1:6.2.

ereas Star was producing 1.14 f butterfat daily, we find that in following month she produced lbs. butterfat daily and held up during the entire period Herbert l, producing over a pound of but- a day.

haps you think there isn't h difference in butterfat produc- o pay for the extra feed. Her- answers by saying, "Wait 'til spring. We'll see what she does then. Star is pretty well along in her lactation period. We're building for her next lactation now. It's only fair to judge the results of better feeding by what she does at a similar stage in her next lactation." Herbert followed through by analyzing his results. Time has proved his conclusions correct.

There was one cow in the herd, Jewel, that showed a good increase in production under Herbert's management. During her first month on test Jewel produced 31.24 lbs. of butterfat. In July she produced 40.54 lbs. of butterfat, and in August held up to 39.5 lbs. of butterfat.

The herd was turned out to pasture May 12 and the ration for the next week consisted of 6 lbs. alfalfa hay, 5 lbs. commercial dairy feed, and 5 lbs. ground oats. This figured 1.53 lbs. protein and 10.38 lbs. total digestible nutrients at a cost of about 21 cents.

On July 1, Herbert mixed 200 lbs. ground oats, 300 lbs. hominy, 150 lbs. commercial dairy feed, 200 lbs. of bran, and 100 lbs. linseed meal, making 950 lbs. total. Herb figured that in a ton of this mixture there would be 252.5 lbs. of protein, costing 14.3 cents a pound, and 1,473 lbs. of total digestible nutrients, costing 2.47 cents a pound.

In another ration mixed July 17, Herbert was able to cut down the cost of his protein to 11.8 cents a pound and his total digestible nutrients to 2.44 cents a pound. This ration contained 200 lbs. each of bran, gluten feed, ground oats, and commercial dairy feed, and 100 lbs. each of hominy and linseed meal.

The ration mixed August 4, contained 300 lbs. of a combination of corn and oats, 300 lbs. bran, 200 lbs. gluten feed, 100 lbs. each commercial dairy feed, and linseed meal. The protein cost 11.23 cents a pound and the total digestible nutrients cost 1.785 cents a pound.

Thus Herbert cut down the cost of the protein he was feeding the cows from 14.3 cents a pound to 11.2 cents a pound (3 cents a pound) and the cost of total digestible nutrients from 2.47 cents a pound to 1.78 cents a pound.

What Herbert Wisch has done to improve herd management at home can be done by other farm boys. Herbert makes play out of work. He has vision, ambition, and perseverance, three essentials for success. Following through wins ball games. It also wins in the game of life. Here's to all farm boys who follow through.

Our Review Column

egular feature of the junior department, ng the contents of Hoard's Dairyman previous issue. Let's talk it over.]

the March 25th issue are the ading articles of two interest- series—"Trailing Holsteins to America" and "The Breeds of Cattle."

ere did the Jersey breed origi- On the Island of Jersey, the t of the group of Channel Is- which lie between England and e. (See page 308.)

en was the first importation to America? In 1850, by r, Buck, Norton, and others in Connecticut.

w large is the Jersey? It is the st of the major dairy breeds. alves weigh from 40 to 75 lbs. th, mature cows average about bs., and mature bulls average 1,500 lbs.

y should the dairy farmer feel 926 was kind to him? Because the average profits above feed cost were the largest they have been for some years. (See page 310.)

Name the leading Register of Merit sire. Pogis 99th of Hood Farm has 115 R. of M. daughters.

What was the 1926 cow population of the U. S.? The number of cows in the United States has decreased from 22,481,000 cows on January 1, 1925, to 21,824,000 January 1, 1927, a decrease of 675,000 head in 2 years.

What have the farmers of Shelby County, Kentucky, learned about soy beans? That the right variety of soy bean hay is an excellent substitute for red clover in feeding dairy cows. (See page 322.)

How can thumps in pigs be prevented? The best known way is to force the little fellows to take exercise, and give them as much direct sunlight as possible. (See page 347.)

Why does Charles H. Chesley feed cod liver oil to his flock? Because he finds it one of the best preventives for disease and trouble in chickens. (See page 352.)

How does he feed the oil? The last feeding of scratch grain fed just before dark each day is moistened with the cod liver oil. For young chicks the rate is one pint of cod liver oil for every 500 chicks and for the laying flock it is one pint for every 100 birds.

Little Talks for Juniors

Smiles. What is a better grouch chaser than a smile? Two smiles. When you're feeling kind of blue, and the world looks upside down to you, try a smile. For the fellow really worth while is the fellow who can smile when things don't look their best. If you doubt, put it to the test.



Good fences bring about better farming resulting in better crops at lower cost. They save freight and hauling costs because crops are marketed as pork, beef, eggs, wool and dairy products. They distribute the work and save hired labor. Decide now to make Super-Zinced Fences help you make bigger profits for this year and many years.

SuperZinc-ed REG. TRADE MARK

Pittsburgh Perfect and Columbia Fences

repay their cost many times over because they modernize the farm, permit diversified farming, increase farm profits and add to the value of the property. They are made in our own mills from the finest steel and are protected against rust by the heaviest armor of zinc that can be successfully bonded to wire.

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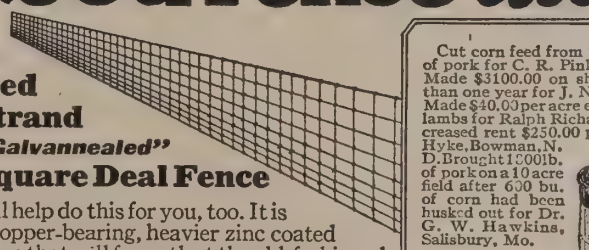
Pittsburgh Steel Co.
701 Union Trust Building
Pittsburgh, Pa.

Gentlemen: Please send me FREE, your new booklet "Farm Records", also Super-Zinced Fence Catalogue.

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Good Fence *did this*



Red Strand "Galvannealed" Square Deal Fence

will help do this for you, too. It is a copper-bearing, heavier zinc coated fence that will far outlast the old-fashioned kind. It is hog-tight, bull-proof, good-looking. With it you can hog down; save fallen grain; missed corn; rotate crops, etc., at a good profit. Carl Schultz, Russell, N. D., says: "Diversified farming and good fences will give an income during crop failures as well as in good years."

Cut corn feed from 11 to 8½ bu. per 100lb. of pork for C. R. Pinkney, Fairmont, N. D. Made $3100.00 on sheep and goats in less than one year for J. N. Simpson, Eden, Tex. Made $40.00 per acre extra profit on hogs and lambs for Ralph Richards, Fairbank, Ia. Increased rent $250.00 per quarter for Joseph Hyke, Bowman, N. D. Brought 10001b. of pork on a 10 acre field after 600 bu. of corn had been husked out for Dr. G. W. Hawkins, Salisbury, Mo.



You know these things: But just to refresh your memory, send for booklet that tells how to fence for profit; another that shows how to test fence wire; and a catalog that shows all kinds of fence. Ask your dealer for these and Red Strand fence prices—or write to us.

Keystone Steel & Wire Co.
1779 Industrial St. Peoria, Illinois

79

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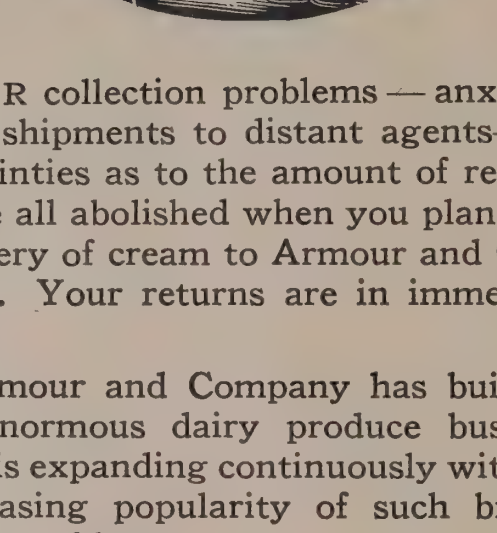


Send for my Free Catalog—see how my Direct From Factory Plan of dealing makes my prices lower, and I pay the freight. Biz variety of styles in both Metal and Roll—splendid quality—Rock bottom prices. Satisfaction guaranteed. 24-hour service.—Jim Brown, Pres.

The Brown Fence & Wire Co.
Dept. 7027 Cleveland, Ohio

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

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YOUR collection problems — anxieties over shipments to distant agents—uncertainties as to the amount of returns —are all abolished when you plan your delivery of cream to Armour and Company. Your returns are in immediate cash!

Armour and Company has built up an enormous dairy produce business that is expanding continuously with the increasing popularity of such brands as Cloverbloom.

Armour is able to buy on a fair cash basis because we can market fresh dairy produce—such as butter, eggs, dressed poultry — to all parts of the United States by means of our efficient refrigerator-car service. We draw our supplies direct from dairyman and farmer, *providing them with an uninterrupted cash market all through the year!* We find your markets through the co-ordinated efforts of an army of 60,000 skilled workers.

ARMOUR AND COMPANY

Chicago

We Needed One and So Do You

Many times at sales, farmers' meetings, on the street, in hotels, on trains and even at dances we have been asked for information regarding the Hoard's Dairyman herd. We missed many sales because we could not give our friends and new acquaintances all the information they wanted in definite form. In order to "be prepared" for these emergencies we planned the Hoard's Dairyman Vest Pocket Herd Book. The demand for them is exceeding our highest expectations The investment of $2.00 will come back to you many times and the satisfaction of having "your figgers" right handy is worth much more than the cost of the book.

Will accommodate 100 head. Loose leaves (easy to remove but firm during use); good leather cover; index, sketches, records breeding, service records, gestation table and blank pages for memoranda. All sent postpaid for $2.00.

A BOOK YOU WILL CARRY EVERY DAY

HOARD'S DAIRYMAN, Fort Atkinson, Wisconsin

DAIRY MARKET NEWS

Connecticut March Milk

The Connecticut Milk Producers' Association announces the following prices for Grade B milk delivered during March at market milk centers:

All milk sold in fluid form, 9.5 cents per quart for 4 per cent milk, and 4 cents per point allowed for other tests; all milk made into cream that is sold in fluid form, 10 cents per pound fat above the average monthly price of 92-score butter on the Boston market; all milk made into butter, at a price per pound fat equal to the month's average on 92-score butter in Boston.

March Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 110 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributors' country plant:

Table I—Producers' Prices by Geographic Sections.

Sections	Range of prices per cwt.	Comparison of average prices 1926 Mar.	1926 Feb.	1926 Mar.
New England	$2.76—3.95	$3.33	$3.34	$3.46
Middle Atlantic	2.35—3.15	2.83	2.85	2.68
E. No. Central	1.75—3.15	2.57	2.58	2.55
W. No. Central	1.66—3.10	2.33	2.34	2.22
So. Atlantic	2.80—5.35	3.60	3.68	3.74
E. So. Central	2.36—3.39	2.68	2.64	2.51
W. So. Central	2.05—2.80	2.38	2.44	2.72
Mountain	1.87—3.20	2.36	2.37	2.44
Pacific	1.95—3.16	2.55	2.58	2.83
United States	1.66—5.35	2.73	2.79	2.78

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers.

Table II—March Producers' Prices f. o. b. City and Consumers' Prices.

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.	$3.42—3.90	17
Phoenix, Ariz.		10—12.5
San Diego, Calif.		15
San Francisco, Calif.	3.11	14
Denver, Colo.	2.10	12
Hartford, Conn.	4.22*	16
Washington, D. C.	3.60*	15
Jacksonville, Fla.	4.13—4.53	20—21
Atlanta, Ga.	2.80	
Chicago, Ill.		14
Indianapolis, Ind.	2.10	12
Des Moines, Ia.	2.65*	12
Topeka, Kans.	2.10—2.20	10
Louisville, Ky.	2.54	13
New Orleans, La.	3.04	14
Baltimore, Md.	3.55*	14
Boston, Mass.	3.62*	14
Detroit, Mich.	3.00*	14
St. Paul, Minn.	2.70*	11
St. Louis, Mo.	2.85	13
Butte, Mont.	2.60	13
Lincoln, Nebr.	2.01	10
Trenton, N. J.	3.41	13
New York, N. Y.		15
Cleveland, O.	3.24—3.34	14—15
Tulsa, Okla.	2.45—2.63	15—20
Portland, Ore.	2.25—2.30	12
Philadelphia, Pa.	3.49*	13
Pittsburgh, Pa.	3.90*	15
Providence, R. I.	3.62*	14.5
Sioux Falls, So. Dak.	2.75*	12
Memphis, Tenn.	2.58—2.73	15
Dallas, Tex.	2.60	13
Salt Lake City, Utah	2.45	10
Richmond, Va.	3.93*—4.05*	14
Seattle, Wash.	2.79*	12
Spokane, Wash.	2.15	10
Milwaukee, Wis.	2.90*	11

*Basic prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at th ers' country receiving stations or at th ducers' railway shipping points, as also f. o. b. city, are given in Table III:

Table III—March Prices at Country Statio

Cities	At country stations	Freight zone which prices a
New Haven	$3.70*	28c rate
Washington	2.02*	35c 10-gal. ca
Chicago	2.50	All
Baltimore	2.97*	35c rate
Boston	2.85*	181—200-mile
St. Louis	2.25	34c rate
Trenton	2.85*	41—50-mile z
Buffalo	2.62*	28c rate
New York	3.00*—3.05*	201—210-mile
Cleveland	2.86—2.93	All
Philadelphia	2.91*—2.95*	51—60-mile z
Pittsburgh	3.15*	All
Scranton	2.66	30c rate
Dallas	2.10—2.20	All

*Basic prices for fluid milk. †53c

The following net prices were reporte to members of producers' associations ing the cities listed. Prices announced vance for such cities are usually of tw es, "Basic" and "Surplus," the former ing to that portion of the milk which in fluid form for city wholesale and trade, and the latter applying to that classed as "Surplus," which is used for facturing purposes:

Table IV—Net Prices Paid Members of Prod Associations for 3.5% Milk.

Cities	Paid*	Period	Previously ann prices for same Basic	Surp
Hartford	$3.77	Jan.	$4.22	Butter n
Baltimore	3.45	Jan.	3.55	Butter n
Boston	2.45†	Jan.	2.88	Butter n
Detroit	2.84	Jan.	3.00	Butter n
St. Paul	2.48	Jan.	2.70	All milk
New York	2.67‡	Jan.	3.00	$2.31—2
Cleveland	2.98	Jan.	3.34	Butter n
Philadelphia	3.46	Feb.	3.49	Butter n
Pittsburgh	3.42	Jan.	3.90	Butter n
Pittsburgh	3.38	Feb.	3.90	Butter n
Milwaukee	2.66	Feb.	2.90	Butter n

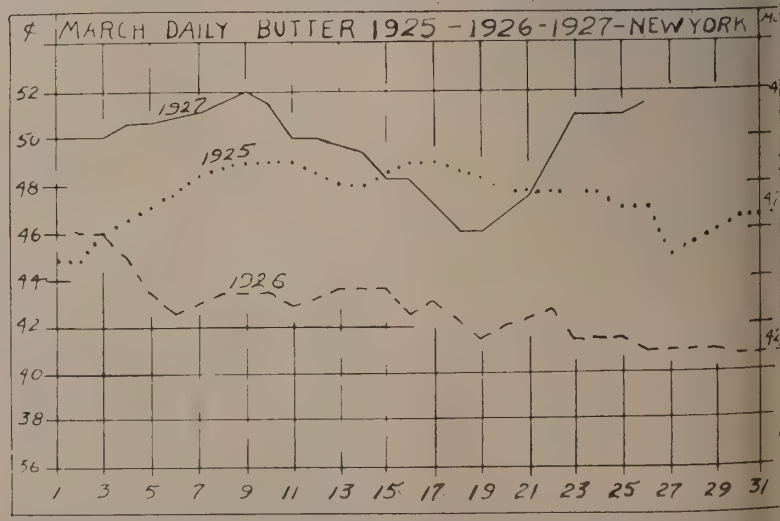
*F. O. B. City unless otherwise indic †181—200-mile zone. ‡201—210-mil

Table V gives for a few cities the prices of special milk, certified milk, buttermilk, cottage cheese, and cream 18 to 25 per cent butterfat.

Table V—March Retail Prices to Const

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.
	Cts.	Cts.	Cts.	Cts.
Akron	16—18	20	8	10—12
Asheville	19	25		15*
Baltimore		30	14	15*
Boston	18½	26	10	
Buffalo	14	26	10	15
Chicago	17	25		15*
Cleveland	20	25	11- 13	
Columbus	17	25	12	15
Des Moines	14—25		11	14
Detroit		25	35	
Duluth	14	25	8	
El Paso	17		10	20
Hartford	20—25	25—35		
Indianapolis	16		10	20
Jacksonville	25		10—12	30
Kansas City	15	25	10	10*- 20
Louisville	17	24	13	
Memphis		30	6—7	20
Miami	30—35	35	15—20	35
Milwaukee	14—18	25	6	9—10
Minneapolis		22	13	12*
New Orleans	18	31	14	
New York	30	28	11	
Omaha	15	20	10	15*
Philadelphia	15—16	30	9—13	
Pittsburgh		25	10	
Salt Lake City				
San Diego	16—20	28—32	9	20
San Francisco		25	14	20
Scranton		25	8	10
St. Louis	13	25	10—18	15
Trenton	17	30	13	
Trinidad	20	25	10	
Washington	18—23	30	15	15—20
Wilmington	20		10	12

* 12 oz. Package. † 18 to 25% fat.



Imports and foreign offerings were the primary cause of a recession of six cents the middle of March, the sharp advance being due to a well maintained demand unusually small supplies available. Storage and production are below last year.

ne Feed Market Situation

By the Grain, Hay and Feed Market News
ice, U. S. Department of Agriculture.)

arch 25—Generally mild weather and de-
ng prices for feed grains weakened the
ket for feedstuffs the latter part of March
prices of most feeds worked somewhat
r. Buying by retailers continued on a
l to mouth basis both because of the ap-
ch of pasturage in the more southern
s and because of lower prices of corn and
Pastures and other vegetation in the
ral and southern states are about two to
weeks ahead of an average season, al-
gh recent cold weather has checked
th in some areas.
oduction of wheat feeds continues of only
volume but the output has been fully
l to the limited consuming demand and
s have made slight declines in the past
weeks. Production was increased the sec-
week in March but with recent declines
ne wheat market millers complain of dull-
in the flour market.
re liberal offers of cottonseed meal from
ers, together with efforts of some resell-
o dispose of their holdings, forced prices
his feed about $1.50 lower than early in
h. Some mills withdrew their quotations
the government report showed a smaller
n crop than the estimate made in Decem-
and the volume of trading was reported
light. Prices of cottonseed meal, however, are near the level of a year ago and although the stocks of meal in crushers' hands on March 1 were smaller this year than last, yet crushers had about 10 per cent more seed on hand at this time in 1927 than in 1926.

About 7 per cent more cake and meal was produced in the seven months, August—February, this season than in the corresponding time last season, but about 27 per cent more was shipped out, reducing the stocks on hand March 1 to around 154,000 tons compared with 357,000 a year ago.

Linseed meal has declined slightly in sympathy with other feeds. The output of linseed cake and meal has been limited because of a rather slow demand for linseed oil. Export inquiry was slack in eastern markets and with a slow domestic demand offerings are liberal. Prices held relatively steady in the Central West largely because the output was being applied on contracts. Production at Minneapolis continued light and a few cars of linseed meal have recently been shipped into this market from outside mills.

Prices of hominy feed have worked sharply lower at most markets in sympathy with the weakness in corn prices. Offerings in eastern markets have been liberal and there was practically no demand for yellow hominy feed at Buffalo. Offerings of this feed were limited at Omaha but the Cincinnati market was relatively stronger than other points.

Gluten feed quotations were unchanged but demand fell off. Offerings in eastern markets were liberal and resellers were finding it hard to make sales even at slight discounts under manufacturers' prices. Demand, however, seemed fair in the Central West and the output there appeared to be well absorbed.

Alfalfa meal quotations were reduced about 50c a ton at some markets in sympathy with the lower prices now prevailing in some grades of alfalfa hay but demand continued inactive. Mills in the Southwest have large stocks of both meal and of alfalfa hay on hand and hay dealers were of the opinion that there were fair amounts of alfalfa still to come forward from Colorado, much of which will be suitable for milling purposes.

Tankage quotations held unchanged at $75 a ton at the principal markets, and reports indicated that the limited offerings were being well absorbed.

	Boston	Buffalo	Philadelphia	Chicago	Minneapolis	Omaha
Bran*	35.00	30.50	34.00	28.25	25.75	
Hominy	33.00	29.50	31.00	27.50		27.00
Middlings	35.00	31.50	35.75	30.25	27.75	
43% C. S. meal	42.00		40.50	37.50		36.60
34% L. S. meal	50.00	45.00			47.75	53.10
Gluten feed	39.90	36.65	38.85	32.75		

*Standard spring bran. Hard winter wheat bran was $34.50 at Philadelphia and $26.25 at Omaha.

Butter and Cheese in March

Butter markets in March were erratic, opening at 50 cents, rising to 52 cents on the 9th, falling to 46 cents on the 18th, and again reaching 52 cents on the 28th.

Butter markets at this season of the year are very sensitive to the supply and react quickly to any accumulation or rumor of increased supplies. The approach of increased production makes dealers hesitant to accumulate supplies over their immediate needs. This year the situation is aggravated by the ability of foreign butter to scale the tariff wall, both actual imports and offerings accounting largely for the declines that took place. These were temporary in their effect, and at the close of the month the sharp advance was due to a well maintained consumptive demand, to a storage supply that is unusually low, and to production being lighter than usual.

Cheese prices averaged 22.75 cents on the Wisconsin boards, registering a decline of a quarter of a cent during the month. This average is two cents under February, but is still nearly two cents above the average for March last year.

February Dry Milk

(From Report by U. S. Dept. of Agriculture)

The wholesale prices given below are based on reports from manufacturers governing actual sales f. o. b. factory during February:

Dry Skimmilk: Prices ranged from 7.5 cents to 12 cents for dry skimmilk in bulk, averaging 8.9 cents a pound for sales, totaling 5,937,760 lbs. When packed in one-pound cans the price reported was 32.1 cents a pound.

Dry Whole Milk: Prices ranged from 26.5 cents to 28.5 cents for dry whole milk, averaging 27.1 cents for sales totaling 431,029 lbs. When packed in one-pound cans the price reported was 48.5 cents a pound.

Dry Buttermilk: Prices ranged from 6 cents to 10.5 cents for dry buttermilk in bulk, averaging 9 cents a pound for sales totaling 2,276,316 lbs. When packed in one-pound cans the price reported was 10.9 cents a pound.

League February Price

The Dairymen's League of New York paid a net pool price of $2.67 per hundred pounds 3.5 per cent milk in the 201—210-mile zone.

For calf feeding

¾ of a pound of

DRY SKIM MILK

in a gallon (8 lbs.) of water equals fresh skim milk for calf feeding.

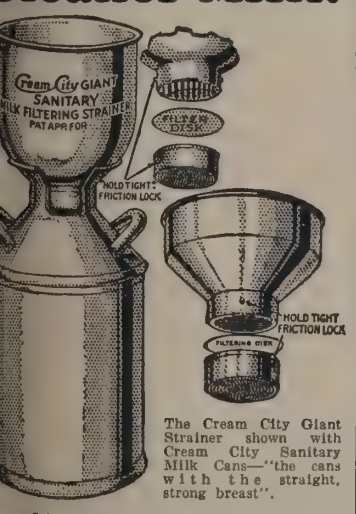
With the "minimum milk method," using dry skim milk, the man who sells whole milk can raise heifer calves from his best cows.

Write today for proven feeding suggestions (Bulletin 301) and where to buy dry skim milk. Please give number of calves you have to feed.

AMERICAN DRY MILK INSTITUTE
A Non-profit Association of Manufacturers
160 North LaSalle St., Room 720-A
CHICAGO

Poultry Raisers: Dry skim milk is excellent also for poultry; one lb. of it to 10 pints of water or dry in mash. Ask for Bulletin 201.

More Profits from Cleaner Milk!



The Cream City Giant Strainer shown with Cream City Sanitary Milk Cans—"the cans with the straight, strong breast".

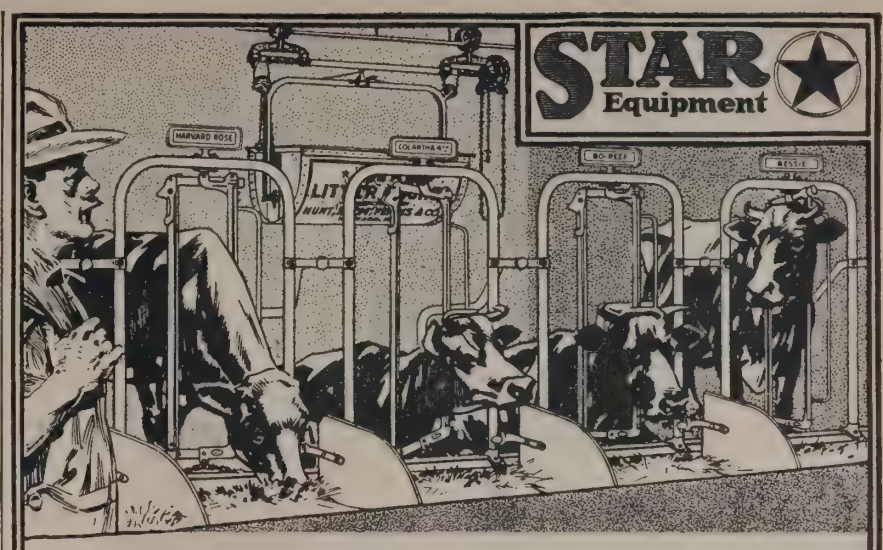
Two 14-quart pails can be poured into the Giant at one time

The Cream City Giant actually filters the milk, removing every particle of foreign matter. Contamination is removed at its source—pure milk can be kept sweet much longer.

Large, strong, seamless. Heavily retinned—indestructible. Two styles. The Giant for large production—No. 1090 for the small farmer. Both are easy to keep clean and sanitary.

Get bigger sweet milk profits!
Write for catalog.

Mader, Paeschke & Frey Co.
838 15th St., Milwaukee, Wis.
Please send me your catalogs on Milk Cans and Milk Filter.
Name .....
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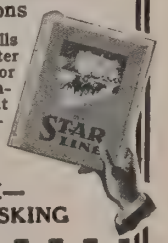
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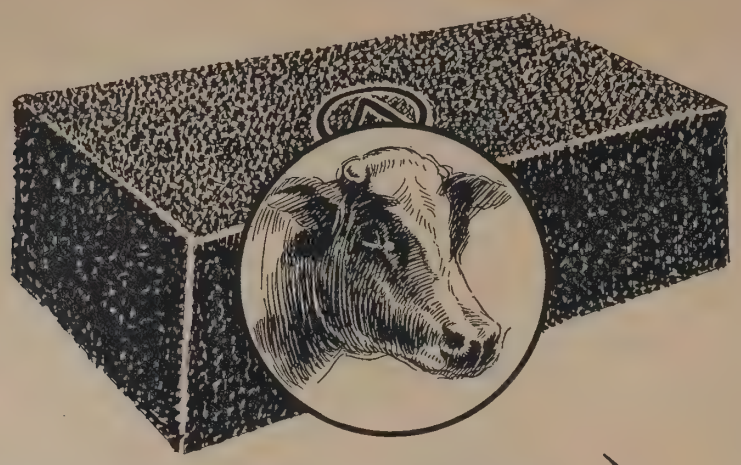
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SALE ANNOUNCEMENTS

April 12—Holsteins. Lake Mills, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 13-14—Holsteins. Madison, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 15—Holsteins. Reedsburg, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 16—Holsteins. Mauston, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 18-19—Holsteins. Fond du Lac, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 20—Holsteins. Marshfield, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 21—Holsteins. Neillsville, Wis. Wisconsin Holstein Sales Association. J. R. Garver, Madison, Wis.
April 21—Grade Guernsey Dispersal Luther Rogers Herd at Union Stock Yards, Chicago, Ill. Reid Murray, Sale Manager.
April 22—Holsteins. Menomonie, Wis. Wisconsin Holstein Sales Association, J. R. Garver, Madison, Wis.
April 25—Holsteins. U. S. National Blue Ribbon Sale at Oconomowoc, Wis. Haeger, Baird & Darcey, Sale Mgrs.
April 26-27-28-29—Holsteins. U. S. National Spring Sale at Waukesha and Watertown, Wis. Haeger, Baird & Darcey, Sale Mgrs.
April 28—Guernseys. Dispersion of E. B. Sawyer and A. H. Hinman herds with a consignment from Brant Rancho. Fond du Lac, Wis. Chas. L. Hill, Sale Mgr.
May 3—Guernseys. South Carolina Guernsey Breeders' Ass'n. at Columbia, So. Car. A. L. James, Sale Mgr., Darlington, S. C.
May 4—Guernseys. South western Wisconsin Guernsey Breeders' Sale at Livingston, Wis. Chas. Wilkins, Platteville, Wis., Sale Mgr.
May 5—Holsteins. Echoland Dispersal (Dr. Egil Boeckmann), White Bear, Minn.
May 7—Guernseys. Vernon County Guernsey Breeders' Consignment Sale, 75 head, Vernon County Fair Grounds, Viroqua, Wis. E. W. Schelling, Sales Mgr
May 9—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.
May 12—Guernseys. National Guernsey Sale at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
May 13—Guernseys. Coventry—Dunwalke—Florham—Rockingham, Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sales Mgrs.
May 14—Jerseys. Vernon County Jersey Breeders' Consignment Sale of 75 head, both grade and pure-breds, Fair Grounds, Viroqua, Wis. E. W. Schelling, Sale Mgr.
May 24—Jerseys. First Annual Sale of Belswood Jerseys, Waukesha, Wis. A. F. Block, Mgr.
May 25—Guernseys—Fond du Lac County Guernsey Sale at Fond du Lac, Wis. Chas. L. Hill, Sale Manager.
May 26—Guernseys. Chippewa Valley Guernsey Sale, Eau Claire, Wis. R. H. Loether, Mgr.
May 27-28—Holstein Dispersal. Grahamholm Farms, Rochester, Minn.
May 31—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. M. B. Wood, Sale Mgr.
June 2—Holsteins. National Holstein Sale at Springfield, Mass.
June 2—Guernseys. Highlands Dispersion, W. H. Gratwick, Owner, at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 9—Ayrshires. N. E. Ayrshire Breeders' Sale at Springfield, Mass., W. E. Brigham, Mgr.
June 15—Guernseys. Breidablik Guernseys at Auction. Breidablik Farm, Wilmington, Del. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 15-16—The National Ormsby Sale at the Minnesota State Fair Grounds, Minneapolis, Minn. Melin—Petersen Co., Sale Mgrs.
June 16—Guernseys. Louis Merryman's 16th Semi-annual Sale, Timonium, Md. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.



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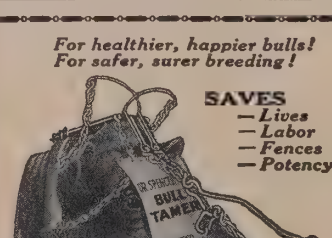
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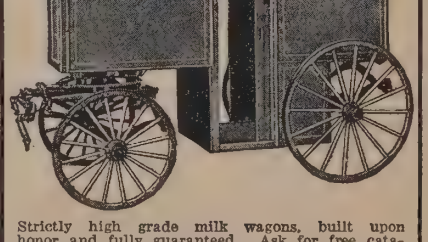


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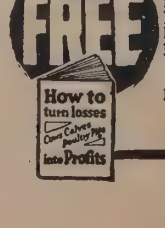
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COW TESTING ASSOCIATIONS



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk Lbs.	Ass'n. Report Ave. fat Lbs.	High Herd Breed	High Herd No. of cows	High Herd Ave. milk Lbs.	High Herd Ave. fat Lbs.	Owner
Minn.	Howard Lake*	Feb.	388	731	32.3	G. J.	14	785	46.7	L. Stifter
"	Pope Co.*	"	341	550	21.7	H.-S.	18	926	31.3	A. J. Winges
"	Watonwan Co.*	"	410	644	26.0	J.	18	710	36.2	Bragger & Kowd
"	Morrison Co.*	"	350	668	26.0	G. H.	13	1110	40.1	Swanson Bros.
Wash.	King Co.	"	688	858	32.7	R. H.	43	1283	41.9	Hollywood Farm
Utah	Cen. Cache Co.	"	573	751	24.3	H.-S.	8	982	41.2	L. Peterson
"	Wells.-College Ward*	"	565	612	23.0	H.	12	1132	39.9	K. Murray
Md.	Anne Arundel	"	336	513	20.5	H.	9	775	32.4	B. L. Duckett
Colo.	Mesa Co.	"	359	598	23.7	G. J.	10	806	41.1	G. N. Pond
Mo.	Harrison Co.	"		323	17.6	R. J.	8	820	41.1	G. & A. Frank
"	Laurence Co. 1	"	283	474	19.9	M.	16	600	30.1	R. D. Kirby
Nebr.	Lancaster	"	486	643	25.3	H.	8	1338	38.6	W. W. Rolafson
Vir.	Bote.-Roanoke	"	341	670	25.8	J.-G.	11	672	34.1	P. W. Pettit
"	Prince William Co.	"	614	704	26.7	M.	20	1053	40.9	Harley & Kline
"	Loudoun 2	"	602	525	23.7	M.	23	804	36.3	Myers Bros.
Ida.	Weis.-Pay.-Gem Co.*	"	1113	524	22.3	R. H.	11	1030	35.9	A. Schuler
Iowa	Sac Co.*	"	340	651	25.7	R. H.	9	1156	41.4	H. C. Hoft, Jr.
Ind.	Elkhart Co.	"	315	479	21.7	G. G.	10	764	37.5	H. Kilmer
"	Wayne*	"	402	592	24.3	R. J.	7	877	38.5	G. Abel
Kans.	Dickinson*	"	308	722	26.8	R. H.	11	1088	36.5	Y. A. Engle
Texas	Wise Co.*	"	300	413	21.1	J.	6	776	41.0	Kelly & Sons
Ohio	Wayne*	"	316	759	30.3	R. H.	7	1227	49.6	O. L. Thomas
N. D.	Gr. Grand Forks	"				G. H.		917	37.9	H. G. Pester
Wash.	Cowlitz Co.	"	515	612	24.9	H.	19	973	34.8	J. E. Smearman
"	Lewis Co.*	"	321	729	30.1	R. H.	20	1161	39.8	H. Bouchard
Wis.	Rockfield	"		704	25.6	H.	18	1049	35.8	Mrs. P. Nehrbas
"	Richland*	"	575	530	19.4	G.	13	786	33.8	W. C. Taylor
"	Poyn.-Columbia City*	"	459	835	33.3	R. H.	12	1198	42.7	W. W. Curtis
"	Ham.-Baldwin*	"	401	720	28.4	G. H.	11	1128	38.7	B. Van Kooten
"	Denmark*	"	467	593	21.3	H.	23	992	35.0	H. Hansen
"	Wau.-Montana*	"	465	653	24.9	R. H.	14	894	31.2	Krause Bros.
"	Oak.-Tomah-Warren*	"	502	618	26.8	H.	8	1445	48.6	N. S. Wakifield
"	Union-Waupaca Co.*	"	338	704	25.7	H.	10	1520	49.1	L. P. Much
"	Madson-Valders*	"	384	638	25.6	H.	8	961	33.9	C. M. Madson
Mich.	Osceola-Reed City*	"	234	504	23.0	G. H.	5	1330	49.6	W. Marcus
"	Kent-Alto*	"	191	610	27.7	R. J.	7	818	45.4	D. J. Dinsen
"	Chippewa*	"	275	550	19.9	H.	9	798	26.1	A. Talsma
"	Cheboygan*	"	231	392	15.2	G.	7	730	35.7	H. J. Bonnett
"	Branch Co.	"	210	434	24.0	J.	4	884	48.3	R. A. Warner
"	Barry Co. 1*	"	295	605	24.0	H.	8	1068	40.3	A. C. Clark
"	Cass*	"	220	569	24.9	R. G.	7	639	35.1	Sunny Side Farm
"	W. Oceana*	"	204	650	31.3	R. J.	5	848	44.3	H. Meyers
"	Macomb 3*	"	258	568	21.8	H.-J.	13	1222	42.3	A. Fistler
"	Ionia-Belding*	"	376	794	28.1	R. H.	57	1314	42.3	Mich. Reformato
"	Kalamazoo 2*	"	325	495	22.2	J.	8	725	39.1	R. W. Weinberg
"	Genesee 2*	"	213	705	26.1	H.-J.	4	1065	38.1	J. Copeland
"	No. Berrien*	"	231	580	25.9	R. G.	9	750	35.8	C. Hennesey
"	Elsie-Ovid*	"	290	659	23.1	G. H.	8	1029	34.2	R. DeWitt
"	Lans.-Ingham*	"	267	731	29.6	M.	7	1188	47.4	O. J. Becker
"	Lenawee 2*	"	280	639	20.8	H.	4	1264	41.3	W. Kindschy
"	So. Newaygo*	"	243	550	22.8	D.-J.	8	713	31.4	N. Mosher
"	Macomb 1	"	327	677	24.1	R. H.	7	1073	39.7	W. Tyson

* Retest rules followed.

Comparing Practice and Results

HOARD'S DAIRYMAN:—While making my regular visit to each member of the Denmark Association of Wisconsin, I compared the results obtained this year with those obtained last year. I noticed that the average cow in the herds that were fed grain in the summer time was producing heavier compared to last winter's production than were those in the herds that were not fed grain last summer.

There is one herd in the association that increased its average production from 262 pounds fat in 1923 to 336 pounds in 1926, or 74 lbs. per cow. The following table shows the consumption of feed and profit over feed cost with fat figured at 54 cents a pound:

	Silage	Hay	Grain	Feed cost	Profit
	Lbs.	Lbs.	Lbs.		
1923	8,913	2,652	1,483	$64.17	$ 77.42
1926	5,992	2,007	1,834	68.87	112.46

The total cost of roughage was $1.21 less in 1926, but the additional 351 lbs. grain cost $5.91 more. This made the average cost of feed $4.70 higher, but the increased production provided $35.04 more profit per cow over feed. This splendid increase was brought about through careful weeding of lowest producing cows, continued feeding of a properly balanced ration, supplementing poor pastures with a sufficient allowance of grain, and giving each cow more individual attention.

MANNING H. NELSON, Tester.

Garget and Stalls

HOARD'S DAIRYMAN:—We have recently had considerable udder trouble in the Poynette Association of Wisconsin. Some of it is of a minor nature, but the larger portion is of serious importance.

In many cases I believe what is called garget is due to some injury by a neighboring cow. I have seen cows lying down side by side, then one of them changes her posi and in so doing kicks the other's der. Other times I have noticed cow lying down and her next ne bor standing with her foot danger ly close to her teats. A cow's u is sensitive and a blow from a may cause swelling and hardnes the udder. This is so simply quickly enacted that the milker next morning wonders what happ to a part of the udder.

An 18- to 24-inch plank set on between each cow will prevent ing of one cow by another, unless is a veteran "fence viewer." plank may be wired to the steel sion, or clipped on fore and aft. is simplicity itself, and quite a s factory and cheap preventive. old type of individual stalls boa as high as the cow should have retained. Perhaps their modifie installation would save many dol An individual stall is best anyway the modern method of stabling is in 95% of cases only s individual.

When a cow's udder is inflame is well to feed a light grain ratio bran, cutting down on silage keeping the udder from becor chilled. Rub with unsalted lar

W. ERIC CONSTABLE, Teste

Man Testing Associatio

HOARD'S DAIRYMAN:—The first testing association in Texas, one of the two in the South, was ganized in July, 1926, in Wise C ty. The association has had its h ships, as is characteristic of e new organization.

The tester has found that the sociation is not only a cow tes association but also a man tes association. The human element ters in to a large extent. Out of twenty-six charter members t have been ten culled out due to

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ous causes, but new members have been enrolled to take their places. Some of the farmers that withdrew did so because they sold their herd, and some, as most people do, expected too much from the work in too short a time. At present the association is running at full capacity and is getting some very satisfactory results.

The following will give a good idea of some of the profitable work the association is doing: One farmer after entering the association with a herd of 23 cows found that he was overfeeding his cows. Upon balancing his ration he saved $150 in four months' time on feed alone. The year before the association was organized, another farmer sold his herd except for one cow which was culled back by the buyer. He later bought some more cows and went back into the dairy business. Upon having his cows tested he found that the cow that was culled back as no good when he sold proved to be his most profitable cow in the herd of twenty.

T. H. ROYDER, Tester.

Write the C. T. A. Editor, Hoard's Dairyman, for our prize offer to testers for monthly and annual reports.

Missouri's Leading Tester

Missouri's champion cow tester in 1926 was Harold Harper of the M.-M.-B.-M. Association. Because of his outstanding work in improving



MISSOURI WINNING TESTERS
Left to right: Gilbert Froning, bronze medal winner; Harold Harper, gold medal winner; and V. L. Gregg, silver medal winner.

dairy conditions in his section of the state, Mr. Harper was chosen by the State Dairy Association as the winner of the gold medal awarded each year by the Blue Valley Creamery Institute.

The testers making the second and third best records were Vernon L. Gregg of the Clay County Association, and Gilbert Froning of the Lafayette—Saline Association. The awards were based on a score card covering feeding and management, feeds grown, pure-bred sires used, boarder cows sent to the stockyards, care and handling of milk and cream, diseases checked, care of manure, meetings held and membership obtained, and promptness, accuracy, and neatness in making reports.

The outstanding record of dairy improvement accomplishments made in Mr. Harper's association in the past year included the weighing of milk from each cow daily by 22 members throughout the year; the feeding of well balanced dairy rations every day in 1926; and the checking of contagious abortion in 201 cows in 11 herds. In addition, 12 herds were tested for tuberculosis; soils on 17 farms, totaling 424 acres, were tested for acidity, which called for the use of eight carloads of lime to sweeten a part of these soils as the first step in growing legumes successfully. During the year also 20 silos were filled by members of the association; 17 members grew two acres or more each of legumes for each animal kept; two new 10-acre fields of alfalfa were established; two dairy calf clubs organized; and two milking machines purchased.—Blue Valley Institute.

Protein in the Ration

HOARD'S DAIRYMAN:—In the February 10th issue of Hoard's Dairyman is a statement made by C. M. Wagner of the Washington Association of Michigan which well bears some investigation. He says it is not necessary to feed "excessive" amounts of high protein feed for high production.

We are well aware that an excessive amount of protein is not necessary. We know, however, that a pound of milk contains a certain amount of the several ingredients and that a cow must consume just that much, and a little more, for body maintenance.

You cannot run barley through a mill and get linseed meal. The production of 70 lbs. of butterfat in a month on a 10.8% ration would require an excessive amount of feed. This would be more injurious to her than the desired amont of protein; in fact, it is doubtful if a cow could consume enough of a 10.8% ration to produce that much butterfat.

It would be interesting to know what the other members of the Washington Association are feeding. We would naturally expect to find them all feeding nothing but home-grown grains, providing they heed the advice of their tester. We would like to know just what kinds and amounts of feed were given this cow.

Wisconsin. V. PETERSON, Tester.

Grain on Pasture

Nelson Omans fed grain to his cows while they were on pasture in the year 1925. Nelson is a member in the old Newaygo Cow Testing Association of Michigan. As a matter of experiment this herd was not fed grain while on pasture during 1926. The results obtained for this herd of cows shows that the average production per cow decreased 63 pounds butterfat. There were 17 cows in this herd, which would make a loss of 1,071 pounds butterfat. Crediting this amount of fat at 40c per pound would value it at $428.40.

Surely Mr. Omans' experience in not feeding a few dollars' worth of grain to his cows while on pasture proves the expensiveness of neglecting to feed cows to their proper capacity.—A. C. BALTZER.

Value of the Milk Sheet

HOARD'S DAIRYMAN:—We have been discussing in the North Berrien Association of Michigan whether it pays to keep daily milk records; nine of the members were keeping daily records and five others started to keep them three months ago. The 14 members that kept daily milk records made 8.7 lbs. butterfat more per cow in the three months than the other members. They did it largely by changing the amount of feed according to the daily or weekly milk flow. IVAN IVERSEN, Tester.



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INVESTIGATION has shown that immediately after calving time, cows are in particular need of salt. The milk flow then is greatest and lack of the right salt soon reflects itself in the distress of the animal.

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A. M. CHALLEY, NORTH DAKOTA

"LET'S stop here," suggested Frank Svoboda, county agent of Eddy County, N. D., as we were nearing the farm of Peter Smith, North Dakota. "Mr. Smith's well improved farm is a true indication of success and I am sure you will be interested in seeing his Guernsey herd and hearing the story he has to tell." We stopped and fortunately found Mr. Smith at home and not too busy



PETER SMITH

to show us about and answer numerous questions "fired" at him.

Mr. Smith came to Eddy County in 1895. His total assets consisted of a willingness to work and make the most of the opportunities which this new country offered. He borrowed sufficient money to buy a rather scanty outfit of horses and machinery with which to turn the virgin prairie and make it ready for small grain crops. During his spare time he worked out in order to secure money enough to meet his living expenses. In the course of time he managed to pay back the money borrowed, and increased his farming operations until he reached the high point of 1,700 acres in small grain crops. "Some years this method of farming paid well, but always we were confronted with the possibility of crop failures. After all is said and done, it was a hazardous system of farming."

After fifteen years of small grain farming, Mr. Smith decided that live stock was necessary in conjunction with small grain farming to conserve soil fertility, control weeds, and make his farming operations safer in general. In 1913, he purchased three pure-bred Guernsey cows and a bull to add to the small herd of native cows which he had already established. From these as a foundation, he has built up his present herd consisting of 28 cows of milking age and young stock which brings the total to 65 in all. About two-thirds are registered Guernseys. During the past few years, there has been a good demand for dairy cattle and his sales of surplus stock have added materially to his returns. Ten herds of Guernseys have been started from stock sold by Mr. Smith to his neighbors.

When questioned regarding his cropping system at present, Mr. Smith commented, "We are still devoting a considerable acreage to small grain cash crops, but I would quit farming if I was forced to dispose of the cows." Of the 1,100 acres now comprising the farm, the following feed crops are raised: 60 acres of corn, 20 acres alfalfa, 20 acres sweet clover, 300 acres prairie hay land, 50 acres barley, 160 acres oats, 25 acres speltz, and 160 acres prairie pasture. Wheat is grown as the chief cash crop and it has been possible to secure an increased yield of five bushels per acre on land that has been manured or used for corn.

Alfalfa hay and corn silage form the basis of the dairy cow ration. Alfalfa yields an average of three tons of excellent hay per acre each year and the 100-ton silo is usually filled from 20 acres of corn. "I could not do well without these two roughage feeds," was Mr. Smith's comment. They are supplemented with ground oats, barley, and speltz, the amount of grain fed depending upon the production of the cow. We have never found it necessary to buy feeds to make a balanced ration since we started feeding alfalfa hay and corn silage. Sweet clover hay properly cured has proven a valuable feed for Mr. Smith, but he prefers alfalfa for hay and has not used sweet clover for pasture because of the large amount of prairie pasture that is available at a low cost. However, he is of the opinion that on most farms sweet clover should be utilized as a pasture crop and in many cases as a hay crop. Mr. Smith's milking herd receives grain the year around for he is satisfied that a high producing cow will not do her best on pasture grass alone. There are times when pasture is at its best, that little grain is necessary, but at other times the cows make increased profit when a considerable amount of grain is fed.

The young stock is well grown out in an economical way. The calves receive whole milk for a period of two weeks, then they are gradually put on skimmilk by substituting a little for part of the whole milk each day. At the end of six weeks they are receiving skimmilk entirely and kept on it until they are six to eight months old. They are fed whole oats in addition to the milk. The yearling heifers are kept in the main barn during the first winter and fed hay and some grain. During the second winter, the heifers are kept in an adjoining shed and fed hay and grain until they are



DAIRY BARN ON MIDWAY FARM OWNED BY PETER SMITH, NORTH DAKOTA

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Your Best H
to Reduce th
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STERLING FILTERING PADS will positi
remove sediment and bacteria from milk,
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terrace

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It may mean $500 or whatever amount you are asking for those extra heifers or bull calves. When a fellow breeder asks you about your stock he is hungry for information.

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HOARD'S DAIRYM
Fort Atkinson, Wis.

it due to freshen, when they are ed in the stanchions. During sum- the calves over six months old all heifers not yet in milk are on prairie pasture, the pasture on being about six months.

llowing is a creamery statement he returns which Mr. Smith re- ed from his herd during the year :

	Cream	Butterfat	Am't. paid
	Lbs.	Lbs.	
ary	1,534	507.70	$205.49
ary	1,990	619.20	236.79
	1,766	334.40	243.42
	1,680	513.80	222.78
	1,974	681.90	279.85
	3,004	1,001.30	412.36
	1,996	665.90	285.69
st	2,058	639.30	283.69
mber	1,395	482.20	227.87
er	1,374	454.00	229.48
nber	1,545	520.00	257.58
ber	1,344	431.20	209.15
al	21,600	7,051.00	$3,094.15

e average price received for rfat was $.439 per pound.

e average number of cows d was 22.

e average production per cow 3,297 pounds milk and 364 pounds

turns from the herd during 1925 been as follows:

fat sold	$3,094.15
s stock sold	673.00
consumption	307.30
alves	100.97
of skimmilk	374.51
	$4,549.93

llowing is a statement of the cash returns which have been re- d from the herd during the past years:

of	1922	1923	1924	1925
	$2,627.67	$3,407.24	$3,022.63	$3,094.15
	320.00	105.00	500.00	673.00
	$2,947.67	$3,512.24	$3,522.63	$3,767.15

e improvements on Mr. Smith's way Farm" are of the best. His rn house was built in 1918 at a of $6,000 and the barn soon af- t a cost of $10,000. The barn is ped in the most modern way, steel stanchions and pens, drink- ups, and milking machine.

nen asked regarding farm help, Smith remarked that he had little to worry in regard to this. e are four husky Smith boys who been contented to stay on the and help make things go. In the boys were taken into a part- nip and since that time have tak- er the active management of the . "I have not insisted that the stay at home, but they are will- o do so for they are as much in- ted as I am through our part- nip deal."

nat is your candid opinion as to pportunity a young man has to ed with dairy cows in North Da- ? And what is your advice to the ner? These were among the ions asked. "My cows have nev- ailed to return a profit. This try is well adapted to the grow- of feed crops and it would seem anyone with the willingness to can be successful. My advice to beginner would be to start with e cows which show dairy charac- tics to some extent, select a good -bred bull of the breed he likes and in this way develop a better He should never lose sight of act that proper feeding and care equally as important as breed-

. Smith is 55 years old, is in the of health, and satisfied to remain ne farm for he has worked since beginning with a farm home and mfortable living as his objects. Smith has worked equally hard hieve these things and she also is fied to remain on the farm and them.

Red and White Holsteins in Holland

HOARD'S DAIRYMAN:—As I sometimes see a question in your paper about red and white Holstein-Friesians, I am sending you a photograph of a pure-bred registered Friesian bull, Willem, that is red and white. He has taken five first prizes at cattle shows in Friesland. His dam gave, in 305 days, 13,226 lbs. of 3.6% milk, or 479 lbs. fat. His sire's dam gave, in 297 days, 12,837 lbs. of 3.6% milk, or 464 lbs. fat.



"WILLEM"—A RED AND WHITE HOLSTEIN OF HOLLAND

Cows in Friesland are kept six months on pasture, with nothing but grass to eat. During the winter six months, they are fed native hay and concentrated feeds. Cows are never milked more than twice a day, may not be milked more than 320 days, and must carry a calf every year.

Holland. W. G. KOOPMANS.

Registering Grade Cows

HOARD'S DAIRYMAN:—History tells us that Noah loaded one pair of cattle, male and female, into the Ark and that all others perished. Therefore, all cattle are descended from this pair. Each and every breed now recorded as pure-bred had its origin at one time by recording non-pedigreed animals as foundation stock.

Professor Thomas Shaw, formerly of the University of Minnesota and considered a leading authority on the live stock industry, contributed an article on "The Greatest Mistake in Breeding" to the National Stockman and Farmer of May 15, 1915.

"It may be asked," he said, "what is the greatest mistake in breeding? I answer, "Making it impossible to breed up live stock of the grade order so that it will become eligible for record."

"This fact," continues Professor Shaw, "will be disputed, and it will be vigorously disputed. Among breeders the great majority will be on the other side. This is evidenced in the fact that there is not an association in America of which the writer has cognizance that will admit to record animals which do not trace, in all their lines of ancestry, to animals that have been recorded. Notwithstanding that unanimity of testimony, I still cling to the belief that the greatest mistake in breeding in this country is that of making it impossible to so breed up grades that the time will come when they may be recorded as purely bred.

"Two strong reasons may be given why such breeding should be encouraged. One is that in certain lines of alien blood there is renovating power. A second is that the decision to make it impossible to so improve grades that they can be registered throws a wet blanket on all effort to so improve grade live stock that it may be recorded."

Speaking further with particular reference to the Shorthorns, but in language that will apply with equal force to any dairy breed, Professor Shaw said: "Our contention is that some form of registration should be adopted that would enable the breeders of Shorthorns of exceptional performance at the pail to record those animals. If it should be deemed inexpedient to record them in the American Shorthorn Record because of the shortness of the pedigree, some other form of registration is to be furnished. If the present rule of registration in the Shorthorn herdbook cannot be amended to admit these animals to registry, then the breeders of Shorthorns should not object to the establishment of such a registry. Can any good reason be given why they should object?"

When such an eminent authority as Professor Shaw comes out so emphatically in favor of registration for grade stock and it goes unheeded, it seems a waste of effort for others to agitate it. Professor Shaw characterizes it as "the greatest mistake in breeding." He had the foresight to see the possibilities of registering grades. The breeders of pure-bred cattle would be benefited the most, as it would create a demand for more and better pure-bred bulls.

Ohio. WILLIS WHINERY.

Don't grumble, don't bluster,
Don't dream and don't shirk,
Don't think of your worries,
But think of your work.
The worries will vanish,
The work will be done.
"No man sees his shadow
Who faces the sun."
—Mohawk Courier.



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All this simply by treating your seed corn with Semesan Jr. or your grass and clover seeds with Semesan, both disinfectants for fungous and bacterial diseases carried on the seed. The best of seed may carry one or more diseases that may destroy the seed germ or greatly retard its growth. A simple, inexpensive dust treatment with these Semesan antiseptics kills the germs clinging to the outside of the seed and protects the seed from infection by soil-borne diseases. Semesan and Semesan Jr. increase germination and improve quality and yields.

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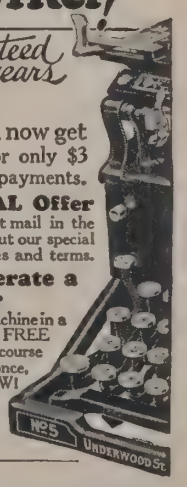
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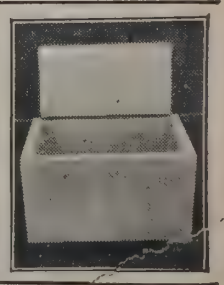
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Sell your surplus cows, poultry and other live stock with an ad on our Special Opportunities Page.



It Destroys Bacteria

STERILAC is used as a disinfectant to destroy the bacteria which make milk and various other food products spoil. Even disease organisms which are dangerous to health are destroyed with STERILAC.

Keeps Bacterial Count of Milk Low Through the use of STERILAC all external sources of contamination are controlled with the result that milk is produced having a minimum bacterial count.

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In Demand Good, wholesome milk is always in demand. The STERILAC method of producing milk will help you to secure a good market for your product. It will help health officers provide citizens wholesome milk low in bacterial count.

Sterilac is Reliable You can depend on STERILAC as an aid to produce milk of the highest quality. STERILAC is just as valuable in creameries, cheese factories, ice cream factories, restaurants, hotels, butcher shops, hospitals and homes. It helps to keep these places scrupulously clean and provides every requirement of sanitation.

Sterilac Does Not Taint STERILAC is a chloramine substance which is an improvement of the Dakin preparation known to destroy bacteria, yeast and mold. It does not taint milk nor impart an odor. While STERILAC is powerful it is safe to use as a disinfectant. Even if some of the STERILAC solution should come in contact with milk or other food products it could not spoil them as food for humans. That is why STERILAC is safe to use and makes milk, etc., safe food.

Sterilac is Sold as Powder STERILAC is sold only in the form of a powder. There is no loss in strength on standing. Even STERILAC solution will keep for a long time without losing much of its strength. The cost of STERILAC is small compared with the enhanced value of the milk and other food products that are produced through its use as a sanitary agent.

Special Introductory Offer

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Send a dollar bill today.
A trial will convince you.



The Sterilac Company
North Chicago, Illinois

Bovine Tuberculosis in Humans

(Continued from page 367)

mans, it is also responsible for many deaths from tuberculosis. How many, it is difficult to say. Different students and observers report different figures; Rosenau says about one-half of 1% of all deaths due to tuberculosis, and these mostly under the age of five years. It has been estimated that 10% of all deaths from tuberculosis in children under five are due to the cattle germs. In New York City, Dr. Park estimated that 300 children died each year from bovine infection, and there is no reason to believe that New York is worse in this respect than other large cities in our country. It would be a conservative estimate to say that approximately 10 per cent of deaths from tuberculosis are of the non-pulmonary forms of the disease which in a large proportion of the cases have been proven to be of the bovine type.

Sources of Bovine Tuberculosis in Humans

Bovine tubercle bacilli occur in milk directly as a result of tuberculosis of the udder, which it has been stated occurs in one to three out of every 1,000 cows. Chesley of Minnesota reports that "in 1,200 autopsies of reactors, udder tuberculosis was found in 5.75 per cent. In generalized tuberculosis the udder has been found to be affected in about 17 per cent."

But tubercle bacilli may occur in milk indirectly, through cow manure. With lung tuberculosis tubercle bacilli are coughed up, swallowed, and passed in the manure. The manure gets into the milk in many ways with which we are all familiar, carrying its tubercular germs with it.

The routes by which the bovine bacillus attacks the human body may be limited to a single one, namely the alimentary tract. From the alimentary tract the bacilli of tuberculosis are absorbed, at the same time as the food, through the intestinal wall into the lymph system, and thus are delivered into the blood. The glands in the abdomen connected with this absorption area are often infected, usually from the bovine type of bacillus. After a period of from one to several years these glandular infections may clear up, although they not infrequently so reduce resistance that death results from tuberculosis or some other disease, or they may cause several years of sickness and stunted growth with mental impairment. Once in the blood stream any tissue or part of the body is liable to infection either primarily or secondarily and we may have a rapidly fatal generalized tuberculosis.

Latent Tuberculosis in Adults

Behring in 1903 brought forward the theory that alimentary infection occurs in the early months of life. The tender mucous membrane of babies permits the bacilli to pass readily. The bacilli remain latent in the tissue and acquire increased activity later in life; and he thinks that all active tuberculosis in adult life may be due to infection with the bovine bacillus in infancy.

Rosenau says, "It is now believed that tuberculosis infection is usually received during childhood, but remains latent until adolescence or early adult life, when the disease becomes clinically apparent."

Bovine tuberculosis may yet be demonstrated to be the cause of much of our pulmonary tuberculosis and much of the tuberculosis of all forms which demonstrates itself among adults. Therefore, we humans are much concerned with the presence of tuberculosis in other animals, especially cattle from the public health standpoint.

Methods of Prevention

When discussing the question of bovine tuberculosis in humans, I would consider my paper unfinished if I did not say something about preventing it from occurring.

The proper pasteurization of milk will prevent the spread of bovine tuberculosis to humans. You will notice I use the word proper in connection with pasteurization. That means proper machinery that will heat every particle of the milk to 145 degrees and maintain that temperature in every particle of the milk for 30 minutes. It also means proper individuals who will see that proper machinery works and is allowed to work properly. It also means that there must be proper officials who will see that the proper individuals are able and compelled to make and allow the proper machinery to do its work.

Healthy Cows Also Needed

A great many dairymen, some of the public, and an occasional health officer have gotten it into their heads that we can do away with a lot of troublesome details of milk production and substitute pasteurization and everything will be all right. Pasteurization is a great factor of safety—but only a factor. The milk must be good milk to protect us in the event of accidents in operation or to the pasteurization machinery, because pasteurization is after all merely a mechanical device, not a moral obligation. In any event, pasteurization is hard to accomplish with a small local milk market and we must remember that over 50 per cent of the population of the United States lives in rural districts, farms, or communities under 2,500; and there, too, occur 60 per cent of the births.

Obviously we should try to eradicate tuberculosis from the cows and that is some job; and here again we are on controversial ground. There are those who maintain that the clinical method is best; that is, the elimination of obviously open cases of tuberculosis, both of the lungs and udder. I need only say now that in my opinion the system doesn't exist which will enable us to eliminate all or a sufficient proportion of tuberculous cows by this method.

The best method of eradicating tuberculosis from a herd is by the tuberculin test. Of course, it isn't 100 per cent efficient. One test will not spot every tubercular cow and as long as there is a cow present in a herd that has been in contact with a cow that was tubercular there is a possibility of that cow reacting on the next test and there is a possibility of that cow spreading infection. Eradication of tuberculosis from a herd is not a simple or easy matter, but that doesn't dispute the fact that tuberculin testing is the best method of eradicating tuberculosis from a herd; or excuse us for neglecting to use the procedure.

Picture Not All Sombre

I have stated some facts and expressed some opinions. I have not attempted to conceal facts; I have given the dark side. However, the picture is not entirely sombre, in fact it is very bright. It is not desirable that the public should be unduly alarmed so that they will not use milk and milk products; because it is just as necessary that they should consume more milk as it is that the

What Become of the Empt Tobacco Tin

"Say it with empties," seems to be the sentimer of certain pipe-smoke

Of course, to most people an tobacco tin is just somethi throw away. But there are tions.

Every so often some memb the Edgeworth Club writes in t of a novel use to which he pu Edgeworth "empties."

A railroad fireman started a p Edgeworth tins on the Americar ert as a sort of shrine, he says. engers and employees, accordi his story, caught the spirit an pile grew fast.

Another smoker writes from I that he has scattered Edgeworth along the Nile and succeeded in ing one in the innermost chamb a Pharaoh's tomb.

A telegraph operator says he Edgeworth tins as amplifiers fo Morse code that comes in ove various wires.

Still another use is brought to by Mr. L. C. Quinn of New York says:

New York City

Larus & Bro. Co.
Richmond, Va.
Gentlemen:

As a member of the Edgewor Club, I want to tell you of a lit scheme I have to help the ga along. When I take the last pipe from the blue can, I always set it in some conspicuous place where may be seen by passengers on t subway or elevated platforms, or an office window where passers may have their attention mut drawn to this very good smoking t bacco, which I have been using f eleven years. Maybe other members the Club would like to follow s when they have an opportunity.

Yours very truly,
L. C. Quinn.

If you do not already know, you be curious to find out just what of tobacco is put into these blue that arouses such kindly senti in the hearts of pipe-smokers.



To those who never tried E worth, we mak offer:

Let us send free sample Edgeworth so you may put the pipe test you like the ples, you'll Edgewo wherever whenever buy it, for it never changes in qu

Write your name and addre Larus & Brother Company, 15 S. Street, Richmond, Va.

We'll be grateful for the name address of your tobacco dealer, t you care to add them.

Edgeworth is sold in various to suit the needs and means o purchasers. Both Edgeworth Slice and Edgeworth Ready-Ru are packed in small, pocket-size ages, in handsome humidors ho a pound, and also in several hand between sizes.

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On your radio—tune in on WRVA, Richmond —the Edgeworth Station. Wave length 256 m

: should be safe milk. So the
t word should be a statement of
r:ress to show that where effort is
n e, good results are obtained.

generation or less ago it was
:rculosis which led diseases as the
se of death. Today tuberculosis
a fallen from first to sixth place in
h list.

Tuberculosis," says Dr. C. H.
ro, "has been changing during the
few decades quite largely by
attentuation and the results of
education of the public. Thirty
rs ago the yearly deaths from tu-
culosis in each 100,000 persons
bered over 200; they are now
under 100. Tuberculosis is
aging and diminishing. The path-
ists of thirty years ago showed
in from 71 to 91 per cent of all
minations after death there was
lence of tuberculous disease at
e period of life. The patholo-
s of today show that this inci-
ce has diminished from 10 to 20
cent. The common knowledge
cerning the care of those who
e the disease prevents its distribu-
and tends to a much higher rate
recovery than years ago. It is
sible to almost eliminate the dis-
e in human beings, as well as in
mals."

n Minnesota the death rate from
erculosis was reduced from 107.5
100,000 to 69.67 in eight years;
lung tuberculosis rate from 86.7
59.4, while other forms which in-
de practically all of the bovine
es from 20.8 to 10.27. That is,
pulmonary rate was reduced 31
cent while the other forms were
uced 50 per cent; which means
t the reduction where the bovine
ms are concerned is not only keep-
pace with the reduction in hu-
n forms but it is away ahead. Bo-
e tuberculosis is not overlooked
neglected in Minnesota, which is
saying that we are doing all that
should either.

Fewer Tubercular Cripples

There is another thought. The
ve figures are evidence of prog-
s made in reducing deaths from
erculosis. But tuberculosis does
always kill, sometimes it disfig-
s, cripples, and otherwise inca-
itates; and such cases are also be-
materially prevented or reduced.
ere are some of you here old
ough to know I speak the truth
en I say that the number of
rred necks, humped backs, para-
ed and crippled limbs are nothing
what they used to be. They used
be common sights on our streets,
w we seldom see them. As evi-
ice of this, out of 5,523 operations
ough the Mayo clinic in 1907
re were 70 for tubercular glands
the neck. In 1924 out of 23,628
erations, only 66 were for tuber-
ar glands of the neck,—a reduc-
n from 1.2 per cent to .28 per
t, or just about one-fifth as
ny; in other words, fewer out of
628 than out of 5,523.

In Minnesota, by care, tuberculin
t, and elimination, bovine tuber-
osis was reduced 75 per cent in
years, from 9.4 per cent to 2.4
cent. Now great endeavor is be-
made to stamp out tuberculosis
m the dairy herds county by coun-
Many of the counties have made
ent appropriations for this pur-
se.—From address delivered be-
e the Midwestern Tuberculosis
nference.

South Dakota Holstein Meeting

The annual meeting of the South
kota Holstein-Friesian Association
s held at State College at Brook-
gs March third during Farmers'
Week. A majority of the fifty members were in attendance and the spirited discussions and talks indicated a keen interest in matters pertaining to the breeding of Holsteins.

First a joint meeting of the Holstein and Guernsey breeders and dairymen was held. C. Larsen, Dean of the Division of Agriculture, in his address of welcome emphasized the value of group action and co-operation not only within the breed but between breeds and with all dairy interests. Frank B. Astroth of the American Jersey Cattle Club emphasized the value of continued cow testing work year after year, for the breeder as well as the dairyman.

The matter of selective registration was discussed at length by different breeders. Various opinions were suggested, a variety of plans were projected, and the spirit of the members seemed to be that it is a problem which will have to be met in some manner in the future.

Mr. Frank Johnson was reelected president and A. F. Test was also reelected secretary and treasurer. Both were recommended as delegates to the next annual convention of the National Association to be held in Springfield, Mass., June 1, 1927.

Owing to the splendid increase in interest shown in Holsteins by dairy calf club members at the South Dakota State Fair last fall, the meeting voted to continue its activity along this line. Each club member showing a Holstein heifer at the State Fair will receive a premium of five dollars.

A. F. TEST, Sec.



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LIVE STOCK FOR SALE

Holsteins—Get your next Ormsby bred bull from State Institutional herd. Bred for high yearly production. Send for free bull list. Can furnish nice lot of grade heifer calves. BOARD OF CONTROL, State Capitol, Madison, Wis. 3-6

For Sale—Twenty head registered Holsteins from accredited herd. These cows are young, heavy milkers, best of breeding. Selling to make room for heifers. MAPLEDALE STOCK FARM, A. C. Messenger, R. F. D., Burton, Ohio.

Registered Holstein Bull Calves—One month old to one year old, $25.00 to $60.00. All high grade stock. WISCONSIN LAND & LUMBER COMPANY, WeXL Farm, Hermansville, Michigan.

Registered Holsteins—4 Bulls, ¾ white and good individuals, 3 to 14 months old, $50.00 to $125.00. Cows: 9 years, fresh, 1,500 lbs., $225.00. 6 years, 1,600 lbs., fresh April 18, $275.00. JOS. H. JUNGBLUTH, Hartland, Wisconsin.

Choice grade Holsteins. Fresh and close springers. Guaranteed right. EGNER & OLSON, Stoughton, Wisconsin. 7-2

Grade Holsteins—Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years' experience. Can also furnish grade or registered Guernseys. JOHN ERICKSON, Waupaca, Wis. 18-Spl

Express Prepaid on Holstein Bulls up to 500 miles. Ages from 2 to 10 months. Yearly record dams and grandams. Prices reasonable. Federal supervision. Write for sale list. WINTERTHUR FARMS, Winterthur, Del. 5-*

Holsteins—Purebreds and grades. Area tested. Buy direct. We are breeders, not dealers. WAUPACA COUNTY HOLSTEIN BREEDERS ASSN., 112 E. Union, Waupaca, Wis. 5-6

Sir Korndyke Ormsby Piebe Mercedes 4th. Show ring type and production. Two year old daughters milking up to 50 lbs. FRANCIS NEWBURN, Eagle Grove, Iowa. 6-2

For Sale—Choice high-grade Holstein heifer calves. S. J. FRICK, New Glarus, Wisconsin. 6-4

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

River View Guernsey Farm, Ogdensburg, Wisconsin, offers entire herd 22 young heavy producing Guernsey cows, registered bull, some calves T. B. tested, free from disease. Priced reasonable. 6-3

For Sale—Two first class May Rose yearling A. R. show bulls. GUERNSEY RANGE FARMS, Edgar, Wisconsin. 6-3

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

For Sale—Purebred Guernseys, two yearling heifers, and four cows, three due to freshen May 14, one Aug. 13. Write for prices and description. Address BOX 352, care Hoard's Dairyman. 7-2

Registered Guernseys, 3 bred heifers, fashionable A. R. blood lines, attractive individuals, well developed, federal accredited. $200 each. H. B. EDEBURN, Mercer, Pa. Telephone New Wilmington Ex.

For Sale—Two Registered Guernsey bull calves. Dams: Mixter Grayling 838 B. F., Imp. Desboro's Primrose IV. Herd accredited. GEORGE W. KING, North Brookfield, Mass.

Registered Guernsey bulls and heifers for sale. State your wants. See display ad page 426. LINWOOD GUERNSEY FARM, Livingston, Wis. 6-*

Registered Guernsey bull, six months old. Price $75.00. J. F. COTTON, Chippewa, Falls, Wis.

High Grade Guernseys. Justamere Guernsey Farm is offering your choice of herd, no reactors, 60 day retest guaranteed if they go into clean place. Fresh, springing and fall cows. Prices very reasonable. CHAS. W. BLOTT, Mukwonago, Wis. 17-*

Guernsey Bull, Registered, richly bred, fourteen months old. First check $105. ALFAKORN FARM, Evansville, Wis. 5-2

Guernseys. L. W. MILLS, Racine, Wis. 6-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINELLO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

Complete Jersey herd for sale. All young registered stock of fine breeding. Tuberculin tested. Herd includes 3 bulls, 15 milkers, mostly fresh and 10 heifers. HENRY M. BROWN, 403 Cooper St., Utica, N. Y.

Ayrshire cows for sale. Accredited herd. L. W. McCONNELL, R. 1, Wellington, Ohio. 6-3

For Sale—Fine Registered Brown Swiss cows, two bull calves. THOMAS LOVE, Howell, Michigan. 6-2

LIVE STOCK WANTED

Wanted—Guernsey heifers, open, registered or grade, must be absolutely disease free. State size, age, breeding, price. Also registered Guernsey bull from a 600 lb. cow or better. FRANK COYLE, Penfield, Illinois.

SWINE

Pedigreed Duroc Pigs—Either sex, $10.00 cash with order. Pedigrees furnished. WISCONSIN LAND & LUMBER COMPANY, WeXL Farm, Hermansville, Michigan.

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Hounds, collars, medicines, supplies. Free book. KASKASKENNELS, F18, Herrick, Illinois. 6-4

German Shepherd Police puppies, trained cattle and watch dogs. ARPIN FOX RANCH, Arpin, Wisconsin.

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For Sale—Empire double milker. Perfection teat cups. Milk eleven inches. First class. Complete. Shipped on approval. $120.00. V. RICE, Dallas City, Illinois.

For Sale—One double unit Perfection milker, in good condition, piping for 18 cows, complete for $75. Write BOX 346, care Hoard's Dairyman.

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

As I am no longer equipped to handle them, I have several new Hinman Milkers for sale at greatly reduced prices. Write BOX 345, care Hoard's Dairyman.

Cheap used milker wanted, any standard make. NEY CARPENTER, Carpenter, Ohio.

Universal Milker for sale. Two double units, at a bargain. R. C. Snavely, Peshtigo, Wis.

For Sale Cheap—Nos. 15 and 17 De Laval separators. CONTINENTAL MFG. CO., La Crosse, Wis.

Wanted—Separator bowl, aerator, dairy scale. V. C. BAILEY, Lamoni, Iowa.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, Ohio. 7-4

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

DAIRY SUPPLIES

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer to consumer. $1.75 for Carton of 300 if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Michigan. 4-4

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

FARMS FOR SALE

Strout's new big farm catalog, copy free. The key which unlocks opportunity's golden door, unfolding before you visions of happy money-making farm homes and delightful summer places high in the hills, on sparkling lake or stream. Page 45 shows a 554 acre farm at $4500 with a fortune in wood, took $600 last year from hunters and fishers, handy town, 200 acres fields, good 7-room house, all needed buildings; less than half cash takes it and 10 cows, sows, sheep, poultry, implements, crops thrown in. Many thousands know the value of dealing through the world's largest real estate agency, like the man who bought a Strout-selected farm in 1924 for $2300 and sold it for $6000 cash in 1926. And in this big illustrated 1927 catalog there are similar bargains for you. Don't wait, write today for your free copy. STROUT AGENCY, 255-DL, 4th Ave., New York City.

Dairy farm 160 acres, Barron County, Wis. Modern 8-room house, light and water. 2 barns; 1 has cement floor, 16 stanchions; silo. Cement floor granary; machine shed; tile milk house; hog house. Soil clay mixed with sandy loam. 90 acres plow land; 70 acres pasture and wood lot. Will sell to experienced farmer at a price and on terms which can be met from income. References requested. A few other Wisconsin farms on same terms. For particulars write C. M. PUTNAM, P. O. Box 376, Madison, Wisconsin. 5-4

For Sale—1007 acres land; 300 acres bottom, seldom overflows; 250 acres other tillable land all in cultivation; balance blue grass pasture. Living water, all parts of land, also two artesian wells; three tenant houses; two large barns, large corn crib; machine, cattle, hog houses; windmill, two vitreous tile silos. An ideal dairy farm, adjoining Hillsboro, Illinois, Montgomery county-seat. For sale by executors, estate of Capt. John F. Glenn, deceased, to settle with heirs. Also 480 acres, all under cultivation, two miles east of Hillsboro. C. W. GRASSEL, Hillsboro, Illinois.

For Sale—Stock and grain farm, 632 acres nearly all tillable; 340 acres meadow and pasture. Ideal sheep and dairy farm. Splendid house, barn, and sheds; 2 orchards; 2 miles from St. Elmo, ¾ mile off Old National (oement) road. One of the good farms of Fayette county. German Lutheran community in which dairy people and well bred dairy stock are wanted. Carries $21,800 Federal loan, (worth $100 per acre). Price $42,000.00. SHELBY LOAN & TRUST CO., Shelbyville, Illinois.

Dairy—Have an ideal location for dairy and stock farm, 1½ miles from Thief River Falls, where alfalfa is queen, consisting of 320 acres excellent soil, all under cultivation, bordering on state highway with complete set of buildings valued at $7,000.00 built since 1920. Good well, excellent water. For full particulars write or call on H. S. DAHLEN, Thief River Falls, Minnesota.

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

Every farmer likes rich black prairie soil such as found in North Dakota. Your choice of a number of these improved farms of 160 acres up while they last at unheard of prices, $500 to $1000 cash, balance 36 years at 5 per cent. Write for information. FEDERAL LAND BANK, Box 20, St. Paul, Minn. 6-5

Immediately available, good opportunity, truck farm, thirty acres, Route 12, near Whitewater and summer resort. Easy terms to suitable couple. Write to BALTIMORE COMPANY, Room 1601, 77 West Washington Street, Chicago, Illinois. 7-2

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Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 909S, Everett, Washington. 7-2

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

BABY CHICKS

If you want more eggs and larger profits our Accredited high-egg yield White or Buff Leghorn chicks will be your choice. Catalog free. RIVERVIEW HATCHERY, Fort Atkinson, Wis. 5-2

Pure Bred Chicks from high egg producing breeders. All breeders Hogan tested and strictly culled for correct size, type, color, and health; correctly mated for high egg production. Write for our new free "Poultry Profits" book containing valuable information for the poultry raiser. Liberal discount on all orders booked early. Pure bred chicks of all standard breeds for immediate delivery. WEDGEWOOD POULTRY FARM, Box 188, Pontiac, Ill. 3-*

500,000 High Grade Hollywood sired White Leghorn accredited chicks. Males and females passed and banded by State Poultry Association. Sturdy and vigorous heavy producing breeders assures chicks of quality and ability. Special discount now. Catalog free. WYNGARDEN HATCHERY & FARMS, Box 26, Zeeland, Mich. 5-3

Quality Chicks—Single Somb White Orpingtons. Breeder for fourteen years. High producing, exhibition strain. $16—100. Alive, postpaid. BAILEYS CHICKERY, Austin, Minn.

Baby Chicks from culled, inspected flocks. Satisfaction guaranteed. EVERGREEN POULTRY FARM, Kewaunee, Wis. 4-6

COD LIVER OIL

Cod Liver Oil for poultry, tested light yellow Vitamin potency guaranteed, 5 gal. $8; 10 gal. $15 at N. Y. Sample gallon $2.25 postpaid. JACONE PRODUCT CO., 624 Kent Ave., Brooklyn, N. Y. 7-2

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Blue Ribbon Giant Brilliant Bronzed, Vigorous, disease-free turkeys, eggs and hardy turks, 100% arrival. Unrelated flocks. We're leaders. GREGORY TURKEY FARM, Cumberland, Wis. 5-4

Pure Bred Mammoth Bronze Turkey Eggs—Have large healthy flock well mated. Inquiries promptly answered. $4.50 per 9 eggs prepaid. R. M. MELVIN, Mankato, Minn. 7-3

Mammoth White Pekin ducklings and eggs. Winners. ERNEST MOECK, Route 2, St. Joseph, Mo.

HATCHING EGGS

Eggs from strictly purebred (267 egg strain) Barred Plymouth Rocks and (272 egg strain) White Leghorns $1.60 per 15; $6.50 per 100, postpaid. MISS MABLE HARDING, St. Peter, Minnesota. 6-*

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FARMS FOR SALE

Farm For Sale—In the best mixed farming district in Manitoba, Canada. Real bargain. 1440 acres highly improved, fully equipped. Excellent soil. Black loam and clay subsoil, good water and buildings. Price $30.00 per acre on reasonable terms. JNO. P. RYAN, Owner, Shoal Lake, Manitoba, Canada. 6-2

Rich Georgia Farm Suitable for Dairying—1400 acres fine land in middle Georgia dairy belt cheap. Good markets for sweet and sour cream. Will pay 10% commission to anybody who will sell it for me. Write for information. F. P. STUBBS, Ezell-Griffin Co., Eatonton, Ga. 6-4

Chautauqua County, N. Y. offers opportunity for dairy and fruit farmers equal to any. Pool price for January milk 2,732 gross per cwt. We can sell what you want at ridiculously low prices. Write, CHAUTAUQUA GUERNSEY FARMS, Bank of Jamestown Bldg., Jamestown, N. Y. 5-4

222 acres, 2 houses, modern barn for 30 cows, 20 acres alfalfa, level land, adapted to alfalfa, wheat, dairy and poultry. Two miles to Cornell University. Your children can live at home while going through college. Price including machinery $60 per acre. G. F. WARREN, Ithaca, New York.

Western New York; 287 acre stock and dairy farm. 32 miles from Buffalo. Gravel loam. Sloping gently south and east. Large gambrel-roofed basement barn. Two houses, other buildings. Town improved road. Two miles to town, railroad. One of the best in Erie County. CHARLES J. BAKER, Batavia, N. Y. 6-2

Dairy Farms—"Davidson Plan"—160 acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 3-5

Farms For Sale or Rent—Ask for descriptions of our Wisconsin dairy farms. Available now. Prices and convenient methods of financing. Write today. WISCONSIN DAIRY FARMS CO., 105 Wells St., Milwaukee, Wis. 6-3

Increase your income. Buy a Wisconsin dairy farm in either Dunn, Barron, Sawyer or Rusk Counties. Our own lands. Inquire FRANK CARTER COMPANY, Menomonie, Wis. 6-2

For Sale—Quarter section central Wisconsin dairy farm, complete. $1500 cash, balance easy terms. Address BOX 325, care Hoard's Dairyman. 5-3

Wonderful opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Georgia.

My 20-acre dairy farm, 25 grades; lively sale of all products; possession now; sacrifice for quick sale. FOLKSTON DAIRY FARM, Box 75, Folkston, Ga.

70 Acres Waukesha, Wis. Fully equipped. 21 cows. Address BOX 316, care Hoard's Dairyman.

FARMS WANTED

Wanted—Equipped farm; give price, etc. L. H. RAISLER, 6700 Wentworth Ave., Chicago, Ill. 3-*

Want two 120 acre farms fully equipped. WALT MILLER, Carpenter Bldg., Milwaukee.

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The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

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For Sale—A thriving milk route business. With or without Guernsey cows. Will rent or sell farm. Good reasons for selling. RAY CANFIELD, Owner, Long Prairie, Minn. 5-4

PARTNER WANTED

Partner Wanted—Must be grade "A" dairym sterling character and good business ability with ily to match. Prefer protestant American bi fanatics. Fine opportunity for two workers to good. Lots of room for expansion. No farming. all feed. Have 40 grade Jersey cow strictly n dairy in the making with a well-established sele tail trade. Top prices. Located in small valley ; the hills two miles from town of 3,000. Al 5,000 feet. Mild year around climate. No flo cyclones. Deep well water. Good roads. Half from good grade school. High school in town. ent gross income $1,200 to $1,500 per month. thousand will buy half interest by assumin, shi indebtedness. There is no catch in this deal. a real money maker. Address T. P. MORGA O. Box 643, Prescott, Arizona.

Wanted—Dairyman. Sell all or one-half 40 A money-maker. Write STANLEY WARNER, cott, Arkansas. Route 5, Box 4.

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Frost Proof Cabbage and Onion plants. Open grown, strong, well-rooted from treated seeds. bage, fifty to bundle, labeled with variety name, moss to roots, Jersey Wakefield, Charleston Wak Succession, Copenhagen, Early and Late Flat Onions: Prizetaker, Crystal Wax and Yellow Ber Parcel Post Prepaid cabbage: 100, 50c; 200, 75c $1.00; 500, $1.25; 1,000, $2.00; 5,000, $8.00. O 500, 90c; 1,000, $1.40; 6,000, $6.50. Express C 6,000 and over Cabbage, $1.00 thousand, Onion thousand. Full count, prompt shipment, safe a satisfaction guaranteed. Write for free Seed and Catalog. UNION PLANT COMPANY, Texar Ark.

Bermuda Onion plants express collect 45c; Spanish 70c; cabbage 90c per thousand; 6000 per LIND PLANT FARMS, Cotulla, Texas.

For Apple Trees, Strawberries, etc. send for log. KELLOGG'S NURSERY, Box 229, Jan Wisconsin.

Beautiful Dahlias. 200 varieties, assorted, paid. Dozen $1.00; extra choice, seven BLANCHE DAWSON, Capron, Illinois.

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Jacques Seed Corn—Grown from my own pure select breeding stock, under my personal super in North Wisconsin. Selected from standing before frost, dried out perfectly in my new dry h equipped with individual ear racks, furnace heat forced ventilation. Every bushel carefully t 95-100% germination and strong vitality. Insp and certified by Wisconsin Experiment Associa Sold subject to thirty days test. Get reliable from North Wisconsin's largest seed corn gr Golden Glow, Cold Resistant Golden Glow, Silver Minnesota Thirteen, Jacques' Northern Yellow Wisconsin 25. Also the highest grade Grimm A in officially labeled and sealed bags, pedigreed and barley. Write for illustrated booklet and p WM. H. JACQUES, Box H, Prescott, Wis.

Alfalfa Seed—Do you know why your alfalfa killed? You no doubt did not use hardy WESODAK alfalfa seed. The seed we mark grown by our members who live in Western Dakota. We market from producer to consumer grow S. D. No. 12, Registered Grimm and Co and absolutely guarantee genuineness of variety. for price and samples to THE WESTERN SC DAKOTA ALFALFA SEED GROWERS EXCHA Nick Caspers, President, Mgr., Rapid City, S. D

You are perfectly safe in ordering our Regist Certified Grimm Alfalfa Seed direct from this Shipped C. O. D. subject to your inspection. grade; purity 99%; viability 90 or more. Per p 35 cents. On orders 100 pounds or more within miles of Fargo will prepay freight for additional a pound. Still have limited quantity Sweet Seed; send for samples. N. D. GRIMM ALFA ASSOCIATION, State College Station, Fargo, N Co-operative organization of over 500 growers.

Wisconsin grown Registered and Certified Seed Oats, Barley, Wheat, Clovers, Timothy, highest ity Grimm Certified and common Alfalfa seed. priced right and guaranteed to give satisfaction. for free catalog. POPP & LANG SEED CO., Je son, Wisconsin.

Buy Your Grimm alfalfa seed direct from the troducer, and know that your foundation stock is pedigreed seed, bred from the original Grimm st Acclimated to severe northwest temperatures since A. B. LYMAN, Introducer, Excelsior, Minnesota. Home of Grimm Alfalfa.

Crop 1925. Seed Corn. 110 day yellow dent. per bushel, shelled, in two bushel lots or over. and tips discarded. High germination. Sacks apiece extra. Order from this ad.; and, do it R. W. BORDER, Kearneysville, Jefferson Co., Virginia.

Certified Wisconsin Pedigree seeds. State insp and tested. Quality guaranteed. Price reason Write for catalogue. JEFFERSON COUNTY PU BRED SEED GROWERS ASSOCIATION, Fort A son, Wisconsin.

Pure Certified Grimm's Alfalfa Seed direct the man that grows it. Hardiest and best. postal for samples and folder for full informa TRIANGLE RANCH, Cottonwood, S. D.

Seed Corn—Dependable, vigorous. Several eties. Experienced growers. Satisfaction guaran Write for prices. Supply limited. JOHNSON & NESON, Dassel, Meeker County, Minnesota.

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Ensilage Seed Corn. Blue Ridge Variety. uriant foliage, fine for silage. Carefully selected High germination test. $2.50 per bushel. E. BROOKS, Salem, Indiana.

Baby Rice Pop Corn Seed. Strong germina good quality selected stock. Order a few pounds and enjoy many evenings next winter. Price 20 per lb. JERRY MASON, R. 1, Fort Atkinson,

Buy Hardy alfalfa seed; hulless and beardless ley; hulless oats direct from SAM BOBER, Ne South Dakota and save money.

Alfalfa Seed—95% pure, $6.50 per bushel; Scar sweet clover, 95% pure, $5.50; bags free. GEO BOWMAN, Concordia, Kansas.

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Free Aluminum Dessert Molds, with the fruit ored gelatine dessert Sunlite-Jell. Note delicious a of fresh ripe fruit when boiling water is added. grocer has Sunlite or can get it. Write SUNL Waukesha, Wis., for illustrated Free Aluminum Offers.

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Mattresses made any size, low factory prices. log free. PEORIA BEDDING COMPANY, Pe Illinois.

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Homespun Tobacco—Smoking or chewing. 4 $1.00; 12, $2.25. Send no money, pay postmaste arrival. Pipe free for ten names of tobacco u UNITED FARMERS OF KENTUCKY, Padu Kentucky.

Homespun Tobacco—Guaranteed, good flavor. C ing, 5 lbs. $1.00; 10, $1.75; Smoking, 5 lbs. 75c; $1.25. Pay when received. FARMERS UNION, field, Ky.

Send us 5 names of tobacco users with order f lbs. of our tobacco for $1.00 and get an extra p free. Pay when received. FARMERS' ASSO TION, West Paducah, Ky.

Guaranteed Homespun Tobacco—Chewing 5 po $1.00; 10—$1.75; Smoking, 10—$1.50. Pipe Pay when received. UNITED FARMERS, Bard Kentucky.

SALESMEN WANTED

ted—We are increasing our sales force and can **eral** good men in each state. Men with knowl- **t** dairy farming and some sales experience pre- Work, establishing agents and assisting agents **ll.** calling on milk plants, dairy farmers, cream- **etc.** We manufacture complete line of cream **tors,** portable and pipe line milking machines, **la**ifiers, whey and milk separators for creamer- **d** cheese factories. Emulsifiers for ice cream and bakeries. A very complete line offering **ful** opportunity for a hustler. We pay generous **ssion,** lend samples, finance advertising, carry **ts.** If you have ambition, want a business of **wn,** can sell with our special training and help- **at** once advising territory you could cover, **r** you have car, etc. Address SALES MANAGER, **SWALD** ADV. AGENCY, 401 Otis Bldg., Phila- **a,** Pa.

smen—A national producing and sales organiza- marketing products sold to dairy farms, cream- **etc.,** is about to expand its distribution. Sales- **who** either have sold to cattle breeders or who **tand** them will find it worth while to communi- **ith** us. The products are without competition. **arnings** are practically without limit. To a **l** number of the right type of men we offer the **ve** sales franchise in certain territories, of which **ommunity** may be one, and the opportunity to **on** a permanent basis, the exceptionally large **ssions** that are paid in this line of selling. immediately, giving references and state whether **n** a car. AMERICAN OIL & DISINFECTANT , 114-5th Ave., New York.

$100 weekly. We have it sure. Something **ifferent.** Open charge accounts for us. Your **er** pays in three months. Build permanent re- **usiness.** Liberal advances against commissions **eipt** of orders. We need a live wire salesman our house paint, barn paint and roof coating **summer** on our new charge account plan. Write to- **PARA** PAINT & VARNISH CO., (Established **3336** East 87th St., Cleveland, Ohio.

smen wanted to sell "Waukesha Mineral Feed." **ive** territory, good commissions. Ask for par- **s** now. H. J. WELSH, Box 111, Waukesha, **isin.** 2-8

AGENTS WANTED

age, Newlife, Power—MotorGlands—Puts pep in **notors.** The most beneficial invention to drivers **rds** ever. 100% guarantee. Gives Ford wonder- **r** cleansers, doubles mileage, prevents crankcase **n,** puts pep, power, speed into any Ford. **.** regular $6.50 per set, special 30 days offer on **-back** guarantee $4.75. Unusual money making **or** whole or part time agents. Write today to **Gland** Company, Dept. H, Mitchell, S. Dak.

nts—New Plan, makes it easy to earn $50.00 to **0** weekly, selling shirts direct to wearer. No **l** or experience needed. Represent a real manu- **er.** Write now for Free Samples. MADISON **ORATION,** 564 Broadway, New York. 5-24

New Household Device washes and dries win- sweeps, cleans walls, scrubs, mops. Complete costs less than brooms. Over half profit. **ER** BRUSH WORKS, 295 3rd St., Fairfield, 7-2

HAY

lfa Hay for Sale. Write for delivered prices. **RT** MILLER & CO., 192 No. Clark St., Chi- **Ill.** 18-*

lfa, Clover Hay, Dairy Feeds, for sale. Write **e** for prices. Weights and grades guaranteed. **BENSON** CO., 332 So. La Salle, Chicago. 25-*

lfa Hay for Sale—A. B. CAPLE, Route 3 **burg,** Ohio. 4-*

lesale hay and straw. Write us for prices. **yments** solicited. We buy straw or timothy. **REID** & CO., 79 Board of Trade, Chicago, **s.** 2-*

—Alfalfa and other kinds. Get our delivered We serve you best. W. A. FERSON HAY **AIN** COMPANY, Kansas City, Mo. 17-*

lfa and all kinds hay. Ask for delivered prices. **Y.** D. GATES COMPANY, Jackson, Michi- 22-*

Sale—Alfalfa and other hay, car lots. CHAS. **ING,** Box 21, Mechanicsburg, Ohio. 27-*

lfa Hay for sale. Get our delivered prices. R. **ALL** CO., Kansas City, Mo. 4-6

For Sale—Any kind in carloads. GEO. L. **ERICK,** Beaver Dam, Wis. 5-4

FEED BAGS

Seventeen years we have paid the highest prices **irymen** for their empty feed bags. Get our **ions** before selling. THE DAYTON BAG & **AP** CO., Dayton, Ohio. 4-*

MISCELLANEOUS

Crop Table Rice—Fresh and sweet. From to consumer. 100 pounds beautiful white rice **e** sacked $4.50. J. Ed. CABANISS, Box 444, Texas. 7-2

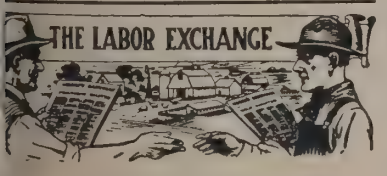
mer's Wool—Made into blankets, batting and **at** fair prices. Send for circulars. MONTI- **O** WOOLEN MILLS, (Estab. 1866), Monticello, **nsin.** 7-4

one of our leather bound loose leaf pocket herd and be able to give accurate information re- **g** the animals you have for sale. Will ac- **odate** 100 animals, (sketches, sire, dam, date of **records,** service date, etc.). Also service record, **ion** table. Price $2.00, postpaid. HOARD'S **YMAN.** Fort Atkinson, Wis. 24-*

TESTERS WANTED

a Cow Testing Associations need testers. Sal- **$900** per year and up, plus board. Training **s** offered. Give age, experience, references first DAIRY EXTENSION, IOWA STATE COL- **E,** Ames. 20-*

with practical dairy training wanted for cow **s** in Illinois. Give references and complete ex- **ce** first letter. C. S. RHODE, University of **is,** Urbana, Illinois.



dvertising in this department is 8c per word. Remit in advance.

HELP WANTED

nted—Married man on dairy farm. Must be able **willing** to work in the field as well as care for **milk** cows. Give experience, size family, age, and **wanted.** Steady work for right man. Feeding, **ng,** etc., not considered chores. Address BOX **care** Hoard's Dairyman.

nted on dairy farm where clean milk is produced, **n** capable of taking entire charge of 15 or more **milking,** care and working 80 acres of good level **chance** to rent 50-50 if work is satisfactory. **wages** wanted, size family and all particulars **letter.** J. R. JENNINGS, Box 395, Ladysmith, **nsin.**

nted—Married man for farm and dairy. Regis- Holsteins, milker, tractor, electricity, running Will pay house, garden, fuel, milk, half of **ns** and $75.00. His wife washes milking uten- otherwise $65.00. H. R. DOPP, Oconomowoc, **nsin.**

nted—Experienced milker. Single man 35 or **preferred.** Jean Du Luth Farm, 1010 Alworth **.** Duluth, Minnesota.

HELP WANTED

Wanted—Middle aged man and wife. Man to manage farm. Must be good dirt farmer and understand stock raising and be a good leader. Wife to cook for help. Position open at once. DR. VERMEIREN, 129 Main St., Green Bay, Wis.

Wanted—Man to work on dairy farm, single or married with no children, to live in house with man and wife. Woman to help with house work. Must have clean habits. Good wages. C. H. SEIBEL, Buffalo Center, Iowa.

Wanted—Married test cow milker and herdsman on a modern Guernsey farm, central New York. State age, Nationality, number in family, previous experience, salary expected with reference in first letter. Address BOX 357, care Hoard's Dairyman.

Wanted at Once—Farm hand willing to work and good milker for Brown Swiss dairy in St. Lawrence County, New York. State wages expected and qualifications in first letter. Address J. F. ZOLLER, care of General Electric Company, Schenectady, N. Y.

Wanted—Experienced single man for barns on large Holstein dairy in Illinois. Steady, dependable man, good milker. $65.00, board and bonus. Address BOX 359, care Hoard's Dairyman.

Wanted—Assistant herdsman with wife to cook for men. Man must be clean and kind to cows, woman must be good cook. Steady employment. $90.00 per month, room and board. HORD BROS., Box 728, Midwest, Wyoming.

Wanted—Man on dairy 30 miles from Kansas City, Kansas. 75 cow barn, milking machine. Must know rations, calf raising and produce results in building up herd. Single man preferred. State reference and salary expected. Address BOX 331, care Hoard's Dairyman.

Wanted—Man for general farm work. Modernly equipped. One-half mile from city. No cigarettes or booze. Send references. State wages and full particulars in first letter. BYRON GATES, Fort Atkinson, Wis. 6-*

Wanted—Clean, reliable, single middle-aged man to work in and take charge of dairy. 45 to 65 cows. DeLaval milker. Grade A milk. Give age, nationality, experience, references, salary expected, etc. GLASER MODEL DAIRY, Halleck, Nevada.

Railway Positions—Men, 17-40, wanting positions office or on trains, $125-$400 monthly, free passes, experience unnecessary. Write BAKER, Supt., 124, St. Louis, Mo. 1-24

Wanted at once single man for dairy and general farm work. Must be good hand milker and know how to handle horses. Year around job. $65.00 per month. BEN J. MAY, Spring Grove, Illinois.

Herdsman Wanted—Holsteins, salary open. Must be high class, experienced feeder, and a successful A. R. O. man. Single man preferred. Address BOX 351, care Hoard's Dairyman.

Wanted—A reliable, experienced, man for general farm work. Mechanical milker used. State age and wages in first letter. W. J. BRAY, Elkhorn, Wis. 6-2

Wanted—Man to plan and build an up-to-date milking barn. Write ATWOOD STOCK FARM, Winston-Salem, N. C. 6-3

Firemen, Brakemen, beginners $150-$250 monthly; also clerks, railroads everywhere (which position?). RAILWAY ASSOCIATION, Desk M-10, Brooklyn, N. Y. 6-2

Wanted—Single man of clean habits to take care of 25 cow dairy barn and assist with poultry. Highest wages. FLOYD LE MAY, Belvidere, Ill. 6-2

Wanted—Reliable married man to feed and care for good herd. Must be able to take active charge of dairy barn. S. R. LEWIS, Marseilles, Illinois. 7-2

Wanted—Single man to drive milk wagon and assist with chores. $65.00 per month, room and board. F. N. HERSHBERGER, R-5, Louisville, Ohio.

Farm hand, tractor experience. State wages and age. HAROLD MUMDORF, Route 7, Box 105, Dixon, Illinois.

Wanted at once—Single man with good habits. Farm and dairy. CRYSTAL SPRING STOCK FARM, Littlestown, Pa.

Single man. Steady work on farm. References. B. R. GATES, Fort Atkinson, Wisconsin. 7-*

The Institute of Agriculture, Springfield, Massachusetts, has a few first class men available for positions as farm managers, farm foremen, herdsmen, orchardmen, poultrymen, and gardeners. 26-Spl

POSITION WANTED

Here is a man you may need. Good dairyman, A-1 in any line. Also good farmer, teamster and good farm mechanic on any machine used on the farm, autos, trucks, tractor, electrical equipment. Have been in a training school this winter and can give anyone good service, willing to help anywhere needed, cheerfully. Single, 45, healthy. Speak French, German and English. Reference given. ALBERT FISHER, 2214 Prospect Ave., Cleveland, Ohio. 7-2

Retail Route Man—American, single, 27, refined and well educated, of long experience, desires permanent connection where highest type of man is needed. Thorough executive training. Only a large proposition considered that can pay good wages with advancement when ability is proven. Please give full details and wages for an answer. Address BOX 356, care Hoard's Dairyman.

Position wanted by German, 33, single, as manager of large dairy farm or estate. Thoroughly experienced in diversified farming, rotation crops, Holstein cattle and hog breeding. Studied in England and held position as supervisor in Germany. College graduate. Best of references. Please address OTTO E. SCHROEDER, 4049 N. Oakley Ave., Chicago, Illinois.

Wanted—Herdsman position by A-1 feeder and calf raiser. Seven years experience in official work. Handled big herds successfully. Desire connection with Holstein or Guernsey herds doing official work. College man, single, 32 years old. Irish American. Salary to start $100.00 per month. With complete maintenance. Address BOX 348, care Hoard's Dairyman.

Livestock man wishes opportunity to work and own share in dairy farm. Must be in good farming section. Rich men's hobbies not considered. Single, 36. Experienced North and South. Good mechanic and electrician. References. J. H. WILSON, McCormick, South Carolina.

Dairy Farm Superintendent—Lifetime experience in practical dairy farming, cattle breeding, production and marketing certified and high class milk products. Services available in sixty days, any section, references. Prefer Guernseys. Address BOX 334, care Hoard's Dairyman. 6-4

Wanted—May 1st or June 1st, position as herdsman. Married. Fifteen years experience in breeding, testing and milk production in purebred Guernsey and Holstein herds. Will go anywhere. Address BOX 354, Hoard's Dairyman.

Wanted—Herdsman position. Married. Prefer place where wife can cook or work in dairy. Experienced A. R. O., certified and milking machines. A-1 feeder and calf raiser. Age 35, best references. State wages. Address BOX 361, care Hoard's Dairyman.

Experienced farm manager, married, wants position May 1st. Experienced in all farm and dairy work, highly recommended, 20 years last two places. No proposition too large. Address BOX 349, care Hoard's Dairyman.

Wanted—Position as milker on dairy farm. Can milk and care for twenty or twenty-five head of cattle. Good dry hand milker, steady worker, of good habits. Married, no children. State wages, etc. Ready May first. Address BOX 347, care Hoard's Dairyman.

Wanted—Position as working herdsman or entire charge of test cows. College training, practical experience, 35, married, no children. Address BOX 337, care Hoard's Dairyman. 6-2

POSITIONS WANTED

Position Wanted by herdsman—Lifetime experience, breeding estates and commercial dairies. A. R. O. work, veterinary experience. Grade A and certified milk. Salary $150 per month. BOX 235, Monticello, Florida.

Herdsman wants position on dairy farm. Experienced with test cows, feeding, calf raising. Married, 28 years. Best reference. Address BOX 360, care Hoard's Dairyman.

Herdsman, single, age 23, wants position on up-to-date dairy farm. College training, practical experience in production of Grade A milk. Calf raiser and showman. Address BOX 358, care Hoard's Dairyman.

Position Wanted—April 15 by experienced farmer as foreman on modern dairy or stock farm. Can board help if necessary. Make offer in first letter. Address BOX 353, care Hoard's Dairyman.

Herdsman—Married, age forty, fifteen years experience, advanced registry and showing. Good calf man. Open May 15th. Best of references from present and past employers. Address BOX 22, Blackduck, Minn.

Wanted—Position on dairy farm as herdsman or test milker. Can show references if wanted. Address BOX 355, care Hoard's Dairyman.

Position Wanted by experienced dry hand milker on dairy, no general farming. BERT GRIFFITH, Star Hotel, Fond du Lac, Wisconsin.

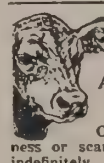
Scotchman wants job as calf man. 12 years last job. Experience at shows. JOHN McCORMACK, Iowana Farm, Davenport, Iowa. 6-2

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

The Dayton State Hospital of Ohio reports that their milking herd of 72 registered Holstein cows and heifers, most of them bred on the farm, produced a total of 753,973 lbs. of milk during 1926, an average production of well over 10,000 lbs. per animal. Individual cows on A. R. test for 305 or 365 days in Subdivision B made records of from 13,750 lbs. to 17,458 lbs. milk and as high as 565 lbs. butterfat (706 lbs. butter).

For SALE or TRADE
160-Acre Farm, 145-Acre Farm
305-Acre Farm fully equipped, all new personal, cattle, horses, cows, everything electrical.
N. M. KERSTEN, De Pere, Wis.



Horns Can't Grow!
After using TOMELLEM PASTE on calves up to 2 months old. An **easy** and **safe** way to do away with dangerous horns. One application enough. No bleeding, soreness or scars. Endorsed by county agents. Keeps indefinitely. Bottle sufficient for 50 calves. **$1.00 Postpaid.** At dealers or direct by mail from
TOMELLEM CO., Dept. B, CALICO ROCK, ARKANSAS

IMPOTENT BULLS
CAUSE and TREATMENT
See March 10th Hoard's Dairyman Page 287
W. W. WILLIAMS, D. V. M., SPRINGFIELD, MASS.

Serviceable Guernsey Bull
SHOW TYPE—DAM ON TEST
We have for sale a high class year old bull sired by a son of a former world's record cow. He is a real show prospect from one of our best cows that is just starting on test. The price is right for quick sale. Write today.
MATT DOMASZEK & SONS.
Amherst Jct., Wisconsin

HEADQUARTERS FOR Quality Holsteins
The kind we breed are the kind you need. Over 40,000 to pick from. To be convinced come to our headquarters and let our fieldman show them to you. His service is free. Whether you want grades or pure-breds, single or carload lots, we have them for you.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASS'N.
Fort Atkinson, Wisconsin

STEELE COUNTY HOLSTEINS
are noted for their size, type and production. Pure-breds or grades. One or a carload.
GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINN.

Clover Lawn Ormsby Fobes
Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN



600 REGISTERED HOLSTEINS To Be Sold April 12 to 22

(*Inclusive*)
BY THE

Wisconsin Holstein Sales Association

breeders from seventeen leading Holstein Counties, co-operating.

This is the greatest line-up of practical producing Holsteins ever assembled for ten consecutive days selling. For the carload lot buyer, provision has been made to enable him to concentrate cattle at any of the selling points listed below. These sales are offering a wonderful opportunity for replacement purposes.

There will be **125 BULLS,** many of them out of tested dams with records up to 30 and 1,000 lbs. There will be **300 COWS** from two years to full age. Many of these animals have creditable records and are out of the very best herds in the state of Wisconsin. There are also cows with good cow testing association records. There will be **175 HEIFERS** under two years. These heifers are good individuals from high producing, well bred herds.

The cattle to be sold in these sales come from the foremost Holstein breeding communities and counties in the state, many of them from Area T. B. tested counties, many of them from Federal and State Accredited herds, and all will have been tuberculin tested before being sold in the sales.

Order in which the Sales will be held is as follows:

April 13—LAKE MILLS—70 head
Breeders from Rock, Columbia, and Jefferson Counties co-operating.

April 13-14—MADISON—125 head
Breeders from Dane, Iowa, and Richland Counties co-operating.

April 15—REEDSBURG—70 head
Breeders from Sauk County.

April 16— MAUSTON— 70 head
Breeders from Juneau County.

April 18-19—Fond du Lac—125 head
Breeders from Fond du Lac, Washington, Waupaca, Winnebago, Sheboygan and Manitowoc Counties co-operating.

April 20—MARSHFIELD—70 head
Breeders from Wood and Marathon Counties co-operating.

April 21—NEILLSVILLE—70 head
Breeders from Clark County.

April 22—MENOMONIE—60 head
Breeders from Dunn County.

Write for illustrated circular, giving more complete information on this sales series, to

JAMES R. GARVER,
704 Beavers Insurance Building,
MADISON, WISCONSIN
In Charge of Publicity and Sales Correspondence.

Wisconsin Accredited Hatcheries Association Co-operative

AFFILIATED WITH THE INTERNATIONAL BABY CHICK ASSOCIATION.
Members advertising below have had their flocks inspected and accredited by the Wisconsin Dept. of Markets. Demand Wisconsin Accredited Ass'n Chicks. Your state protects you. OFFICE OF SECRETARY, COLUMBUS, WIS.

FAMOUS WINTER LAYERS

OOCO CHIX

WISCONSIN ACCREDITED HATCHERIES ASSOCIATION

DON'T EXPERIMENT!

QUALITY BEGETS QUALITY. Chix can be no better than the hens that laid the eggs. Show dividends from your poultry every month of the year. Buy OOCO PURE BREDS from State inspected and Accredited flocks. We can furnish you stock from trap-nest flocks with records of 200 to 290 eggs in 365 days. Quality and service always.

Place your order with us now and get your chix when you want them!

THE OOCO CHICKERIES *Write for Catalogue* OCONOMOWOC, WISCONSIN

The Old Reliable



MUELLER - CORY HATCHERY

207 MAIN ST. FORT ATKINSON, WIS.

BABY CHICKS! *Get the large, strong, easy-to-raise kind that have made the Mueller-Cory Hatchery famous!*

FREE! Our new bulletin entitled "Are You Keeping Hens or Are Your Hens Keeping You?" will be mailed free to all who ask for it. A fund of valuable information based on actual experience in the poultry business.
Write for our large, handsomely illustrated catalog and read it from cover to cover. Compare the *facts* contained therein with the *claims* made by others. Then decide for yourself where your investment will net you the greatest profit.

MUELLER-CORY HATCHERY, 207 Main St., FORT ATKINSON, WIS.

Figure This Up!—

100 Blackhawk Accredited chicks hatched from flocks producing 140 to 160 eggs per year or better at **$15.00 per 100.**

100 ordinary hatchery chicks hatched from flocks of unknown egg production, probably not more than 80 to 90 eggs per year, which is high average for this type of flock at...**$12.00 per 100.**

As the offspring will be no better than the flocks which produced them, which is the cheapest?

Drop a postal for our fine 48 page catalog for the answer and see unretouched photographs of the flocks producing our hatching eggs, also each breed of chicks we hatch ready to ship.

BLACKHAWK HATCHERY, 126 Randal Ave., JANESVILLE, WIS.

BABY CHICKS

Wisconsin Accredited Quality

ORDERS FILLED PROMPTLY—ASK FOR CIRCULAR.
SATISFIED CUSTOMERS OUR BEST ADVERTISEMENT.

WATERTOWN POULTRY FARM, Uri Laskey, Prop., Watertown, Wis.

PINECREST ACCREDITED CHICKS

make satisfied customers. Send for copy of our free illustrated catalog. It tells about the 12 most popular varieties of chicks. Our chicks are hatched right. We know they will please you.

PINECREST HATCHERY, Box 9, FORT ATKINSON, WISCONSIN

WHITE LEGHORNS

BABY CHICKS, 10 WEEK OLD PULLETS, HATCHING EGGS from a farm breeding and trapping S. C. W. Leghorns exclusively. Every egg produced on our own farm and backed by seven generations of 200 to 297 egg males. Write for mating list.

SUNNY SLOPE FARM, C. HOWARD KING, R. 5, MADISON, WISCONSIN

MONEY-MAKING LEGHORNS, ANCONAS

and 5 other popular breeds. Our old customers are more than doubling their orders this year. Our flocks are repeated culled and all State Accredited. 4 TIMES LARGER CAPACITY. Write for our catalog and attractive prices.

COBB'S CHICK HATCHERY, LAKE MILLS, WISCONSIN

Chicks That Make Good



Our flocks are bred for egg production. We have male birds from hens with records up to 284 eggs in our flocks. Our catalog gives valuable information on care of chicks, construction of mash feeders, letters from old customers, views of our plant, etc.

Write for Free Copy Today
All Popular Varieties

DURFEE'S POULTRY FARMS. R. 2, Box 165. MADISON, WIS.
First Accredited Farm in U. S.
In Business 16 Years

We are always pleased to receive suggestions in regard to every department of Hoard's Dairyman

CHESTNUT HATCHERY

ACCREDITED AND UNDER STATE SUPERVISION FOR 4 YEARS
All flocks inspected and accredited. 100% Live Delivery Guaranteed. Postpaid.

Varieties	25	50	100	Varieties	25	50	100
S. C. Wh. Leghorns	$3.50	$6.50	$12.00	Wh. Wyandotte	$4.25	$ 8.00	$15.00
Bar. Rocks & S. C. Reds	4.00	7.50	14.00	Part. Rocks	4.25	8.00	15.00
Wh. & Buff Rocks	4.00	7.50	14.00	Wh. Orp. & Lt. Brah.	5.50	10.00	19.00
Buff Orpington	4.25	8.00	15.00	Asst. Heavy	3.00	5.75	10.50

Wh. Langshans, $18 per 100. On orders for 500 deduct ½c per chick; on 1000 orders deduct 1c. No Disc. on Ass't. Ref., Bank of Chestnut. Mem. I. B. C. A. Chicks shipped under State Label.

CHESTNUT HATCHERY Box H CHESTNUT, ILLINOIS

Poultry on the Dairy Farm



Better Quality

With the increased specialization during the last few years it is imperative that anything produced must be improved in quality. During the readjustment period good cattle were in demand. Each season the producers of quality seed grains can always obtain outlets. Most of the adverse complaint that we hear now and have heard comes from the producer of either fair or inferior quality produce that wants a quality price.

Just recently a friend complained because he did not obtain a winter production from his flock. The house was satisfactory, the ration was correct, and his management was about right. He even claimed early hatching and finally said that the chicks of a medium large breed were hatched late in June. The entire explanation was in that one statement. He had planned for a March production and expected the flock to beat the gun by three months. June hatching will only produce March layers. It cannot be otherwise.

Now is the time to plan the winter egg production.

First in that plan should be the ambition to replace the present laying flock in whole by well matured pullets. This fact applies particularly when the owner is interested only in egg production and does not plan on retaining the flock for breeders. It is needless to state that pullets will produce more economically and will return a higher net income than hens.

The pullets must be hatched early enough to be well matured and ready to start in October. They should at least reach a 50 per cent production by the middle of November. The earlier this point is reached the bet ter, except that a summer production must be discouraged when a sustained winter production is desired.

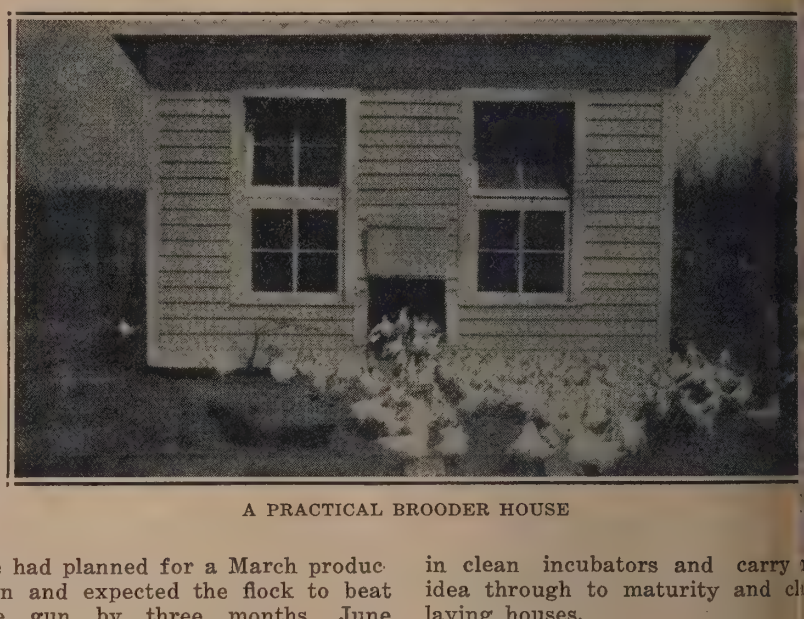
In one instance when the two flocks were carried in separate pens, the November production from pullets was 5.13 eggs per bird while the hens averaged 0.77 egg. In December the pullet average was 11.94 eggs and the hens 0.38 egg.

In another instance a flock in Douglas County showed the following comparative costs. These were based only on cost of feed and litter, not including labor, interest, ta and the other items that consti overhead:

Month	Pullets	Hen
January	13.1c per doz.	56c per
February	13⅜c per doz.	42½c per
March	11⅓c per doz.	12½c per
April	10¼c per doz.	10½c per

This gives one something to t about when trying to deterr which end of the horn they plan crawling through.

Second in consideration should a complete acknowledgment tha portable colony house is an abso necessity. The biggest single loss countered in chick rearing co from a lack of proper sanitation usually includes coccidiosis and testinal parasites. If a proper preciation of clean range for b from time of hatching to matu could be emphasized, we would n nearly realize its importance. P ably we should start with clean



A PRACTICAL BROODER HOUSE

In clean incubators and carry idea through to maturity and cl laying houses.

In the "good old days" of a do or more hens per farm, the prob of clean range was not a probl There were not enough head of p try per farm to cause any congest If there was a problem it was noticed because poultry did not resent a source of income.

With a manifold increase in p try population there was not any tempt made to increase the ra and contamination resulted. Pro bly if we had maintained the s proportion between area and num after enlarging the farm flocks as prevailed previously, the prob could have been solved.

Since the damage has been d we must make the best of it move out on clean range or rat consider the poultry in our regu rotation. The laying house does make a suitable brooding house.

A proportion should exist betw size of house and number of chi in brooding, the same as we fin ration in winter housing. In many instances all the chicks t can be put into a house is conside the correct number. Usually un this method the loss brings the t down to what is desired.

It is usually cheaper to start w what the house should carry e though they may seem lost for first few weeks. Growth during

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Bd. Rocks, R. I. Reds	3.50	6.75	13	62.50
Wh. & Buff Rocks	3.75	7.25	14	67.50
Blk. Minor., Wh. Wyan.	3.75	7.25	14	67.50
S.L. Wyan.	4.00	7.75	15	72.50
Anconas	3.25	6.25	12	57.50
W. & B. Orp.	4.00	7.75	15	72.50
Heavy Asst'd.	3.00	5.75	11	52.50
H. & L. Asst'd.	2.75	5.25	10	47.50
Light Asst'd.	2.50	4.75	9	42.50

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first few weeks is rapid and the house may be overcrowded even before the broilers are removed.

As an instance: A baby chick will weigh about 1.4 oz. which means that 600 total about 50 lbs. In eight weeks they can average 27 oz. or a total of 1,000 lbs. This is 20 times their original weight.

A 56-lb. Jersey calf at birth, if making the same rate of growth, would make a 1,000-lb. heifer in two months.

Size of house is influenced by the amount of range which the chicks are allowed, the necessity of closely confining or free range, and several other factors. Just as a guide one can use the following table:

Size of house	Chicks
8' x 8'	100—150
8' x 12'	150—250
10' x 12'	250—350

Probably 400—450 chicks should be the maximum number brooded in one lot. Two small lots will return better results than one large one even when labor is considered. There is, apparently, a limit to which factory methods can be carried in chick management by the average caretaker. There are always exceptions.

Most of the plans call for a shed roof colony house with only a single wall construction. Paper is either used on the studding with matched siding or rough lumber may be used and covered with heavy roofing paper. This type of wall eliminates draft. Heat is not an essential since the stove supplies that need.

A double board floor with paper between is recommended. Not only a better type of floor construction is obtained, but the house will stand moving with this more rigid construction. A warm, dry, draft proof floor is a necessity.

The house is twelve feet deep and either eight or ten feet wide. A front elevation of seven feet and a rear elevation of 5 feet is adequate and allows the attendant room to work. There will be a few bumps but one gradually comes to a realization of the size and "stoops accordingly."

The twelve-foot depth allows the brooder to be placed at the rear of the house. With this arrangement the front portion can be kept at a lower temperature and is used as a feeding space. It is advisable to place the brooder to the extreme back of the house allowing only space to get between the canopy and the rear wall.

One universal error is occasioned by the use of a thermometer. Because the directions may call for a given temperature, the novice usually tries to carry that amount of heat regardless of what the chick demands may be. In most cases we would think that they were trying to brood thermometers rather than chicks because the thermometer is the only thing satisfied. Under average conditions better results would be obtained if there were no thermometer. Run the heat according to the action of the chicks.

Usually an excess of heat must be furnished. Poor results can be occasioned by overheating, the same as chilling, but the reverse usually prevails. Especially at night one should have enough heat supplied so that the chicks form a circle outside of the canopy. This allows for sufficient reserve so that when the temperature does drop toward morning, the circle can still move back toward the stove under the canopy and have a sufficient reserve supply. If they are getting the maximum when visited for the last time at night it means that they will be chilled before morning.

A chick guard is made of a galvanized strip about 18 inches wide and 6 or 8 feet long. Legs or strips are

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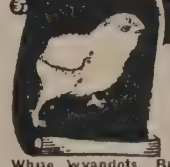
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Barred, White, Buff Rocks, Reds	7.50	14.00	67.50	130.00
Buff Orpingtons, White Wyandottes	8.00	15.00	72.50	140.00

Other Breeds, per 100: Anconas $13; White Minorcas, Rhode Island Whites, Silver Wyandottes, Partridge Rocks $16; Brahmas, Buff Minorcas $18; Jersey Giants $21. Write for prices Andalusians, Black Spanish, Langshans, Columbian Wyandottes, and other breeds.

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Light Mixed, $9.00, Heavy Mixed $13.00 per 100. Our chicks are Michigan Accredited. 10% down books your order. Free catalog. 100% live delivery prepaid.

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Barron White Leghorns, mated with Impt. Males	$10.50	$20.00	$95.00	$180.00
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White, Brown, Black and Buff Leghorns, Anconas	7.00	13.00	62.00	120.00
Barred and White Rocks, S. C. and R. C. Reds, Black Minorca	8.00	15.00	72.00	140.00
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White and Buff Minorcas, 100, $20. Light Mixed, 50, $5; 100, $9.50. Heavy Mixed, 50, $6.50; 100, $12. If you have never purchased **20TH CENTURY CHICKS** give them a trial in 1927 and be convinced of the High Quality we produce. Get our 1927 Catalog sure or order direct from this ad. Member A. B. C. P. A. Ref.—Commercial Bank. **20TH CENTURY HATCHERY,** **Box 27,** **NEW WASHINGTON, OHIO**

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10 Pound Trial Pail For 30c In Stamps.

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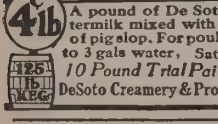
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bolted on this strip so that it will stand upright.

The range of vision of a newly hatched chick is very limited. They learn to feed by the sound of the material being dropped and probably locate themselves in respect to the stove by a sense of feeling. It is necessary to guard them against getting lost.

The guard acts ideally in that capacity since one or two can be placed around the front of and about 18 inches away from the stove. As the chicks develop the guard may be moved farther away permitting the chicks more range.

A second advantage of the use of this guard lies in the fact that it tends to cut off a floor draft since it is set right into the litter and also permits of a better circle around the stove. During the first couple of days the chicks will form a circle completely around the stove. Due to the windows being placed only on the south side, the light is obtained only from that direction, making that part of the brooder light and teaching the chicks to circle only at the back. With the guard in place the front portion is darkened and the chicks will form a more complete circle.

Corners should be banked. One may do this either by building a sloping bank with boards, eliminating the corners by the use of inch mesh wire or roofing paper, or making a cone or fan shaped bank with a grain sack nailed along the floor and either side up the wall to a point and pulled taut. All of these means have been used successfully. Do not take a chance on corners.

If clean range is available for the chicks it is necessary only to keep them housed long enough to accustom themselves to that amount of space. The guard is moved each day, permitting the chicks more range. After this, outdoor range can be supplied. It is a question of clean range rather than temperature that determines whether chicks must be confined or turned loose. It is necessary for most people to overcome the existing prejudice about chicks getting chilled outdoors. If the sun is shining, even though the temperature may seem low or there is snow on the ground, turn them out. As long as they don't huddle in a bunch outside but are broken to go back to the stove when cold, then growth will be satisfactory.

If, however, there has been any trouble with intestinal parasites in the old flock or absolutely clean range, meaning that range other than what the old flock has used is not available, one should keep the chicks confined to the house or else in a covered yard with a fill of clean sand, gravel, cinders, or a cement feeding floor. Enough is known at the present time about nutrition, especially in respect to chicks, to properly fortify a ration that will promote growth under these conditions.

Don't take a chance on anything except a new, clean range. It is necessary to keep the flock confined until it is possible to move the house out to new fields. This may be for a period of only 6 to 8 weeks or longer, depending upon how long heat is required and how much labor is entailed.

Worm infested chicks or pullets with chronic coccidiosis cannot make good producers. Build a foundation during the brooding season that will carry the heavy production demanded next winter.—J. B. HAYES.

A question of national interest has recently arisen and we think it proper to pass comment.

"Does an incubator chicken love its mother?"

Value of Various Protein Supplements for Egg Production

The Missouri Station reports experiment with laying hens various protein concentrates, with minerals and some without t

The following protein concentr were fed to White Leghorn hens had passed through at least one ing season: cottonseed meal, soy meal, tankage, meat scrap, fish and dried buttermilk. The cotto and soy bean meal mashes were pared to similar mixtures conta a mineral mixture. The mineral plement consisted of 4 pounds s bone meal and 1 pound salt; o shell and soft limestone rock available to all pens. The basal consisted of equal parts of shorts and cornmeal. The remai of the ration was a mixture pounds of corn and 1 of oats, monly called scratch feed. The companying table shows the re from November 1, 1923, to Oct 31, 1924.

Pen No. and ration	Grain per hen per year	Mash per hen per year	Ave. egg pro-duc-tion
	Lbs.	Lbs.	
1. Cottonseed meal 30%	50	21	67.4
2. Cottonseed meal 30%; mineral mixture 4%	55	15	116.9
3. Soy bean meal 30%	55	17	69.9
4. Soy bean meal 30%; mineral mixture 4%	50	21	121.0
5. Tankage 20%	54	20	109.0
6. Meat scrap 20%	56	20	107.0
7. Fish meal 20%	53	20	110.6
8. Dried buttermilk 30%	56	24	128.5

Of special significance is the e of the addition of the steamed meal and salt to the cottonseed soy bean meals in reducing amount of feed per pound of egg compared with these same su ments without the mineral subst es. It will also be noted that greatest average egg production in the pen receiving dried butter and that the feed per pound of was next to the lowest of any of groups.

Did You Ever Give a Thought To This?

That hard times mean nothin a hen? She keeps on digging wo and laying eggs, regardless of v the newspapers say about conditi If the ground is hard, she scrat harder. If it is dry, she digs dee If she strikes a rock, she w around it.

But always she digs up worms turns them into hard-shelled pr as well as tender broilers.

Did you ever see a pessimistic h

Did you ever know of one star to death waiting for worms to themselves to the surface?

Did you ever hear one cackle cause times were hard?

Not on your life. She saves breath for digging and her cackle eggs.—Kreolite News.

Sunlight and Eggs

At the annual meeting of the consin Accredited Association, fessor J. G. Halpin of the Wisco College of Agriculture stated experiments have proven that di sunlight is beneficial in the pro tion of eggs, and that all hens f which eggs are to be used for ha ing purposes should be given as m direct sunlight as possible during winter months.

U.S. NATIONAL SALE
R. E. Haeger
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U.S. NATIONAL SPRING SALE

America's Best Holsteins

400 HEAD—60 Bulls - 340 Cows and Heifers

BULLS whose dams have 7 day butter records from 30 lb. to 37.81 lbs.

BULLS whose dams have 7 day butter records from 20 lbs. to 29 lbs.

BULLS whose dams have 305 or 365 day butter records from 1000 lbs. to 1278 lbs., up to 35339 lbs. milk.

BULLS whose dams have 305 or 365 day butter records from 900 lbs. to 1000 lbs.

25 COWS with 7 day butter records from 30 lbs. to 37.81 lbs. and up to 765 lbs. milk in 7 days.

15 COWS with 305 and 365 day butter records from 1000 to 1184 lbs. and up to 27000 lbs. of milk.

60 FEMALES whose dams have either 30 lbs. butter in seven days or over 1000 lbs. in a year.

250 COWS and HEIFERS richly bred and many of them with good records that are just fresh or ready to freshen soon after the sale.

CHOICE INDIVIDUALS with REAL DAIRY QUALITY!

BLUE RIBBON - U.S. NATIONAL - SPRING SALE

APRIL 25	APRIL 26-27	APRIL 28-29
OCONOMOWOC, WIS.	WATERTOWN, WIS.	WAUKESHA, WIS.
Will be held in the Riding Academy at the Fred Pabst Farm two miles southeast of Oconomowoc	*Will be held in the Monitor Tractor Building*	*Will be held in the Waukesha Sale Pavilion*

YOUR OPPORTUNITY to go to a sale where you have such a WONDERFUL SELECTION to choose from of the BREED'S BEST animals consigned from the very BEST HERDS in America. No person interested in Holsteins can afford to miss this Greatest of ALL SALES.

Write for illustrated circular and any information that you may wish before the sale.

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DISPERSAL SALE

70 HEAD
of High Grade
GUERNSEYS

At Auction!
at the
Clean Cow Market
BARN 12
Union Stock Yards
Chicago, Ill.

MACK, Auctioneer

Due to city real estate development at Hinsdale, Ill. (a suburb of Chicago) the Mr. Luther Rogers herd of 68 high grade Guernsey cows and 2 pure bred 2 yr. old bulls will be sold on

THURS., APRIL 21st

AT 10:30 A. M.

This herd was founded on choice Wisconsin selections. The cows are very large, young, and are in excellent flesh. Large numbers of springers, and some milkers. T. B. tested and clean. In our barn day before sale for inspection.

This herd is beyond question one of the outstanding grade Guernsey herds to be found. Every animal will be as represented. For further information write or wire

REID MURRAY, Sales Mgr.
Chicago Dairy Cow Exchange, Inc.
UNION STOCK YARDS
Chicago, Illinois

Fifth Annual Consignment Sale!

CAROLINA GUERNSEY BREEDERS' ASS'N

Fair Grounds, COLUMBIA, S. C., MAY 3

75 HEAD -- Cows and Heifers 3 Select Young Bulls

T. B. and Blood Tested for Abortion.

For catalogue write A. L. James, Darlington, South Carolina.

Mail bids to A. L. James, Sales Manager, Darlington, S. C. or W. W. Fitzpatrick, A. G. C. C. Fieldman, Clemson College, S. C.

We Have Consigned Our Best To the U. S. National Blue Ribbon Sale Oconomowoc, Wis., April 26

Want to own the greatest producing junior four-year-old cow in the state of Wisconsin? **YOU CAN.** Want to own a cow who has just made 32 lbs. in 7 days—a cow that 100 breeders have admired and tried to buy before she had this record. **YOU CAN OWN HER TOO.**

Want to buy a son of North Star Joe Homestead from one of Carnation's greatest foundation cows—a 1,000-lb. cow with a 3.8% test? **YOU CAN OWN THIS BULL.**

Want to own a 3-year-old show heifer out of a 34-lb. 1,000-lb. daughter of Avon? **YOU CAN.**

We let Bob Haeger walk through our herd and pick any four he wanted, and he selected:

1. **AVON ECHO DAISY**—a daughter of Avon Pontiac Echo who has just completed a year record of 28,664.4 lbs. of milk and 1,125 lbs. of butter—the greatest milk record ever made by an animal her age in Wisconsin. Due May 3, 1927 to North Star Joe Homestead.
2. **COREY WOODCREST ORMSBY**—a real show cow with a splendid udder and as good a hide as a cow could have. She has just made 32 lbs. in 7 days, is milking 90 lbs. a day testing over 4%.
3. **BURTON ECHO VIOLA**—the sweetest daughter of Burton you have seen yet, out of a 34-lb. 1,000-lb. daughter of Avon Pontiac Echo.
4. **CARNATION JOE KORNDYKE FOBES**—born May 18, 1926, one of the most desirable sons of our great All American show bull, North Star Joe Homestead. We consider his dam one of the best foundation cows of the Carnation herd, a 1,000-lb. cow with a 3.8% butterfat test for the year. This is a rare bull. It will make someone a great herd sire.

The Above Animals Represent The Best That We Have Been Able To Produce And We Recommend Them To Men Who Want Something Exceptionally Good.

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HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



See additional Live Stock Display Advertisements on page 415, so placed because received too late to classify.



ABORNO

Non-Scour Remedy

Prevents and relieves White Scours in Nature's way, by supplying the elements which the young animal needs to keep its digestive tract working properly so that infection will be successfully resisted and harmful bacterial action neutralized.

ABORNO NON-SCOUR is a simple, wholesome aid to Nature which acts promptly and effectively preventing scours from attacking well animals and overcoming their harmful effects upon ailing ones. To prevent serious losses it should be given all young calves, pigs and lambs up to the ages of 6 weeks.

Easily administered; two or three tablets, dissolved in water used as a drench. Put up in gelatine coated cases, each containing 12 tablets, sent prepaid for $1 per case. If not satisfied with results, price will be refunded.

One calf, lamb or pig saved by using ABORNO-NON-SCOUR will pay for treating a good sized herd. Our guarantee protects you, so send for a case today.

Booklet on Care of Cows at Calving Time, free.

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Keep your horses working with "SPOHN'S." Standard remedy for 32 years for Distemper, Strangles, Influenza, Coughs and Colds. Give to sick and those exposed. Give "SPOHN'S" for Dog Distemper. Sold by your druggist. If not, order from us. Small bottle 60 cents, large $1.20. Write for free booklet on diseases.
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for HORSES MULES and DOGS

Retained Afterbirth

FREE is removed cleanly and naturally without danger of infection, by the B-K way. A warm solution of B-K, funnel, small rubber hose, and pail, the entire equipment.

Ask for our book telling how.

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How to turn losses Into Profits — Cows Calves Poultry Pigs — BOOK

B-K Bacillus

NEWTON'S Compound — For Stock

Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.
The Newton Remedy Co.
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VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Cottonseed Meal Poisoning

There seems to be a widespread prejudice against cottonseed meal as a feed for dairy cows and it possibly is based upon the established fact that this feeding material does contain a poisonous element and will certainly kill hogs when freely fed to them for an extended period. We have even heard it emphatically asserted that the feeding of cottonseed meal to dairy cows is a cause of abortion; but we have no practical evidence that such is the case, unless the feed be made the almost entire ration of the pregnant animal. It is a feed that must be judiciously allowed else ill effects will certainly result. It is a most valuable feed when properly used as a part of the ration along with plenty of silage, good roughage, and mixed ground grains, wheat bran, and linseed meal. Even horses and sheep may take some of it with impunity, but it is unsuitable for them in large amounts. In the southern states cottonseed meal and hulls often form the chief part of the concentrate ration for cattle and we have had no reports of abortion certainly being caused by it, unless the pregnant cows were actually poisoned by it, and that is rare.

Cottonseed meal, in judicious quantities, supplies much needed protein and helps to firm up butter which tends to be softened by too much linseed meal. We have found it a good preventive of undue looseness of the bowels when cows are turned on grass in spring; yet it will cause excessive looseness when excessively fed. Cattle seem to take up to 3 lbs. per day with impunity, provided they also receive silage or roots, ground grains and wheat bran, together with good roughage. It is least likely to cause ill effects when cattle are grazing green grass. Hogs are killed by it when heavily fed thereon for a period of 100 days and cattle so fed for that length of time tend to become sick, lame, and even paralyzed. In them, a sure symptom of cottonseed poisoning is formation of a blood-red ring around the pupil of the eye. Even when made but one-third of the concentrate ration for swine, it proves poisonous after an extended period of feeding. The poisonous element has been determined as a yellow compound called gossypol.

Considering the known poisonous properties of cottonseed meal, we wonder whether it might not be well to omit the feed from the ration of dairy cows that are known to react to the blood test for contagious abortion disease. It may well be done without, as the ration can otherwise be balanced, and it is barely possible that omission of the feed might lessen the likelihood of abortion. Now that the effect of complete and incomplete rations for pregnant cows, and heifers while developing to a breeding age, is being determined by elaborate experiments at the Wisconsin Experiment Station and the effect of minerals in the ration is also being decided, it might be well to consider the possibility of certain feeds having an irritating effect and intensifying the tendency to abortion in affected or susceptible cows. We merely offer that as a suggestion and would also advise readers, experimentally, to omit cottonseed meal and hulls from the ration of pregnant cows, if the abortion disease has been prevalent in the herd.

Anthrax

Last summer I lost all of the calves I started to raise but one. The veterinarian told me the trouble was anthrax and advised me to vaccinate them this year. Where can I get the medicine to do it with and how am I to do it? I know of some men that do their own vaccinating.

West Valley, N. Y. O. H. F.

As anthrax is a dangerous contagious disease and is communicable and fatal to man, an outbreak has to be handled by the state veterinarian or his deputy, along with the attending veterinarian. Vaccination has also to be done by a qualified veterinarian. It cannot be correctly or safely done by the owner, nor do we know of any firm handling biologics that would supply the layman with anthrax vaccine. However, western ranchmen sometimes do their own vaccinating against blackleg where a veterinarian is not available, but scarcely against anthrax. Apply to the U. S. Department of Agriculture, Washington, D. C., for a bulletin regarding anthrax and its control.

Barren Heifer

I have a 2½-year-old registered Jersey heifer that never came in heat to my knowledge. Can anything be done for her to correct the cause?

Delavan, Ill. F. E. S.

If the heifer was twinned with a bull she was a "free martin" and congenitally sterile. Otherwise she possibly may come in heat if you have her ovaries massaged by a veterinarian. Meanwhile douche the vagina two or three times a week with blood-warm (100 degrees F.), boiled water tinged light pink with potassium permanganate.

Sore Teats

We have a new barn on this place which we are using for the first time this winter. It has cement floors all over. We have had considerable trouble with sore teats. They get sore on the ends (sometimes are sort of torn and bleed.) I have laid this to their stepping on their own teats. The teats will, in a day or two after this, get very hard to milk.

Have you heard of any other cases like this? One of our neighbors has had some trouble. We never had this trouble before, but never had concrete floors in the cow stable before. I use all the straw under the cows that I can but this works out of course. Would plank on the concrete help matters any?

Jonesboro, Ind. C. D.

Concrete floors are a common cause of mysterious subacute mastitis or garget. Cover the rear part of each stall with a mat or grating of wood which must then be kept clean. Cork brick makes a good cow stall floor, but cannot well be put in now. Cows with large teats and pendulous

Soft Absorbent Texture →
Small rounded end easy to insert



Dr. Naylor's
MEDICATED TEAT DILATORS

For the treatment of Spider, Obstructions, Hard Milkers, Cut and Brused Teats, etc.

Made of an absorbent texture capable of carrying the Medicated Ointment into the teat canal to the seat of the trouble. They heal the teat and keep it open.

Three doz. Dilators, sterilized and packed in jar of Medicated Ointment, $1.00. Sold by dealers or mailed post paid.

Manufactured by
DR. H. W. NAYLOR, VETERINARIAN, MORRIS, N. Y.

Moore Bros. "Purpul" Medicated Wax Teat Dilators

Thousands of cows are partially or totally reduced in value by neglect of minor teat troubles. Prevent this loss

Use "Purpul" Medicated Wax Teat Dilators

When to Use "Purpul" Medicated Wax Teat Dilators

After operating a cow's teats. When teat is sore on end or inside. Spiders in teats. After removing small scabs on end of teat. Hard milking teats. Never allow a sore teat to heal or gum shut.

"PURPUL" MEDICATED WAX TEAT DILATORS are sold by druggists and dealers catering to dairy interests or mailed direct, postpaid, one dozen 25c; five dozen $1.00.

MOORE BROS., Dept. H ALBANY, NEW YORK

Every Day You Nee

KRESO DIP No. 1
(STANDARDIZED)
TO AID IN KEEPING
All Livestock and Poultry Healt

Kills Lice, Mites and Fleas.
For Scratches, Wounds and common skin troubles.

WRITE FOR THESE FREE BOOKLET

No. 151—FARM SANITATION. Describes and t how to prevent diseases common to livestock.
No. 157—DOG BOOKLET. Tells how to rid the of fleas and to help prevent disease.
No. 160—HOG BOOKLET. Covers the preventio common hog diseases.
No. 185—HOG WALLOWS. Gives complete di tions for the construction of a concrete hog wall
No. 151—SHEEP BOOKLET. Methods for prev ing sheep diseases.
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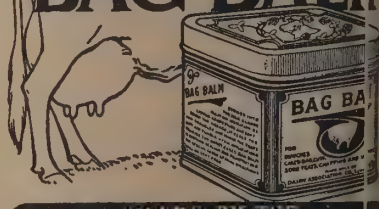
How much easier—and pleasanter—to milk cows that have perfect udders and teats, soft, silky, pliable. No nervous twitching, no kicking or holding back o the milk.

Thousands of dairymen use Bag Balm reg larly as their guardian of the udder and tea For quickly healing sores, chaps, cuts, infla mation, caked bag, bunches, cow pox, etc., it no equal. In the most stubborn hurts the f application starts quick relief.

Bag Balm is sanitary, pleasant to use and d not taint the milk. Big 10-ounce can of t wonderful penetrating ointment only 60c, feed dealers, general stores, druggists. If yo have trouble getting Bag Balm we will sen by mail, postage paid.

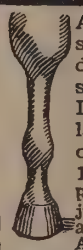
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BURSAL ENLARGEMEN



Absorbine reduces thicke swollen tissues, curbs, filleden dons, soreness from bruis strains. Stops spavin lame Does not blister, remove h lay up horse. $2.50 at drugs or postpaid. Valuable horse bo 1-S free. Write for it today.

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Caked bag and sore teats yield readily to treat with Aborno Non-Cake Salve. Relieves conge on, stops soreness, softens tissues. Every dairy farmer should keep it on hand for time of need. Send 75c for 9 oz. box, prepaid—money back if not satisfied.
Write for valuable FREE Veterinary Booklet
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Mark your Calves ea

Use the C. H. Dana system to mark our calves as soon as dropped. Identity of ownership prevents confusion and loss. Easily applied, cheap and permanent. Send for free samples. Also herd books, bull rings, and complete line of breeders' supplies. Write for catalog.

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55 Main St. West Lebanon, N. H.

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ders sometimes trample and in-e the teats when stepping over a h sill or other obstacle. Tramp-g, by other cows, may also occur en the stalls are too narrow. Avoid h causes. Milk with clean hands er cleansing the udder and teats. hen a teat becomes sore immerse twice daily, for 5 minutes, in hot ter containing all the boric acid will dissolve and then apply a 2 per t solution of mercurochrome. If get starts treat it as often advised this department of the paper.

Lump Jaw

e have lump jaw in our herd and we ld like to know how to rid the herd of it. at causes lump jaw and what is the best to prevent it?
kyberg, Minn. J. J.

Lump jaw is caused by the "ray gus" (actinomyces) which is carrd into the soft tissues of the uth or the skin of the face, jaw, ., by the beards of barley or other ins or grass, or by sharp parts of age. The disease is not directly tagious, nor is it hereditary. Afted cattle should, however, be t isolated as pus from their disrging sores may contaminate feed l, in time, tend to infect cattle. hen not far advanced and when bones are not badly involved, the dease is curable by operation and ternal administration of potassium ide. A veterinarian should be emyed to dissect out the diseased ss or slough it out with caustics. e average dose of potassium iodide drams a day, given in water until eyes and nose start discharging. en this treatment should be distinued, but resumed later if needApply to the U. S. Department Agriculture, Washington, D. C., a bulletin on the disease.

White Scours

had a great deal of trouble with my g calves having scours, last year, and it is starting this year as my cows hen. They seem to get it when they are 4 days to a week old. Their bowel ement seems to be a light cream color and a strong, peculiar odor. I cleaned up ything in the calf pen last spring and yed it with strong sheep dip, but it s to have come back again.
inona, Minn. E. L.

he calves are affected with the m-caused form of dysentery popurly termed "white scours" or "calf lera." There is no certain mednal remedy but the disease may fly well be prevented by the foling procedure: Provide a new sitary calving pen and similar calf p. At birth saturate the stump of calf's navel with a two per cent stion of mercurochrome or with ture of iodine and then dust with dered starch. Repeat the treatnt daily until the cord has entirely ed. Do not let the calf nurse its n but feed it the milk of a cow t has been giving milk for some tie. If constipation troubles, give tor oil in milk. As soon after h as possible also have each calf immunized with a biologic antagonisti to the disease. Consult your veterinarian about that treatment.

Milk Fever

there any known way to prevent milk er? Is a cow apt to have it when freshng after she once had it? I have been to so and also to shut them up for 10 days two weeks and not feed very heavy before ing.
ise, Idaho. E. E. T.

One attack of milk fever makes a cow subject to another attack when she calves. To prevent the attack dry off the milk secretion at least 6 weeks before calving and reduce rich feed. Keep the bowels active, enforce daily outdoor exercise, and let the calf nurse for a week, from birth. It is also well to give a susceptible cow 5 grains of potassium iodide daily in her drinking water during the non-milking period before calving. Keep the stable well ventilated and cool.

How Europe Farms

(Continued from page 370)

they have reached the proper size for market. They grow fast under their intensive pen feeding.

The Boers are well-to-do people and thrifty people. They do not own a motor car, but nearly every member of the family has a bicycle, the almost universal mode of transport in Holland. Mrs. Boer was not at home the day of my visit, which I regretted, as I suspect she is a very important personage in the partnership. Besides being an expert cheesemaker, she is an expert housewife. The large house is a model of neatness. In the wintertime the cattle are kept in the house. Now, in the summertime, these quarters are scrupulously clean and are used as storage space for cheese. There is good furniture in the house; and there are good pictures, too. Also, there are electric lights throughout the farm buildings.

After a tour about the farm Mr. Boer invited us to the sitting room where we were served tea and cigars. Tea is bad enough, but in Holland it is worse. The cigars, however, made up for the tea. Cigars in Holland are uniformly good and always inexpensive.

I was anxious to get some figures on the business side of this farm. The value of the real estate is just about $45,000. The value of the live stock and other equipment is about $15,000. This means a total value of $60,000 for the business. Please remember that this farm is of about average size and average value for this region. In the year 1924, which was rather more profitable than the average year for this farm, there was a farm income of $3,600. This figure represents the difference between the total income and expenses. This does not sound so bad—but wait. Interest at 5 per cent on a $60,000 investment is $3,000. In other words, if Mr. Boer charged himself with this item, he would have but $600 left which would represent the earnings of himself and his wife for the entire year. An American business farmer would say that the value of the inventory was too high for this kind of a farm. Let us look at this matter from a different angle. The rental value of this farm is nearly $30 an acre for the land and buildings. This may seem very high for dairy farming, but when you consider the land worth $650 an acre you may readily see that the percentage returns of the landlord is only about 4½ per cent; and after he has paid taxes and provided for repairs and upkeep, the investment may net him from 2½ to 3 per cent.

Why is it, then, that the land owner is satisfied with so low a return; which is another way of asking why land is so high in value! The Dutch farmer knows no investment more safe, more stable, or more satisfying than land. He has with him the example of friends who have lost heavily in securities investment, especially in the bonds and currency of Germany. He is taking no more chances on "scraps of paper." Furthermore, the opinion was expressed to me by a Dutchman of broad experience that Holland, which contains about seven million people, has about one million more people than it needs for its best economic and social interests. This excess population means land values that are too high and wages that are too low. It will probably be many years before conditions in our own country will even approach those of Holland today.

Uncle Ab says a skillful workman doesn't like to wear gloves.

Keeping Cows in milking trim

YOUR cows may be of the best dairy type, you may be giving them good feed, the best of care—but unless you keep them in milking trim they will not give you maximum milk production.

Heavy milk production depends upon four all-important factors: Health, Appetite, Digestion and Elimination.

Regardless of the goodness of her feed, unless your cow's system is kept in a healthy, vigorous condition, every organ functioning properly, so that she can assimilate and get the good of her ration, she cannot give you the extra pounds of milk which add so materially to your profits and may mean the difference between debit and credit on her page in your dairy ledger.

Dr. Hess Improved Stock Tonic puts —and keeps—cows in milking trim

Dr. Hess Improved Stock Tonic is exactly what a cow needs to give her that measure of health which enables her to give the maximum returns for her feed—to keep her at the top of milk production.

It contains nux vomica, that finest of all nerve tonics, the dairyman's favorite remedy. Its bitter tonics give cows good appetite and good digestion. It contains diuretics to keep the kidneys active and laxatives to regulate the bowels—to give cows good elimination. Dr. Hess Improved Stock Tonic provides the correct proportion of those valuable minerals, calcium carbonate, calcium phosphate and potassium iodide, lacking in the feed, which are so necessary in reproduction, for body maintenance and for milk production.

Dr. Hess Improved Stock Tonic promotes the natural, healthy functioning of every organ of the cow's body and maintains the proper normal balance between what she takes into her system and what she gives out.

One cow owner's experience

After a recent verified test conducted among a high-grade dairy herd, in which cows given Dr. Hess Improved Stock Tonic showed an increase of more than nine gallons per month per cow over a like period of time with same feed and care when they were not given it, the dairyman said:

"I would continue to feed Dr. Hess Improved Stock Tonic, regardless of the gain, because my cows show a decided improvement in health, appetite, general condition, and I am assured that the continued use of it will avoid any milk slump and will keep my cows up to the top of milk production for the entire milking period."

Try it on this unconditional guarantee

Go to your dealer and get sufficient Dr. Hess Improved Stock Tonic to last your cows 30 days. Feed according to directions, give it a fair trial. At the end of 30 days, if you have not seen a satisfactory increase in the milk flow, better appetite and better condition of your cows; if there is any question in your mind as to whether the Tonic has paid you and paid you well, return the empty containers to your dealer. He will refund your money or cancel the charge. We reimburse him.

Dr. Hess & Clark, Inc., Ashland, Ohio

Dr. Hess Stock Tonic

Improved

When—

Linseed Meal constitutes as high as 33% of the grain rations used by successful feeders, dairymen and breeders—

When these same men tell you that Linseed Meal pays as high as 100% there must be some reason for it.

Let others tell you how and why in our three books:—

"How To Speed Farm Stock To Market"
(By marketing specialists)

"Dollars and Cents Results"
(By practical feeders and breeders)

"How To Make Money Feeding Linseed Meal"
(By Prof. F. B. Morrison, Director of the Wisconsin Exp. Station)

Get any or all of these books by writing our Dept. T-4.

LINSEED MEAL EDUCATIONAL COMMITTEE
1128 Union Trust Building
CHICAGO, ILL.



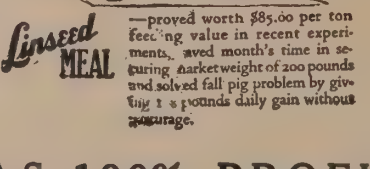
Linseed MEAL —shows a good profit when added to rations for dairy cows. Helps raise calves economically.



Linseed MEAL —hastens prime market condition for beef and shows a good profit on the investment.



Linseed MEAL —pays good profits when added to rations for fattening lambs and for maintenance rations for breeding ewes.



Linseed MEAL —proved worth $85.00 per ton feeding value in recent experiments, saved month's time in securing market weight of 200 pounds and solved fall pig problem by giving 1 ¾ pounds daily gain without scourage.

Linseed MEAL

PAYS AS HIGH AS 100% PROFIT

Mix Your Own Concrete

Write today for free gift, low-price offer on the old reliable KWIK-MIX curved-blade mixer on skids. Batch-a-minute, perfect mix, assuring everlasting, hard-as-rock construction.

KWIK-MIX



Hand or motor power, pays for itself in a single job making floors, fence posts, grain bins, water troughs, silos, etc. Make money working for neighbors. Write your address on edge of this page, tear out and mail to us for free offer.

Badger KWIK-MIX Co.
1014 Cleveland Ave. Milwaukee, Wis.

NEW IMPROVED JENSEN ADJUSTABLE
CHAIN HALTER



No loose Bulls or horses. A Universal snap no animal can open or break. Chain stakeout, lead chain with snap, extra quality bull rings, snaps, calf trainer. For more information write. Chain halters, fits all size bulls. On 15 days trial, money back if not satisfied. PRICE $6.50. Shipped prepaid U. S. A. where no dealer.
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P. W. JENSEN & SON
Princeton, Dept. H, Minnesota

Ensilage Seed Corn

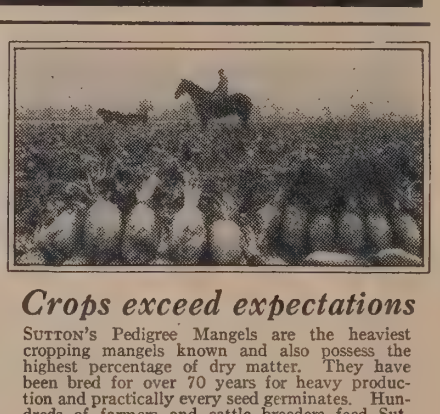
WONDERFULLY HIGH PRODUCING ALBERMARLE PROLIFIC ENSILAGE

SEED CORN FOR SALE—Stalks 12 to 18 feet tall, well bladed, 2 to 7 ears of corn to the stalk; 12 to 20 tons of ensilage to the acre. High germination test. Prices on request.

E. L. GOSS, SOMERSET, VIRGINIA

SEED CORN

Wing's Improved White Cap still holds Ohio State record for greatest yield. Other varieties also. Highest quality Field Seeds. Moderate prices. Write Chas. E. Wing Seed Co., Dept. 321, Mechanicsburg, Ohio



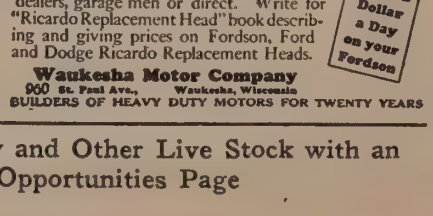
Crops exceed expectations

SUTTON'S Pedigree Mangels are the heaviest cropping mangels known and also possess the highest percentage of dry matter. They have been bred for over 70 years for heavy production and practically every seed germinates. Hundreds of farmers and cattle breeders feed Sutton's Pedigree Mangels daily and are getting amazing results as well as saving money.

A dairy farmer of Johnstown, Pa., writes: "We planted the Long Reds and got an outstanding crop of 15 tons to a half acre. The crop so exceeded our expectations that we carefully weighed the product and measured the ground."

You can do as well. Write for illustrated catalog containing full cultural directions and valuable data on cattle feeding. Address

H. P. WINTER & CO., INC.
Room 405 64 Wall Street, New York City



Waukesha Ricardo

Replacement Head for FORDSON tractors

MORE POWER

Gives 3 to 5 horse power more. Saves its cost in thirty days' operation, then it's clear profit.

INSTALLATION EASY

Only a wrench and an hour's time needed. Nothing to fit, file or adjust. Sold on a money-back guarantee—low in price. Sold by dealers, garage men or direct. Write for "Ricardo Replacement Head" book describing and giving prices on Fordson, Ford and Dodge Ricardo Replacement Heads.

Saves a Dollar a Day on your Fordson

Waukesha Motor Company
960 St. Paul Ave., Waukesha, Wisconsin
BUILDERS OF HEAVY DUTY MOTORS FOR TWENTY YEARS

Sell Your Surplus Cows, Poultry and Other Live Stock with an Ad on Our Special Opportunities Page

The L. P. Bailey Company

(Continued from page 371)

convenient for the grandchildren to become active in the affairs of the company both as to labor and finance, no one is urged beyond reason to do so.

A modern clay block building houses the equipment for manufacturing butter and pork products, these being the chief products sold. The cream for making the butter is all produced on the farm from a herd of 60 pure-bred Jersey cows. Nearly all the hogs for the pork products are purchased, preference being given exclusively to Hampshires. The leader in the pork products is "Bailey's Pure Pork Sausage" put up in cartons of convenient weight for direct consumer trade. Scrapple is also a specialty and this is likewise marketed in cartons. Besides these are hams and bacon cured country style. Much cottage cheese is made and marketed in pint cartons. Buttermilk is also delivered fresh to consumers. Eggs from the farm flock are marketed as "Bailey's Best" in carton containers. Some dressed poultry is sold and when it leaves the farm it is ready for the housewife to put directly into the cooking utensil to be used. Fresh vegetables in season go along with the trucks to Wheeling, West Virginia, where the products are marketed.

The dairy barn housing 50 cows is a model in lighting and cleanliness. It is unique in labor saving equipment. Of particular interest is the way in which the manure is removed from behind the cows and later from the barn. Instead of the ordinary gutter for receiving the manure a wider and deeper trench was made and this covered with heavy iron bar grating which is on a level with the barn floor. No bedding is used and the manure goes through the grating into the trench. These trenches, one behind each row of cows, run to the end of the barn where the manure is scraped out into a spreader by electric power and mechanical device. These trenches are not scraped out every day but only as the accumulations fill them. Thus the manure is not touched with fork or shovel from the time it is produced until it is spread on the field. With the manure taken care of in this manner, with the feeding being done from carriers, and with a milking machine, 2 men feed and milk 50 cows in about 1¼ hours and do it easily and as goo it can possibly be done.

All of the concentrates for cows are stored and mixed overl and the mixture is delivered to feed carrier down a spout by gra None of the silage is carried by to any of the cows whether they in the old barn or in the new o

The milk from each cow is wei and recorded for each milking. herd is in a cow testing associa No feed is wasted on low produ Some official testing is also don

In the factory where butter meat products are made, mo equipment is used. This includ refrigerating plant. Thus labo used efficiently and the quality of products effectively controlled.

From this little farm factor truck makes trips 4 times a wee Wheeling. The day we were t the load included the following p ucts: butter, cottage cheese, bu milk, bacon, hams, fresh eggs, t toes, sweet corn, and apples. In winter season sausage and scra take the place of the vegetables.

Mr. Bailey served 5 years member of the Ohio State Boar Agriculture and was president of body one year. After he was years old he spent 3 months winter for 6 years doing agricult extension work for Ohio State versity.

The hand of death has enter Bailey home but twice in 56 y the wives of two sons having been nied the priceless privilege of rem ing longer in their homes. Of direct descendants of Mr. and Bailey, including six children, grandchildren, and 3 great grand dren, none has died. This is a markable achievement.

Good fortune smiled on Belm County when this native Quaker ple chose to stay in the county w they were born and reared. We l told something of the material p gold dug out by them and someti about the splendid family reared, there is something more to tell. is best told in the language of who is a citizen of that county in answering the question, "How n is L. P. Bailey worth?" said: "I d know how much he is worth but know he has been worth a million lars to Belmont County." What gr er tribute could one give a fe countryman?

A Severe Winter on Clover Seedings

(Continued from page 370)

previously described, as it will not be necessary to carry on so much cultivation.

Where beans are broadcasted, the weeds must be kept down, otherwise the beans will not grow more than half their ordinary height and the hay would be filled with all kinds of weed growth. This can be readily done by using fine tooth harrow on the soy bean field. Beans should be dragged in the afternoon of a warm day and the drag should be run crosswise of the way the beans were planted. This is the best method of killing weeds and if this practice is continued three or four times, the field will be practically clean of weeds and one will have a nice level field of soy beans that should give him from two to three tons of good soy bean hay per acre.

If our dairy farmers have not as yet tried soy beans and do not find a good stand of clover this spr better give the soy beans a trial. T surely will never regret it.

Hay Rope Cart

HOARD'S DAIRYMAN:—A team always hitched to a two-wheeled and the hay rope hooked on this stead of fastening the double-tre the rope by a clevis on the W Meinke farm in Clinton Cou Iowa. This put the pull down lo and the driver rode the cart.

The cart was made out of wheels of an old corn planter mo ed on an axle. The axle was bo to a heavy cross-piece and a ton fastened to this and braced. A m er seat was bolted on this truck. ring in the end of the hay slipped over a large hook in the dle of the cart crosspiece.

The ring was slipped over this h and the hay pulled up and into barn. Then the ring was lifted of the hook and the team turned aro and driven in place for the next and the ring hooked on again.

Iowa. A. M. WETTAC

centralization of Industry Would Help Agriculture

(Continued from page 368)

ater part of the year (and, there- o, poorer than it should be) or else t ust be broken up. But, if indus- r l decentralization takes place on lide scale, countless farmers' fam- li will have the choice of a variety f occupations and will be able to e ize the full measure of their earn- n capacity without disrupting home i

inging Electricity to the Farm

Furthermore, decentralization of n stry will help the farmer in an- t r and quite different way.

Electric superpower systems are l to industrial decentralization. Whout these systems, industries v not spread out into the country, e rdless of advantages to be se- d by doing so, but will remain in c ested centers. But wherever erpower systems are well devel- l, power can be secured almost n where, and decentralization is n free to take place. Hence, as erpower systems grow, small fac- c es will multiply in the rural dis- r ts.

Now, the chief obstacle to the l trification of our farms is the high c of bringing electric service to n. It usually does not pay to tap a igh-tension line and build a low- s ion line to take care of the rela- i ly small demand of a few scat- e d farms, but it frequently does a to do these things to serve an in- l try; and, when once a service con- n ion is made and a line is built, n hboring farms can then be sup- p d with electric power at a reason- l cost. Hence, as small factories n tiply in the rural districts, more n more farms will be electrified.

No one questions the great value f lectric power to the farmer. Give h farmer electric power at a rea- c ible cost, and he can immediately e eve himself and his family of a s e portion of their burden of labor, n ace his costs, make his profits n e certain, and, what is of equal n ortance, raise his standard of liv- n to a level corresponding to that f the city dweller, which will im- p ve the morale of his family, help o keep his children at home, and n e it more easy for him to secure f ient labor when he needs it.

To sum up the decentralization f ndustry will enable the farmer to n aden the earning capacity of his s ily, increase the business value of i farm, and make his home more at- r tive. It appears, indeed, to be h most promising, if not the only p ctical, influence that will bring ag- i lture back into step with other A erican industries and restore p sperity to it. If this can be done, t will mean the elimination of dis- c ent and radicalism from a large i influential proportion of our pop- l ion, thereby greatly strengthen- n the political and economic struc- t e of the country."

E. BOULTINGHOUSE & SONS
UCTIONEERS. 150 Dairy Cow Sales in S. Leading Dairy Cow Auctioneers in A rica. Write or wire for dates.
DO, ILLINOIS

hen writing advertisers please mention H rd's Dairyman.

SWINE

BERKSHIRES

Two boars, one a yearling and one two-year-old, both large, rugged, good type and sire of some fine litters here. Now booking orders for April pigs for delivery at nine weeks of age. **Price, boars $12.00, sows $15,00, non-related pairs $25.00, trios $35.00.**

LONE PINE FARM,
F. J. Wolverson, Mgr., ANGUS, WIS.

Read the other Live Stock ads on pages 415 and 419, so placed because too late to classify.

JERSEYS

Efficient!



The Jersey "makes good" in every state under the greatest variety of conditions. She is a true friend of the dairyman for she sticks to her job and does it efficiently.

Information or assistance in locating suitable cattle will be gladly furnished without cost to you.

THE AMERICAN JERSEY CATTLE CLUB, Dept. B
324 West 23d St., NEW YORK

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

RAVINE FARM

. . Breeders of . .
PURE BRED JERSEY CATTLE
PRAIRIE VIEW, ILLINOIS
Established 1913

JERSEY HEIFERS

University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.
AMBERG FARM, Hillsboro, Wis.

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

Jersey Bull Calves

are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son r out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. u rfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by D ing's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. a s Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, h irst Jersey cow to make 1000 lbs. butterfat.

E GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Buy from Hoard's Dairyman advertisers. They are reliable.

BELSWOOD JERSEYS

First Annual Sale
MAY 24, WAUKESHA, WIS.
A sale of high producing cows, good heifers and a few first class bulls.
A. F. BLOCK, Prop., R. 5, Waukesha, Wis.

SYBILS and MAJESTYS

Bull—dropped March 6, 1926, solid color, straight and right. Ready for service. Sire—a grandson of Sybil's Gamboge with R. M. dam. Dam—a granddaughter of Golden Majesty. She with C. T. A. record of 493.9 lbs. fat. Price $175 F. O. B. Lake Geneva.

CEYLON COURT FARM,
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

Easton Farm

-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
H. S. HAGER, PRAIRIE DU SAC, WIS.

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM

MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

AYRSHIRES

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

AYRCROFT FARM

is offering some good bargains in Ayrshires. Write for what you want. Herd Federal Accredited.
B. B. SIMMONS & SONS, PEWAUKEE, WIS.

Spring Valley AYRSHIRES

Accredited Herd
Foundation FEMALES - BULLS
For Sale At All Times!

Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL
AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us. Herd under Federal Supervision.
SYCAMORE FARMS, Douglassville, Berks Co., Pa.

Penshurst Ayrshires

HEALTH—PRODUCTION—QUALITY

Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.
PENSHURST FARM, NARBERTH, PA.

A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.
GLEN FOERD FARMS TORRESDALE, PA.

South Farm Ayrshires

Will sell a limited number of Young HEIFERS and BULLS.
Let us know your wants.
SOUTH FARM, Willoughby, Ohio

AYRSHIRE COWS

FULLY ACCREDITED
300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 8 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.
ALDEBARAN FARM, E. J. Nelson, Mgr., Racine, Wis.

Like Peas in a Pod

Are the Ayrshires in a Herd

All just alike from one end of the row to the other. . . . . .

And the records of dozens of herds with every cow on test prove that Ayrshires are uniformly high producers . . . . . .

There are bigger profits in breeding cattle that are even in type and production . . . . .



Write for new booklet or let us help you get a start with Ayrshires.

Ayrshire Breeders' Assn., 10 Center St., Brandon, Vermont

The First Annual Sale of
FOREMOST GUERNSEYS
At EMMADINE FARM
MAY 9, HOPEWELL JCT., N. Y.



FOREMOST'S REAR ADMIRAL
No. 2 in the sale. A splendid calf born June 23, 1926. He is sired by Foremost and is from Hope of Branford 98615 A. R., 11,127 lbs. milk, 585 lbs. fat in Class EE.

54 HEAD

that typify our motto: "Our show cows are producers —our producers are show cows,"

will be offered

A fair sample of the 7 bulls to be sold



MAY ROYAL'S BELL BUOY
No. 21 in the sale. Born Sept. 25, 1926. A promising son of Mixter May Royal and from Bell Buoy's Violet of City View 77018 A. R., 15,648 lbs. milk, 826 lbs. fat in Class A.

Half of the Offering Our Own Breeding

Five daughters, seven granddaughters, and two sons of that Pre-eminent Sire, Foremost, will be sold. This great bull already has 40 A. R. daughters with more now on test. We have shown his get-of-sire at sixteen fairs where they have won eleven firsts and five seconds. There will also be a son and five daughters of the grand champion, Shorewood Resolute. Most of these entries bred at Emmadine Farm are young animals.

Some Excellent Foundation Cows Included

We are also selling some females selected as foundation stock,—females that are healthy, first class producers and reproducers, including good record daughters of such sires as Langwater Holliston, Langwater Steadfast, Langwater Eastern King, Maxim of Linda Vista and Jardiniere's Masher. There are 8 imported females,—cows; a yearling heifer, bred; and two heifer calves.

We have selected this offering on the basis of Production, Type and Reproducing ability as well as breeding. Every animal tuberculin tested from a federal accredited herd and negative to the blood test for abortion.

The catalog tells the story. It will be sent only on request to

EMMADINE FARM J. C. PENNEY, Owner JIMMY DODGE, Manager **Hopewell Jct., N. Y.**

Sale under the management of the Herrick Merryman Sales Co.

LOUIS MERRYMAN AND GEO. BAIN IN THE BOX

PENNCREST FARM

ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pron... by authorities as the best son, individually, of N... Ultra, whose offspring, for a number of years ... have invariably topped the sales of major impor... Near descendants of this great sire are bec... harder to secure, and in the near future will b... uable acquisitions. Breeders desiring the best t... in this blood will do well to investigate, as w... offering stock at the right price. Address inqui...

WM. P. SMEDLEY, MGR., MEDIA, P...

Bargains in Bull Calv...

A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BL...

Lines—May Rose through King of the ... Golden Secret, Langwater Cavalier; ... founder, France, Glenwoods. Greatest ... of herd sires in any herd. A. R. record ... to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, P...

PRODUCTION BULLS--*Rig...*

When they sire daughters which produ...
A TON OF MILK A MONTH

Brookmead's Banner, sold as a youn... (Sight Unseen) for a reasonable price, is ... sire of Silverwood's Diana:
December, 1925—2,158 lbs. Milk—ONE T...
January, 1926—2,187 lbs. Milk—ONE T...
Our present sales list carries equally good ...

BROOKMEAD FARM, 526 Land Title Bldg., PHILADEL...

FOUNDATION GUERNSE...

FOR SALE FROM A CLEAN HER...

Langwater Juvis, a son of Langwater ... rior from a good record May Rose da... our senior sire. We have for sale a few ... class registered cows and heifers as we ... some excellent young bulls. They are p... to sell. Write.

ELM FARM, DEERFIELD, ...

Thorn Hill Farm Guernse...



Have several high class G... sey bulls at reasonable p... May Rose and Glenwood b... ing. Dams have records u... 700 lbs. of fat. Write for ... list to

AUGUST ZIESING, Deerfield, Illi...

HOMESTEAD FARM GUERNSEY

Will sell or trade one of our herd sires, his six ... est dams average 775 lbs. fat, May Rose bree... Young bulls 2 to 13 months old. Can also spare ... females. Visit us or write.

JAMISON BROS. APPLETON, WISCO...

BULLS 6 to 10 Mos. From A. R. C...

Prices to Suit the Present Ti...

They are sons of Anton's King C... and King B. from dams with recc... up to 600 lbs. Some from good p... ducing dams not yet tested, at sa... fice prices. Write me today.

A. R. HOARD, Fort Atkinson, W...
A Federal Accredited Herd

REGISTERED GUERNSEY HERD
Offered At Private Sale !

Having decided to sell Oakwood Farms in small tracts, I am offering for sale my entire herd of Pure-bred Guernseys which was started in 1910 with three Foundation Cows purchased from W. W. Marsh of Waterloo, Iowa. My herd consists of 45 head of females and 10 males, mostly young, and in splendid condition.

My last two Herd Bulls were sons of Prince Cherub and Eminent of Sarnia. If interested in purchase of one or more Guernseys from a clean herd, it will pay you to write me for list with full description and prices.

The herd is accredited.

L. S. MEYER Route 8, Springfield, Missouri

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

BUY LADYSMITH CHERUB BLOOD

Shorewood Farm offers the bull, SHOREWOOD HERO, a double grandson of Ladysmith's Cherub whose 19 A. R. daughters average 600 lbs. fat. Dropped April, 1926, solid fawn, good individual. Sire—Cherub's Royal Leader of Shorewood (senior herd sire) whose dam, Pearl of Pomeroy, has 777 lbs. fat in AA., full sister to Pearl's Dot, 965 lbs. fat AA. Leader's first three daughters on test are doing exceptionally well. Dam—Cherub's Procris of Shorewood, undefeated 2-year-old and grand champion at 3 large shows, 1925. A. R. record 10,500 lbs. milk, 540 lbs. fat Class G. while on show circuit. Her dam, Ma Chere Procris, National grand champion 1921, A. R. record 17,900 lbs. milk, 831 lbs. fat, Class A. A wonderful combination of Ladysmith Cherub, May Rose and Jardinere Masher blood. Write for pedigree and price.

SHOREWOOD FARM, CRYSTAL BAY, MINNESOTA

Be Careful When You Buy A Sire!

Our blood lines are proving themselves in many parts of the U. S. They bring better udders, straighter backs and deeper bodies and production. Aside from these fundamental factors it is well to remember that **YOUR NEIGHBORS WILL BE INTERESTED IN YOUR BULL CALVES IF YOU ARE USING A SON OF THE HOARD'S DAIRYMAN FARM SIRES.**

Our Sires Are:

Anton's King Confidence 43517 A. R.
(Famous for production, good individuality and excellent udders.)
Sire: Anton's May King 27387 A. R.
Dam: Ma Chere Confidence 55851 A. R. 15,802 lbs. milk, 764 lbs. fat jr. 4-year-old. 10,190 lbs. milk, 511 lbs. fat, jr. 2-year-old.

Mixter Claimant 100143
(Born April 20, 1924. Production and individuality back of him. Big and plenty of scale. Real udders, good individuality and consistent production.)
Sire: Langwater Mixter 69371.
Dam: Yeoman's Mixter Fragrance 9421 A. R. 17,693 lbs. milk, 761 lbs. fat A.

Bonanza of K. P. 62518 A. R.
(Sire of big, milky heifers. Good top lines and square, well attached udders.)
Sire: Anton's King Cecil A. R.
Dam: Beauty of K. P. 48654 A. R. 12,401 lbs. milk, 622 lbs. fat, 3-year-old.

King Harvester of Prospect 102549
(Born March 3, 1924. A son of Bonanza and out of the best cow we ever owned or bred—a daughter of A. K. C.)
Sire: Bonanza of K. P. 62518 A. R.
Dam: Anton's Guernsey Girl of Prospect 13737 A. R. 9,978 lbs. milk, 471 lbs. fat in GG. Regular herd care and feed—milked twice a day.

We have young bull calves for sale. The oldest was born June 22, 1926. It will pay you to buy the sire you will need next winter right now.

HERD FEDERAL ACCREDITED!

HOARD'S DAIRYMAN FARM FORT ATKINSON, WIS.

We want you o understand —

at Loma Farms has purchased the tire Bay Cliffs Herd, formerly at Bay ffs, Mich. We are carrying on the ne breeding operations.

anding back of the animals we sell a fundamental policy with us.

rite us for low prices on bull calves.

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
ARQUETTE MICHIGAN

'ROVINCE LINE FARM

LL CALVES from 2 months to year l. Sired by our great bull, Langwa- Bravery and from high producing R. dams. Pedigrees and prices fur- hed on application.

W. MILLER, Owner, Box 73, PRINCETON, N. J.

DISSON FARM GUERNSEYS

re offering at attractive prices a few bulls sired by RADISSON'S GOLDEN LIST 91632, whose get was awarded rize at Dairy Cattle Congress in 1926. a son of GOLDEN CORONET OF JEAN UTH 81283, world's champion Guernsey ss AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Hotel Radisson, MINNEAPOLIS, MINN.

GUERNSEYS

egistered and High Grades of Any Age For Sale

ukesha County you have an opportunity ect what you want from 250 tuberculin herds owned by members of the oldest breeders' association in America. Our service, and prices will suit you. Write e.

ESHA CO. GUERNSEY BREEDERS' ASS'N
'OX. Sec'y WAUKESHA, WISCONSIN

OR SALE — Yearling Purebred GUERNSEY BULL

o several young bull calves. Dams h records exceeding 500 lbs. Prices l particulars on request. Address

EDWIN EVANS,
ERSOLL-TILDEN FARMS, Delavan, Wis.

Guernseys For Sale

ve for sale here in Manitowoc County very good calf club heifers, and ser- le and younger bulls as well as first cows and heifers. Write us today or direct to Manitowoc and make your se- s

ANITOWOC COUNTY GUERNSEY BREEDERS' ASSOCIATION,
. Gilbertson, Sec., Manitowoc, Wis.

Springers and Fresh Cows

STEINS and GUERNSEYS

OME and make your own choice om a wide selection or wire or write for prices.

CLARK & CO., WEST SALEM, WIS.

BULL CALVES

-born 5-30-26, light fawn and white, T. A. dam.

-born 6-28-26, fawn and white, dam 553 fat class A.

bull calves at farmers' prices F. O. B. Herd Federal Accredited and free of on.

NDALE FARM, Athens, Wisconsin

Registered Females

dation females are offered at very nable prices. If you want a few heifers or cows, Glenwood bred, write day. Our cows have A. R. records up 13.80 lbs. butterfat. The herd is clean.

. E. LARSON, AMHERST JCT., WIS.

ERNSEYS! GUERNSEYS!

ds of pure breds or grades. Area tested county. 00 herds to select from. Prices are right. r write.

LA CROSSE COUNTY ASSOCIATION
. Young, Sec. West Salem, Wis.

ND DU LAC GUERNSEYS

Prices on PUREBRED CALVES suitable for Also GRADE COWS and HEIFERS at all Write to

DU LAC GUERNSEY BREEDERS' ASS'N
Hill, Sec. ROSENDALE, WIS.

Pure Bred Guernseys

PUBLIC SALE

Fond du Lac, Wis., April 28

TWENTY BULLS — The Pick of the BRANT RANCHO HERD, Owensmouth, Cal.

all from A. R. cows with records up to 889.5 lbs. fat. Many of them sired by sons or out of the daughters of great bull Brookmead's Whiteface.

Breeders of the middle west have for years been hoping to have an opportunity to buy bulls from Brant Rancho, but express rates have been prohibitive. Now you can buy these bulls right at home, and see them before you buy them.

Brant Rancho herd is Federal Accredited No. 96073 and is the largest herd in America. Most of the bulls are ready for service and are sold guaranteed breeders.

Inquiries that have come in the past few months indicate that many middle west breeders are looking for bulls to head pure-bred herds, and this is your chance.

The Entire Herd of Edgar P. Sawyer
Oshkosh, Wisconsin

This is Federal Accredited Herd No. 2923 and the lot consists of the **TWO HERD BULLS** and **29 VERY CHOICE FEMALES.**

The foundation cows have records as follows:

Pergue's Mabell Dorothy 576.41 A. A.
Pergue's Harmante 559.06 C.
Arline of Waldwic 538.78 G. G.
Pergue's Easter Lass 384.32 G.

These cows and their progeny sired by the great bulls, Admiration of Edgemoor A. R. whose dam, Donnington Goldie 5th, won first at National Dairy Show and had a record of 796.52 E., and Royal of Maple Hill out of Lady's Girl of Maple Hill 738.21 B.

This latter bull Mr. Sawyer paid $2,500 for in 1920 National Sale and he is in the sale.

FOURTEEN COWS and **ONE BRED HEIFER** all bred by and the **property of A. H. Hinman, Allenville, Wis.,** all the sound cows in his herd and a useful lot of cattle. The foundation of the herd was A. R. cows but no testing has been done recently. Herd free of disease and will be T. B. tested just before sale.

If you want to buy good Guernseys worth the money, send for catalog and attend sale

CHARLES L. HILL & SON, Sale Managers **ROSENDALE, WISCONSIN**

QUALITY GUERNSEYS — AT AUCTION

Trenton Interstate Fair Grounds — TRENTON, N. J.

NATIONAL GUERNSEY SALE

MAY 12 — 75 Head of the breed's choicest specimens—beautiful individuals, large producers of proven blood lines. 9 bulls from cows whose type, production and breeding justify the admission of their sons to this select company. 50 matrons selected for their individuality, breeding and proven production, two with records of over 900 lbs. fat, four class leaders, many prize winners at large shows. 16 heifers from proven ancestry including the daughter of the first cow in Class C and GG.

Coventry - Dunwalke
Florham - Rockingham

MAY 13—65 Head Carefully selected from these well known herds with an idea of making this sale a permanent event. Federal accredited. Negative to the agglutination test for contagious abortion.

Highlands Dispersal
W. H. Gratwick, Prop.

JUNE 2—50 Ne Plus Ultra Guernseys An unequalled opportunity to secure beautiful individuals carrying a large percentage of the blood of this famous sire.

For Catalogs of above sales, write

The Herrick-Merryman Sales Co., - - Sparks, Maryland

RIVERVIEW GUERNSEY FARMS

150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. or come and see us. Carloads furnished on short notice. Prices reasonable. Satisguaranteed. Calves a specialty.

VIEW FARMS (*In Waukesha Co. on Highway 61*) Lloyd L. Dewey, MUKWONAGO, WIS.

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

GUERNSEYS

Luxerin Guernseys
(SHERIDAN'S)
FOND DU LAC WISCONSIN

Bull calves $100 and up. One serviceable age. Good type, color, and size. Dam's record 657.71 D. 677.13 A. A. *Also*, best bred Glenwood bull of the breed. Dam's record 744.07 A. A. Sire's dam 799.61 A. A. Grandam 825.90 A. Exceptionally fine individual, good color, well grown.

G-U-E-R-N-S-E-Y-S

Cows, four 4-year-olds, pure-bred out of A. R. dams and by an A. R. sire, bred to son of Lang. Hannibal. All right in every way and priced for quick sale. Only one bull calf left, born December 31, 1926, dam, a double granddaughter of Imp. Itchen Red Raider; sire, a son of Lang. Hannibal out of Imp. Mildred 2nd of les Godaines.

LONE PINE FARM,
F. J. Wolverson, Mgr., ANGUS, WIS.

HOLLISTON HOLLISTON HOLLISTON

Be Proud Of
Your Next Sire

Buy a Holliston Bull.

Prices within your reach.

—

D. G. TENNEY
15 West 4th St., New York, N.Y.

Guernsey Heifers FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

CORIUM GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

BULLS—HIGH CLASS FEMALES
SHOW TYPE—PROFITABLE PRODUCTION

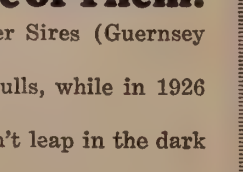
We have for sale a few first class bulls, serviceable and younger from A. R. dams, and can also offer some good, young, registered cows and heifers. For several seasons our herd was successfully exhibited at the larger midwest shows. Cherub breeding. Write us or come to the farm.

L. P. MARTINY, Chippewa Falls, Wisconsin

LINWOOD GUERNSEY SIRES
COMBINE TYPE AND PRODUCTION

PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity $62.15 Fat Class EE. Grandchampion National Dairy Show 1923. CINDERELLA'S FAME OF MOUND CITY 78385. Dam: Cinderella's Josephine 909 lbs. fat.

We offer several fine bulls by above sires, dams 600 to 744 lbs. fat; also a few young heifers either bred or open. Write for prices, photos and pedigrees.



SOLD FOR $22,000.00

LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.
Homer Rundell Federal Accredited Herd

Your Chance to Buy a Real High Quality, Serviceable GUERNSEY BULL --- Your Choice for $200.00

Advance (81175). May 13, 1922. Dam's record 573.4 BF Class A. 3 Half Sisters have recently finished records as follows: 596.9 BF Class G—614.1 BF Class E. 633.67 BF Class E. Strong in length, depth, and dairy conformation.

Rose's Boy (86284). October 30, 1922. Dam's record 487.64 BF Class A. This bull won 14 firsts and champions at leading state, interstate, and national shows.

Masterpiece (106746). January 14, 1925. Good A. R. backing. Dam won 9 firsts, 5 Senior Champions, 5 Grand Champions at leading fairs in 1925.

Ethel's Gerar Royal (106745). January 14, 1925. Dam's records, 510 BF Class GG, 601.9 BF Class C. Good length and depth.

These bulls are sound and right.

FERN-DELL GUERNSEY FARMS, A. W. Fox, Mgr., Green Bay, Wis.

100 GUERNSEYS 100
— To Be Sold —
May 4 at Livingston, Wis.

50 Registered Guernseys
50 Grades

THE GRADES are mostly cows fresh or close springers, many with C. T. A. records above 500 lbs. fat.

THE PUREBRED Guernseys include a few very choice bulls from dams with records up to 775 lbs. fat.

Watch next issue for details.

SOUTHWESTERN WISCONSIN GUERNSEY BREEDERS' ASS'N
CHAS. A. WILKINS, Sale Manager, PLATTEVILLE, WIS.

Proven Sires--More and More of Them!

Two years ago there were 2669 Advanced Register Sires (Guernsey bulls with two or more yearly record daughters.)

In 1925 the number was increased by 226 new bulls, while in 1926 a new group of 241 proven sires was developed.

These bulls mean proven production for you. Don't leap in the dark—learn more about Guernseys. Ask for

"The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
8 Grove St. — PETERBORO, N. H.

GUERNSEY BULLS

of MAY ROSE, GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

YOUNG BULLS $100 TO $150

I have for sale several young bulls, 3 to 9 months old, from A. R. dams at $100 to $150. Well bred. Good type. The herd is clean. Write for sale list.
J. M. HARVEY, R. 2, Waukesha, Wis.

HOLSTEINS

22 REGISTERED HOLSTEINS
— 20 Cows, 2 Bred Heifers
At Private Sale!

These cows averaged 48.5 lbs. fat in January in C. T. A. 5 cows are granddaughters of Aaggie Cornucopia Paul 2d, the Ohio cow that has 5 daughters with over 1,050 lbs. butter in a year. The herd is bred to a 1,136-lb. grandson of this cow. Herd passed a 100% clean T. B. test this winter. Write

DR. A. E. BEST, Newark, Ohio

OHIO HOLSTEINS

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES

K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

L. E. FERGUSON, LAURENS, IOWA.

MILWAUKEE HOLSTEIN BREEDERS ASSOCIATION

ST. MARTINS, WIS., APR. 30
SPRING SALE!
60 PUREBREDS 60
10 Serviceable Bulls—10 Calves
40 Springers and Bred Heifers

Sons and daughters of Halbach's grand champion bull; Carnation's "Joe" bull; Henderson's 46 lb. bull; Milwaukee Co. Farm's 1136 lb. herd sire and other outstanding animals of the breed. Sale Starts at 10 o'Clock
Catalog on request.

J. C. SARGENT, Secretary
308-10 Wells Bldg., Milwaukee

ST. MARTINS, WIS., APR. 30
T. M. E. R. & L. from Milw.—Highway 100

SERVICEABLE BULLS — FOUNDATION HEIFERS

Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.
BAIRD BROS., Box 177, WAUKESHA, WIS.

A Serviceable "Ollie" Bull

I have FOR SALE at my HIGHLAND FARM, LAKE GENEVA, WIS., KING OLLIE KORNDYKE DE KOL, born Dec. 24, 1925. A good individual sired by a 25-lb. grandson of Iowana Sir Ollie and from a 967-lb. 4-year-old daughter of King Korndyke Pontiac Lass. Write today for pedigree and price to

JOHN H. ALCOCK,
3460 W. Adams St., CHICAGO, ILL.

STATE and FEDERAL TESTED HOLSTEIN

BUY FROM AN AREA TESTED COUNT
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-b bulls—serviceable age, priced from $125 $1000. Two entire pure-bred herds—ow have some of the best blood but for good sons are quitting farming. 500 herds of best bred grades to select from.

Write or wire for information or appointments.

WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Come to St. Croix County a Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-b and grades of all breeds. One or a car Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond,

Calf Club Calves
Registered Holsteins $50 to $

Fine quality good and straight males and males. Full time fieldman at your ser Write

ARTHUR V. JENSEN, Fieldman,
SHEBOYGAN CO. HOLSTFIN AS
PLYMOUTH, WISCONSIN

HOLSTEIN Bulls - Female

YOUR PICK OF 150 HEAD. Abortion te and T. B. free. First prize National D Show, 36-lb. Ollie bull, also Pietertje Orr Mercedes Della, sire of World's Champior

F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES,

GOVERNOR FOBES

A son of Wisconsin Fobes 5th and Mara Bess Burke heads my herd. His daugh have the right type and are proving exce producers. A few "Governor" sons for from dams with records up to 30 lbs. days and 1,000 lbs. in a year. The her federal accredited. Come to the farm to your next herd sire.

SUMMIT FARM, John Zoberlin, PLYMOUTH,

MILFORD MEADOW
Where long-distance records and high test counts

Our daughters of King Bess Burke Or (1164 butter) and Marathon Aaggie (butter) are most all bred to

SIR TRIUNE PANSY (1,317 lbs.)

First to freshen in January. You wil pleased with this combination of type and duction.

W. W. KINYON, Mgr., LAKE MILLS,

DICMERE HOLSTEINS
SHOW TYPE—PRODUCTION

We have for sale bull calves 4 to 10 week sired by Walcowis Ollie Abbekirk, a 9 son of that grand champion, Iowana Sir They are from 23-lb. to 25-lb. 3-year-old d $150 to $200 and bargains at that price. herd is federal accredited. Write if you a bull with type, backed by proven produc

H. E. DICKINSON, Oconomowoc,

Purebred and Grade Holstei

The best place to get them is at Randolph. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisc

Our Surplus Purebred And Grade Holstei

have the size and quality you like. Oldest Ho Community in Wisconsin. More Holsteins than similar section.

DODGE COUNTY HOLSTEIN ASSOCIATIO
Frances Darcey, Sec'y. Watertown,

Quality Holstein

Jefferson County Holstein-Friesian Breeders As tion has them. Over 1000 herds to select from. your wants to our field man.

Jeff. Co. Holstein Breeders Ass'n, Ft. Atkinson,

BULL CALVES $50

Calves sired by 990-lb. grandson of Iowan Ollie and out of daughters of a 1040-lb. H stead bull. Accredited herd in an area t county. Write.

CHAS. HUGHES & SON, NEENAH,

READY FOR SERVICE
World's Highest Bred Calf for Pro tion and Reproduction

Born Jan. 1, 1926. His 3 direct dams h world's records for butter.
His dam, Glen Otter Colantha Lady, w records.
His grandam, Lady Roberts Colanth world's records.
His great grandam, Lady Faforit 2nd, pletes the world's record for 3 ger tion groups.
His sire's dam also a Canadian champio butter. Price $1,000.

WHIT ROOT, DUNNVILLE, ONT.,

Read the Additional Live Stock Advertising on Page 4

Four Good Ones

From the Detroit Creamery Farms

— to the —

U. S. National Holstein Sale

PRILLY LYONS VASSAR MAY, 699485. The highest record Jr. 2-year-old for 1926. She produced 24,668.2 lbs. milk, 1,184 lbs. butter nd is out of an 1104-lb. 4-year-old dam. This outstanding young cow s a three-quarter sister to Max View Model Fayne, the 1215-lb. 2-year-old that sold at Clark's Classic for $3800.

WASTIKA VELVET DORA 1029769. A junior 2-year-old that has ust completed a 7-day record of 24.21 lbs. butter from 329.6 lbs. milk. Her dam produced 1115.95 lbs. butter from 27,212.5 lbs. milk as a Jr. 2-year-old and was in turn from a 918-lb. cow. Her sire, Velvet Segis Prospect, is a 1080-lb. grandson of Segis Pietertje Prospect, his two nearest dams averaging 34,000 lbs. milk, 1250 lbs. butter.

WASTIKA VELVET ONA KORNDYKE 1029770. Another Junior 2-year-old daughter of Velvet Segis Prospect that has 100% the same breeding as the heifer named above. She has just completed a 7-day record of 21.27 lbs. butter from 345.4 lbs. milk. These two junior 2-year-olds are unusually good individuals—the kind we like to have represent our herd at such a sale.

ELL FARM RUBY 971761. The first daughter of Carnation Farm's popular sire, Sir Romeo Mildred Colantha, to freshen. She has just ompleted a 7-day record of 22.12 lbs. butter from 356.2 lbs. milk.

his is, we think, an unusually good consignment, every member of hich is a foundation female good enough to please the most exacting uyer. We hope you will look for them April 25—29.

HE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Mich.

CONSIGNED

To U. S. National Holstein Sale

APRIL 25-29

A 20 lb. 2 yr. old daughter of 37th bred to King Superba. She is a show cow.

Nockdair Sir Fobes Ormsby, born Aug. 15, 1926. Sire the 1926 Grand Champion Sir Fobes Ormsby Hengerveld. Dam Prospect Johanna Posch. 984 lbs. butter 365 days as a 4 yr. old.

An 8 mos. daughter of Sir Fobes Ormsby Hengerveld. One out of the 926 lb. cow Midland Segis De Kol Burke.

A 1000 lb. son of Nockdair Prilly A Model.

8 choice cows and heifers heavy in calf of Nockdair Prilly A Model whose dam is Aaggie Nephele Hengerveld with 1046 lbs. butter in a year.

We have consigned our best, three are granddaughters of the 1920 National Grand Champion Cedar Lawn Canary Paul.

Write For Information

BAIRD BROS., Waukesha, Wis.

NOTED HOLSTEIN HERD AT AUCTION

60 Pure Bred Holsteins

MAY 5

Fair Grounds
White Bear Minn.

11 Miles East of St. Paul. Take the bus from St. Paul

Complete Dispersal of Dr. Egil Boeckmann's "Echoland" Herd

Every animal in the herd bred on the farm but one. Large animals of rich **Ormsby** breeding and splendid type. Descendants of noted show animals. Cows with records up to 1017 lbs. as 3-year-olds and daughters of high record cows.

FORMER HERD SIRES: (1) Son of a 1323-lb. 4-year-old daughter of Sir P. O. M. (2) A show son of K. P. O. P. (3) Show son of a 36-lb. 1017-lb. 3-year-old. All of Ormsby breeding.

PRESENT HERD SIRE: A show yearling by the famous Romeo bull and from Lizzie Pietertje Ormsby, a 36-lb. 1017-lb. 3-year-old daughter of Sir Pietertje Ormsby Mercedes.

For Illustrated Folder write

MELIN-PETERSEN CO., Sales Managers
306-B Gorham Bldg., Minneapolis, Minn.

Sir Bess Ormsby Fobes

Head Your Herd With a "Sir Bess" Bull

We have for sale a few very good young bulls by Sir Bess or from Sir Bess daughters and by Creation. If you want breeding, type, and long time production we are sure one of them will suit you. Write us or come to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) **DOUSMAN, WIS.**
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

FOR SALE -- A Line Bred "King of the Ormsby" CALF



BULL 3116
BORN JULY 31, 1926

Si: A grandson of Bess Johanna Ormsby out of a cow with ar ,180-lb. butter record. Dam: A daughter of King of the Ormsbys with 607 lbs. butter and 15,105 lbs. milk in 305d. at 21 years. Second dam has a 750-lb. 305d. record. **PRICE $225.** Ex ress charges prepaid up to 500 miles.

W TERTHUR FARMS, WINTERTHUR, DEL.

HOLSTEIN BULLS

of serviceable age and younger. Good individuals out of good individual record dams.

THE NORRIS FARM *Fully Accredited* **Mukwonago, Wisconsin**

Choice HOLSTEIN-FRIESIAN (Registered)

Cows and Bulls For Sale!

These cows hold high A. R. Records. Two score to select from.

BOARD HILL FARMS CO., Inc.
at New Canaan, Connecticut

FARMS AT NEW CANAAN, MIDDLEBURY, and GOSHEN, CONN.

A SPLENDID OPPORTUNITY

RE CONSIGNING 4 SPLENDID INDIVIDUALS to the Milwaukee Holstein Breeders' Cooperative sale at ST. MARTINS, WISCONSIN, APRIL 30, 1927.

bull calves consigned are outstanding individuals bred both for type and production. HOW WOULD KE THIS BREEDING IN YOUR HERD: Milco King Jude Homestead—No. 510178—Born Dec. 6, of our Senior Herd Sire: King Canary Homestead Segis No. 297548—whose dam made 1123 lbs. d over 30,000 lbs. milk. The dam of this fine calf made 26.30 lbs. butter from 669.9 lbs. milk. He's le at your price. The other bull calf is equally as good. The females are both daughters of King omestead Segis No. 297548—out of outstanding dams. REMEMBER here is an opportunity to buy is from an abortion free herd. T. B. under Federal supervision.

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120 Head, including—

THE HIGHEST YEARLY RECORD COW ever offered at public auction.

THE WORLD'S CHAMPION 305-day cow for both milk and butter, all ages and breeds.

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EIGHT 1000- TO 1426-POUND COWS and twelve of their daughters.

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SEVERAL 800- AND 900-LB. HEIFTERS and many of their daughters.

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JUNE 15-16 1927
Minnesota State Fair Grounds
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125 HEAD

Representing the "K P O P," "Sir P O M," "37th," "41st," "Triune," "Pride," "Piebe," and other noted strains of the great ORMSBY family.

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U.S. NATIONAL SALE
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America's Best Holsteins

This is the Dairyman's Opportunity

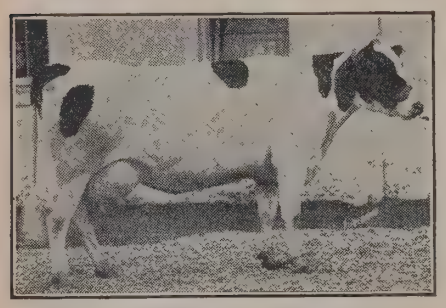
To replace Grades and Common Milkers with the best Purebred Holsteins without sacrificing immediate milk supply. *A large number of the offerings are fresh or springing — carefully selected for production and type.*



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A beautiful 34-lb. daughter of the famous sire, Sir P. O. M. 37th, out of a daughter of Wisconsin Fobes. With her will be sold her son by a great Ormsby sire.
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PRILLY LYONS VASSAR MAY
The Michigan State Champion junior four-year-old with 1184.03 lbs. butter. Her dam also has 1100 lbs. Springing by Ambassador Fobes.
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SEGIS SINDT FLORA BUTTER GIRL
A great 1197-lb. four-year-old, from an almost 1000-lb. daughter of a 1257-lb. cow. Due in July by Ormsby Sensation.
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ORMSBY SENSATION ABBEKERK
A 1000-lb. four-year-old and World's Champion junior two-year-old in the 305-day division. Daughter of Ormsby Sensation. Her 33-lb. 3-year-old daughter also consigned. Fresh.
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The man who must make his living from his dairy will find in this great five-day sale series just what he needs to improve his herd and increase his milk check. These offerings are the kind that will make good for the farmer under farm conditions and many of them are "ready"—will start immediately paying profit on their production. All from good clean herds—mostly Accredited Herds—and all sold with a Health Guaranty.

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1. One of the greatest proven sons of Iowana Sir Ollie.
2. A young son of Dutchland Colantha the Great from an 1178-lb. 4-yr.-old daughter of the only 35,000-lb. cow in the East.
3. Famous Grand Champion bull from Pabst's 1925 show string.
4. A proven son of the greatest milk producer east of Rockies—35,339 lbs.—sired by one of the greatest sons of Sir P. O. M.
5. A son of the twice All-American bull, General Homestead Mercedes, from the Wis. Champion 305-day milk producer.
6. A son of Admiral Ormsby Fobes from an 1187-lb. 4-year-old and Wisconsin Champion milk producer.
7. 1100-lb. son of All-American bull, North Star Joe Homestead.
8. 1000-lb. son of Grand Champion, Count Veeman Segis Piebe.
9. A son of the 1281-lb. K. P. O. P. bull, Friend Piebe, from a 944-lb. 3-year-old dam.
10. A son of Colony Posch Newman from one of the 1000-lb. daughters of Finderne Pride Fayne.
11. A proven sire out of a twice 36-lb. daughter of Ormsby Korndyke Lad.
12. A proven sire, by a full brother to Pietertje Maid Ormsby and from a 1000-lb. daughter of "37th."
And a long list of others of the same calibre.

The Entire Lilliberk Herd

consisting of over 100 head, has been consigned to this sale series. This herd includes M. B. B. Beauty, Segis Sindt Flora Butter Girl, and Ormsby Sensation Abbekerk (see pictures), also the 34-lb. All-American cow, Belle Calamity Wayne, and many other 30-lb. and 1000-lb. cows. One of the greatest and most highly developed pure-bred Holstein herds in the country today. Accredited.

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Bell Farm Honor and Bell Farm Ozone, two of the greatest bred bulls ever offered from this line of breeding. It includes Bell Farm Susie, Bell Farm Palmyra, and Bell Farm Cleopatra. These cows have perhaps the richest breeding, the greatest consistent production and combined with it the most pleasing type of any animals that have ever come forth from Bell Farm. In this consignment one can buy daughters of Bloomingdale Hengerveld Palmyra, "White Susie," Bell Farm Generous, Bell Farm Hattie, and other animals that have made Holstein history. The consignment is accredited and negative to the blood test for abortion.

Full information regarding the wonderful consignments in the sale may be had by addressing any of the managers.

Wonderful consignments from Carnation, Pabst, Zoberlin, Piek, Hollyhock, Walcowis, and about half a hundred other leading Wisconsin breeders; from Detroit Creamery, Jones, Lambert & Webber, and others from Michigan; Rieck and Osborne from Ohio; Brandenburgh, Johnson from Illinois; Dutchland Farms from Massachusetts; Lashbrook, Bruce and Carleton College of Minnesota. These and other remarkable offerings mark this as a sale of truly National scope and a sale that no breeder or dairyman in the country will want to miss.

Be on hand and get your share of these great offerings

Write for Illustrated Circular!



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Lilliberk Farms, Homer, Mich.



AVON ECHO DAISY
An 1125-lb. and 28,664-lb. Wisconsin Champion senior four-year-old daughter of A Pontiac Echo. Springing by North Star Homestead, the All-American bull.
Carnation Milk Farms, Oconomowoc, Wis



PRINCESS PAULINE WAYNE SEGIS
A 31-lb. granddaughter of King of the P tiacs, bred to an 1100-lb. son of Triune Or by Piebe.
J. B. Jones, Detroit, Mich.



SIR JOHANNA PAULINE ORMSBY
Grand Champion Michigan State Fair, 19 and a prize winner all around the 1925 c cuit. A line bred Ormsby.
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...ve for sale 2 very good calves born ... and Dec. 27, sired by Rawleigh Ormsby ...je Posch, our 41-lb. Ormsby sire. They ...m 24- and 25-lb. 4-year-old Homestead ...with good year records, one a state ... cow. Priced to sell. The herd is ... Write

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...O TO SELL! I am sold out of ser... ... bulls but have some excellent bull ...s to 4 months old, priced right. They ... type and breeding that will suit you ... from A. R. dams. Write today. En... ...d blood tested for abortion without a ...

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...ungsters are sired by a 1000 lb. grandson of ...rtje Ormsby Mercedes 37th and are from ... producing cows. Write today if you want ...ith type and backed by productive breeding.

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BORN SEPT. 23, '26

...a 24-lb. two-year-old with 460 lbs. of ... e is sired by a good proven bull. He is ...t ¼ white and a real individual. Send ... gree and price.

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A 37-LB. BULL FOR SALE

Juneway
Sir Hengerveld Piebe
Born March 26, 1923

A splendid individual, marked about half and half. He has five 1,000-lb. sisters and his two nearest dams average 36 lbs. butter in seven days and over 1,000 lbs. for the year.

HIS DAM: Jessie Johanna Hengerveld 3d—A ton cow with a seven-day record of 37.35 lbs. butter and a 305-day record of 864 lbs.

HIS SIRE: Sir Korndyke Ormsby Piebe—A first prize winner at the National Dairy Show and sire of five 1,000-lb. cows. His dam, a 35-lb. 1,136-lb. 4-year-old, is a daughter of Sir Pietertje Ormsby Mercedes and a three-quarter sister to the 1,497-lb. cow, Bess Johanna Ormsby.

Price for immediate sale, $300.00

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WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED. TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

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A GOOD BABY BULL

Sired by ST. OLAF ORMSBY SENSATION No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

AKONA HOLSTEIN FARM

BULL CALF born Jan. 9, 1927, very good type. Sire's dam, 1,016 lbs. butter in year, dam's record 637 lbs. Accred. herd. Price $85.

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JOHN C. BUTH, Sales Manager,

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R. No. 2, GRAND RAPIDS.

A Son of Eco Sylv King Walker

Sire of state record, junior 2-year-old and 4 20-lb. junior 2-year-olds. Out of a 19.43-lb. junior 2-year-old, who has 3 sisters with over 20 lbs. as junior 2-year-olds. Straight top line, fully developed, ready for light service. Born December 21, 1925. Ask for bull 215.

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SONS OF PABST PERSISTENCY

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PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

Michigan State Herds

offer young bulls ready for service sired by BELL FARM KING SYLVIA, a show son of the famous 1113-lb. show cow, "White Susie." Tag No. 223 was born March 3, 1926. His dam is a 29.5-lb. Jr. 4-year-old with a good year record. His three nearest dams average 950 lbs. butter and 24,515 lbs. milk in a year.

Send for pedigree.

"MICHIGAN STATE HERDS"
BUREAU OF ANIMAL INDUSTRY, Department B, Lansing, Mich.

Decreamco Bess Burke Fobes

Our Jr. Sire



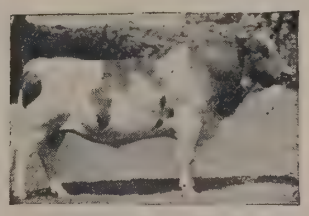
This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

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MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

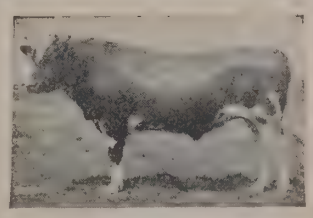
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Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of
Colantha Johanna Lad



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MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"



$250 — Dean Segis Bess Ormsby — $250

BORN AUGUST 26, 1926

We offer this week, a nice straight typy bull calf, eight of whose fifteen nearest dams, average 1070 lbs. butter for their 305-day or yearly records.

SIRE—Dean Colantha Segis Ormsby, a richly bred Ormsby show bull of 1000-lb. breeding.

DAM—Lashbrook Bess Ormsby, with a junior two year old record of 552 lbs. butter in 305 days.

You will like this bull. Send for pedigree and photo.

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MAYOWOOD FARMS

HOLSTEIN BULLS

We have enjoyed a very keen demand for our bulls this winter, but can still offer a few of serviceable age. We have, also, calves sired by "White Hope," who was recently sold to the Japanese government for $8,000. Write for our sales list.

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Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

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*Number of cows milked*_____ *R. F. D.*_____

*Name*_____

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*State*_____

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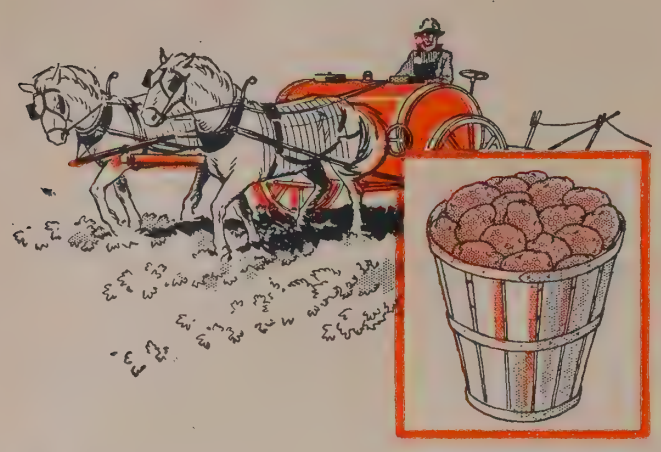
HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



...olume 72, No. 8 Fort Atkinson, Wisconsin April 25, 1927

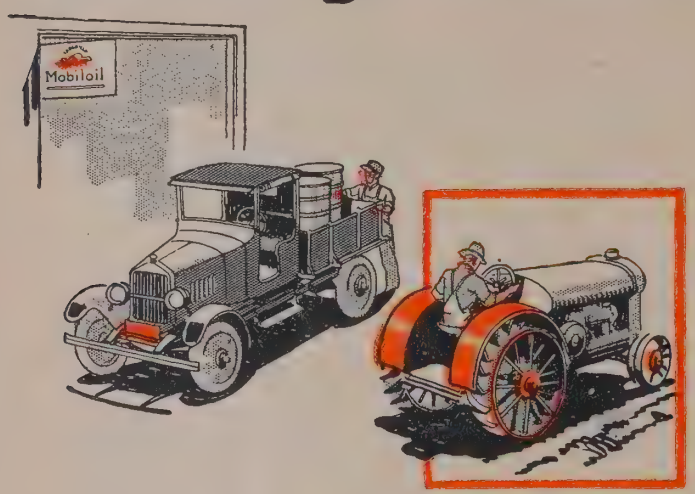
What experiment stations report on potato spraying



In 323 tests during the past nine years, a Pennsylvania experiment station has compared the yield of sprayed and unsprayed potatoes. The sprayed vines have produced an average of 67 bushels of potatoes more per acre than those not sprayed.

In North Carolina 10-year tests show an average increase from spraying of 53.3 bushels per acre. Ohio demonstrations during the past 3 years have averaged an increase of 70 bushels per acre for the sprayed vines.

Mobiloil gives this same marked economy



Buying low-priced oil is like trying to save money by not spraying potatoes. To be sure, you pay a few cents extra for Gargoyle Mobiloil. But you get an engineering margin of safety in lubrication which is worth many dollars in a year's running.

In tractors, Mobiloil users frequently report that Mobiloil lasts twice as long as ordinary oil. And the costly delays from overheating and breakdowns are materially cut. In cars and trucks Mobiloil's economy is equally striking.

If you think any oil will do, consider this fact:

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars are specified below.

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc"), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

Follow winter recommendations when temperatures from 32° F (freezing) to 0° F (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford Cars, use Gargoyle Mobiloil "E").

If your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors.

NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac	BB	Arc	BB	Arc	A	Arc	A	Arc
Chandler Sp. 6	A	A	. . .	. . .	. . .	. . .	. . .	. . .
" other mods.	A	Arc	A	Arc	A	Arc	A	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chrysler 4	A	Arc	A	Arc	A	Arc	. . .	. . .
" other mods.	A	A	A	A	A	A	A	A
Dodge Brothers	A	Arc	A	Arc	A	Arc	A	Arc
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc
Jewett	A	Arc	A	Arc	A	Arc	A	Arc
Jordan 6	. . .	. . .	. . .	. . .	Arc	Arc	Arc	Arc
" 8	A	Arc	A	Arc	A	Arc	. . .	. . .
Lincoln	A	A	A	A	A	A	A	A
Moon	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Nash	A	Arc	A	Arc	A	Arc	Arc	Arc
Oakland	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile	A	Arc	A	Arc	A	Arc	A	Arc
Overland	A	Arc	A	Arc	A	Arc	A	Arc
Packard 6	A	Arc	A	Arc	A	Arc	A	A
" 8	A	Arc	A	Arc	A	Arc	A	Arc
Paige	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Pierce-Arrow	A	A	A	A	A	A	A	A
Star	A	Arc	A	Arc	A	Arc	Arc	Arc
Willys-Knight 4	. . .	. . .	B	Arc	B	Arc	B	Arc
" " 6	A	Arc	A	Arc	A	Arc	. . .	. . .

GARGOYLE

Mobiloil

Make the chart your guide

50% of all engine troubles are directly caused by faulty lubrication. The oil you pour into the crankcase today determines the size of tomorrow's repair bills. The added margin of safety in Mobiloil is important, both in postponing expense and increasing the usefulness of your engines.

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The Milk Cows at New Salem, North Dakota

OARD'S DAIRYMAN:—If old King had kept a record of his family and each Egyptian ruler from day to this had done likewise, Pharaohs would have less data mulated than the New Salem eding Circuit. The New Salem ners have worked together for enteen years, while King Tut ed a lone hand.

King Tut lived some 3,500 years . New Salem has nearly 4,000 r cow records.

he Honorable James Wilson, late retary of Agriculture, says that predecessor in the position of di- or of the Iowa Experiment Sta- carried on a trial in feeding es. He had but two calves on the l. At the close of the experiment said: "The wrong calf came out ad in spite of the devil."

King Tut with his single cow ld not have had much data but h one cow for 3,500 years the raohs could have given weighty dence.

The 823 cows milked at New Sa- during the first four years, (1910 1913 inclusive) averaged 56.2 lbs. butterfat than 1,022 milked by circuit 16 years later (1922 to 25 inclusive.)

The average for the first four rs was 190.1 lbs. butterfat per d and for the last four years 3.3 lbs. per cow—a difference of 6 per cent.

The average 1925 monthly price eived for butterfat in New Salem s 42⅝ cents per pound. The 14,- 3.1 lbs. of extra butterfat which cuit cows brought above that ich they had given 16 years before uld have brought that year 270.14.

That neat little sum paid a number bills and is as near "a letter from ne" as a grown-up often meets hin this world.

That premium is for working to- her, keeping the best proved sires, d hiring a superintendent to test herds and study the records.

Records of 43 daughters of the e King Wa Wa Segis Pontiac, an -year-old Holstein herd bull on the w Salem circuit, compared with t of their 43 dams gives interest- results. The dams are high class re-bred cows and the 43 head have average fat record of 373.2 lbs. their best calendar year. Their daughters have an average calen- r year record of 401.1 lbs.

Had grade cows or pure-bred cows low record been used in this com- rison the improvement shown by e sire would have been much eater.

It is not an easy matter to raise e daughters of 370-lb. cows up to 0 lbs. as has been done in this case. would be reasonable to guess that is sire could have raised daughters 250-lb. cows of poor breeding to 0-lb. performers.

King Wa Wa left 126 daughters d granddaughters which the Cir- it has a record of and there are ubtless many times this number in e hands of those to whom his sons ve been sold.

North Dakota. J. H. SHEPPERD.

How I Feed Calves

HOARD'S DAIRYMAN:—I'm so glad have a chance to unburden my ind as to feeding calves. For many ars my heart has gone out in sym- thy to the thousands of helpless lves who have had their noses unged into a pail of milk while a rong man stood astride the flabby tle body and held the head into the ail. It was a case of drink or drown, ith insufficient breath to do either. This savage system is not necessary.

We have Jerseys. They may or may not be easier to teach than other breeds; I do not know, but this is how I teach them:

We always tie our calves up as soon as they are dropped. They will do a lot of floundering around and will have to be watched a little at first so they do not get into dangerous positions, but they soon give up and agree to be tied. This helps a lot in teaching them to drink. You do not have to hold them. Wait with the feeding until they are hungry—from three to twelve hours. Take a shallow dish for the milk, which must be of the right temperature, neither too cold nor too warm. I use an aluminum mixing bowl that holds six pounds. This has many advantages over anything else we have ever used. It is light to handle and when feeding four pounds, it is not too full. Sloping as it does, the milk remains deep enough all the time so the calf can get almost every drop before it finds the bottom.

Now begins the feeding. Put the dish of milk up to his nose and dab his nose into it. He will move away. Move your milk to where he is and dab his nose again. This may have to be repeated a number of times before he gets any into his mouth. But as soon as he gets a taste he will be interested, although he does not yet know where the "goody" came from. Put the dish up again and nine times out of ten he will begin to drink after having had one taste. He may only take a swallow or two before lifting his head. Slowly put the dish back. He may want to suck the edge; move it away and try again. With a little patience, if he is hungry, you will have him drinking all alone in five minutes, never having to give him your fingers. There will have been no struggle, no strangling, no bunting, slobbering, or choking. If he is not hungry, leave him a little longer.

Understand, I have been talking about normal calves. Weak calves sometimes have to be babied more; but the shallow dish, milk of the right temperature, and a tied calf with an appetite are sure passports to success in teaching calves to drink.

(MRS.) AUG. PETERSON.

Wisconsin.

Soft heads do more harm than hard hearts.



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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ered at Fort Atkinson, ., as second class matter.

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BETTER METHODS OF HERD IMPROVEMENT

C. T. CONKLIN, Secretary Ayrshire Breeders' Association

OU can't tell the depth of the ocean by the height of the waves," mused a coast-wise losopher, and he might have added t you can't tell a thing about the duction of a herd of cows by dying a few of the highest records. a matter of fact, the waves may the highest over the most danger- reef, and similarly a few high ords may be rolling over a hidden al of low production with the ainder of the herd. And for this y reason the Ayrshire Herd Test ne into existence.

he first year's experience with the d test indicates that it has a secure e in the program for the advance- nt of the Ayrshire. Nearly fifteen dred of the breed's best cows are monthly subjected to this in- igation, and some fifty different ers promptly advised as to pro- tion, feed costs, and gross income every cow in their respective ls. It is interesting to note that ough there has been a serious ine in Advanced Registry testing, is the greatest number of Ayr- es that has ever been on test at time. Furthermore, there is ev- indication that it is simply the nning of an increasing number erds that will avail themselves of service.

Testing Plans Studied

he inception of the herd test s back some four years to a gath- g of a group of men who were in- ely interested in the progress of favorite breed. The question was nently raised as to why every Ayr- cow in the herds of the breeders were testing should not be tested. emed to these far-seeing cattle- that the truth should be known t the low produc- as well as the high ucers of the breed. he idea challenged ttention of the of- s of the Ayrshire ders' Association, as a result in 1924 nmittee, consisting Major A. Henry inson, Dr. E. S. ler, and Leonard s, was appointed. committee was in- ted to study the ms of testing in e in various suc- ul dairy countries to offer sugges- for a test that l involve every n the herd, and at ame time furnish ls that might be nized by the Ayr- Breeders' Associ- and given a place he pedigrees of cattle.

investigation followed im- pressed the newly appointed Herd Test Committee with the radical difference between the objective of the American breeder doing Advanced Registry testing and the successful dairyman of other lands. One group was testing to detect the unprofitable cow and thus raise the averages of their herds, while the other group was devoted to a policy of making the largest possible records with a small number of their best cows. Seldom was a mature cow started on the Advanced Registry unless there was reasonable assurance that she would make a satisfactory showing.

Furthermore, these dairymen across the sea believed that every cow must be tested not only for one lactation period, but year after year with clock-like precision. The Herd Test Committee also found that there was no holding back of breeding so as to get high yearly records with fewer calves. There were no box stalls nor highly specialized feeding methods to keep the laggard cow in the race.

Perhaps still more important was the finding that the expenses of testing were greatly reduced in other countries by the organization of local associations, and the very general participation of all breeders in testing work. At the same time this committee found that the idea of organizing local associations for testing entire herds was sweeping through the leading dairy states of this country in spite of the fact that the Advanced Registry system was losing in popularity. With a feeble beginning of one lone cow testing association in 1906, there were 700 functioning in 1924. These associations were testing more pure-breds than all of the systems that were recognized by the various breed associations, which was rather conclusive evidence that the American dairyman would continue to test his cattle if an economic and practical plan were presented to him.



This herd, consisting of two mature cows and ten first calf heifers, averaged 8,700 pounds 4.2 per cent milk, 365.1 pounds butterfat, with a 100 per cent calf crop.
OWNED BY NESHAMINY FARM, PENNSYLVANIA



These 101 pure-bred cows of all ages averaged 8,334 pounds 4.13 per cent milk, 344.2 pounds butterfat. Their average lactation period is 313 days with almost perfect calving record; milked twice daily.
OWNED BY PENSHURST FARM, PENNSYLVANIA

Requirements for Herd Testing

With the experiences of the dairy leaders of several countries from which to draw, plans were outlined for a system of testing that would involve every Ayrshire cow in each herd entered. There could be no sorting out of poor producers, shy-breeders, and cows with unsound udders so as to raise the herd average and delude the breeder regarding his profits. The test automatically includes every heifer as she freshens with her first calf. All reports are based on herd averages although the records of individual cows will be maintained and published. The calendar year was selected as the basis of computation, rather than the lactation period, so that the dry months are figured in the annual report.

In order to make the Herd Test applicable to the conditions of the general farmer and the dairyman, it was specified that mature cows should not be milked more than twice daily unless there was a production of at least 40 pounds of milk, with proportionate yields for immature females. To give the monthly reports from the Ayrshire Breeders' Association to the various owners the economic value that they warranted, feed consumption and costs were incorporated and charged against the production of each cow.

Economy of administration was secured by permitting the supervisor to test up to twenty cows each day. Furthermore, supervision was based on a one-day test with no preliminary milking, rather than the customary two-day test. Although the change to the one-day test seemed rather revolutionary, and there were many who considered it of little value, there has recently been published considerable evidence to support the theory that the one-day test is quite accurate.

"Let Us Know the Truth"

It was further agreed by those who have de-

(Continued on page 484)

THE SOUTH'S FIRST MEDAL OF MERIT SIRE

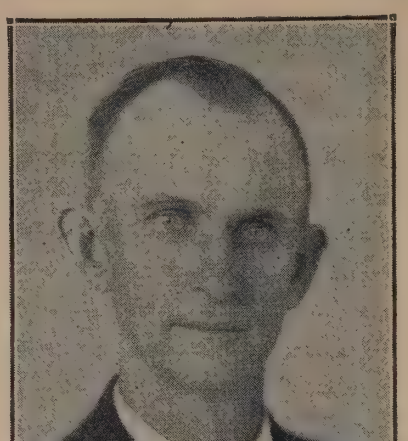
B. W. KILGORE, JR., North Carolina

IT is often remarked that a person gets out of life exactly what he puts into it. The story of the South's first Medal of Merit bull is additional evidence in favor of this theory.

Oakwood D's Fox—the King of southern Jersey sires—is the result of thirty-five years of constructive Jersey breeding by R. L. Shuford, Catawba County, North Carolina. Starting in the Jersey business before dairying had gotten a foothold in the state, Shuford has pioneered and led in practically every forward move in the development of the state's dairy industry.

Official testing was given its start in North Carolina by Mr. Shuford's cow, Dioxide. She completed the first official record in the state of 654.83 pounds of butter. This cow is the dam of the South's first Medal of Merit bull as well as seven Register of Merit daughters.

It might not be amiss to give a skeleton history of this herd. Thirty-five years ago Mr. Shuford was in the same position that a great many southern farmers find themselves today. The way he solved his problem offers a way out to these farmers who will profit by his experience. To use Mr. Shuford's own words: "I realized, with a poor, worn-out farm, that unless I followed some different methods than were employed by my neighbors, I was up against it and had better quit farming and turn to some other profession." Mr. Shuford loved farming and turned to the dairy business and the Jersey cow. His herd and farm answer more forcefully than empty words whether or not his decision was a wise one.



R. L. Shuford, North Carolina, owner and breeder of the first Medal of Merit sire in the South.

"Buy the best and breed better" was the slogan adopted by Mr. Shuford in breeding up his herd. His first four cows were purchased from Kentucky. They were daughters of Signal, the old "Butter King," a bull rich in high producing blood and very prepotent in transmitting high production to his offspring. Eminent's Flying Fox, a son of Eminent, was purchased from the White Horse Farm in Pennsylvania in 1909, as the first herd sire. Flying Fox is the sire of Oakwood D's Fox and his progeny from the four foundation cows are largely responsible for the present herd.

Mr. Shuford has followed the practice of buying the best bulls he could find. Except for a few foundation cows, he has raised all his females. Good care of his young stock, hand in hand with their breeding, has been responsible for the high quality of his herd.

What is of real interest to the average dairyman is that Mr. Shuford has balanced his farming operations with his dairy business. Practically all feed consumed by the herd is grown on the farm. Instead of a poor, worn-out farm, through a system of dairy farming, manure, and legumes, there is in its place 600 acres of as productive land as can be found in the South.

Oakwood D's Fox has been the senior herd sire at Shuford Farm f twelve years. His twenty-four Reg ter of Merit daughters include thr Medal of Merit cows, four gold med and one silver medal winners.

The three cows whose records ha made Oakwood D's Fox the Soutl premier bull, are:

	Milk Lbs.	Fat Lbs.	Age Yrs. M
Oakwood Fox Annie	16,438	864	8
Oakwood D's Brownie	17,929	860	7
Red Lady	17,195	860	8

August 27, 1926, the date Red La presented Shuford Farm with a fi new calf, marked a red letter day f the South and Mr. Shuford. The be efforts of Mr. Shuford's life ha gone into developing his Jersey he and the honor that now comes to h is a worthy reward. This achiev ment offers a new hope to young breeders to set their ideals high wi the assurance that they will get o of their work exactly what they p into it.



THE SOUTH'S FIRST MEDAL OF MERIT SIRE

This is Oakwood D's Fox, owned by R. L. Shuford of North Carolina. He has been herd sire at Shuford Farm for 12 years and his 24 R. of M. daughters include three Medal of Merit cows, four Gold Medal and one Silver Medal winners.



OAKWOOD FOX ANNIE, THE HIGHEST PRODUCIN DAUGHTER OF OAKWOOD D'S FOX

She is a Gold Medal and a Medal of Merit cow with a rec of 864 lbs. fat in 365 days.

The Cow Tester's Job

H. W. HYDE, IOWA

AT the end of my first year in college in 1916, I applied to Howard Barker, then head of the dairy extension work at Iowa State College, for a position as tester in a cow testing association. He sent me to an association which had just been formed in Cedar County, Iowa. Armed with what knowledge I had gained from a year in college and a boyhood experience on the farm, I went to take charge of the work.

What I learned that first year, both through my failures and successes, has been mighty valuable to me in later jobs of a similar kind. As I think back over that first experience in cow testing work, it occurs to me that an account of what I learned may be of service to other novices in cow testing work and also, perhaps, to farmers who are forming associations.

The first evening all of the members gathered at the secretary's home to become familiar with the work and there I learned most of their names.

I knew that if my work was to be of the most value to the members, I must get each farmer interested enough to want to better his own conditions and to become a booster. I began to study each family individually, not only the men but the women as well. I knew that if I could keep the women folks interested I would stand a better chance of making the work appeal to the men.

By the time the second quarterly dues were to be paid, some of the farmers began to question the value of the work. There are always a few people who expect a new movement to yield immediately a financial return greater than the costs that have been incurred. I remember well two farmers who were almost ready to drop out of the association. I made a special effort to get them to see the value of the work. Among the other things that I did for the one man, I adjusted his cream separator which proved to be leaving enough butterfat in the skimmilk to pay for two-thirds of his testing dues every month. The other man I induced to remain in the association until the year was up; I incidentally left him a "Henry's Feeds and Feeding." So interested did he become in studying this book that when I came back he bought it.

I purposely left a few of those feed books with the farmers and before the year was past I had sold one to nearly every member in the association. As the winter months came on I helped the farmers plan better feeding rations, which in many instances reduced their feed costs and at the same time increased the amount of milk the cows gave.

At the time there were very few silos in that county so I gathered all the information I could from local farmers who had silos. I sent to the experiment stations for information concerning the food value of silage and gave this information to the farmers. Before the fall was over, I had sold eight silos to members of the association and several to outside farmers.

I managed to get the members of the association together once every month. We always had an interesting program followed by refreshments served by the women. I am not sure which was the attractive feature, the program or the refreshments but I am confident each get-together meeting stimulated interest.

About nine months after the association was started two of our members held public sales. Their cows that had milk records brought $15.00 to $30.00 more per head than similar cows that were not in the association sold for at other public sales. I took advantage of this as an inducement to secure members for the association and the two vacancies left by the farmers who had sold out were soon filled and from that time on we had several applicants for membership on our waiting list.

I learned early in the year that order to succeed I must do just little more than the necessary dut as a tester. I helped the farm plan their crop rotations, tested th soil for acidity, assisted them in s corn selection and taught them h to use the rag doll seed corn test I would help them cull the poul flock and in some cases I found m self helping the farmers in keep farm accounts. I would make s cial efforts to get information on a subject the farmers were interes in. I learned that it was the lit outside tasks that I did that made work interesting to all.

My efforts as a tester were by means in vain. By the end of year we had eliminated from farmers' herds 27 cows that had b kept at a loss, five members of association had purchased pure-b sires, and all the farmers had lear enough about better feeding meth to reduce greatly their feed costs a increase their net income.

I was well repaid for my extra forts. I felt that I had learned much from the members as they l learned from me. At the close of year the members presented me w a neat little sum with which to bu gold watch.

I later supervised other testing sociations and I attribute my s cess in them all not only to do well the things that were expected me but rather because I lent services freely in every way possib

ELECTRICITY IN THE COUNTRY HOME

ETHEL MORRISON-MARSDEN, WISCONSIN

NO mere man can do justice to the theme of electricity in a farm home. Perhaps he can umerate comforts to be gained by e installation of that great and ysterious force but he is quite help- ss to appreciate the fathomless nount of labor saved and the vast



LECTRIC WATER HEATER THAT OPERATES AUTOMATICALLY AND PROVIDES SCALDING WATER

The tank which holds the water is well nsulated.

old joy electricity brings to the rt of a farmer's wife.

Everyone lives in two worlds, one reality and one of dreams, and in t dreams of a country woman there sts electricity in the home bring- light, bringing warmth, saving ntless amount of work and en- y, bringing rest and happiness. Al now the time has come when se dreams may be utilized. Elec- ity is within the reach of nearly who care to utilize it.

The cost of installing electricity a farm home need not be great. very few years ago a farmer had irst build his own line, then wire own buildings up, install his own ures and put up his own trans- ner. Then if he cared to make a of this line to an electric com- y they would keep it in repair supply him with electricity or ce." The past year or two has a very great change take place.

The small companies throughout the various states have been purchased by large and powerful concerns that in many instances control the greatest portion of rights in a whole state. These large companies are anxious for more consumers and so have made it easy for almost every farmer to have it. The companies will build along the main travelled highways, right past your farm, and will supply the transformer that you will need. You will only have to build from this main line into your house and wire up your own buildings. These companies are also anxious for you to use as much juice as possible, so with this in mind they have made the rates so that the more electricity you use the cheaper it becomes. Hence your greatest economy, if you are going to install it, is to arrange to use as much as you can conscientiously. You must learn how to use it so that it will be not an extravagance but a necessity, and an economy not only from a laborsaving standpoint but from a financial viewpoint as well.

Any intelligent farmer who will devote a little study to electricity can do a great deal toward wiring up his own buildings. And then what help that needs be hired will not amount to much. The fixtures need cost only what you care to put into them and as to electrical appliances, you may add them one at a time as you feel you can afford them. Many can be supplied by local electric companies on the monthly payment plan if you care to undertake that method.

It is hardly necessary to speak of the advantages of the lights themselves as compared with kerosene lamps; the cleanliness, the amount of labor saved in cleaning and filling these daily, not to mention sweeping up broken lamp chimneys, the vast difference in the light itself and saving on eyesight, the convenience of a bright light by simply pushing a button or pulling a chain, and most important of all the safety, no danger of explosions, fire from overturned lamp or lantern. The safety in the barn is of as great value as in the house, for always where there is a lamp or a lantern there is a possibility of fire.

To my mind the electric washing machine and the electric flatiron are the most essential of all labor saving devises. The washing machines have so very many advantages and they cost so little to operate. When my babies were tiny I used my machine three times a week instead of washing daily by hand. The new machines do away entirely with the necessity for scrubbing anything on the washboard. One of these will do a large washing thoroughly in a short time. In an hour and a half at most from the time your water is hot, your washing can be finished and on the line, and probably you can have your floor cleaned. The swinging wringer is a great improvement, thus enabling you to wring not only from your machine but from your rinse tubs with it as well. The safety devices upon it protect both your hands and your clothes. Both the washer and the wringer save greatly on the wear and tear upon the clothes over the old type of hand power washers or the scrubbing board.



THE ELECTRIC WASHER IS ONE OF THE MOST ESSENTIAL LABOR SAVING DEVICES IN THE HOME

The first cost of an iron is insignificant and no words can tell of the saving of burns and steps by using an electric iron. The work is done much nicer, for the iron itself is heavier and holds a constant heat. An iron costs more to operate than a washer (any appliance that has a heating element costs more to operate than one using a motor), so for this reason one must learn how to use an iron. It should be planned if possible to do all the ironing at one time as this will only cause the iron to be heated once. As the iron retains the heat some time it may be turned off before one finishes and sundry small articles such as handkerchiefs, etc., done the last thing.

Next I value my vacuum cleaner. It is such an easy and enjoyable way to clean a rug, simply to run this machine over it. It picks up everything on the surface and the vacuum draws the dirt out of the rug itself as well. In just a few minutes' time you can run over all of the rugs and have your house looking spic and span. It matters not whether the children have cut up papers all over the floor or whether the men have taken off their boots which have been half full of oats and chaff and trailed this all over the rugs, the vacuum cleaner will pick it up and it costs comparatively nothing to run. And



A PUMP DRIVEN BY AN ELECTRIC MOTOR

no one can estimate the true value of it at housecleaning time.

My electric range brings me the greatest amount of pure joy of anything I possess. It bakes the most like a good old fashioned cook stove of anything I know of. The ovens are so well insulated that one can use them almost the same as he would a fireless cooker. By heating to the temperature desired and then turning the heat onto low, the oven will retain the same temperature for an indefinite time. Even after the juice is all turned off it will stay hot for three hours or longer. I bake many, many things after my heat is turned off. There are two heating elements in the oven, and each one has three heats; one element is in the bottom of the oven and one in the top. Thus it is an easy matter to reach any desired amount of heat, and with such a perfect heat all about your baking it is almost impossible not to bake successfully. Meats may be broiled deliciously in the top of the oven and are far more healthful than when fried. Of course to operate a range economically one must do as much baking as possible at one heating but the ovens are large and many things may be baked at one time. The burners all have three heats, thus enabling a person to turn the heat on low, medium, or high. As a rule, I turn it

(Continued on page 478)



LECTRIC MOTOR FOR THE SEWING MACHINE IS ANOTHER LABOR SAVER



"MY ELECTRIC RANGE BAKES THE MOST LIKE A GOOD OLD FASHIONED COOK STOVE OF ANYTHING I KNOW OF"

HOW EUROPE FARMS

A Dutch Potato Grower

HERBERT R. COX, NEW JERSEY



This Dutch potato grower is in earnest conversation with the county agent about the certified seed potatoes in the foreground.

AS in most of the North Europe countries the potato is a more important crop in Holland than it is in America. Holland grows both early and late potatoes. The latter are raised on farms of fair size and on the heavier soils of the provinces of South Holland, North Holland, and Zeeland. Early potatoes are a truck crop and are raised intensively on small holdings. An important early potato section is in North Holland near Alkmaar and Hoorn where about 7,500 acres are devoted to the crop.

With this preface let me introduce to you Herr Jan Hoogland of Lutjebroek, whom the county agent selected as a typical early potato grower of the district; typical in the size of his farm and kind of business, but more progressive than the average.

Mr. Hoogland has five acres of land and raises just two crops, early potatoes and cauliflower. The potatoes are planted in March and harvesting begins about June 1. By June 15 harvesting is at its height. The potatoes may be planted about three feet apart, in which case the cauliflower plants are set between the potato rows a few weeks before harvest. Often potatoes are planted two feet apart and the cauliflower plants are set after the potato plants are harvested. So the same land produces two crops a year. There are a few other crops raised on a small scale in this section, including cabbage and beets.

The land in this locality, like all of western Holland, has been reclaimed from the sea. It is level as a floor with ditches and canals everywhere from one to three feet below the soil surface, which is at or a little below sea level. Windmills raise the water from the ditches into the canals which carry it off to the sea. The soil is a very productive loam to sandy loam.

Part of Mr. Hoogland's farm, the part surrounding the house, he owns. The rest of it, located a quarter mile away, he rents. A fair valuation of this land is about $1000 an acre, exclusive of buildings which are worth about $1000. Please remember that this is a long distance from any city and that this figure is strictly based upon its farming value.

From the fact that this farm raises only two crops you may conclude that it is highly specialized. There is not even a home garden. Mr. Hoogland finds it cheaper to buy his vegetables and other table supplies from hucksters. He has no cows, horses, nor chickens even. There is one dog and one cat. There is also a small canal boat by which Mr. Hoogland does all his marketing. The house is equipped with electric lights.

The family consists of Mr. and Mrs. Hoogland and four children, the oldest a girl of 18. Four other children have come into the home and have passed away. All of the work on the farm is done by the family. The land is turned in late winter by hand with a spading fork and is smoothed over with a hand rake. After the rows have been marked out, potatoes are planted with a hand planter, an ingenious tool which makes a circular hole in the ground in which the tuber is placed. Cultivation is done by a hand scuffler hoe.



Mr. Hoogland and his oldest daughter who does her share of the farm work.

As a rule, the whole tuber is planted. The rate of planting is about 50 bushels per acre for three-foot rows and higher for two-foot rows. Early potatoes are always planted in Europe at a higher rate than late potatoes, in order to hurry the crop on as fast as possible. The potato crop is heavily fertilized with ammonium sulphate, acid phosphate, and muriate of potash. These ingredients are applied separately, the phosphate and muriate before planting and ammonium sulphate after planting.

The kind of seed potatoes used is given careful consideration by the up-to-date Dutch growers. They are fully alive to the necessity of having seed free from mosaic, leaf roll, and other diseases. There is a system by which certified seed is produced in A, B, and C grades. Mr. Hoogland sells potatoes both for seed and for table stock, according to the market demands. His seed potatoes go largely into the A grade, some of them into the B grade. He is working closely with the county agent in order to produce the highest possible grade of seed. His seed is sold mostly to Germany and Belgium. The variety largely raised is the Scottish Mouse. His potatoes for market are put into his canal boat and taken to a great farmers' co-operative potato auction at Bovenkarspel, a few miles away, which is deserving of a complete description, but space will not permit of it in this article.



The three implements used in growing potatoes on this farm—a fork to turn the soil, a planter, and a hoe.

The yield of early potatoes on this farm averages about 126 bushels per acre. The crop for market is dug in early June when the vines are still green and long before they have made full growth. An average price for the crop is 3.6 cents per pound, which makes a gross return of about $272 per acre.

Cauliflower plants, which are set out after the potatoes, are raised both in frames and in the open. The seed comes from Italy. An average return from cauliflower is about $110 per acre. No additional fertilization is needed for this crop. The heads are placed in the canal boat and floated off to the auction.

It may be seen, therefore, that the gross return per acre from both crops is about $382 on an average, which is $1910 from the five acres. These people are thrifty, like all the Dutch, so that there is a fair margin of clear profit left nearly every year. The principal item of expense is interest on the investment, which is 5 per cent on $6000, and amounts to $300 a year.

As we left the house for the railroad station in the boat propelled by Mr. Hoogland with a long pole, he called my attention to a neighbor's house which could be seen above the potato plants lining the canal. At the peak of the roof was an enormous bird's nest and in the nest stood a stork appearing to be nearly five feet high. This bird comes back to this same nest every spring after spending the winter in a southernly climate. The stork is a bird of good omen and is well provided for by the fortunate owner of the house.

SOIL FERTILITY AND ANIMAL HEALTH

F. J. SIEVERS, WASHINGTON STATE COLLEGE

AMONG the numerous problems confronting the Western Washington dairyman, there is possibly none that is causing him more concern than the matter of the health of his cattle.

He is confronted with diseases of his stock that apparently do not respond to the well known remedies and treatments nor do they lend themselves to a very satisfactory diagnosis. The only matter of diagnosis that appears to be definitely established concerning these difficulties is the fact that the problems so common in Western Washington are not known or recognized in other portions of the state. This fact alone would lead one to believe that there are some conditions here, either natural or artificial, that can be held responsible. In this regard it is, however, fairly well established that artificial conditions or practices as they affect the dairy farmer play no part because the problems referred to have been experienced under practically all kinds of practices in spite of any precautions for their prevention. It would appear then that there might be something about the natural conditions under which plant and animal life develop in this section of the state that could be held responsible. Certainly there is a big difference between the soil and the climate here as compared to Eastern Washington.

In short, is it possible, or does it seem logical, that many of these diseases like red water, non-contagious abortion, sterility, etc., so common in Western Washington may be caused by a lack of proper nutrition? If malnutrition is under suspicion it might be possible to obtain some evidence through an analysis of some of the representative forage products produced and fed to dairy cattle in this section.

The Soils Department of the State College of Washington approached this problem from this angle two years ago and since then has had an opportunity to make many field observations and a large number of analysis of soil and crop samples. Finances available were not sufficient to permit complete analyses of these materials and therefore main emphasis was placed on only two elements, viz., phosphorus and calcium (lime). Those two elements were selected because it was generally understood that they played a very prominent part in animal nutrition and also because it had been learned from previous work that western soils, in general, were not overwell supplied with either available phosphorus or calcium.

The results from these analyses were very striking in that it was found that when compared with soils of similar type from other sections of the United States, the Western Washington soils were much higher in their total calcium and phosphorus content. In spite of this, however, they were not only acid in reaction but also decidedly deficient in available or soluble phosphorus. This deficiency was so pronounced that satisfactory crops could not be grown on most soils unless phosphorus was applied either in the form of animal manure or commercial fertilizer. Where soils are most deficient and where manure or fertilizers are not used regularly, only those crops that draw less heavily on phosphorus could be grown satisfactorily.

While all crops require the same elements of plant food, it happens that legumes like the clovers and alfalfa draw very heavily on phosphorus and calcium. This heavy demand on the part of these crops together with the limited supply of these elements in the soil has made the growing of legumes so difficult and uncertain in large areas in the dairy section of the state that the farmer refuses to make any further effort to get these crops established in a crop rotation system. The result is that there is little or no legume or legume pasture available for feeding dairy cattle. The grass and cereal hays, due to their lesser phosphorus and calcium requirements are a safer crop on these soils and the result is that frequently the entire forage portion of the ration for the dairy cow is composed of such non-legume roughage.

Dairy cows used for both milk pro-

(Continued on page 483)

IDAHO'S ALFALFA SEED INDUSTRY

GUY A. PETERSON, WISCONSIN

SINCE pure-bred seed of a variety that is adapted to the soil and climate at hand is such an important factor in the success of nearly every dairyman, it may be of interest to recount some of the impressions that we gleaned from a visit to the heart of the pedigreed Grimm alfalfa seed industry in Bingham County, Idaho, last August. It was at the suggestion of that staunch advocate of more and better dairy hays, Professor L. F. Graber of the Wisconsin College of Agriculture, that we made this pilgrimage with letters of introduction to a number of the men who are doing their utmost to maintain and improve the qualities of Idaho Grimm alfalfa seed.

Although Montana, Utah, and South Dakota are also coming to the front as producers of Grimm alfalfa seed, Idaho in the past few years has



T. C. BLACKBURN MAKING A FIELD INSPECTION OF H. K. WILEY'S ALFALFA

Mr. Wiley, on the right, is called the father of the Grimm alfalfa seed industry in Idaho.

been growing from 80 to 90 per cent of all pedigreed Grimm seed raised in the United States. What is more, most of this supply has been produced by members of the "Idaho Grimm Alfalfa Seed Growers' Association." More than 340 members of this worthwhile and successful co-operative organization operate seed farms in Bingham County within a fifty mile radius of Blackfoot. Bingham County is the world's greatest Grimm alfalfa seed county. In this respect it compares favorably with Millard County, Utah, which grows a very large percentage of Utah's crop. In view of the fact that the "Mormon State" produces about 45 per cent of all the alfalfa seed grown under the stars and stripes, this makes Millard the world's greatest alfalfa seed county. The greatest percentage of Utah's production, however, is of the common variety.

We See Many Indians

It was near nightfall as we drove along the splendid paved road leading into Blackfoot. On either side of pavement was a luxurious growth of alfalfa and sweet clover through which a considerable number of Indians, bucks, and squaws were riding. Occasionally we would see both man and wife riding upon the same horse. It seemed as we got into the city that nearly every fourth person we saw was a member of the Blackfoot tribe. They made an interesting sight as they came swaggering down the sidewalks with their coal black hair dangling over their chests in two sleek braids. Much of the seed growing territory was once owned by the Blackfoot Indians, so that is perhaps why the trademark of the association, "Blackfoot Brand," had been chosen, although we were told that very few Indians are engaged in the work of raising alfalfa seed.



This remarkable picture of the root system of an old Grimm alfalfa plant that has been allowed to develop by itself on George Line's farm shows how far the roots of these plants will go to find food and water. From top to bottom it measures six feet.

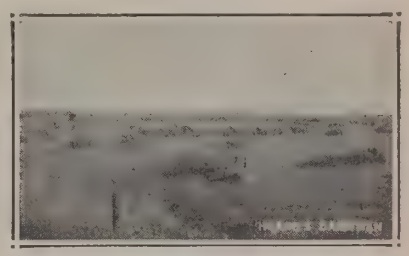
It happened that the officers of the association were holding a business meeting in their fine new warehouse that evening, so we had an opportunity to meet them. We wish to say in passing that if every farmers' co-operative organization was planned and manned as this one is, we would have fewer failures to record in the painful process of teaching the farmers to work together in marketing their own products. In spite of the fact that numerous attempts have been made to disrupt the organization and in spite of the fact that a number of farmers have forfeited their privilege of ever selling their seed through the association again, the majority of growers have "stuck by the ship" until this co-operative now commands an enviable financial rating. This only goes to show that farmers can get the necessary financial backing to operate a co-operative if they are willing to produce quality products and stick together.

Wisconsin Bans "Affidavit Grimm"

The few who "sold their birthright for a mess of pottage" and contracted their seed to unscrupulous buyers as "affidavit Grimm" are now finding their markets restricted. It did not take long for farmers who would not produce good enough seed to qualify for membership in the association to find that many seed houses were willing to pay well for "affidavit Grimm" regardless of the quality. Some seed dealers even offered two cents a pound more for all common alfalfa seed that the grower would sell as "affidavit Grimm." Wisconsin put a stop to the traffic of selling affidavit Grimm within her borders last October when she passed a ruling prohibiting the sale of any alfalfa seed under the name of Grimm unless it has been sealed and certified by a reputable state official.

Things were getting to be almost as bad with the "bootleg" Grimm alfalfa seed situation as they had been during the orgy of filled cheese that nearly wrecked the cheese industry a few years ago. We know of a dozen farmers in a single community who bought "affidavit Grimm" from a southern seedsman, only to find that they had purchased a common seed. As a result, their alfalfa winterkilled the first year because they were in a locality where the common variety will not stand up. The fact that it is impossible to tell the difference between Grimm and common alfalfa seed with the naked eye has made it possible for the dishonest seed dealer to sell a great deal of poor seed to dairymen of the northern states. It is because of this that government certification has been found necessary.

Where common alfalfa will withstand the winter there is little ma-



FIELD OF PEDIGREED GRIMM ALFALFA ON GEORGE LINE'S FARM CUT, BUNCHED, AND READY FOR THRESHING



INDIANS TAKING PART IN THE MONSTROUS CELEBRATION AT THE LAYING OF THE CORNERSTONE FOR THE AMERICAN FALLS, IDAHO, DAM

terial advantage in seeding Grimm, although we found that dairymen on the west coast are using it because they claim that it stands cultivation so much better than the common. When we asked Professor Graber why this is so he answered that he did not know unless it was that the Grimm variety has about 30 per cent more growth starts than the common, so if some plants are frozen out or injured in any way, those that remain send up that many more shoots.

Have Modern Seed Warehouse

But to get back to our story. Manager E. E. Sanders and President Ralph Davis took us through the warehouse and showed us with what care the seed is cleaned, graded, and scarified. If every seed house was as particular with seed we would have fewer infestations of noxious weeds than we do have. A government man is kept on the grounds for several months in the year just to break the seals. A few of the larger growers have cleaning machinery of their

(Continued from page 480)



AN ALFALFA THRESHING SCENE NEAR BLACKFOOT, IDAHO

Care is taken to prevent mixing at this time and a state field inspector seals the bags with an official seal to prevent mixing afterwards.



THE GREAT AMERICAN FALLS, IDAHO, DAM IN PROCESS OF ERECTION

It will insure a constant water supply for the alfalfa seed growers of the American Falls area, thereby automatically insuring a seed supply for the United States.



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Milk Stool Philosophy

J. J. SPRENGER, MINNESOTA

REAL loyalty to our work and dependability are jewels and the people possessing them are a blessing in all walks of life. But these very traits may develop a feeling in us that we are indispensable to such a degree that it can hinder both ourselves and those with whom we work.

As parents, we can often be in the way of our children by feeling that the work in the home and on the farm can only be successfully directed by us. While it is a wonderful blessing to be so completely lost in our work that we are not happy if the cows are not milked on the dot, we must remember that the taking over of responsibility on the part of the younger generation has never been the work of a moment but that it grows on us and that instead of allowing it to overdevelop in us, we need to develop patience and tact in order to develop in others that of which we may have too much.

There is also a sense of importance which can come to groups as they work together which tends to build a feeling of indispensability to the extent that individuals from these groups feel that the world could not get along without them or their group. This was very forcefully brought to my attention recently while calling on a farmer friend whom I found very much excited because he felt that we farmers were mistreated, downtrodden, and neglected on the part of the government as well as on the part of all of the rest of the folks and he was very outspoken in regard to what he thought farmers should do about it. During most of my stay at his home he v threatening that if he had his v he would try to get all of the fa ers to stop growing a thing, so p ple would find out that farmers c not be dispensed with.

During a short intermittence in excited conversation he remembe that he was to call a neighbor by t phone. So he rang for central while holding the receiver to his he said, in a very emphatic way, tell you, Mr. Sprenger, I have m up my mind that I will not do anot thing for at least a year," when suddenly remembered that he did have central. So he began to r about the poor operator who was shiftless and never tended to her b ness. But I knew he could not h heard her even when she did ans because of his excitement and that really needed to get a little of his medicine. So I told him that lik the girl was trying to practice things he was teaching. At first angered him, then suddenly he c to his senses and said, "What a a fellow can be, anyway. Here I that I should withhold my service a year while I felt that the girl sho be right at her post every minute serve me."

That suggested to me how m thousands from the very ends of earth are daily at work so that I have the comforts of life and I lieve that they, as well as I, are h py only as they are doing this in unbegrudging way.

The laws of service are the laws happiness and the laws of happi are the laws of service.

Landscaping the Mail Box

FLORENCE L. CLARK, IOWA

THE common type of sheet metal rural mail box mounted on an unpainted post makes a serviceable receptacle for incoming and outgoing farm mail, but by no stretch of the imagination can it be called beautiful, any more than a telephone pole can.

Miss Mabel Blunt has made the mail box in front of their farm in Fayette County, Iowa, attractive in itself and, besides, has given it a really beautiful setting. She built a little platform beneath the metal mail box, making a support for it by bolting two small steel braces to the post. A tiny house of sticks to look like a miniature log cabin was built on top the platform with the door of the mail box forming the front door of the house. The unpainted post was hidden from view and made to co spond to the box by laying sti about it, pryamid fashion.

The rustic mail box stands in fr of an attractive grouping of t and shrubs at the west corner of lawn. A winding path leads thro the shrubbery out to the mail b and "stepping stones" of large white stones have been placed in path. Back in the trees is a ru seat beside the stepping stones.

The rustic mail box of natural g color and the artistic approach t of white stepping stones among dark green of the shrubbery, deli the eye of the traveler of the roa he passes the Blunt home, but real thing is the pleasure the f family takes in their bit of mail beauty.



MAIL BOX AT FARM HOME OF MABEL BLUNT, IOWA

The Standard Ordinance Opposed

HOARD'S DAIRYMAN:—In your issue March 25th I notice a statement, Standardize Milk Ordinances," Mr. Ross B. Johnson of West Virginia. In this story Mr. Johnson es that Louisiana has adopted the ndard Milk Ordinance. In this tement he is very much in error. ere are only two or three towns in state that have adopted the ordance and are making any attempt enforce it, and in these towns, alugh the ordinance has been adopt- recently, the dairymen are already ing for modifications.

The cities of New Orleans, Baton ge, and Alexandria have rejectthe ordinance and, so far as we w, the state of Mississippi has er given it any consideration, and do know that the milk coming out Mississippi into Louisiana has er been produced according to the ulations of the Standard Milk Ordance. The Dairy Department of State University, the Louisiana te Dairy Association, and the te Commissioner of Agriculture e all gone on record in Louisiana opposing this ordinance, for the son that it is entirely too strint, theoretical, experimental, and -enforceable.

Mr. Johnson certainly makes a ng and unjust accusation against dairy industry of his state by asing that such a large percentage he children that have died is due poor supply of milk, and he atutes the cause for death of the dren to milk without giving any oritative statement whatever for e. Mr. Johnson's statements are radictory. The South has had rely too much of this kind of pubfor its dairy industry, which is of the factors that has retarded levelopment.

he quality of milk that is pro- d in Louisiana will rank well that produced in most any other e. The cattle in all of the comcial herds have been tested for rculosis, modern barns and pment are in use, and great progress has been made toward improving milk sold in this state. The pros- s for the development of the y industry in Louisiana is by far best it has ever been and we are sed to the adoption of the sod Standard Milk Ordinance for reason that we know that it is in the experimental stage and we are in no sense of the word y for this highly technical set of and regulations. C. H. STAPLES. uisiana State University.

A Week in Georgia

ARD'S DAIRYMAN:—Returns being to come in from Georgia's v-Hog-Hen Week" indicate that een 5,000 and 10,000 farmers in state are planning to change cotton to dairy farming this and that at least five train-loads ock will be required to meet the nd this year.

e "Week," which was held from h 7 to 13, was for a dual pur; first, to find out if possible, many farmers wished to change cotton farming to diversified live stock farming; and, second, e what business men could do rds helping to finance farmers ng to make this change. It was ed that the average cost of preg a farm for stock was $500 and if only ten per cent of the farms put on a live stock basis it l require an expenditure of thing like $8,000,000.

one city a leading newspaper ed five registered bulls to farmers of the community wishing to improve their stock. In another, leading business men got together and offered a series of prizes not to the best cotton grower, but to the farmer showing the most profit from a small dairy herd. In one county meetings were held during the "Week" at every schoolhouse in the interest of more and better live stock. And in a group of ten counties a county agent organized the first 4-H calf club in that section of the state.

And so down the list. Everywhere, as a result of the "Cow-Hog-Hen Week," one finds bankers willing to lend money on live stock for the first time, convinced that the security is better than cotton. Everywhere there are businessmen willing to extend credit on fencing, cement, machinery, and equipment needed for starting in the dairy business. Everywhere groups of businessmen are providing funds for the purchase of stock, to be distributed to farmers who cannot otherwise get a start.

Surveys made during the week are a revelation in the changed attitude not alone of the farmer himself, but of the banker and businessman towards live stock farming. All have learned suddenly the lesson that the Georgia Association has been trying to teach for years—that live stock must be the basis of Georgia agriculture.

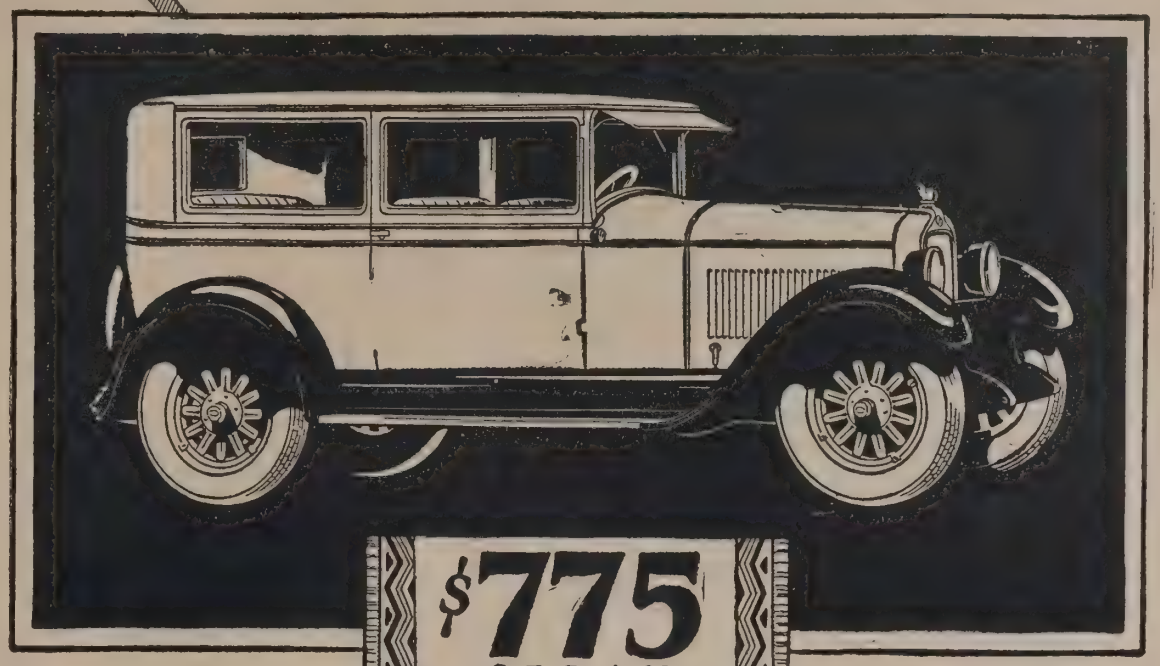
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The New and Finer Pontiac Six towers over its field as a monument to the vast constructive influence that only General Motors commands—for in no other six of equal price is such dazzling value revealed.

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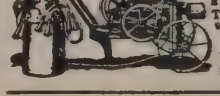
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There's one best way to judge anything. That's by *results.*

And *that's* the way we ask *you* to judge the Hinman Milker.

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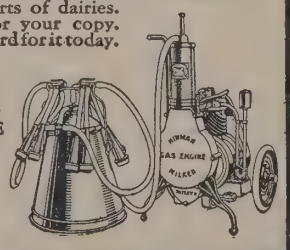
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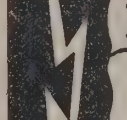
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CHAS. B. WING, OHIO

THIS state is trying to encourage forestry. As an aid to this, our experiment station now gives to farmers, at only the cost of packing, all the tree seedlings that you ask for, with only the proviso that you plant them under the instructions of the state forester, that you fence and keep stock out for at least ten years, and that you use them entirely for forestry purposes. In addition to this help we now have a law that permits us to carry land used for forestry purposes at half the ordinary tax rate. When the timber is cut off, an additional tax is charged but not excessive even then. What startled me, however, was to dig in and figure the probable returns from an acre of forest, planted and handled under direction of skilled foresters.

To begin with, they tell me that an acre so handled will far outyield any natural growth of timber ever seen in this country. After studying the matter I believe this statement to be true. For instance, we are expected to plant these little trees 5x5, 6x6, or 7x7 ft. This starts them right and gives the tree a tall, slender bole. Naturally you will either thin these out or nature will do it for you, but in the end you will have every tree to the acre that can possibly be grown, a condition that I have never seen in natural Ohio woodlands.

The Ohio Experiment Station is decidedly conservative upon all subjects, rather leaning backwards in its policy of never overstating a matter, but they say that a 50-year growth of white ash will yield 20,000 board feet per acre, red oak about 25,000 ft., tulip poplar 25,000 ft. in 40 years; other trees in like proportion. What will this lumber be worth in 50 years? I asked this question of two of my local men, Horr, who has handled a saw mill and lumber yard all his life, and Alexander who has done similar work for a lifetime, not only here but in other parts of Ohio and in a large way. They agree that oak, one of our standard forms of timber, has doubled in price in the last 20 years. They say it is conservative to say that the standard varieties of timber will double in the next 50 years. Alexander thinks it will do much more than that. Authorities agree that we are using timber up six times as fast as we are producing it.

Taking four of our standard varieties of timber, oak, walnut, white ash, and hard maple, as an index, the present value, in the log, here, is about $50 per 1,000 ft. Walnut is $75. If it is worth just double in 50 years it will be $100 for the ave If the Ohio Experiment Statio telling the truth, an acre will pro 20,000 to 25,000 feet in 50 years' The former amount would, ther worth $2,000 per acre. If w doubled in price and made 20,00 it would be worth $3,000 per acr

In a vague sort of way I have it on my mind for years that we using up our timber too fast; th famine time was probably co that somebody ought to do some about it. However, I had been oughly taught that we could no ford to grow timber on good, f land that was meant for corn; the place to grow timber was on hillsides where land was cheap.

These figures place an entirely ferent aspect upon things for m live in one of the best parts of where land is fertile, alfalfa and thrive, and we have felt that foot should go into our major c Before the war our best land worth $175 to $225 per acre. U the present depressed conditions still worth around $85. Our f probably average as much as acres.

In practically all lines we are ducing too much of nearly all crops, and our farms have to be ated with considerable skill to any net profit at all. A very in gent neighbor, on rich soil, stat few days ago that, from an in ment standpoint, no farmer here pay over $60 an acre for a farm expect to receive a net return of 3% on his money. I think tha majority of our farmers would with his statement.

I asked a number of our farmers if they thought we coul every farm of 150 acres or ove off 10% or 15 acres, fence it, an get about it—still growing as stuff as we do now. Every one yes and added that we would more money than we do now.

My friend, Rogers, planted out 200 acres to forest 20 years ag says that our fertile soils grow ter trees and grow them faster the poor soils that I had sup were best adapted to the purpos observation is that he is right.

Then it comes right home th have a regular gold mine w reach; that it need not cost us h anything; that we can spare, 10% of our most fertile land wi any loss of total production; t is up to all of us, rich as w poor, to grow this timber; tha net returns upon rich land w good enough to suit anyone, and



ATTRACTIVE FARM HOME OF B. C. GAISER, INDIANA

e need not hand this all over to the ›or hill farms.

All of us carry life insurance. With ost of us it is quite a burden to keep e payments up. If a reliable life in- ırance company offered to pay to ır heirs as much as 15 acres of good nd given over to forestry figures, at : low a cost as this figures, how eag- ly would we grab it!

Rogers says we must figure some st of planting the trees but that it not large. That we must cultivate ıd keep the weeds down for at least ree years, and that in time we ould go in and thin the trees, cut- ıg out at least three-fourths of em. All of this does not sound very rmidable to me, and for my own rt I intend to put out a small piece thin a year.

our-H Club Work in Care of Milk

HOARD'S DAIRYMAN:—Junior proj- ; extension work has reached about ery phase of rural life and it seems nost impossible to find a new ave- e of its activity. Recently, while at e State College of Agriculture at ›rnell, my attention was called to mething different by Professor E. Guthrie which I doubt has been ed before. It is Four-H club work the "care of milk." Clean milk ›ans different things to different ›ple. Milk may be free from dirt d still contain millions of bacteria, ıny of which ought not to be there. ›e test of the care of milk in this ›tance is the sedimentation test and count of bacteria.

This experiment is being tried out the town of Bainbridge. The Dry lk Company has a well equipped ınt in that town and maintains a ›y good laboratory. The tests for liment and the count for bacteria › made by the director of this lab- ›tory, Dr. Supplee. The leader of › club is Professor Casey, principal the high school. The members of › club to date are Carlton Loomis, retary; Milton Dean, president; rriet Bennett, William Horrieter, l John Lord. The results of the ts are sent to Dr. Guthrie at Cor- l and scores are assigned. The ›teria counts went as low as two ›usand and from that to somewhat ›ve. In one instance the count was 000 but the same worker soon got vn to 11,500 and has time left yet improvement. Scores as deter- ıed by Dr. Guthrie ranged from 80 100 which is doing well indeed.

nstructions to the worker call for: Milking at least one-half can of milk › times or oftener each week dur- October, November, April, and y. 2. Cool the milk twice each of se months. 3. Wash the utensils ce each of these months. 4. Take ıples of milk for counting twice h of these months. There is also a e stating it is expected that the ling of the milk, washing of the nsils, and taking the samples will be done on the same day. The ıpling it is suggested be done on first and third Mondays of each of four months.

'he worker is expected to report, is asked first, "How many cows how much milk do you ordinarily k when not doing this junior ex- ›ion project?" Then he is asked give a description of the sedimen- on test and of the method of nting the bacteria in the milk. ›re was originally a request for ›rmining the bacteria on the uten- and a report of the method and of ılts. I cannot help feeling that if work goes on this will be included r as clean utensils often deter- ıe largely the condition of the milk. While Professor Casey, Drs. Supplee and Guthrie have each contributed their share to the success of this work, it is of course understood that the county junior project leader, H. L. Case, has been back of the whole program.

It would seem that this is an essential line of work but it is new and perhaps has its drawbacks. One of these is the difficulty of showing tangible results. Samples and scores may be taken to the fair it is true, but it still lacks the incentive of ownership that comes to the worker who has a fine calf or some pure-bred poultry or even a nice lot of vegetables to own and to exhibit. Suggestions as to the way that something of a working incentive may be added to the project would be helpful.

New York. H. H. LYON.

I am the friend to a man when I can think aloud in his presence.—EMERSON.

NASH

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And Nash has set the price so low as to be but little more than that of a Four or cheap Six. The Nash price range on 26 models is from $865 to $2090, f. o. b. factory. (5448)

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The Holstein cow's a wondrous thing;
She makes a feller's pockets ring;
She fills 'em full and runs 'em o'er
And pads up bank accounts, galore.

Where'er you find the black and white
You know the country must be right;
And men who prosper greet the day
And praise again the Holstein way.

This Holstein way is paved with jack
That springs up in the Holstein's track;
There men with milkpails point the way,
And sing of "sweet alfalfa hay."

The way is lined on either side
By buildings, planned with care and pride;
And healthy children's faces shine
To crown their bodies, fat and fine.

Their mothers come to view them there
With faces still unlined with care;
Their laughter rings out glad and free
And echoes "Holstein!" o'er the lea.

And all the bossies graze serene,
Out where the grass is sweet and green,
Content to prosper those who join
The black and white for ready coin.
(Copyright, 1925) —I. A. KIMBLE.

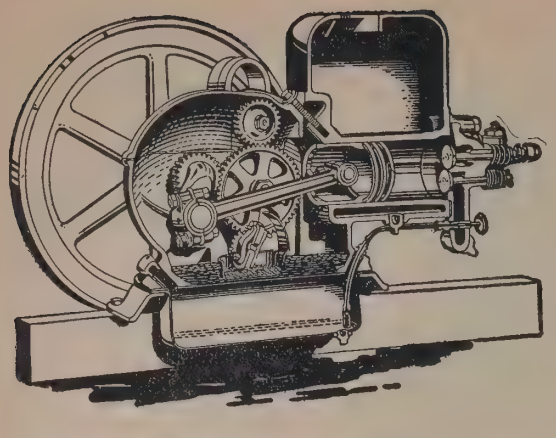
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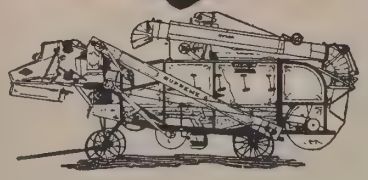
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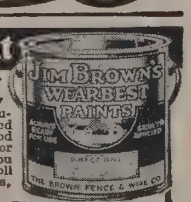


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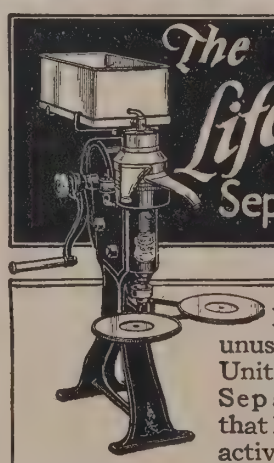
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UNITED STATES

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DELICIOUS MILK DRINK

P. S. LUCAS, MICHIGAN STATE COLLEGE

TIME was, when milk was regarded as the beverage for the young only, but those days, happily and fortunately, are forever past. Nowadays one meets such slogans as "Milk for Brawn and Vim," "Milk for Men," "Milk for the Laborer." These slogans are vouched for by the best of nutrition experts. Among them may be mentioned the names of McCollum, Osborne, Mendel, Sherman, Hart, and Steenbock. These are the foremost of American scientists making a study of nutrition. The findings of their research studies have been so generally broadcasted by educators and the press that there is today very few who doubt their value.

Milk is best as a food when consumed in a sweet condition as whole milk. There is one exception to this statement as will be noted later. There are many, however, who dislike the taste of sweet milk or who have a liking for special milk drinks for the sake of variety.

Fermented Milks

Years ago the famous Russian scientist, Metchnikoff, published a book entitled "The Prolongation of Life," which created a great stir among nutrition workers. The book was largely the result of a long study of the conditions which might be responsible for the exceptional long span of life of the Balkan peoples. Metchnikoff came to the conclusion that this longevity was due to the fermented milks consumed in such abundance by the inhabitants of this southeastern portion of Europe. His theory was in brief about as follows: Old age is hastened by the presence of putrefactive bacteria in the intestines, the products of which are antagonistic to health and vigor. The type of bacteria, Bacillus bulgaricus, responsible for the fermentation of the milk drinks, being ingested with the milks, proves detrimental to the growth of putrefactive bacteria and soon these are displaced in the intestine by the Bacillus bulgaricus. In this manner intestinal putrefaction is decreased.

Metchnikoff's theory was at first considered fantastic but in many details exists at present. The generally accepted opinion at present is that the bacteria Metchnikoff wrote of do not survive the acids and digestive juices of the intestine so as to exercise their prohibitive action on the putrefactive bacteria. Ferme milks have a beneficial influenc the system but their beneficial ef are probably due to milk rather to any bacteria or lactic acid.

Bacillus bulgaricus sours mil such a high degree that the ave consumer does not care for it. H a group of lactic acid bacteria commonly used in this country t complish this purpose. When bacteria finish their work the may be said to be mildly sour. tures of these bacteria in the for small pellets may be purchase many drug stores. Skimmilk is teurized by being heated in the t to 145° F. and held at that tem ture for 30 minutes. It is then c to 72° F. and the culture tablet ed. It is held at 72° F. until so after which it is best cooled to as degree as possible. When ready consumption the curd may be br up by stirring or pouring from container to another.

This type of fermented mil made in large quantities by the plants of the country and is sold ally as "cultured buttermilk" or der some patented trade name. not a buttermilk and should nc so regarded. So far as bacteria concerned, it is vastly cleaner ordinary buttermilk. There is nc ficulty in making it in the hom is also available at low price city milk plants of any size.

Chocolated Milk

Probably the idea of making olate milk came from the ice c soda and sundae. Certain it is the tastes of chocolate and milk well. This drink may be made very little inconvenience in the h It is a mixture of milk and choc syrup in varying proportions, bu ually of one part syrup to two of milk. In those cases where syrup is made at the plant r than purchased, cocoa instea chocolate is used. Chocolated when made according to patented mulas such as those of "400," " Drink," etc., contains a syrup ble to a particular flavor or flavors.

Judkins, in his book, "Principl Dairying," gives the following good formula: Mix one pound with 12 pounds sugar, 2 teaspoo cream of tartar, ¼ teaspoon c mon, and 8 ounces cornstarch. A gallon water and boil a few min



Waverly Creamery Association, Waverly, Minn., is a non-stock co-operative ass ciation. To organize the company they took a note of $10 per cow from each patro and used it as collateral to borrow money with which to erect the building. One ce is deducted from each pound of butterfat until the plant is entirely paid for. The a sociation has now been operating for about 25 years. The new building erected i 1917 cost $18,000 not including much of the equipment which was brought from the o plant. The annual output is 225,000 pounds butter, all of which is made into one-poun prints. They have a special trade in Philadelphia that takes all the output at 1½ cen above New York Extra. The money received is divided by the pounds of butter pr duced to ascertain the price that can be paid per pound fat to their 140 patrons, fir deducting the one cent per pound for sinking fund to pay for the building. Milk mu be delivered to the creamery every day, and the cream four times a week.

Cool, add 2 to 4 ounces of vanilla, and use 1 part of the syrup to 6 to 8 parts of milk. Two pounds chocolate should be used if substituted for the cocoa.

In the Michigan College plant, the syrup is made by boiling 2.2 parts by weight of cocoa and 4.4 parts by weight of sugar with 5.5 parts by weight of water. This syrup is used at the rate of one part to two parts of milk. A dark colored cocoa is preferable to one of light color. Cocoa will settle out of the mixture much more readily than will be the case if chocolate is used. It is readily remixed, however.

Acidophilus Milk

Acidophilus milk is the exception mentioned at the beginning of this article. It is a fermented milk that does what Metchnikoff thought Bacillus bulgaricus would do. The germ used is Bacillus Acidophilus. It survives digestion and arrives in the lower intestine where it will live and thrive if properly fed. A large consumption of milk or milk sugar by the individual will give it the food it needs.

It is very popular at present to take the acidophilus milk diet and many beneficial results are being obtained from its use in intestinal troubles. Its preparation requires considerable skill and care, which has made its price rather high. Because of the difficulty in growing the organism and keeping it uncontaminated, the preparation of the drink in the home cannot be recommended.

Eggnog and Juleps

Eggnog is a milk favorite of long standing. It is made by beating the mixture of an egg, 1 teaspoon sugar, a sprinkle of cinnamon, a few drops of vanilla, and mixing thoroughly with a glass of milk. This drink is especially desirable and nutritious, being unusually rich in proteins and minerals because of its egg and milk content.

Spiced milk is made by adding a mixture of a teaspoon of sugar and a sprinkle each of powdered cloves, cinnamon, and nutmeg to a glass of hot milk. The mixture is beaten smooth and is served hot.

If a portion of a carbonated bottled drink, such as ginger ale or root beer, is added to a glass of cold milk, a pleasing flavored product may be obtained. These give the mixture a "snap" because of their carbon dioxide content.

Buttermilk lemonade is made by adding sugar and lemon juice to fermented milk. A quantity slightly in excess of the amount used in lemonade is necessary to be predominant over the flavor of the soured milk. This drink is best when served very cold.

A convenient method for the quick preparation of certain milk drinks is to make a syrup of medium thickness by boiling a mixture of sugar and water. This is divided into portions and flavored heavily with extracts of the variety desired. These are held as stock materials to be used when desired. Flavors recommended are strawberry, pineapple, vanilla, orange, lemon, cherry, maple, root beer, and grape. Simple milk drinks are made by adding 1½ ounces (3 tablespoonfuls) of any of syrups to ¾ a glass of milk. Juleps are made in the same manner except that an egg is beaten into the mixture. In any of the drinks a small amount of charged water will add zest and character.

Malted Milk

Malted milk is a fountain classic. To mix, add to a half glass of milk a dipper of ice cream, an ounce of a flavored syrup, two teaspoons malted milk and beat thoroughly. It is served either hot or cold.

The two popular hot milk drinks are hot chocolate and Cafe au Lait. A good formula for the former is to mix two teaspoons cocoa with enough hot milk to make a paste, and finish filling the cup with hot milk. Add whipped cream. The latter is made by preparing coffee to four times its usual strength and by adding to each 1½ cups, 5 cups of hot milk. This procedure of course enhances the food value of the drink.

These are a few of the methods of making for variety so far as milk is concerned. They may prove attractive to the jaded appetite. They possess merit in proportion to the milk they contain. Wherever whole milk may be taken, it is preferable. After all, what is so refreshing as a glass of cold, pure milk?

The Farm Lease in Wisconsin

This is the title of a new bulletin just issued by the Agricultural Experiment Station at Madison, Wis. It contains a discussion as to the number of rented farms in Wisconsin and the different methods under which these farms are rented. It also discusses the advantages of the different forms of rent that are in use and finally gives a definite form of lease both for cash rent and on the stock-share basis.

Let's look inside



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H. B. BABSON, U. S. Mgr.

2843 West 19th Street, Chicago, Ill.

EDITORIAL COMMENT



"I BELIEVE the ideal home life of today is found where it is dominated by unselfish affection and an idea of helpfulness and fair play. It is a little democracy, the first social group into which the young of the human race comes. Its power for good or ill is almost limitless. It is a training school for all—father, mother, children. If one cannot live in harmony and enjoyment with the members of his family, providing that family is a so-called "normal" one, his chances are small for being able to co-operate happily in other social groups."—LITA BANE.

MAKING FARMING A BUSINESS

Only in recent years have we begun to think of farming as a business. For a long time the farm was just a place where families earned their living and the selling of products was incidental. Making farming a business requires greater work, more careful planning of farm operations, and a deeper insight into the marketing of farm products.

It must be admitted that many who live on the land do not care to work and plan sufficiently to make farming really profitable. This condition of mind and attitude are revealed in many ways. In the early 70's when Wisconsin changed from a wheat growing section to dairying, many farmers left for other states because they would not become dairy farmers or live stock raisers. They did not want to confine themselves the entire year to a regular routine of work.

We met a man a few weeks ago who said he would not slop pigs even though they do return 75 cents a hundred for skimmilk and $1.25 a bushel for corn. This man desires to be a single crop farmer and we do not know of any force that will cause him to take a different attitude. He does not want to work or think to a sufficient extent to make farming a business.

PROVEN SIRES

The cow testing association not only locates the good and the poor cow but will also locate the good and the poor bull. We have not made use of this part of the cow testing association until recently. Last year over 1,000 bulls in cow testing associations became proven sires; that is, sires capable of producing daughters with high records. When inquiry was made concerning them, over 800 had been sold to the butcher.

We must get a keener understanding of the value of the proven sire. The profit between the bull that will sire animals capable of producing 250 to 350 pounds compared to animals that will produce 350 to 450 pounds of fat is tremendous. Of course, the young, unproven bull can not be ignored for he must be used before he can be proven; and old, proven sires pass away. The breeder, however, who desires to make substantial progress in the development of his herd should use the young bull rather lightly until he has shown himself to be a good breeder.

We are fully cognizant of the prejudice against the mature bull which is more or less unruly and difficult to handle. We must submerge our prejudice and lay plans to handle old bulls if we expect to establish breeding upon the proper basis.

On a recent visit to the United States Bureau of Dairy Industry we were shown records of bulls that had increased production and of bulls that had decreased production. Here are the results of two of them: A pure-bred bull was bred to dams that produced on the average 7,890 lbs. milk containing 425 lbs. fat in a year. The daughters of this bull averaged 5,451 lbs. milk containing 315 lbs. fat. The daughters produced 2,439 pounds of milk less and 110 lbs. of fat less than their dams. Another pure-bred bull was bred to dams that averaged 8,521 lbs. milk containing 489 lbs. fat in a year and the daughters of this bull averaged 13,486 lbs. milk containing 675 lbs. fat. This bull increased the production per cow 4,965 lbs. milk and 186 lbs. fat. Doesn't this indicate the necessity of proving a sire before he is extensively used. Of course, consideration should be given to type as we do not believe it is necessary, when procuring high producing animals, to disregard beauty of form. The true breeder will secure both good type and good producing animals.

LAND O' LAKES CREAMERIES

"Six years ago we started out with nothing more than an idea and the determination to do something for the co-operative creamery system of the Northwest. Today the association stands as a success in co-operative marketing with over 400 of the finest creameries in the world as members and with assets and working capital of over $900,000 and located in the finest dairy building in the Northwest. We started with the product of one creamery and in 1926 handled nearly 80,000,000 lbs. of butter."

These statements were made by John Brandt, President of the Land O' Lakes Creameries Inc., during the annual convention of that association. The progress of this association has been unusual and shows what can be accomplished by a body of farmers when they unite with a will to accomplish a certain task.

For years the advantages and benefits to be derived from co-operative marketing had been discussed. Finally the ideas as to how it could be done were crystallized and the science and practice of buttermaking sufficiently advanced to permit the step to be taken. For thirty years the local co-operative creamery had been teaching the lessons of co-operation and creating the sentiment necessary to carry forward an enterprise of such magnitude. Those who are looking for some quick way to solve all the marketing problems of agriculture may well reflect upon the time it has taken the Land O' Lakes Inc. to get started with its splendid program. The accomplishments of the Land O' Lakes would not be what they are without first laying a sound foundation for this organization.

The association may well be proud of the quantity of butter it marketed in 1926 and the wealth it has accumulated, but its greatest accomplishments are the improvements it has made in the quality of Minnesota butter, the establishment of a brand, and extending the market for butter. In the beginning only 32 per cent of the butter made could be sold under a brand but in 1926 over 70 per cent of its butter was sold as Land O' Lakes.

It is well understood by those in charge of this organization that if it is to continue as a necessary agent in marketing butter, quality and uniformity must not be neglected. A laboratory is in constant use and is proving to be one of its most important factors of success. Science, in other words, is giving substantial help to this farm made and farm directed organization. It is discovering what must be done to improve the quality and keeping properties of its butter. Herein lies the most essential factor for permanent success.

COW—HOG—HEN

"Our farms must get away from all cotton production. We have been trying for some years to raise cotton at a loss and pay—out of the 'proceeds'—some $150,000,000 per year for food and feedstuffs for these same farms; food and feedstuffs which can be raised on these farms successfully instead of the cotton which brings the loss.

"The virgin cotton lands of West Texas—millions of acres which have been brought into cotton production or are in process—have a permanent advantage of seven cents per pound over Georgia in cotton raising. That is, these acres in Texas will produce cotton at seven cents less cost per pound than our Georgia acres will produce it. Thus, Texas cotton farmers can make money when cotton is selling at a price which is ruino to Georgia farmers."

These statements are made by the Georgia A sociation which is attempting to increase diver fied farming in Georgia.

"It should be borne in mind: The present loc market in Georgia for eggs and poultry and butt and milk and meat and vegetables (this mark right here at our door) is big enough to abso every pound of butter or meat, every gallon milk or dozen of eggs, every potato or grain corn, which we can produce under our very be efforts in the next ten years."

The Georgia Association is working on plans bring about the production of food and feedstuf It is working out plans for markets, and this cha acter of work we commend for it is the true w to help solve our agricultural problem.

BUILDING BONE

The peculiar value of milk in supplying lime f the building of good bones in young animals w brought to our attention recently through the e perience reported by John Smith, an observi and successful dairyman of Wisconsin. Mr. Smi says that several years ago he had a buyer co to his barn to purchase a pure-bred Holstein bu He was looking for an animal whose dam had good record of production and that was of go conformation. In going over the herd he fou one young bull that pleased him highly and asked Mr. Smith to put a price on him.

As the buyer was a particular friend and go customer, Mr. Smith told him that he preferr not to sell him that particular animal. He sa that, as a calf, the bull refused to drink milk a that he had to put him on a ration of grain wit out any milk. In his own experience he felt th the animal would not develop good strong bor and not only this but would not develop to the si he expected his Holsteins to reach. The buy felt that for some reason Mr. Smith wanted keep that bull for himself and he insisted on ha ing a price set. This Mr. Smith did and the bu was sold.

Now for the sequel to this story:

The buyer returned to the Smith farm so two years later to purchase some more stock. I said that he had turned this bull out into the ya one winter day and that the bull slipped and bro his leg. As he was in charge of a county instit tion, they were prepared to kill their own me and so the bull was killed immediately and cut for meat. Remembering the conversation at t time of his purchase, he took particular pains note the bony structure of the animal. He fou that the bones in this bull, then some three yea old, were no larger than would be found in a s months' calf.

This little experience illustrates that observi farmers get at scientific views before the inves gators give specific reasons. We now have stress very strongly by dietitians that milk is the be source of lime, not only for live stock but f children and other people as well. The lime milk is readily assimilated by the body and buil good bones and good teeth if given an opportuni

Dentists and doctors now emphasize that mu of the trouble experienced by women with th teeth following the birth of children is due to t drain on their systems for lime in building up t bony structure of the child. Much of this can avoided and better children can be produced the mother will eat foods rich in lime and, pecially, drink milk. These investigators also fi in their practice that children who do not dri milk are more subject to poor teeth than a those children who have a plentiful supply milk. The next time you go to your dentist, jt ask him what his experience has been with po teeth in children. He will doubtless tell you th the specialists recommend milk in every instan where he has referred to them children wh teeth are going bad and where his work as dentist has been without avail.

Cheese Yield of Milk

How many pounds cheese can be made from one ndred pounds of milk? What was the price of eese in Wisconsin in 1926?
Seymour, Wis. G. W.

It is estimated that a pound of fat in milk on e average will produce about 2.65 lbs. of cheese. e lower testing milk will produce slightly more unds cheese per pound fat, however, than will e higher testing milk. It is estimated that 100 . of 3 per cent milk will produce 8.3 lbs. cheese compared with 10.6 lbs. for 4 per cent milk, .9 lbs. for 5 per cent milk, and from 14.5 to 15 . for 6 per cent milk.

The average wholesale prices of cheese on the isconsin boards were as follows for 1926: Single isies, 21.8c; Twins, 21.1c; Squares, 22.6c.

Holding Whipped Cream

I deliver my raw cream to a restaurant owner for ipping. He claims it whips all right, but it does t stand up and he has to rewhip it several times lay. The cream tests 33 per cent and we deliver when a day old. My competitor pasteurizes and es his cream before delivery.
Klamath Falls, Ore. B. B. R.

The immediate concern appears to be the stand-g-up quality of the cream after being whipped. e see no reason why the pasteurized cream ould be superior in this respect to the raw cream less it originally produced a stiffer whip. This uld be rather contrary to general experience as has been found that under most conditions raw eam will produce a better and stiffer whip than ll pasteurized cream of the same general quality.

There are three important and closely related ctors affecting the standing-up quality of whip-g cream. These are temperature, the stiffness the original whip, and the butterfat content of e cream. If whipped cream could be kept at or ow 50 degrees Fahrenheit it would continue to nd up for several days. If it is not held under a sonable cold temperature, the stiffness of the ip will decrease or vary according to the in-ase in temperature or the stiffness of the whip. though an increase of butterfat content beyond per cent does not increase the stiffness of the ginal whip, it does aid the whip to stand up for onger time and at a higher temperature than if e cream is relatively low in butterfat content.

The standing-up quality of whipping cream may very materially decreased if sugar has been xed with it. It is preferable to add the sugar t prior to use even though it may be somewhat re difficult to distribute it evenly through the am.

Sweet Clover as a Fertilizer

For the purpose of improving the land we fur-hed a tenant with sweet clover seed which he ved with his small grains in the spring of 1924. the fall he pastured the young clover and next mmer cut the hay. The following spring he ain seeded to small grain, which was harvested usual, but the yield did not come up to expecta-ns, in fact, showed no increase. The tenant's ex-ience was that of his neighbors.

Now, we are extremely anxious to increase the tility of the land—a crying need over a wide etch of country—and we had thought to do this means of sweet clover, but we do not seem to ve hit a successful way of doing it.
Hopkins, Minn. A. H.

We are not greatly surprised that as it was han-d the sweet clover failed to increase the yield the small grain which followed it. It is one of e cases in which a man cannot eat his cake and ve it, too. Apparently, all of the sweet clover owth was eaten by the cows and was not left to w under and thereby increase the nitrogen con-t of the soil and improve its physical structure. While it is quite possible that the sweet clover ots may add something to the nitrogen content the soil and improve its texture, yet it is doubt-whether this would show up sufficiently to be iceable. It would seem that the tenant should satisfied with the results, because he has se-ed both hay and pasture from the seeding of sweet clover. This is probably more than he uld have secured if no sweet clover had been ded with his grain crop in the spring of 1924.

t is our own practice to seed sweet clover at the e of about 10 pounds per acre in practically all our small grain. We use the sweet clover pri-rily as a green manure crop and do not pasture because of the inconvenient access to most of se fields. While we do not have any definite rec-ords, we estimate that by plowing the sweet clover under in the spring of the next year we secure a result equivalent to a light dressing of manure. Of course, there is nothing except nitrogen added through the growth of the sweet clover, but it puts the ground in excellent condition for the succeeding corn crop. We seldom follow sweet clover with grain because under our rotation corn follows after the grain crop and, in addition, there is some danger of the sweet clover becoming something of a weed in the grain where grain follows grain. This same condition exists to some extent with the corn, but because of cultivation and because the corn is largely used for silage, the growth of volunteer sweet clover is not a detriment.

Off Flavored Milk

We are wondering if you may not give us some assistance in regard to eliminating the cause of off flavored milk. Our milking herd is composed of one hundred and thirty Holstein cows and the milk is sold as grade A Raw. A milking machine is used and from there the milk is strained and dumped into a copper tank which has been tinned. From here the milk is forced with an aluminum centrifugal pump through sanitary pipe over a tubular cooler and then into the bottling machine by gravity.

We have repeatedly taken individual samples of each cow's milk as it comes from the milking machine and are unable to find any trace of this particular flavor there. And likewise we have taken it at different steps in our system of handling the milk without detecting it until it comes off of the cooler. This leads us to thinking that there is something about the cooler that is causing it.

This flavor does not show up in the milk from all of the cows but only from a very few. We may find it in one cow's milk for several days and then all of a sudden it will disappear and probably come back in a day or two or maybe it will develop in some other cow's milk after going over the cooler. It has, however, showed more frequently in one of our two-year-old heifers. Never have we been able to detect it until after it goes over the cooler. It also takes time for this off flavor to develop. Usually it cannot be detected until twelve or fifteen hours old. Our milking machine and all of the pipes are taken apart and thoroughly washed after each milking and then sterilized with live steam. Everything is in a clean and sanitary condition.

Last summer we used for a few days an iron pump for forcing the milk over the cooler and we got a flavor and odor that resembled the trouble that we are now having very much only this was in all of the milk that went over both the iron pump and the cooler. Neither one alone seemed to have any ill effect on the milk. After we did away with this pump we only had the trouble to pop up now and then as I have explained before.
Basehor, Kans. G. G. M.

Professor W. D. Frost, bacteriologist at the Wisconsin College of Agriculture, has given us the following reply to this inquiry:

"From what is said in the letter, the trouble is probably bacterial because of the time which elapses between the milking and the appearance of the off flavor. The only effect which the pump or cooler might have is the possibility the air which would be introduced in these ways may be necessary for the development of the particular bacterium causing the trouble. Would it not be worth while to milk certain suspected cows into thoroughly sterilized bottles. Fill one bottle full and cap it, another partly full and cap it. Set these away for the necessary incubation period at a temperature which will produce this flavor. Fill a third bottle partly full, cap and shake in order to introduce air and set aside with the others.

"If the trouble is caused by bacteria a bacteriologist will probably be necessary to locate the source of the germ.

"It goes without saying that if the trouble is in the cows' udders, the offending cows will have to be located and removed from the herd. There is still the possibility that the source of the trouble may be outside of the cow and it would seem to me to be very desirable to give everything that the milk comes in contact with a thorough treatment with live steam for an hour or so, and with a sodium hypochlorite solution—this means cans, bottles, milk machines and pipes, and apparatus of all kinds."

To supplement what Doctor Frost has said it appears to us that the cooler may well be put under suspicion. It is possible that the tinning has become worn in some spot on the cooler and that the off-flavored milk may be due to the absorption of some mineral from the cooler. It is possible, also, that there may be a leak somewhere in this cooler that is causing the trouble with the milk. It would be well to examine the cooler very carefully. Make the test suggested by Mr. Frost of the milk coming from different parts of the cooler and of the milk bottled directly from the cooler and that which has been permitted to stand in the milk room before the bottle is covered. There is a possibility that there may be some contamination of the air in the milk room.

A Retail Milk Problem

There are three of us producing and retailing Grade A milk. We desire to combine our work to reduce expense and take in with us a fourth man as general distributing agent. What would you consider a fair price to pay this agent when he has to retail at 15 cents a quart?
Muskogee, Okla. R. R. S.

Mr. Ernest Kelly of the U. S. Bureau of Dairy Industry has given us the following reply to this inquiry:

It is impossible to give any figures on this subject which would be just to all concerned. Local conditions such as the price of labor, horse keep, amount of milk handled, etc., would be important factors in setting a definite margin.

I judge that at the beginning the delivery man will handle about 250 gallons of milk. I am also assuming, for the purpose of estimating, that the three dairies will furnish the bottles and stand all bottle losses and that the delivery man will simply take care of the actual delivery, the collection of empty bottles, the collection of accounts, and assume any bad debts. Another factor which makes it difficult to estimate the margin is the proportion of wholesale to retail trade. If the trade were to be largely retail at 15 cents a quart, the proposition would be quite different than if there were a large proportion of wholesale milk in bulk.

In 1919 the U. S. Bureau of Agricultural Economics compiled some figures on the cost of conducting a milk business in the Midwest. They found that each quart of milk delivered to the consumer cost 14.7 cents. Of this amount 2.2 cents were spent for delivery and selling, and .7 cent was spent for general and administrative costs. There are undoubtedly other costs which should be allocated to the delivery, and I should estimate that at that time and in the localities studied the actual cost of delivery was approximately 3½ cents per quart or a little over. Of course, costs have advanced somewhat since that time, and the figures given allow for no profit on conducting the delivery end of the business. Some plants were able to operate at considerably less cost and others ran a great deal higher. The extreme variation for delivery expense was from 1.2 cents per quart to 4 cents per quart—so that it may be plainly seen that the efficiency of the system and the local costs for labor and other items made a difference of over 300 per cent. Adding ½ cent a quart to the approximate cost of delivery for the profit of the delivery man would make the margin a little over 4 cents a quart. This, however, would only give the delivery man $5 a day for his actual labor, based on 250 gallons of milk a day. Of course, some of his skill would be covered in the item of administrative expense, which would amount to over $6 a day on the basis of 250 gallons.

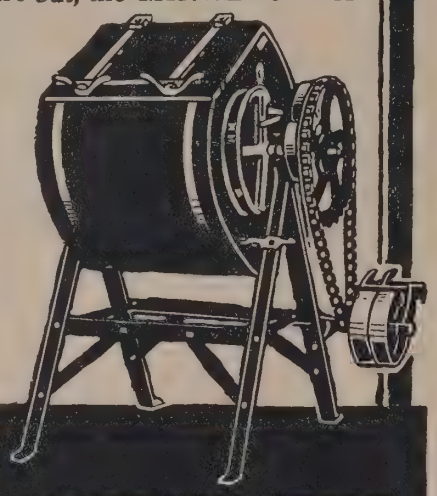
I have no figures on a proposition exactly similar to the one outlined. I know of one dairy that is handling special grade milk for two farmers. These farmers bottle the milk, but the retailer furnishes the bottles. The distributor also hauls the milk to his plant, charging 4 cents a gallon for hauling. The differential charged by this distributor, eliminating the item of hauling and bottles, is from 4½ to 6½ cents a quart. Of course this distributor has a business already established where his own wagons cover a large part of the city. This would tend to lessen the cost of distribution of the special grade of milk as it would be carried on the regular delivery wagons. However, the labor costs and the cost of maintaining delivery rigs are probably higher in the city I have in mind than they would be in Muskogee.

It seems to me that this whole matter is one that should be tried out before a definite contract is made for any length of time. There should be the fullest co-operation and the greatest degree of frankness between the parties concerned regarding costs and profits. It might be that a start could be made on a basis of 9 or 10 cents a quart to the producer, leaving 5 to 6 cents a quart for the retailer. A two months' trial of this scheme would indicate whether or not this is a proper adjustment.

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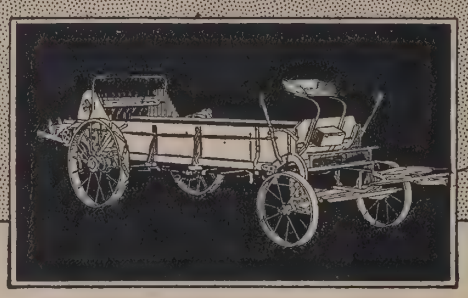
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What Can You Afford to Pay?

A Story of What Four Years' Cow Testing Association Work Meant to an Iowa Dairyman

ONE of the best endorsements of cow testing association work that we have ever heard came from Henry C. Vaske of Dubuque County, Iowa. This endorsement was not just an opinion of Mr. Vaske but it was supported by the record books covering four years' membership in a testing association.

We had gone to Mr. Vaske's farm for an interview on the recommendation of him to us by County Agent Frank R. Kerrigan.

We told Mr. Kerrigan before starting out from Dubuque what kind of dairymen we wished to visit. We wanted men whose cows and good management combined with good farming are making satisfactory returns on the labor and capital invested. Kerrigan took us up to see Mr. Vaske.

During the interview we asked Mr. Vaske one question, among many, the answer to which is the basis for saying that he gave a very good endorsement to cow testing association work. The question asked is as follows: How much can a dairyman, who milks 15 cows, afford to pay as an annual fee for membership in cow testing association work and still make a profit on the investment provided he makes use of the information made available through and because of this work?

"He can pay $10 per cow per year," said Mr. Vaske. Continuing he said, "My books for four years' work show that I could have paid this much and still be ahead several dollars per cow. You may take the books with you, if you like, and figure it out for yourself."

We took the books and later figured out what cow testing association work did for this dairyman as measured in pounds of butterfat and money in the bank.

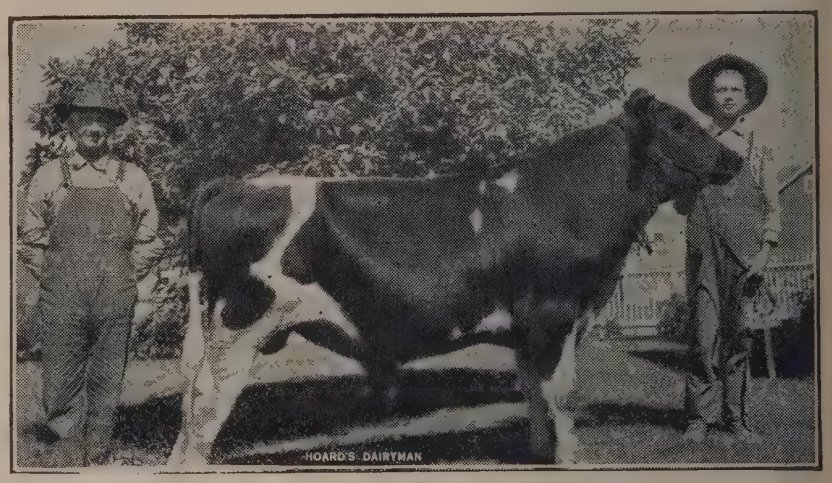
Mr. Vaske milked 21 cows the first and 28 cows the second year that the herd was in the association. The total production for these 48 cows for the two-year period was 248,622 lbs. of milk and 8,388.9 lbs. of butterfat, or an average production of 5,179 lbs. of milk and 174.7 lbs. fat per cow.

The third year Mr. Vaske milked 21 cows and the same number the fourth year. These 42 cows produced 313,500 lbs. of milk and 11,087.8 lbs. of butterfat, or an average annual production of 7,464 lbs. of milk and 264 lbs. of butterfat per cow.

The average annual butterfat production per cow the first two years was 174.7 lbs., and for the last two years this was 264 lbs., or an annual increase of 89.3 lbs. per cow for th two-year period.

Mr. Vaske said he could pay $1 per cow per year and still make a goo profit on the investment. Let us tak him at his word and charge each co $10 per year for the four-year perio or $40. Let us now go to the recor books and find out how much prof Mr. Vaske made on his investment.

The average annual cost of feed pe cow for the first two-year period wa $45.09. With butterfat at 45 cents pe pound the return above feed cost wa $33.52 per cow. The average annua cost of feed for the second two-yea period was $8.69 more or $53.78 pe cow. With butterfat at the same pric as figured before, the return abov feed cost was $65.02 per cow. Th increase per year as valued in dolla is $31.50 per cow and for the two-yea period this is $63.00. After havin paid for more feed value and after de ducting the $40 for each cow's mem



Mr. Vaske believes in using good bulls. At the age of 14, Clarence Vaske, the son, is rapidly learning the important things in dairy cattle management through junior club work and the encouragement of his father.

bership in the association, there is sti $23 to be disposed of. It seems th Mr. Vaske is entitled to this for ha ing put into practice the informatio gained through testing associatio work.

Mr. Vaske has been on this far 29 years. He came into his far partly by inheritance but he had improve the farm adding all the buil ings. He had to bring the land unde cultivation. He has done a migh good job of all of this. He is a goo farmer.

We asked him how long he has ha



This flock of White Wyandottes returned a gross income of $953.76 last year for Mrs. Vaske and her two daughters. The youngest daughter, Lucina, is here shown scattering the grain mix.

olsteins. "Twenty-nine years," he plied. "We originally had Short-rn cows and bought a Holstein bull. still remember some of the cross ed calves that were blue in color." Here is a man who started with olsteins 29 years ago. His herd just



This is Mrs. H. C. Vaske and the older f the two daughters. Besides making noney from chickens and helping some-imes with the cows, they find time to row flowers.

nt into the testing association in 19 and 21 cows averaged 168.5 lbs. tterfat. His best cow that year ade 285.8 lbs. butterfat. In the 1922 23 testing year 21 cows averaged 5.6 lbs. fat and his best cow made 5 lbs. fat. In 1923—24 his 21 cows eraged 242.3 lbs. fat and his best w made 453.1 lbs. fat.

The first year in C. T. A. work his st cow produced 34.4 lbs. of milk a y. At the present time Mr. Vaske d he wouldn't consider a first calf fer good enough to keep for breed-purposes unless she produced re than 34 lbs. of milk daily.

On the wall in the dining room in Vaske home is a certificate of rit signed by H. E. Van Norman l awarded by the National Dairy sociation for a herd averaging 300 more pounds of butterfat consider-full time lactation cows. Then re is a certificate by the Bureau of imal Industry stating that Mr. ske's herd is free from tuberculosis l is accredited. There is also a cer-ate of membership in the Holstein-esian Association of America, also ertificate for membership in the a Holstein Breeders' Association. her certificates of importance ong this exhibit are 3 indicating nbership in calf club work for all the junior members of the Vaske ily. All of these are neatly ned. It is rather unusual to find nany of like character in one farm ie.

Mr. Vaske sells 2 carloads of hogs a year. Then there is a fine flock pure-bred white Wyandotte chick-that bring in more money each than some folks make from their s. We asked Mr. Vaske what he with the chicken money and he that he didn't see much of it. On top of this he said that Mrs. Vaske the two daughters knew how to di-the skimmilk to the disadvantage is pigs. No wonder the chickens e a lot of money.

here is nothing unusual about Mr. ke's farming. He uses, quite ely, the standard corn belt rota-of corn, corn, oats, and clover. He soy beans in the corn for silage. has learned how to use manure to advantage. He keeps the weeds n.

here seems to be some correlation een a good producing herd of cows and growing alfalfa. Several times this season we have come across dairymen who started growing alfalfa after the herd average got up around 300 lbs. fat. This is true with Vaske. He is just getting well started with alfalfa. The year before he made his first seeding of alfalfa he bought a carload of alfalfa hay. Perhaps this had something to do with getting him in the notion to grow his own.

He considers regularity in feeding and milking, good care, and a good bull about of equal importance in success with the herd. Vaske is strong for a good bull. He has one bull, Iowana Rollingdale Waldorf, 8 years old, that he wants to keep as long as the bull lives. The cow testing association told him what this bull is worth. The present junior herd bull, Hengerveldt, is being mated to the females from the old bull.

The junior member of the Vaske family, at his father's direction, led the young bull out for our inspection and to be photographed. The boy is 12 years old and we predict that he will grow rapidly in knowledge of practical dairying as he grows in years. His father is giving him an opportunity to learn the business.

Mr. Vaske shows some Holsteins every year at the county fair. He helps with the dairy calf club work. The county agent told us that New Wine township was almost in the cellar position in farm bureau membership a year ago. Vaske was elected director and the first thing he did was to put the membership up to 65.

With all the certificates on the wall of the dining room and with public service performance like this, it isn't any wonder that Mr. and Mrs. Vaske are making money from Holsteins, hogs, and poultry.

The Goat

A schoolboy's essay: "A goat is about as big as a sheep if the sheep is big enough. A female goat is called a buttress; a little goat is called a goatee. Goats are very useful for eating up things. A goat will eat up more things than any animal that ain't a goat. My father had a goat once. My father is an awful good man. Everything he says is so, even if it ain't so. That is all I know about the goats."—The Boston Transcript.

We can't reach old age by another man's road.—MARK TWAIN.



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Necessity and the *spirit of youth* have brought about great changes on the farms. The young farmer and the older farmer who keeps his mind young are working on the new and profitable scale. They are making money by handling the most productive work in the least time with the lowest labor costs. They are increasing per-acre yields—plowing more furrows per trip—planting every hill full—cultivating more rows—cutting wider swaths. They are beating down the high price of labor by making that labor do two and three days' work in one, and that method leads to farm profit.

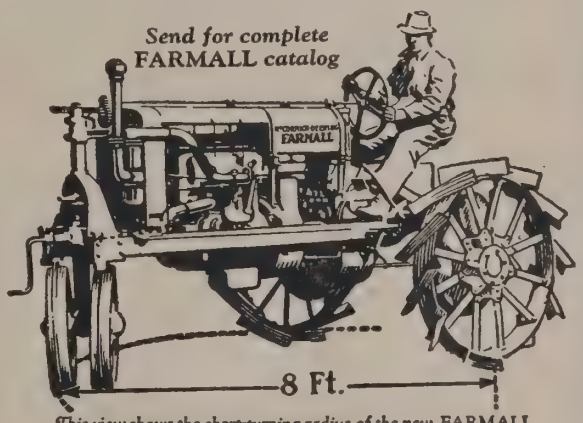
The tractorless farmer is working against fearful odds these days—against the fast, productive work of six hundred thousand tractors. This spring more of the high-quality tractors—McCormick-Deering 10-20, 15-30 and FARMALL—are going from the McCormick-Deering dealers to work on the farms than in any previous spring.

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The remarkable new 4-cylinder McCormick-Deering FARMALL, designed to handle planting and cultivating of row crops, as well as all other farm power work. With a 2-row planter the FARMALL covers 25 to 30 acres a day; with a 4-row planter 50 acres a day. Equipped with cultivating attachment, FARMALL cultivates 15 to 25 acres a day, doing the work of 2 or 3 men and 6 to 8 horses. In all haying operations, too, nothing can beat FARMALL. With the 7-ft. mowing attachment and one 7-ft. trailer mower you can cut 50 to 60 acres a day.



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Guaranteed Greatest AIR DISPLACEMENT No Operating Cost

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Almost time for *repainting*

WHEN repainting time comes along, farmers who are careful managers will paint white or light colors with Eagle Pure White Lead in Oil. We recommend that you employ a good painter. When you do, be careful that he adheres to the following specifications:

For outside repainting use these proportions

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100 *pounds* EAGLE *White Lead*
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6½ *gallons pure white lead paint*

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Valuable information on the preparation and painting of all kinds of surfaces is given in the "Tinting and Mixing Chart." Write for your free copy today. *The Eagle-Picher Lead Company, 134 North La Salle Street—Chicago.*

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OLD DUTCH PROCESS



When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Ida.	Gooding-Jerome	Feb.	636	605	26.8	G. H.	2	976	42.6	L. Carpenter
"	Pioneer	"	581	508	25.3	G. J.	4	676	38.1	C. Flowerdew
Minn.	Becker Co. 1	"	273	664	26.5	H.	15	1048	38.0	W. L. Hanson
"	Barnum	"	306	544	23.2	G. G.	6	943	43.8	Newman & Son
"	Blooming Prairie	"	377	554	62.4	R. H.	9	960	35.3	R. W. Palmer
"	St. Louis Co. 1*	March	306	698	27.2	G. G.	4	1063	50.2	M. C. Francisco
Vt.	Lamoille Val.	"	530	482	21.2	H.	15	848	29.3	H. Lathe
Penn.	Lycoming Co.*	"	328	843	28.8	H.	9	1151	40.3	C. L. Buss
Kans.	Reno	Feb.	296	655	26.1	H.	9	1064	39.3	A. F. Miller
"	Harvey	"	144	626	25.7	G. H.	12	782	34.2	H. O. Molzen
Penn.	Allegheny Co.	"	405			M.	6		40.0	Ardarra Herd, Inc.
Wis.	Endeavor*	"	433	630	22.9	G. H.	14	841	32.7	I. Brancel
"	Ark.-Necedah*	"	308	603	26.3	G. B. S.	9	1145	46.8	A. Troemner
"	West Bend	"	379	675	26.4	G. H.	17	1128	38.5	A. Heindl
"	Westby*	Mar.	330	343	20.8	R. H.	5	1161	47.1	G. M. Appleman
"	Algoma*	"	395	928	32.4	G. G.	11	923	43.7	J. Jacobosky
"	Spring Valley*	"	400	680	26.7	G. H.	15	1056	38.3	L. W. Wettleson & Son
"	Maiden Rock*	"	408	761	33.4	G. H.	19	1229	45.3	M. Solveson
"	Cedar.-Grafton	"	300	883	33.6	H.	11	1336	48.0	H. Schur
Mich.	Monroe Co.*	Feb.	265	679	22.1	R. J.	7	777	33.7	B. N. Albring
"	Mecosta-Remus*	"	216	548	25.3	J.	6	795	41.6	N. Anderson
"	Mascon Co.	"	261	475	20.9	R. P.	9	874	37.6	L. Anderson
"	West Kent*	"	242	711	29.6	R. H.	12	1067	39.4	L. Bradford
"	Missaukee Co.*	"	266	468	19.7	R. H.	5	1169	41.4	J. Finkbeiner
"	Leelanau Co.*	"	212	450	20.1	J.	8	787	45.8	C. Eltzen
"	Freeport*	"	185	649	26.9	R. H.	8	1115	37.3	A. D. Miller
"	Branch Co.*	"	220	434	24.0	J.	4		48.3	R. A. Warner
"	Miss.-Falmouth*	"	210	655	24.0	H.	9	1087	39.4	A. De Ruiter
"	Macomb 2*	"	264	589	22.5		5	1366	47.0	E. Burmann
"	Osceola-Evart	"	287	869	23.5	R. H.	8	1124	34.3	G. McKay
"	Oscoda Co.	"	156	658	28.5	G. G.	8	915	41.5	F. Oaks
"	No. Antrim*	"	225	435	20.8	R. G.	5	543	34.7	W. J. Hoopfer
"	No. Newaygo*	Mar.	205	566	24.9	M.	6	832	42.5	C. Beckman
"	No. Allegan*	"	165	861	33.3	R. H.	7	1389	43.3	W. Frey
"	Kent-Alto*	"	190	643	29.5	R. J.	7	818	45.5	D. J. Dinsen
"	Van Buren 2*	"	253	602	24.3	H.	19	974	30.8	C. Bellsborrow
Utah	Central Cache	"	567	852	30.8	H.	8	1324	49.1	F. Reese
Kans.	Dickinson*	"	324	822	29.2	A.-S.	14	992	41.6	W. C. Ainsworth
Md.	Anne Arundel Co.	"	336	596	23.5	H.	18	1022	39.0	F. W. Steple
Minn.	Blooming Prairie*	"	387	675	25.3	H.	10	1211	42.6	R. W. Palmer
Colo.	Mesa Co.	"	356	630	25.1	G. J.	10	828	41.7	G. N. Pond

*Retest rules followed.

Cow Testing Associations in the United States

There are several interesting changes in the cow testing association line-up this year.

Wisconsin still has the largest number of associations followed by Michigan, Minnesota, Iowa, and Pennsylvania, in the order named.

The honor of having the largest number of cows on test in these associations also goes to Wisconsin. This state has had this distinction for a number of years. California with an increase of 11,008 cows on test is rapidly reducing this lead. California is the second state in number of cows on test, with Iowa third, Minnesota fourth, and Michigan fifth. California has 10 per cent of its dairy cows on test, Nevada is next with 7.2%, and New Jersey next with 4.7%.

For the United States as a whole, the number of associations has increased from 777 last year to 837 on January 1, 1927. This is a gain of 7.7 per cent. The number of members has increased from 19,540 to 21,128, a gain of 8.1 per cent. The number of cows on test has increased from 327,653 to 362,014, a gain of 10.5 per cent.

We are pleased to welcome back into the list of states having active cow testing associations the following: Kentucky with two associations; Louisiana, Alabama, Georgia, and Texas, with one each.—U. S. Bureau of Dairy Industry.

Clean Milking

HOARD'S DAIRYMAN:—Don't rush or rush your help so fast that your cows are not properly milked.

I saw a poor job of milking being done and sat down to remilk the cow. At that one milking I got eight-tenths of a pound milk, or the equivalent of 1.6 pounds per day. This would amount to 48 pounds for one month, or 432 pounds for the average nine months in milk. This milk tested 11 per cent fat, indicating a total probable loss of 47.5 pounds fat for this cow's yearly milking period.

Not considering the effect of the incomplete milking on drying up the cows, which would doubtless mean an even greater loss in production, this 47.5 pounds fat at 50 cents a pound represents $23.75 that the owner would have received in a year if this cow had been milked dry.

I have tested the last drawn milk from three cows and compared it with the average test of all their milk for the day, with the following results:

Cow's name	Average test	Stripping test
Julen	4.0%	10.5%
Fern	4.5%	10.0%
Bettie	4.4%	8.2%

W. N. CHRISTENSEN, Tester.
Minnesota.

Profits and Costs Greater

HOARD'S DAIRYMAN:—The second testing year for the S. Newaygo Association of Michigan has ended with an average production of 36 pounds fat higher than last year. Although the returns per dollar expended for feed were 25 cents less, the milk cost 33 cents per hundred more, and the feed cost per cow greater, the total profit per cow above feed cost on butterfat alone was $16 greater than last year. Thus the members received market price for the extra grain by feeding it to their cows and received $16 extra profit on top of that, plus the value of the extra skimmilk.

The high herd owned by Schipper Bros. had an average production of 435 pounds fat, compared with an average of 260 pounds in 1923 and 362 pounds in 1925. In the same time the profit per cow has increased from $71.60 in 1923 to $103 in 1925 to $110 this past year. This is a very good example of the value of continued testing.

Schipper Bros. say that for years they milked cows and the year they milked no more than first year. After three and one-years of C. T. A. work their production has increased over 3,100 pounds milk and 175 pounds butterfat cow. Their reason for this is they sold three boarder cows and according to production.

In every case where the herd been fed a balanced ration according to production, the increased profit more than paid the testing costs.

CLARENCE PRENTICE, Teste

Effect of Condition on Production

HOARD'S DAIRYMAN:—The effect of the condition of cows when they come into the barn in the fall is strikingly shown in the herd of E. C. Rasmussen of the Denmark, Wis., Association. When I first visited this farm in December, 1924, its first year in the association, I noticed the cows were in poor condition. The next year they were in much better condition, due to getting grain sooner in the fall, better fall pasture, and to more individual attention given each cow.

The following is the record of the herd for the six winter months, December 1st to May 31st of the two years in the association:

Winter 6 mos.	No. of cows	Average Per Cow Fat	Value	Feed cost	
		Lbs.			
1st period	14.7	96.3	$52.98	$31.54	$1.4
2nd period	16.7	146.5	80.60	40.36	.2
Increase		50.2	$27.62	$ 8.82	$1.8

This herd increased its average production by 50 pounds for the second period of six winter months more than eight pounds per month. This was more than enough to offset the added feed cost of $8.82 and return a larger profit per cow of $1.30. The better care and attention inspired by cow testing work produced Mr. Rasmussen $314 more profit the second period of six winter months.

The prices used for fat were the same both years, and there was very little difference in prices of feed. The roughage for both years was of the same quality and the grain mixture used contained the same per cent of protein, the grain being fed at the rate of one pound grain to four pounds milk both years. There was very little difference in freshening dates.

The only difference that I could see was that due to the better feeding that took place the first year in the association the cows were in better condition and were able to produce better the second year.

MANNING H. NELSON, Teste

Write the C. T. A. Editor, Hoard's Dairyman, for our prize offer to testers for monthly and annual reports

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	Reporting	No. of cows*	Ave. fat per cow* All cows	High ass'n.	High herd	High cow fat	No. of separators Tested	Over .05%	
					Lbs.	Lbs.	Lbs.	Lbs.			
Michigan	Feb.	102	79	20,907	23.4	31.3	48.8	†104.5			62
Wisconsin	"	160	139	57,645	22.6	33.3	†58.1	†127.6	1299	143	96
Iowa	"	77	71	25,663		30.2	48.0				12
Illinois	"	30	28	9,947		46.4		114.8	33		96
Indiana	"	29	23	7,511	20.7	30.6	42.7	86.6			
Utah	"	5	5	2,574	24.3	26.2	42.4	81.0			17
So. Dakota	"	9	9	2,805	19.7	23.5	39.9	85.6			26
Vermont	Jan.	20	19	8,482	22.5	31.4	48.2	84.7			
Missouri	Mar.	21	17	5,977	22.7	33.3	55.5	86.1	56	4	61

* Includes dry cows. †Retest rules followed.

THE DE LAVAL MILKER IS SIMPLE AND EASY TO OPERATE

Facts about the De Laval Milker

1. **650,000** cows now milked the De Laval Way.
2. De Laval Milkers now in their eleventh year of use.
3. **83.27%** of the users report average saving of 2 hrs., 12 mins. per day—saves half the time in milking.*
4. **97.13%** of the users say it agrees with their cows.*
5. **99.4%** of the users say they get as much or more milk with the De Laval as by hand milking.*
6. **9.49%** average increase in production per cow is reported by those who claim the De Laval Milker increases production.*
7. **94.80%** of De Laval users say their milker is easy to keep in a clean and sanitary condition.*
8. Average bacteria count of all reporting, 14,542—**62%** report counts of 10,000 and less.*
9. **96.45%** of De Laval users say their milker is "the best," "one of the best," or a "good" investment, as compared with other farm equipment they own.*

*Based on reports from 1844 De Laval Milker users in all parts of the U. S. and Canada.

The De Laval Separator Co.

NEW YORK
165 Broadway

CHICAGO
600 Jackson Blvd.

SAN FRANCISCO
61 Beale St.



The pulsator is an example of the simplicity of the De Laval Milker—only one moving part!

THE simple design and rugged construction of the De Laval Milker provide ample assurance of absolute dependability.

You do not have to be a mechanic to operate a De Laval. It is entirely "fool-proof," for there are no adjustments to be made — no one can alter its action or change the speed at which your cows are milked.



Outfits for any Size Herd

—

Sold on Easy Terms

—

See your De Laval Agent or write to nearest office for full information

Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

W. D. HOARD & SONS CO., Publishers
H. L. HOARD A. R. HOARD F. W. HOARD
EDITORS
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Subscription in United States and Mexico three years for $1.00; single year, thirty-five cents. Canada, three years, $2.50; one year, $1.

FOREIGN SUBSCRIPTIONS may be sent through news dealers and book sellers in all foreign countries.

All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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"He is the happiest, be he king or peasant, who finds peace in his home."—GOETHE.

Feeding Sprouted Oats

During the past year in the Beltsville herd of the Bureau of Dairy Industry, eleven animals that had given trouble in breeding became pregnant after sprouted oats were fed. These animals had not conceived after having been bred a number of times, but upon examination of the genital organs they showed no abnormal condition, pathological or otherwise, that would prevent conception. Only those animals that appeared normal were used in the experiment. Seven of these were cows that had bred without results for periods of six to fourteen months. Three of these seven cows were over eight years of age. The four remaining animals were heifers that had been bred a number of times with no conceptions.

In addition to the eleven animals, seven heifers were fed sprouted oats before being bred. Four of these conceived to first service, and the others required two, three, and four services respectively for initial conception, making an average of less than two services per conception. Apparently sprouted oats correct a nutritive deficiency. We believe success is due to the presence of vitamin E in the sprouted oats.

The stage of growth at which sprouted oats is most effective has not yet been determined. Experiments are being made with oats having sprouts two to two and one-half inches long and also with oats just germinating. Although the experiments with the oats that have barely sprouted have not gone far, it seems that the feeding of these oats will be effective in correcting sterility.

To produce green sprouts two to three inches long, the desired amount of dry oats should be placed in a sack and soaked for twenty-four hours in a tub or barrel of water to which a small amount of formalin, one ounce of formalin to fifty gallons of water, has been added for the purpose of preventing mold. The oats should remain in the sack on the floor for forty-eight hours, after which they should be placed in the pans or trays of an ordinary sprouter, such as is sold by poultry supply houses. The temperature should be maintained at about 75° to 80° F. If long growth is desired the oats should be left in the pans five days. If less growth is desired they may be fed sooner. The oats can also be sprouted by placing the dry oats in a perforated drum, soaking them in water for twelve hours, and then placing the drum on a rack for four days. The oats will then be matted together with numerous small white roots and the sprouts will protrude from the grain sufficiently to be seen. Cattle appear to relish the oats that have just sprouted more than those with the long green sprouts. During the sprouting period, the oats must be kept moist, care being taken to prevent too much moisture at one place and drying out at another.

The equivalent of five pounds of dry oats per day is fed, and conception has occurred after a feeding period averaging approximately sixty days. Five pounds of dry oats is the equivalent of thirteen to fifteen pounds of the sprouted oats. The roots, sprouts, and germs are all fed. It has been the plan at Beltsville to substitute the oats for an equivalent weight of silage in the ration. Most of the animals receiving the oats were on dry feed.

Sprouted oats assist also in maintaining to an advanced age the fertility of the herd sire.

The fact should be emphasized that the feeding of sprouted oats is likely to correct only functional conditions. Before feeding sprouted oats care should be taken to remove any pathological causes that may prevent conception. For the most part, in the experiments at Beltsville, favorable results from sprouted-oats feeding have been secured from animals in which a thorough physical examination has shown no reason for their not conceiving.

This office will appreciate receiving the results obtained from feeding sprouted oats.—R. R. GRAVES and FRED W. MILLER.

Debating for Farm Folks

"Why not have a debate?" is the question asked by J. H. Kolb and A. F. Wileden in a challenging circular recently issued by the Wisconsin College of Agriculture.

For training leadership, furnishing interesting programs for farmers' organizations, giving farmers and their families a chance to discuss important public questions, the debate is excellent. Both those who take part and those who listen gain a great deal if the question is well chosen.

"A debate may be easily planned," say Kolb and Wileden. "Each team consists of either two or three debaters. Speeches should be limited to five or ten minutes with a short rebuttal for each speaker. It is customary for the affirmative to start the debate, and for an affirmative speaker to have the last rebuttal. A chairman should preside and announce the speakers. There should also be a timekeeper."

Plan your debate carefully, assign distinct points to each speaker, don't try to prove too many points in one speech, use only sound argument and clear summaries at the close of each speech, advise Kolb and Wileden. Valuable suggestions can often be secured from clergymen, teachers, lawyers, county officials, and officers of farm organizations.

The debate may be judged by three persons acceptable to both sides; it may be judged by just one person; or the people in the audience may express their opinion by ballot.

Several good questions for debate are suggested in the circular. Here are a few: 1. Resolved, That all the rural territory in our state should be in a legal high school district. 2. Resolved, That the basis of taxation for state revenue should be income rather than property. 3. Resolved, That more efficient productive methods should not be developed without first developing better marketing facilities. 4. Resolved, That a private marketing system has done m for our state than has a co-operat marketing system. 5. Resolved, T this community should set as every Saturday afternoon for purpose of organized recreation. Resolved, That modern convenien should be secured for the farm ho before they are installed on the fa 7. Resolved, That the drift of po lation from the country to the c has not thus far been a detriment agriculture in our state. 8. Resolv That the farmer who operates a tr tor and uses horses on his farm make larger profits than the far who uses horses alone.

Loan packages of debate mate on most of these questions can obtained for return postage from University Extension Division, partment of Debating and Public cussion, Madison, Wisconsin.

When the Robin Sings i the Apple Tree

When the robin sings in the apple tree
There's a fullness of joy in his melody,
Awakening dreams of a rosy hue
Drowsing deep down in the heart of you,
Bringing sweet visions of joy to be
As he sings in the spring in the apple tre

He does not sing for the world's applaud
Nor wait for the critics to frown or lau
But pours his heart from his tiny thro
With never a thought nor a care for not
"The morning's fine and the spring is he
And isn't that reason enough for chee
So he sits high up where the world may
And sings and sings in the apple tree.

There's a snug little nest in a branch close
Where lovely blue eggs 'neath a warm br
lie;
A gay little home and a mate's true lo
Are the very best things that a robin kn
of,
So he tries to express all the joy he f
As the dawn's soft light o'er the hushed e
steals,
In a rollicking, rapturous, ringing key
As he sings and swings in the apple tre

Oh, beautiful bird with your burning bre
Who taught you to sing as a bird knows b
Was it the sun as it said goodbye,
A fairy, a flower, or butterfly?
Maybe, who knows, 'twas a zephyr, bri
Kissing your throat as she said goodnigh
But then, ah, then, as it seems to me
'Twas the gay little home in the apple t

(Copyright 1927). —I. A. KIMBL

"Strange," said Billie Ritchie, in a musing mood, "we very seldom rea our boyhood dreams."

"Oh, I don't know," replied Al Fairbairn. "When I was a kid I dreamed of the day I would w long pants. And now I wear th longer than I ever dreamed of."



ATTRACTIVE FARM HOME OF M. S. ALEXANDER, MINNESOTA

Right Methods of Milking

H. A. BEREMAN, SOUTH DAKOTA

THE successful dairyman will "treat a cow as though she were a lady." This is not sentimental slush but a matter of dollars and cents. Every dairy farmer who owns one cow or a hundred can increase his milk check by learning right methods of milking. Out of many years' experience the following suggestions are made. It is believed that their adoption will be followed by better quality and a greater flow of milk—both of which mean more money for the milker. It might even mean the difference between success and failure.

The art of milking consists in doing the job comfortably, keeping the cows in good condition, and getting the highest possible yield of rich milk from each cow.

The expert milker is even-tempered and not easily provoked. He plays along with his domestic animals by gentling them. As lactation is a nervous function, any disturbance of the cow's bodily comfort results in a shortage of the yield. The contented cow is the profitable cow—other factors being equal.

Regularity in milking is important. The cow is a creature of habit. If her meals are delayed she frets and takes it out on her owner by giving less milk. She will do better if she is milked at the same hour every day. My experience, covering many years as a practical dairyman, shows that it is best to feed after milking. The cows stand more quietly, usually chewing the cud, and there is less dust in the air to contaminate the milk. Scientists declare that most of the milk is elaborated during the milking process. Hence, a liberal supply of blood should flow through the udder at that time. The excitement of being fed draws the blood away from the udder and may lower the yield.

A comfortable milking stool makes the work easier. The stalls should be kept clean. The use of a closed pail having a top fitted with a removable wire-gauze strainer, into which is packed sterilized absorbent cotton, helps in the production of good flavored sanitary milk. The writer used this method as an original device as early as 1897, and it is now used by virtually all high class dairies where "certified" milk is produced.

The farmer who desires a clean product that will keep well and make the best flavored butter, cheese, and market milk, will wash the teats, udders, and flanks of his cows before milking. Dirt is not only disgusting but expensive and dangerous. Sometimes it contains disease germs that are a menace to the health of the family and the public. The hands should be kept clean, the nails trimmed short, and the filthy habit of wetting the hands with milk should be condemned by all decent dairy farmers.

It makes no difference which teats are milked first, but after a regular system has been formed it is not wise to change. It is usually more convenient to milk one front and the diagonally opposite hind teat at the same time. The process should be continuous and rapid but without feverish haste. Long, steady pulls get the milk faster and with less annoyance to the cow than short, quick, nervous jerks.

If the teats are short or the hands tire easily, the "Swiss style" of milking is recommended. This consists in flexing the thumb against the palm of the hand with the nail side against the teat, pressing the four fingers against the opposite side of the teat and squeezing downward from the top. It may take a little practice to learn this method, but it is worth all the patience and effort necessary, as one can milk faster and with less fatigue. The writer has always employed this method with all cows except those having very large teats.

It is important to empty the udder at every milking. Nothing will dry up a cow more surely than to leave a little milk each time. Mother Nature takes this as a sign to slacken up on the supply. She says in effect: "This calf is now eating grass and will soon be weaned." You must fool nature into thinking that the calf is still on the job with a husky appetite and taking all the milk the dam can manufacture. The most profitable cows are those which do not dry up quickly but give a steady flow throughout the year.

Stripping with the thumb and forefinger is only one way to get the last of the milk which is the richest in butterfat. The Danes, who are leaders in good dairy practice, have a way of kneading the udder with both hands gently pressing down from above, first at the sides and then front and back, followed by a final stripping. This process imitates the butting calf that is striving to get the last drop. Vaseline or some other good ointment should be used frequently to keep the teats soft and to help heal up any scratches or sores that may appear on the teats.

I know men who feed good cows liberally on balanced rations and house them in comfortable stables, but who lose money every day in the year by careless habits of milking. The practice of right methods of handling milk cows might easily earn enough extra profit to pay for an up-to-date milking machine; but even then, the cows as well as the machine must be handled with skill and understanding. But that is another story.

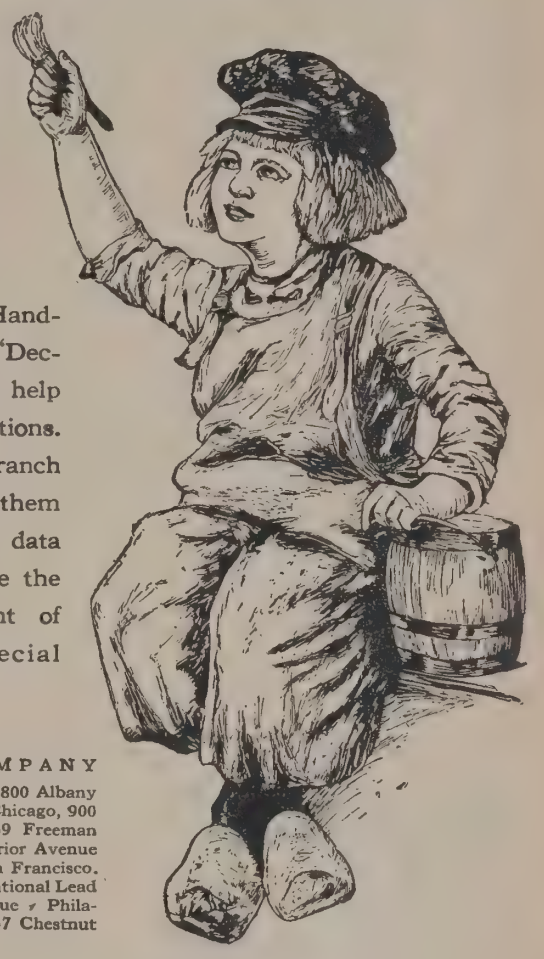


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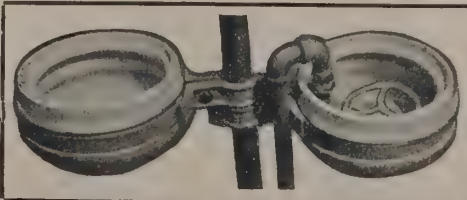
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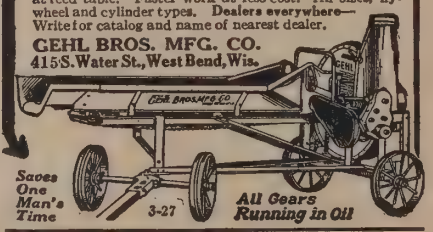


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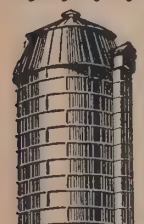
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When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

Opinions, Brickbats, and Bouquet

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyman assumes no responsibility for opinions expressed.

Three Legs of the Milk Stool

HOARD'S DAIRYMAN:—Just a word from an interested subscriber. Is there not an understandable program toward which the agricultural interests and the agricultural press should bend their energies to secure fair play for the farmers?

1. The Protective Tariff. Should there not be a high protective tariff on all the output of the farms—grain, fat, live stock, fruit, etc.,—which would absolutely guarantee the United States market to the farmer for what he has to sell? Leg one of his milk stool.

2. Co-operative Buying and Selling. Affording an efficient way of disposing of what he has to sell. Having in mind the efficient and abundant supply of the home market. Leg number two of his milk stool.

3. The reasonable limitation and equalization of his production having in mind the efficient and abundant supply of the home market. Leg number three of his milk stool.

The export of his surplus being the minor consideration could easily be cared for after the home market is efficiently cared for.

Manufacture, banking, and railroads have favorable legislation enabling them to enjoy unparalleled prosperity. Should not the widow's son be recognized as belonging to the family and be treated with the same consideration as the rest of the family? Is he the half-wit brother without mind enough to ask the question and determination enough to insist upon fair play?

Indiana. R. A. MORRISON.

Lives on "The Main Street of America"

HOARD'S DAIRYMAN:—The very pleasant and interesting visit made a few summers ago by several of us Ozark dairymen to the Dougan dairy farm near Beloit is now being most agreeably recalled by weekly contributions in Hoard's Dairyman from Mr. Dougan himself.

I am glad to express my personal appreciation of the hospitable and delightful reception and entertainment given us by Mr. Dougan and his family when we were there. In the current issue of Hoard's Dairyman you give us in Mr. Dougan's write-up a good picture of our bunch standing on the driveway of Mr. Dougan's fine dairy barn. I certainly enjoyed this write-up, especially at his close-up he allows his fancy to dive into poetic expression and quotes thus from Sam Walter Foss:

"Let me live in a house by the side of of the road
Where the race of men go by;
The men who are good and the men who are bad,
As good and bad as I.
I would not sit in the scorner's seat
Or hurl the cynic's ban;
Let me live in a house by the side of the road
And be a friend to man."

My guess is that he has not yet met the average tourist in bulk or en-masse. Or if he knows many of them—that is enough of them to come in contact with them every minute of the day—he was probably snowed in on that day and none of them crowded his traffic way. My 680-acre dairy farm here in the Ozarks has a full mile of the right of way of *"Main Street in America"* running through the middle of it. Perhaps you heard of this *"Main Street of America."* It is the transcontinental paved federal Highway No. 66 out of Chicago through St. Louis, Springfield, and Joplin on to Los Angeles. During the past winter through traffic on it crowded it almost to capacity, so that I am personally well "fed up" on the poetic glory of *"living in a house by the side of the road."* My dairy barn here has an equipment that Mr. Dougan's barn has not got. It has a brace of bull dogs that are unleashed after dark every night. With apologies to Sam Walter, let me say:

Let me live in a house at the end of the road
Where never a soul goes by.
I am sick of the public-front abode
Where the world spins past on high.

I am sick to death of the raucous horn
And the scream of the sudden brake
And the all night crowd with its lordly hor
Of whether I sleep or wake.

Oh! I am a friend to my eager friend
And no foe to my fellow man,
In my humble hut at the dirt road's end
I'll be as sociable as I can.

But why should I live by the side of the road
Where the dust and the gas fumes fly
Or mow my lawn for the flivver's fleet
As the whole dum world goes by?

If you love me you'll turn down my way
Though it leads to no other spot.
A road's end sweet when the twilight's gray
And a hearth fire boils the pot.

Where the crowds don't go—be my Good
bestowed;
To avoid the tourist's clan
Let me live in a house at the end of the road
Away from the motor man.

Missouri. EUREKA FARM

What Is the Trouble

HOARD'S DAIRYMAN:—I have been reading the O. B. & B. column and I find some very good ideas expressed there. We as farmers all seem to be agreed that the farmers need some assistance, but there seems to be a great difference in opinion as to just what the trouble is and also what the remedy should be.

It strikes me that the professor at Ames hit the nail on the head when he said that the farmers send all the big potatoes to the city. For an illustration let's take the dairymen of the country. Instead of saving the best heifer calves from year to year let's market them for veal and sell the scrubs and misfits for a few years, and see what the dairy cows would be like.

It strikes me that for one thing our educational system is to blame for a lot of our troubles. We send our children to school and most of them that make the grade go into other lines of endeavor, while the nit wits, etc., that can't get by stay on the farm. It seems to me that the business of farming is big enough so some of our captains are needed as community leaders. I don't see how we are to be helped by laws unless we have some real farmer-minded men to help make those laws. I don't see how we are to be helped by co-operation unless we have men competent to direct the organization. We have allowed the rest of the business world to think that a strong back and a weak mind are about all that is necessary to be a farmer. I believe brain as well as brawn is necessary.

Michigan. E. H. KIRKLIN

Mother—"No, Willie, for the third time I tell you that you cannot have another piece of cake."

Willie—"Aw, I don't see where she gets the idea that you're always changing your mind."

HERD PROGRESS IN NEW JERSEY

E. J. PERRY, NEW JERSEY

THE Salem—Gloucester Cow Testing Association has uncovered the story of the progress made recent years by the herd of Holeins owned by Henry Edwards of ew Jersey.

Mr. Edwards first joined a cow esting association in 1919. His year-



HENRY EDWARDS WITH HIS FOUNDATION COW ON THE RIGHT AND HER BEST DAUGHTER ON HIS LEFT

average at the end of the first 12 onths revealed a fairly good herd—ith a yearly average per cow of 431 lbs. milk, 246 lbs. fat. Today s herd average is 9,723 lbs. milk, 337 s. fat, made on two times a day ilking. The increase amounts to 292 lbs. milk and 91 lbs. fat. Feed sts and income over feed cost averged as follows per cow:

	Feed cost	Income over feed cost	Feed cost 100 lbs. milk
19	$126	$160	$1.70
36	143	168	1.47
ference	$ 17	$ 8	$ .23

With 19 head of milking cows, Mr. lwards is now getting 43,548 lbs. ore milk in a year than he did in 19. Figured at $2.75 per hundred, s is worth $1,197. In 1919 the price milk ranged from 7.5c to 8.5c per art, or approximately $3.60 for a ndred pounds. It will be noted refore that the yearly income over d increased very little, and is exined by the drop in milk price. th the same calibre of cows that he d in 1919, where would Mr. Edrds' profit be today? He has coped te successfully with the economic nges—the lowered milk prices and reased feed costs—by improving herd to meet the situation. A litinvestigation of one of the leading sons for a rapid growth in the d average returns per cow is rth while.

Blood Does Tell

Nineteen years ago Mr. Edwards rted in the dairy business with 15 mon cows of various colors. In 13 he bought his first registered l, a Holstein and a son of the faus Spring Farm King Pontiac. ven grade daughters were raised m him and were much better than their dams. This fact was interesting and profitable to the owner and was convincing evidence that the results of 150 years of selection and breeding by master Holstein breeders is for the benefit and use of present day dairymen and is obtainable in the thousands of the pure-bred sires now available. In 1915 two registered cows were purchased. The second bull, a son of Judge Hengerveld De Kol, was secured in 1915. The dam of this bull was Wiebe 6th, an imported cow. The third sire came from Winterthur Farms and is still in use. His dam has a record of 16,141 lbs. milk, 690 lbs. fat. A junior sire recently purchased in co-operation with a neighbor, R. H. Skinner, is a grandson of Polly Douglas Fayne.

A glance at what transpired among the females is most interesting. One of the first two pure-bred cows bought in 1917 is a dam of a 10-year-old cow now in the herd that has proved an extraordinary foundation animal. In production she has been only fair but she has been prolific and has thrown 6 daughters and 3 bulls, all of splendid constitution, type, and producing ability. Her name is Polly Calamity Hengerveld 326796. In eight years she yielded 65,016 lbs. milk, or an average of 8,127 lbs. Her best year's record was 9,374 lbs. She has 7



HENRY EDWARDS WITH THE BEST DAUGHTER OF HIS FOUNDATION COW

granddaughters and 3 great granddaughters.

The yearly records of this old cow and all of her milking offspring, through her daughters, follow:

	Age Yrs.	Milk Lbs.
Foundation cow, 8-year ave.....		8,127
Foundation cow	6	9,374
Daughter A	5	13,500
Daughter B	4	11,831
Daughter C	3	11,420
Daughter D	2	7,875
Granddaughter A	4	13,500
Granddaughter B	3	9,778
Great granddaughter A	3	10,000

Reducing all of these records to mature equivalents shows an average of 13,120 lbs. which exceeds the best record of the old cow—9,374 lbs. milk—by 40 per cent. This is an illustration of what it is possible to do by the judicious selection of registered bulls from cows of known production. The 4-year-old granddaughter, sired by the Winterthur bull now in use, has started off with these records: As a 2-year-old, 9,300 lbs. milk; as a 3-year-old, 10,288 lbs. milk; as a 4-year-old, 13,200 lbs. milk.

This heifer's performance constitutes an argument for retaining well bred bulls until their daughters produce. Purchasing a high class pure-bred bull carries with it the assumption that the buyer has faith in the animal's ability to work improvement, yet there are hundreds of such buyers who will not spend the price of a cow to build a pen that will enable a bull to be retained—a bull that might work wonders in increasing production and improving type in the herd. If the bull is "half the herd" for those raising young stock, why sell and buy half of a herd every three or four years? Exchange him temporarily for another bull of merit and return him later.

The use of three good bulls has been the biggest factor in increasing Mr. Edwards' herd production 27 per cent and the production within a family 40 per cent.

Future progress in his herd will probably have to be made with proven sires. For all dairymen who feel or know that they have cows of the ability of those in the present Edwards herd, the time to attempt the use of proven sires is now. For those whose cows are as good or not as good as Mr. Edwards were in 1919, there is a chance that if proven sires are used at once, that much time can be saved and rapid progress made in building up high production and consequent profits.



THE EDWARDS' HERD OF HOLSTEINS THAT AVERAGED 9,723 LBS. MILK AND 337 LBS. FAT

Silage Corn or Field Corn for Silage

The question of whether to plant a so-called late variety of silage corn for silage or a good local variety of field corn for this purpose frequently is asked by those interested in getting the most feed per acre.

The Ohio Station compared a late silage corn with a fairly early maturing field corn for five seasons. After the silage was made, feeding trials were carried out with dairy cows to determine which silage was the best for milk production.

In production of silage both varieties were calculated to a uniform dry matter basis. When compared in this way the later silage corn averaged to yield .96 ton per acre more than the earlier field corn. The green husked ears averaged 37 per cent of the weight of the plants of the early variety; the green husked ears averaged 31 per cent of the weight of plants of the late silage variety. When samples of ears from both varieties were kiln dried and shelled the grain constituted about 40 per cent of the total dry matter in the early variety and 25 per cent in the late variety.

A comparison in percentage of the results of feeding the silage to cows showed that where both milk production and gain in weight were considered, the earlier variety of corn appeared to be about 7 per cent more efficient.

The results of the five tests indicate that for silage, all things considered, there is little difference in returns per acre between the ordinary varieties of field corn and the large, late so-called silage corn. A long, favorable growing season would favor the late variety if compared on the dry matter basis.



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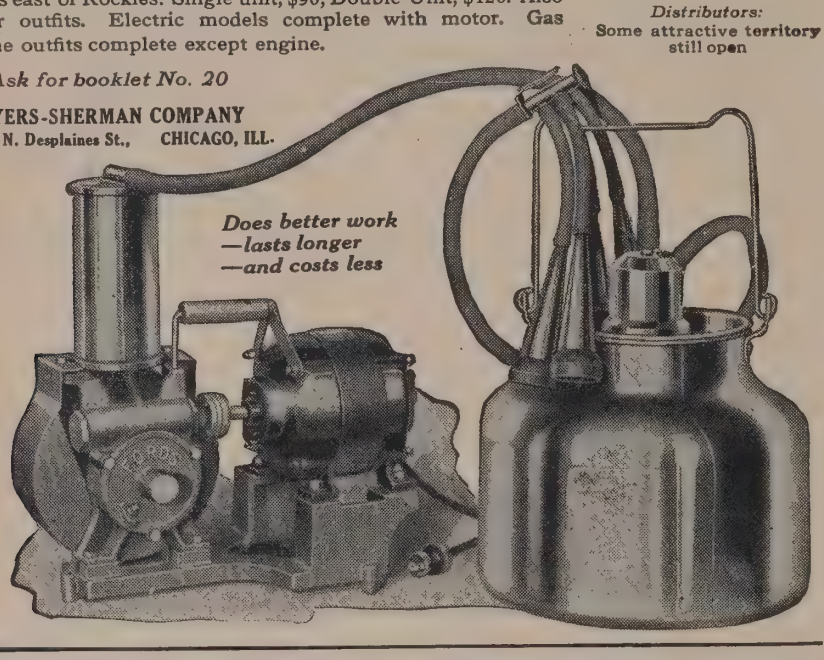
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There's room for a sketch, ancestry and record of 100 head. There's an index, a 1927-1928 calendar, a gestation table, a breeding record and a dozen blank pages for reminders. It's loose-leaf, with a mighty handsome and durable genuine leather cover.

One proud herd manager we know has carried one right with him for two years, and says it looks as good today as it did the day he got it.

And the price is only two dollars postpaid.

HOARD'S DAIRYMAN
FORT ATKINSON, WIS.



Name _____

Born _____ No. _____

Record _____ lbs. M _____ F _____ Age

Record _____ lbs. M _____ F _____ Age

Sire _____

Dam _____

Record _____ lbs. M _____ F _____ Age

Bred to _____ Due _____

Bred to _____ Due _____

EXACT SIZE OF PAGE

Always Gets a Good Meadow

H. E. McCARTNEY, INDIANA

IN Shelby County, Ohio, a number of farmers told me of one of their neighbors who always succeeds in getting a stand and a good crop of alfalfa or clover.

So often was the statement repeated, "Harry Marrs always gets a good meadow," that I became interested in visiting him and seeing for myself just how he did it.

As I approached the Marrs' home I saw a splendid field of alfalfa. I would have guessed that this particular field belonged to the man to whom so many referred me. The stand was perfect over the entire field; likewise the growth was good in all parts of the field.

After seeing the alfalfa, I became more anxious than ever to know the methods Marrs was using. Also, I wanted to know if his plans were such that any of us could make use of them in operating our own farms.

Marrs was in one of the back fields at work. I drove through the farm lane to meet him and talk with him. I passed a splendid field of corn and then one in which there was a heavy crop of sweet clover and finally a pasture where a mixture of grasses was making a rather luxuriant growth. I noticed that the pasture gates were open and that they were so arranged that the cows could go at will from the grass mixture to the sweet clover.

After talking with Marrs, I was able to reduce his essential principles to four very simple ones. First of these, he practices a 3-year rotation; next he practices thorough methods of tillage; third he uses an abundance of acid phosphate. As a fourth, his farm is well drained with tile. Very likely it is a combination of all these that enables him to be so successful with his pastures and meadows.

One thing I noticed was that there were no weeds in his alfalfa, sweet clover pasture, or his corn. There were none in the field where he was at work. He said that he does not fight weeds. Simply he makes it so easy for his regular crops to grow that they leave no opportunity for weeds.

Corn is the main crop in his rotation. This crop is regularly grown upon clover sod. Usually he fall plows the clover field but, failing in this, he plows early in the spring. The disk and harrow are used until the best possible seed bed is prepared.

Wheat or oats constitute the second crop in the rotation. His corn land is divided about equally between these two crops. Wheat is put into the corn field with a one horse drill. Along with the seeding of wheat he puts 300 pounds of 16% acid phosph per acre. The oat crop is drilled in the spring after plowing or disk and thoroughly preparing a seed b Just as with the wheat, he uses pounds of the 16% acid phosph per acre. His idea is that with wheat or oats is the best opportu to get the acid phosphate into the tation. Also, the best results from th use are shown when it is put in w the small grain.

Occasionally he finds it advisable grow corn on a field for two succ sive seasons. This lengthens the ro tion to four years. In this case uses 300 pounds of the 16% a phosphate with the second year corn.

His clover crops are sown in small grain during the early spri His thorough cultivation has mad splendid seed bed for the tiny clo seeds. So, his seedings of clover grass are likely to make a good st After harvesting the grain crop growth during the fall is usu abundant.

Marrs prefers red clover for but is enthusiastic over sweet clo for pasture. He says, "Sweet clo is the only pasture crop that does dry up." Then, in proof, he pointed the field beside which I had just dr en. The growth was splendid and seemed that there would be no c ing in the growth of new shoots fresh green leaves.

As a soil builder, it is his idea th roots of the sweet clover go de deeply into the soil and pull up fert ty which they leave in their lar crowns near the surface. He thi that this decreases the amount commercial fertilizer needed in i fields.

Marrs explained to me that h field in which he was working to day had been in his possession ly three years and that it had been ld ly run down when he got it. Howe through thorough tillage and the s of acid phosphate he had brough it back to a rather high producing st Last year the oats grown on it a averaged 71 bushels per acre.

Each year, during summer and fall he hauls manure from his barns to yards to the clover fields which is plowed under for one of his bune corn crops.

His alfalfa is grown in a field aside for it and not as a part of h regular rotation. He lets the stand in alfalfa as long as it wes well and as long as bluegrass does o threaten to interfere with its y



A ONE AND ONE-HALF HORSE POWER ENGINE PERFORMING AT ONE TIME TWO TYPICAL FARM JOBS

One of these, the pumping of water, is a daily affair on the farm and when done by hand is a monotonous and irksome task. How many of us as boys, also, have hated tha frequent drudge of turning the grindstone while father slowly sharpened his tools Small engines such as this make life on the farm more livable for every member fron mother and father down.

Nitrogen in Sweet Clover

THE ability of sweet clover to supply soil with organic matter and nitrogen is shown by some work done by the Illinois Experiment Station in 1922 and 1923. Representative samples of tops and roots of the biennial white sweet clover were taken from uniform areas and the air dry weight of these determined together with an analysis for nitrogen content. Samples were taken at intervals throughout the growing season beginning in one trial on September 11 of the same season the seeding was made and continuing through the following season to July 16. Samples were taken in a similar way of other seedings. The seedings were made with early oats using 10 lbs. sweet clover seed and 2 bushels of oats per acre.

From the standpoint of organic matter and nitrogen supplied, the most important data of these investigations are those showing the data of the maximum tonnage of tops and roots and the nitrogen contained therein of the plants in the fall of the year seeding was made and during the summer of the second year's growth. These data on the acre basis are as follows:

Date sampled	Maximum yield organic matter Total tops	Total roots	Total plant	Total nitrogen
	Lbs.	Lbs.	Lbs.	Lbs.
November 9	3,350	5,200	8,550	276
November 16	1,320	3,970	5,290	180
Ave. (fall)	2,335	4,585	6,920	228
June 30 (2nd yr.)	6,970	1,950	8,920	206
June 19 (2nd yr.)	12,010	2,160	14,170	308
Ave. (2nd yr.)	9,490	2,055	11,545	257

It is interesting to note that in November of the same year sweet clover was seeded the roots constitute 36.2 per cent of the air dry weight of the total plant whereas in June of the second year growth this percentage has dropped to 17.8 per cent. Another interesting thing is that 6,920 lbs. of the total fall growth contained nearly as much (228 lbs.) nitrogen as was contained in 11,545 lbs. of the top and root growth of the crop the following June. This latter amount was 257 lbs. nitrogen per acre.

The maximum top growth of the first year plants was reached on September 27 one year and on November 9 another year. The average of these was 3,055 lbs. The maximum nitrogen yield of the second year plants was reached one year on April 19 and another year on June 7. The average of these was 336 lbs. per acre. These facts are of special significance from the standpoint of a green manure crop. The fall growth plowed under plus the root growth, 3,055 lbs. total, containing 201 lbs. nitrogen per acre, is a cheap way to add organic matter and nitrogen to the soil. The chief disadvantage to this practice is the fact that these plants thus plowed under in the fall are not all killed and may give considerable trouble to a cultivated crop the following season.

One can avoid this difficulty by late spring plowing. In this case, according to these investigations, one could, by plowing the last of April, incorporate approximately 2 tons of organic matter air dry basis and 200 lbs. nitrogen per acre.

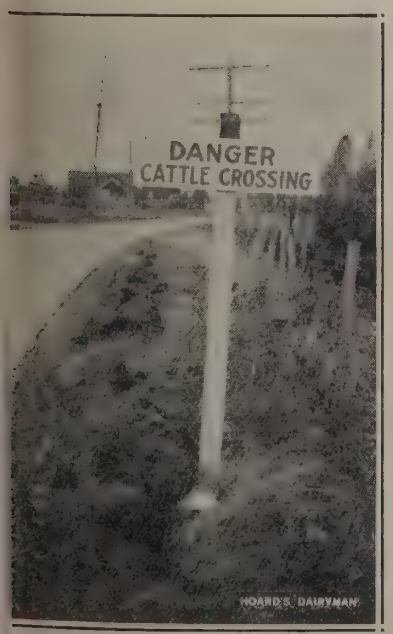
To dairymen, always in need of good legume pasture, the biennial sweet clover offers much of value in the way of combining both feed and manurial benefit. The top growth of the first year may be pastured or cut for hay and the root growth together with what new top growth made the following spring may be plowed late for corn. Where soil conditions are suitable the seeding of sweet clover in with oats does not materially take away any of the normal oat yield.

Cattle Crossing Signs

HOARD'S DAIRYMAN:—Many dairymen in some of the Pacific northwest states have signs put up along the highways about a hundred feet in each side of their cattle crossings to warn the passing motorists that they must be careful. In Washington, especially, we saw a great many such signs because it so often happens that the road separates the pastures from the barn lots.

We do not have any available statistics as to the annual number of dairy cows that are killed when crossing highways, but Wisconsin's Highway Commission is of the opinion that the number is not large. Some dairymen have secured permission and have built cattle underpasses rather than daily risk driving their valuable animals across a congested highway. This is no doubt a commendable practice. We asked concerning the liability in the event a motorist collides with a herd of cows that are being driven either along a road or across it and were told that the car driver would have to pay damages. However, unattended animals pasturing on the roads in most states must run their own risk and in some states the owner of them is responsible for their actions and must pay for any injury due to collision with a car unless it can be proven that the driver was exceeding the speed limit for that particular stretch of road.

Wisconsin. G. A. PETERSON.



Cattle crossing sign near Arlington, Washington, that warns the passing motorist to caution lest he collides with some dairy cows.

Milk and Cream Excluded

An absolute embargo against milk and cream originating within a radius of 200 miles of Montreal, Canada, has been ordered by the Bureau of Chemistry, United States Department of Agriculture, on account of the danger from typhoid infection. This action is taken under the Federal Food and Drugs Act which authorizes the exclusion of articles that are dangerous to health. In placing this embargo the Bureau of Chemistry has the cooperation and advice of the United States Public Health Service, the State Department, and the Customs Bureau of the Treasury Department.

The typhoid outbreak began March 4 and to date more than 1,000 cases have been reported in and near Montreal.

Better Crops Special

"Better seed means better crops and greater profits." "Where clover grows, milk flows." "Nature has done her part. Let us do ours."

Blazoning forth these three slogans, the Better Crops Special railway train visited every one of the fifteen counties in the Upper Peninsula of Michigan during the month March 23 to April 23. Six railroads co-operated.

Dairy cows are increasing faster than feed is being produced in this territory. A large quantity of poor and inferior seed is planted that reduces the income of these farmers many thousands of dollars annually. Better crops can and must be produced.

C. M. McCrary, potato specialist, and C. E. Skiver, crops specialist of Michigan State College; G. W. Putnam, superintendent of the Chatham Experiment Station; and George E. Bishop, secretary of the Development Bureau; were among the speakers who presented the case of better crops on the tour.

The special train with its exhibits and speakers was the opening gun of a big better crops campaign for the Upper Peninsula. Crop growing contests will follow the visits of the train in every county and the Development Bureau has already offered $750 in cash prizes.

He only really lives who enjoys his work.—Hale.

AMERICAN STEEL & WIRE COMPANY



It's Easy to Build Fences with Posts Like These

No holes to dig, no tamping and no staples to buy. Note the big features which are exclusive in Banner Posts and which mean so much in extra service.

Banner Steel Fence Post GUARANTEE

All Banner Steel Fence Posts are made of railroad rail design with heavy backbone reinforcing. They are made of NEW STEEL *and are* GUARANTEED *to give the equal of or longer service than any other steel fence post of same weight which is used under similar conditions.*

Any buyer who will show that Banner Posts, purchased through his dealer, have failed to give this service, will be supplied by us with new posts, free of charge and without delay.

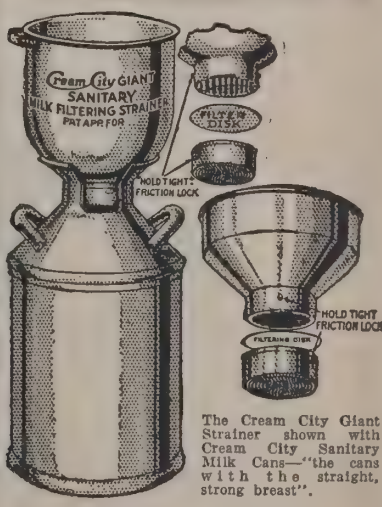
With Banner Steel Posts the fence line can be burned off every year, thus getting rid of weeds, insects and rubbish. The clean farm grows the best and biggest crops and with the least labor and expense. See our dealer in your community.

AMERICAN STEEL & WIRE COMPANY
DEALERS EVERYWHERE

Other Sales Offices: Chicago, New York, Boston, Cleveland, Worcester, Philadelphia, Pittsburgh, Buffalo, Detroit, Cincinnati, Baltimore, Wilkes-Barre, St. Louis, Kansas City, St. Paul, Oklahoma City, Birmingham, Memphis, Dallas, Denver, Salt Lake City

Tell the advertiser you saw his advertisement in Hoard's Dairyman.

More Profits from Cleaner Milk!



The Cream City Giant Strainer shown with Cream City Sanitary Milk Cans—"the cans with the straight, strong breast".

Two 14-quart pails can be poured into the Giant at one time

The Cream City Giant actually filters the milk, removing every particle of foreign matter. Contamination is removed at its source—pure milk can be kept sweet much longer.

Large, strong, seamless. Heavily retinned—indestructible. Two styles. The Giant for large production—No. 1090 for the small farmer. Both are easy to keep clean and sanitary.

Get bigger sweet milk profits!
Write for catalog.

Geuder, Paeschke & Frey Co.
16-38 15th St., Milwaukee, Wis.
Please send me your catalogs on Milk Cans and Milk Filter.
Name .....
Address .....

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



THE H. H. MILLER INDUSTRIES CO., CANTON, OHIO
successors to Chas. Skidd Mfg. Co, Janesville, Wis.

Tell the advertiser you saw his advertisement in Hoard's Dairyman.

SEASONABLE LIVE STOCK NOTES

BLOATING in cattle may be caused by any kind of feed that produces indigestion but the disorder is usually caused by alfalfa, clover, or other succulent pasture forage eaten greedily, especially if wet by dew or rain. The time has arrived when precaution must be taken to prevent bloating or to treat it effectually should occasion arise.

The best method of dealing with the problem is foresight in preventing conditions favorable to the ailment. Before cattle are given access to new pastures, especially if wet, they should be fed some hay or other dry roughage to partly fill their stomachs. Even with this it may be advisable to limit the time they are on pasture each day if they show signs of greediness for this palatable feed.

Should animals become mildly affected, forcing them to walk at a rapid pace for a half hour is sometimes effectual. Another treatment often successful is to coat a piece of rope with axle grease or pine tar and fasten it in the animal's mouth thereby causing considerable movement of the tongue, jaws, and throat as well as stimulating the secretion of saliva. This action aids in the escape of gas.

The formalin treatment is also recommended. The affected animal is given as a drench a quart of water to which has been added one-half ounce of formalin. After drenching, the mouth is held open by a round stick placed between the jaws to facilitate the escape of gas.

In severe, urgent cases where relief must be obtained without undue delay, the use of the trocar and canula is effective but the operation should be performed by one experienced in the use of the instrument. Knife wounds in the paunch should not be made.

Water Founder

Acute founder may result from several different causes. The cause to which attention is called at this time is that of drinking a considerable quantity of cold water when a horse is warm or somewhat overheated. It occurs most frequently on hot days in the early part of the hea work season or during harvest tim

The symptoms of the acute form founder are easily recognized. T affected animal persists in standing one place; it being almost impossib to make it move, especially backwar The horse stands with fore feet fo ward, throwing as much of the bo weight on the hind feet as is possibl A striking symptom is the inability back. The animal is in great pain the fore feet.

The treatment should be promp It is both local and internal. Wr the feet in a large blanket and ke wet with cold water. Where possib the feet may be tubbed. After son improvement is noted, stand the an mal with the feet in a clay puddl Give a purgative of ¾ pound Epsom salts. Feed a light laxati ration. Provide grass when availabl Give rest until recovery is complet

Minerals for Cows

Inquiries are numerous askin about mineral supplements for dai cows. Limited experimental eviden indicates that the assimilation of mi erals from the feed is greater or mo efficient under certain conditio than under other conditions. It further indicated that phosphor calcium (lime), and chlorine are mo likely to be deficient in the ratio

Inasmuch as the results of expe ments show that cows can take t mineral elements out of feeds mo efficiently while they are on gre pasture in direct sunshine than und any other practical conditions, it timely to suggest that they be giv access to a simple mineral mixtu during the summer. This appli particularly to the heavy producin cows—the ones most likely to ha given up some of their mineral r serve to production.

We suggest a mixture of equ parts of salt, bone meal, and fine ground high calcium limestone supplied cows when they go out pasture.

Should Vaccinate Pigs

The tremendous losses experienc from hog cholera last season prom us to call attention to the practice vaccinating spring pigs as soon they are weaned. This is especial advisable in sections where chole took toll from a large number farms. Pigs at this age may be i munized at the lowest cost and it a fords a safe protection. Those w take a chance and later find it nec sary to vaccinate, run the risk of so loss but also they must pay more f the protection.

Emergency Hay Crops

A number of dairymen for vario reasons find it necessary to resort emergency hay crops if the needs their herds are supplied the comi winter. We suggest soy beans sudan grass for this purpose. S beans will grow on soils too acid f alfalfa or red clover but are be fitted by lime. The seed should inoculated. The yield varies from 1 to 3 tons per acre of hay nea equal to alfalfa in the dairy ratio Soy beans may be planted any ti after the soil is fit for corn and up June 15, the time depending on t variety selected. Sudan grass, thou not a legume, affords a good yield fairly good forage. It may be seed after corn is planted and up to Ju 15. About 15 lbs. of seed per ac are needed.

"Improvement in quality is the be guarantee of future profits."—HIR SMITH.

From Stem to Stern
Sealed against Grit!

$34.18 per HP 20-35 H P

Allis-Chalmers engineers have added years to tractor life by keeping grit out of the motor. Metal cases enclose everything. Then the three great cleaning devices shown in the panel, remove every particle of grit that gets inside the motor.

Engineers say these improvements should double tractor life. Extra power, extra life, low cost per h. p.—these will bring you extra profit. It's well worth while to find out just how Allis-Chalmers actually does bring extra profit. Write today for booklet.

ALLIS-CHALMERS MFG. CO., *Tractor Division*
473-62nd Ave., Milwaukee, Wisconsin
Branches: Fargo, N. D. *and* Wichita, Kans.

Oil Purolator



Every 4 minutes or 150 times in a 10-hour day oil is cleaned, strained, and purified, removing every atom of dust and grit. This prevents enormous amount of wear for lubrication is with clean oil *entirely.*

Air Cleaner



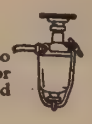
By centrifugal action and forcing through an oil-soaked mattress, every particle of dust and grit is removed from carbureting air.

Spark Arrester and Muffler

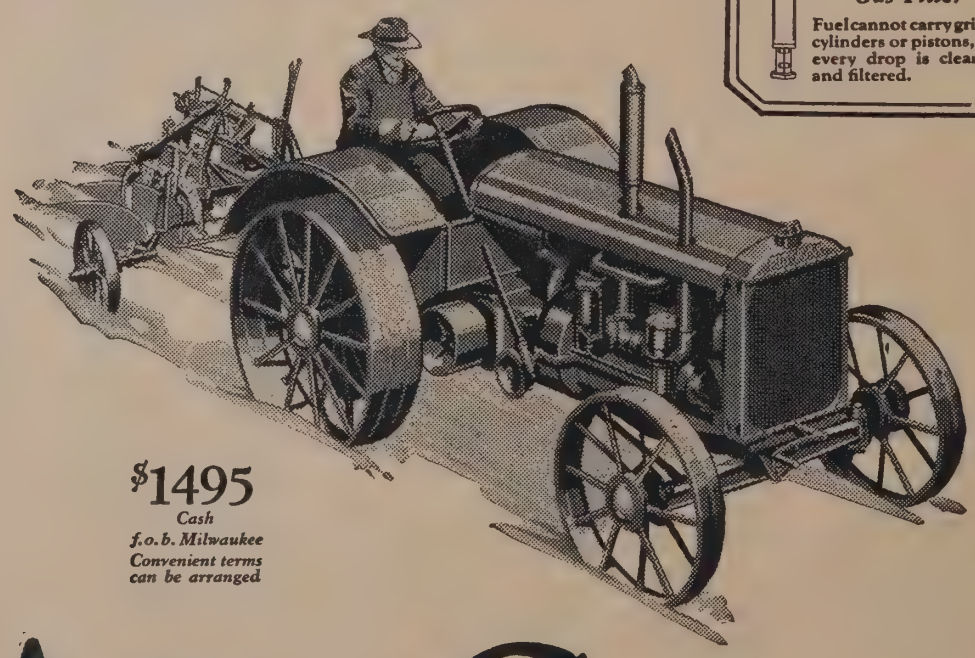


Insures quieter, more comfortable operation with no danger of flying sparks.

Gas Filter



Fuel cannot carry grit to cylinders or pistons, for every drop is cleaned and filtered.



$1495
Cash
f.o.b. Milwaukee
Convenient terms can be arranged

Allis-Chalmers
20-35 TRACTORS

Genuine Cork Linoleum Rugs in NEW–DIFFERENT–PRETTIER *Patterns*



"This is the new decorated Jaspé Rug. Isn't it just the prettiest rug you have ever seen?"

TRULY, few people thought that smooth-surface rugs could ever be made so pretty. Genuine Armstrong's Jaspé Linoleum with the new overlaid border. Nothing like it has ever before been offered in smooth-surface rugs. Gray, green, blue, brown, taupe or rose Jaspé with several colorings of border design to choose from! Such rugs add the brightness and charm of color to an otherwise dull and cheerless room.

Indeed, they suggest endless ways of brightening up the house, from kitchen to bedroom. One of these delightfully different and original patterns on the floor of each room will give an air of cleanliness and freshness to the house which will not soon disappear. The newness of an Armstrong Rug lasts a long, long time because each mopping restores its original brightness.

There is no way you can fully realize the attractiveness of these new patterns except to see them yourself in the stores. Be sure to ask for the new Armstrong's Linoleum Rugs by name. You will find they are made of the same long-wearing genuine cork linoleum with the burlap back . . . . flexible, quiet, resilient, soft to the tread. Surprisingly low in cost, too—less than they ever have been! Yet they will constantly give you greater satisfaction and far longer wear than rugs made of less desirable material and in less original designs. Look for the Circle A trade-mark, too. You will find it printed on the burlap back of every genuine Armstrong Rug.



In the main illustration: *Jaspé Rug, Pattern No. 725.* Above: *Inlaid Rug, Pattern No. 1011.* Right: *Pattern No. 808.*

An Armstrong's Linoleum Rug on the floor means relief from scrubbing and drudgery. Its bright, smooth surface is so easy to clean—just a quick mopping with a damp cloth. You will always "bless the day" you bought an Armstrong Rug for the floor.

"RUGS OF PRACTICAL BEAUTY"

If you can't get out to the stores to see these new Armstrong patterns, this booklet will help you make your selection. Printed in full colors, illustrating all the new patterns. Send for it. It is free of cost. Address Armstrong Cork Company, Linoleum Division, 1014 Jackson Street, Lancaster, Pennsylvania.

Armstrong's Linoleum Rugs

they wear and (A) *wear and wear*

Look for the CIRCLE A *trade-mark on the burlap back*



Prepared house paint—*at its best.*

Don't be fooled on House Paint!

"Cheap" paint isn't cheap at all!

WHEN you buy paint to dress up and protect your house, don't let a "low price" blind your good sense. Thousands of home owners are bewailing a "cheap" paint job this very minute and are paying a heavy penalty in hard cash and regrets.

"Cheap" paint is made of cheap or skimpy materials. How else could it be sold at a low price in our highly competitive markets?

Cheap or skimpy materials make a poor, weak grade of paint. That's only sense. It may *look* like paint and *smell* like paint *in the can.* But on the brush and on your house—the poor quality shrieks so all can hear it.

If you are tempted to use a "low price" house paint—one that is claimed, even guaranteed and warranted, to be "just as good as SWP," —*GO SLOW!!* Remember that *low price* and *low quality* go hand in hand. You can't make a silk purse from a sow's ear.

Compare the "cheap" formula with SWP!

Make the formula test! Insist upon seeing the formula of the "cheap" paint, either on the label or in the literature of the company.

Compare the materials used in making the "cheap" paint with the ingredients of fine old SWP House Paint—as shown in the formula which is plainly printed on every SWP can. Take Outside Gloss White for example.

Note the big percentage of *White Lead Carbonate* and *White Lead Sulphate* used in SWP Outside Gloss White. White lead should be the basic ingredient of all white paint and light tints. It is to these paints exactly what flour is to bread.

See how much less of this basic ingredient is used in the average "cheap" white paint.

Zinc oxide, another costly pigment, is the next essential ingredient. A liberal percentage of zinc oxide combined with a large amount of

THE ACCEPTED STANDARD THE WORLD OVER . . .

SHERWIN-WILLIAMS HOUSE PAINT

white lead makes for a *balanced formula*—such as the formula of S W P Outside Gloss White House Paint. It assures a finish of superior wearing quality.

More than 90 per cent of the pigment content of SWP Outside Gloss White House Paint is made up of these two important ingredients —white lead and zinc oxide.

In the majority of "cheap" white paints you will find only 50 per cent *and in some instances even less.*

It is the liberal quantity of this expensive basic material in every can of SWP Outside Gloss White that gives it such remarkable covering capacity.

In the darker colors like browns and greens, the "*balanced formula*" of SWP House Paint is even more important. Naturally, these dark colors can contain little, if any, opaque white pigment such as white lead or zinc oxide.

Sherwin-Williams have the pick of the world's colors. Sherwin-Williams Dry Color Works produce practically everything except the natural earth and mineral colors. That is why SWP colors are so rich, so permanent and so true to character.

Greater durability of the paint film on your house is assured by SWP due to the use of a specially treated pure linseed oil—made in Sherwin-Williams' linseed oil plant.

360 square feet per gallon or only 250—which?

Some people think that SWP House Paint is an expensive paint because it costs more per gallon. That is not so.



Ask your painter to use SWP—for best results.



As a matter of fact, SWP is the least expensive house paint *on the wall*—on the market. And here is why:

A gallon of SWP will properly beautify and protect three hundred and sixty square feet of your house—two coats.

Will a "cheap," low price, inferior quality of house paint do that? No!

The best you can get from a gallon of the average "cheap" paint is two hundred and fifty square feet!—two coats.

Right there, in that *forty-four per cent greater coverage*—in the fewer gallons of SWP needed—the difference in price per gallon is nullified.

On the wall—in actual gallons needed to paint your house—Sherwin-Williams House Paint costs no more and often *less* than the cheap, low price kind.

And remember this: It costs no more to put on a good house paint than to put on a "*cheap*" paint. Which would you rather have?

Once your house has been painted with SWP House Paint *your saving has only begun.* A beautiful SWP job outlasts the average "cheap" paint by several years. This is widely known.

You get more years of protective service

It dries to a firm, elastic, glossy surface. It weathers slowly. There's no cracking or chipping or peeling —if properly applied.

Long after a "cheap" paint job has taken on the appearance of a pair of faded overalls, you can wash the dust off an SWP job with plain soap and water, and the colors will come up like new.

You save repainting expense

And when repainting is needed it can be done easily, quickly and with much less paint, *because the SWP surface is in perfect condition.*

Compare that with a "*cheap*" paint job that fades out and wears out quickly—that cracks and chips and peels—that has to be repainted often—and that costs more to repaint because it has to be burnt off, or scraped off, at every repainting.

* * *

SWP House Paint is sold by leading paint merchants everywhere. And each of these dealers is "Paint Headquarters" in his district. One of them is located near you.

See "Paint Headquarters" and save money

Before you let "cheap" paint blind you to real economy—see your local SWP dealer. He will estimate your requirements in SWP.

Compare the SWP estimate with what a "cheap" paint will cost. Then remember the greater durability of SWP—the exquisite colors that do not fade. Then specify the paint you think will serve you best.

If you do not recall "Paint Headquarters" in your locality, write us for the dealer's name. If you want expert help on a color scheme, our literature, color cards, or the famous Sherwin-Williams Household Painting Guide—just write. There is no obligation.



THE SHERWIN-WILLIAMS COMPANY
Largest Paint and Varnish Makers in the World
CLEVELAND, OHIO

SWP GUARANTY *of Satisfaction*

SWP House Paint, when thoroughly stirred and applied according to directions, is hereby guaranteed to cover more surface, to look better, to last longer and cost less per job and per year than any house paint on the market.

THE SHERWIN-WILLIAMS COMPANY
Largest Paint and Varnish Makers in the World
CLEVELAND, OHIO

COSTS LESS PER SQ. FOOT. . . LESS PER JOB . . . LESS PER YEAR



I usually pick a winner

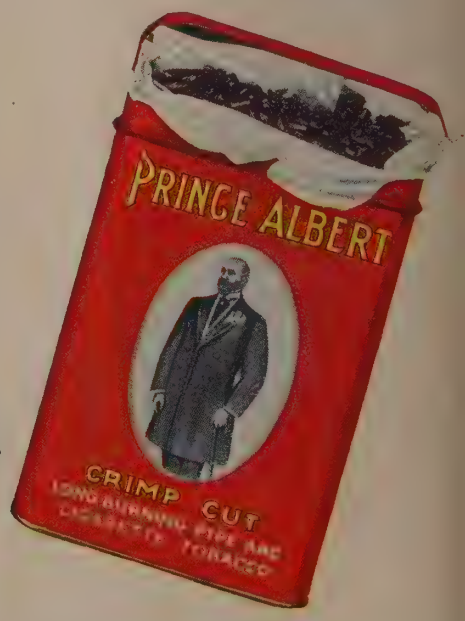
SOME fellows are like that. Maybe it's long practice. Maybe it's instinct. It doesn't matter. I know I picked a winner when I wrote "Prince Albert" in my personal smoke-column. I have never had occasion to cross it out. It's there in indelible ink—to stay!

I knew I was on the right track the minute I got that first whiff of P. A. in the tidy red tin. It was fragrant and refreshing as mountain air. The first fire-up confirmed my belief that here was the one tobacco for me. It was cool and consoling. It tasted great!

Prince Albert is so mild that you can go to it, load upon load, morning to midnight. Yet it has the full tobacco body that lets you know you're smoking. It is so considerate of your tongue and throat. It's just a winner any way you look at it. It will win you too.

That's my guess, anyhow. I suggest that you get squared away immediately on this important matter. Your pipe can be either a cheer or a chore, depending on the tobacco you pack it with. There's no other tobacco anywhere like good old Prince Albert for *real* pipe-joy.

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



PRINCE ALBERT

—no other tobacco is like it!

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.



Pushing Pigs for Early Market

ow well does it pay to push pigs c the early fall market? Some fig- s compiled by the U. S. Depart- t of Agriculture partially answer question.

he monthly average price per 100 ds at Chicago averaged for a od 1901 to 1923 inclusive and e averages compared by months w, in a general way, the varia- s in hog prices at this market.

aking the January price of hogs Chicago for 23 years the average 8.17 per hundred; the February age is $8.48; March, $9.07; April, 6; May, $9.01; June, $8.94; July, 0; August, $9.14; September, 9; October, $8.70; November, 4; December, $7.95.

ptember, July, April, and August the months of highest prices in order named. December, Novem- January, and February are the ths of lowest prices in the order ed.

cording to these figures hogs averaged $1.34 less per hundred ds in December than in Septem- at the Chicago market. During 3 years for which figures are in- ed there was only one year, 1909, hogs were higher in December in September. That year they aged 15 cents a hundred higher. year, 1906, hogs were the same in December that they were in ember. The greatest range in any between the September and De- er prices was in 1920 when hogs ped $6.33 a hundred from the ember average to the December age.

er a period of 23 years the aver- orice of September hogs was $9.29 hundred and for December this $7.95 per hundred. On the basis erages hogs marketed in Septem- ill bring $1.34 per hundred more in December; marketed in Octo- 75 cents more; and in November, nts more than in December.

Cost of Producing Pork in Terms of Corn

e cost of producing hogs, like of any other live stock or farm modity, varies greatly because of several greatly variable factors ing into their production. Cost oduction data, including all fac- that should be considered, are limited.

nty of data are available show- he feed cost of carrying pigs weaning time to market weight. easy to convert these feed re- ments into money value but this only a part of the story. The of pigs at birth and of carrying pigs to weaning time is not in- d. Likewise the charges that d properly be made for labor, ngs, other equipment, death veterinary expense, and such re not included.

ith of Purdue University has led data on the complete cost of producing pork, giving this in terms of bushels of corn. The data to be given cover pigs carried to the handy market weight of 225 lbs.

Where gilts are used and only 5 pigs per litter raised annually, the total cost of producing a 225-lb. pig expressed in bushels of corn is 25.91 bushels. The cost to produce 100 lbs. of pork is 11.51 bushels.

Where mature sows are kept until four years of age and only one litter raised annually of 7 pigs to the litter, the total cost of a 225-lb. pig is 25.29 bushels of corn and the cost of 100 lbs. of pork is 11.24 bushels of corn.

Where pigs are farrowed by mature sows which sows are kept until 4 years of age farrowing 3 litters in 2 years, 7 pigs raised to the litter, the total cost of a 225-lb. pig is 24.58 bushels of corn and that of 100 lbs. of pork is 10.93 bushels.

Where pigs are produced by mature sows and these sows kept for 4 years farrowing 2 litters annually, raising 7 pigs per litter, the total cost of a 225-lb. pig is 24.16 bushels of corn and of 100 lbs. pork, 10.74 bushels.

These figures by Smith correspond very closely to the actual ratio between the average price of hogs and corn on the Chicago market as reported by Wallace. During the 10-year period, 1908 to 1917, the average price of 100 lbs. live weight of hogs at Chicago was equal to 11.3 times the price of No. 2 cash corn per bushel.

By-products of the Hog

All of us are familiar with the main products of the hog carcass but few are familiar with the edible and inedible by-product portions yielded in commercial slaughter. It is said that the modern pork packing process saves everything but the squeal. This is literally true because uses have been found for every portion of the hog's body.

E. N. Wentworth of the Armour Live Stock Bureau furnishes some facts on the disposal of the hog carcass which are published in Vaughan's "Types and Market Classes of Live Stock."

According to these figures a hog weighing 250 lbs. yields 2.25 per cent or 5.62 lbs. of his carcass in edible by-products; the carcass yields 3.75 per cent of 9.38 lbs. of non-edible by-products; the carcass shrinks 20.5 per cent or 51.25 lbs. in the processes of slaughtering.

The parts listed as edible by-products are leaf lard, liver, heart, kidneys, giblet meat, tongue, cheek meat, jaw meat, brains, prime steam lard, and casings.

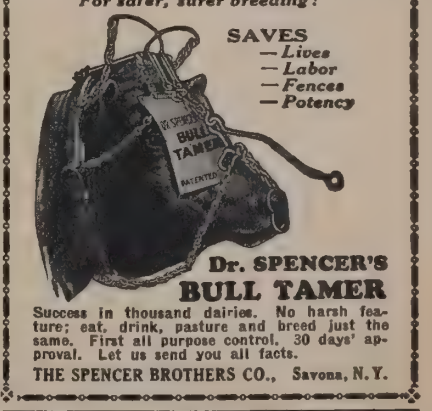
The parts comprising inedible by-products are ear drums, first grade brown grease, nasal tips, grindings, viscera, head, pressed tankage, dry blood, hair, and bristle.

Among the edible by-products of the hog are pepsin, derived from the stomach; livers, used in the manufacture of liver sausage; and neutral, a specially prepared lard largely used as an ingredient of oleomargarine. Lard proper is not commonly considered a by-product. Nearly 15 per cent of the live weight goes into lard. Part of this lard is further processed into lard oil used for illuminating purposes and as a lubricant, and into stearin used in the manufacture of chewing gum and soft candies.

The brains are packed in cans, frozen, and offered for sale. Tongues are canned or pickled. Hearts go into sausage. Tails, snouts, and ears are rich in gelatin or glue. Kidneys are canned or frozen. Milts or spleens are used as a feed for growing fishes at fish hatcheries. The intestines are cleaned, processed, and made into chitterlings, a food product to be fried like oysters. Stomachs are used as sausage containers.

The inedible raw by-products are manufactured into glue, soap, glycerine, blood meal, tankage, curled hair, and fertilizer material. Even the rinds from skinned hams and bacon, as well as the back skin of the hog, are utilized for leather. Nothing is wasted.







DAIRY MARKET NEWS

Wisconsin February Butter

Wisconsin co-operative creameries paid producers a net price of 56.8 cents a pound for butterfat in February, according to reports from 73 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 50.5 cents a pound for butter, making a spread of 6.3 cents between the price received for butter and the price paid for fat.

The range in prices paid for fat was from 42 to 62 cents, with the price received for butter ranging from 40 to 51.4 cents. The overrun ranged from 21.5 to 24.2 per cent. Receipts of butterfat averaged 22,419 pounds per creamery.

Twin City February Milk

The Twin City Milk Producers' Association paid $2.50 a hundred for 3.5% milk delivered in St. Paul during February. The Association handled 24,627,770 lbs. milk, of which 53% was surplus.

Cream patrons were paid 59 cents a pound for butterfat in first grade cream during February. This is 7.5 cents above the average price of 92-score butter on the New York market.

March Foreign Butter

The following table of foreign butter prices gives the average of weekly quotations as published by the U. S. Department of Agriculture:

Market	Mar. 1927	Feb. 1927	Mar. 1926
	Cts.	Cts.	Cts.
New York	30.2	51.5	42.8
Chicago	49.4	50.4	41.5
Copenhagen	36.7	39.2	38.8
Berlin	37.2	39.1	
London:			
Danish	39.3	41.4	41.4
Dutch*	38.9	42.9	41.3
New Zealand	33.7	37.4	37.5
Australian	33.0	35.9	36.3
Argentine*	32.2	34.1	33.1

*Unsalted butter.

March Condensed Milk

(U. S. Department of Agriculture)

Information regarding prices paid producers during March is based on reports made by condensed and evaporated milk firms operating approximately 98% of the total factories in the United States:

Geographic section	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.30	$2.30
Middle Atlantic*	13	2.37—2.61	2.45
E. No. Central	86	1.95—2.36	2.21
W. No. Central	6	1.97—2.30	2.11
North Western	7	1.58—2.13	1.98
South Western	10	1.91—2.20	2.02
United States	123	1.58—2.61	2.20

*Fifty-three additional factories reported prices to be based in part on the current month's wholesale butter quotation. Twenty factories reported prices not determined as yet and 20 reported plants closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for February:

	Range	Ave.
Condensed, per case	$5.34— 6.30	$ 5.92
Condensed, per cwt.	9.28—13.00	10.39
Evaporated, per case	3.80— 5.05	4.34
Evaporated, per cwt.	7.50— 9.50	8.68
Condensed skim, per cwt.	5.00— 7.00	5.84
Evaporated skim, per cwt.	2.75— 6.45	3.79

Wisconsin March Condensery Prices

Forty-seven condenseries reported to the Wisconsin Department of Markets the prices paid in March per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $2.07 to $2.29, the average being $2.21.

Seventeen factories sent delayed reports for February, the average being $2.32. This is 4 cents above the previously reported average of $2.28 for 40 factories.

March Cheese

Cheese prices on the Wisconsin Boards opened at 23 cents, declined a half cent, and closed the month at the opening price. The March average was 22.7 cents, a decline of 1.5 cents from February and 2 cents above March a year ago. The first two weeks of April registered a decline to 22 cents, which is about a half cent above the same period a year ago.

Cheese production for the first two months of the year totaled 45,012,000 pounds, or nearly six million pounds less than last year. Imports were 2½ million pounds greater and storage four million pounds less. The trade output was 72,811,000 pounds, a decrease of nearly five per cent from last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during March:

	Mar. 1927	Feb. 1927	Mar. 1926
	Cts.	Cts.	Cts.
Twins	22.2	24.1	23.0
Single Daisies	22.7	24.2	23.0
Longhorns	22.6	24.8	23.2
Square Prints	22.7	24.6	23.8
*Receipts since Jan. 1	40,374	26,204	41,686
*Storage end of month	10,629	12,027	16,880
*Receipts for month	14,170	14,214	13,749

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted).

Milwaukee March Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of March:

For the portion sold as fluid milk, $2.90 per cwt.; and for the portion manufactured, $2.11 per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Seventy per cent of the total receipts were sold as fluid.

Philadelphia April Milk

The Inter-state Milk Producers' Association announces that the April basic price for milk will be $3.29 f. o. b. Philadelphia and $2.71 per hundred at receiving stations in 51—60 mile zone.

The March surplus prices were $2.53 first surplus and $2.14 second surplus f. o. b. Philadelphia. The March surplus prices at all receiving stations on railroad were $1.96 first surplus and $1.56 second surplus.

These prices are based on milk testing 3 per cent butterfat with a differential of 2 cents for each half point of test up and down.

March Butter

Butter prices in March opened at 50 cents, dropped to 46 cents, and raised again to 53.5 cents. The average for the month was 50.2 cents, a decline of 1.3 cents from the February average and an advance of 7.4 cents above March a year ago. Price changes have been largely due to uncertainties as to future supplies, the present situation being an acute present shortage of domestic supplies and prospective competition of foreign imports. There is now a narrow margin of only one cent between high grade and undergrade butter, which verifies the existence of a real butter shortage. Foreign markets and increasing production as the pasture season opens will doubtless be the controlling factors in price during the next three months.

For the first two weeks of April prices continued their erratic course. As this is written markets are firm at advanced prices and receipts are still below normal. Buyers were unable to secure their full quotas and slight premiums were secured by sellers. Reports as to impending imports continue to have a bearish influence in holding down prices.

Creamery butter production for the first two months of the year was 187,488,000 pounds, an increase of two million pounds from that of a year ago. Net imports were nearly a million pounds less, and storage supplies were 18 million pounds less. The reported trade output was 281,918,000 pounds, a decrease of one per cent from a year ago.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices on 92-score butter (extras) at four of the principal markets, together with receipts and storages:

	Mar. 1927	Feb. 1927	Mar. 1926
	Cts.	Cts.	Cts.
Chicago	49.4	50.4	41.5
New York	50.2	51.5	42.8
Boston	51.0	51.9	43.3
Philadelphia	51.1	52.1	43.1
*Receipts for month	44,108	37,538	43,968
*Receipts since Jan. 1	118,333	74,225	123,471
*Storage end of month	1,363	4,222	9,305

*In thousands of pounds at the four markets (i. e.—000 omitted).

Ninety-score butter averaged 48.4 cents for March in Chicago, with centralized butter at this market selling for 49.2 cents. Jobbers' prices on extras sold to retailers averaged 51.9 cents in Chicago, a spread of 2.5 above wholesale.

Feed Market Situation

(By Grain, Hay and Feed Market News Service, U. S. Department of Agriculture.)

Feed prices have generally followed a downward trend during the last few days of March and the first part of April, although wheat feeds have recently turned firm because of a more active demand for the limited offerings. The earlier pasturage has tended to restrict the demand for feeds but the output continues only moderate and offerings of linseed meal and of bran have been hardly equal to current needs.

Wheat feed prices have advanced largely because of Northeastern demand for bran. Both Kansas City and Minneapolis mills at the present writing (April 9) are on a shipping basis to Philadelphia and New England and eastern inquiry has absorbed the surplus although only scattered local inquiries were reported in the Northwest and the Southwest. Less Canadian bran has been imported by the Northeast this year, largely because of reduced Canadian millings and possibly also the relative shortage of hay in Eastern Canada. Mills at Buffalo are reported as around two weeks behind on feed shipments. Bran was relatively stronger than the heavier feeds.

More wheat has been ground into flour to date this season than last but a smaller percentage of the wheat has gone into offal this year. Only 17.1 pounds of offal per bushel of wheat were secured in February, 1927, compared with 18.1 for February, 1926, according to reports to the Department of Commerce covering around 90 per cent of the flour produced.

Linseed meal prices advanced sharply, but this was due more to restricted production of meal than to an increase in consuming demand. Crushers generally complained of a slow demand for linseed oil, although a rather optimistic outlook prevailed in the paint and varnish industries after some recession early in March. With production light at Buffalo, some improvement in export demand took part of the surplus meal, so that prices worked higher. At Minneapolis the local output fell short of current needs and some meal was brought in from points outside the city.

The Netherlands took about 17,000 tons and Belgium about 8,000 tons out of a total of around 27,000 tons of linseed cake and meal exported by the United States during February. The United Kingdom and Germany took smaller amounts.

Cottonseed Meal Easier

Offerings of this feed increased and prices have shown a downward tendency from the peak reached last winter. Some northern jobbers were still anxious to work off the stocks of meal which they had purchased earlier in the season, although a number appeared to have moved the bulk of their holdings and were not pressing sales. Southern crushers and dealers, however, were more anxious to make sales. In at least one territory in the Southeast farmers took considerable amounts of meal in exchange for seed when seed meal were cheap and are now willing to some meal or exchange it for fertilizer. ports from the southern states indicate less fertilizer is being purchased this sp than a year ago. This may also effect amount of cottonseed meal taken by fert companies.

Gluten Feed Sharply Lower

Demand for gluten feed at previous q tions had been slow for some time and in April prices of this feed were red about $3.15 a ton to the usual grass quoted in summer months. Some deale the Northeast state that demand is activ the reduction and urge their customer telegraph their orders at once. Based o cousumption of corn by corn starch man turers the output of this feed was of mod quantity during March.

Hominy feed which sagged off during middle of March in sympathy with the de in the corn market has recently turned s what firmer, particularly in the North Buffalo mills were becoming well sold u hominy feed but offerings at Philade seemed adequate. Prices in central we markets averaged slightly lower than weeks ago.

Prices of tankage at the principal ma were reduced $5 a ton early in April and feed is now quoted at $70 a ton in carlo the principal markets in the Central Wes

	Bos-ton	Buf-falo	Phil-adel-phia	Chi-cago	Min-neap-olis
Bran*	35.50	30.50	34.25	29.00	26.00
43% C.S. meal	41.50	38.50	39.50	36.00	
34% L. S. meal		47.00			49.00
Gluten feed	36.75	33.50	35.70	29.60	
Hominy	32.75	29.50	31.00	27.00	

*Standard spring bran. Hard winter w bran was $25.50 in Omaho and $25.25 in sas City, with soft winter wheat bran $ in St. Louis and $31.25 in Cincinnati.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold st holdings of dairy products on April 1, fi being given in thousands of pounds omitted):

	Apr. 1 5-yr. av.	Apr. 1 1926	A
	Lbs.	Lbs.	
Butter, Creamery	10,009	17,392	
Cheese:			
American	23,852	38,041	3
Swiss	5,236	6,846	
Brick	975	1,458	
Limburger	655	1,029	
All other	4,348	3,911	

These holdings include stocks in both storage warehouses and packing house p

Connecticut April Mill

The Connecticut Milk Producers' Associ announces the following prices for Gra milk delivered during April at market centers:

All milk sold in fluid form, 9.5 cents quart for 4 per cent milk, and 4 cents point allowed for other tests; all milk into cream that is sold in fluid form, cents per pound fat above the average m ly price of 92-score butter on the Boston ket; all milk made into butter, at a pric pound fat equal to the month's averag 92-score butter in Boston.

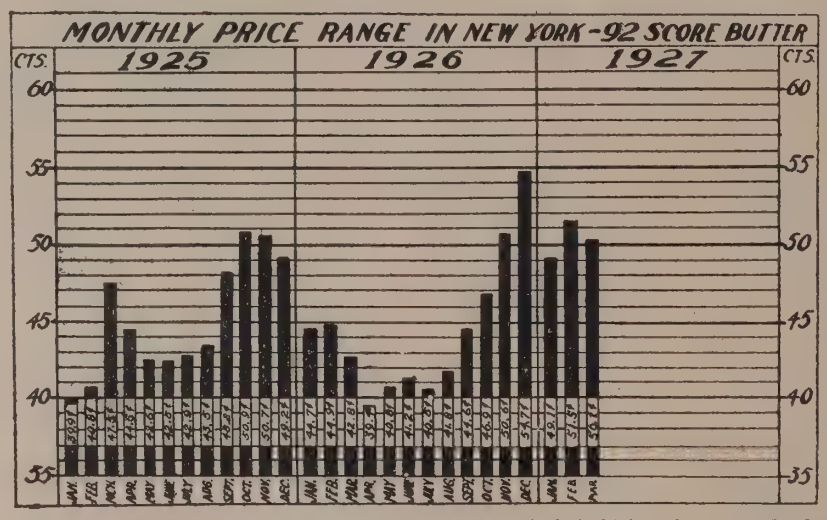
Sheffield March Milk

The cash price for March, 1927, paid field producers for three per cent Gra milk in the 201—210-mile zone is $2.4 hundred pounds with the usual freight butterfat differentials. This is equivale $2.69 for 3.5 milk.—C. W. Halliday, Sec.

Another 40-lb. Holstein Record

The most recent 40-lb. 7-day re to be announced by the Holstein-F sian Ass'n. of America is tha Burke Fryslan Waldorf, a 5-yea cow bred and owned by Iow Farms of Iowa. She produced lbs. of milk containing 32.35 lbs. terfat (40.44 lbs. butter) in 7 and is the first cow to make su record on three milkings per da

Uncle Ab says some of the memories he knows are owned people who remember to forget who forget to remember.



The March average price of butter was 50.2 cents, which is higher than any March on record except for 1919 and 1920 when prices were 62 and 67 cents, respectively.

CALF MARKING SCHEME

N. P. NEAL, NEW ZEALAND

WITH trepidation the writer commends to the attention of Wisconsin dairymen a me which has recently been put ractice in New Zealand and which i to renew the life of its dairy stry, to invigorate it with the ion which it in part lacked and yet led, as is the case in many parts f Wisconsin. The scheme—famil- r known as the "calf marking" me—is a bold one, but one which ertain to succeed considering that ing it are the essentials for suc- e.

its operation the scheme is very ple. It merely consists in tattoo- in the ear the heifer calves from producing dams and registering a with the "heifer calf associa- " which is under the complete rol of the Dominion Group Herd ing Federation. In the Register entered the following particulars: e and address of breeder, calf o number, date of birth, the ber of dam on test sheets, ap- imate age at commencement of e, predominating breed, butterfat duction, number of days in milk, e on; the name, herd book number, breed of sire.

he fact that the scheme is con- ed by the Dominion Herd Group eration will have the effect of ing the scheme uniform through- New Zealand, as under the rules of the association only affiliated herd testing associations will have the right of marking calves. Application for numbers will be made each year to the federation by affiliated associations, thereby eliminating the danger of any registered calves in different districts bearing the same tattoo numbers.

The letter T is the registered mark of the federation. Commencing in 1925-26 season, each season is lettered A, B, C, etc., and each calf is given a serial number. Thus, calves born in 1925-26 season were tattooed T. A.; in the present season the index letters will be T. B.; the 1927-28 season's crop will be indexed T. C., and so on. The marking is done on the right ear.

Only heifer calves from dams that have been tested by an affiliated test association will be eligible for registration, provided:

1. The dams have produced in one lactation period of not more than 305 days, the following minimum amounts of butterfat, according to the age at commencement of test:—As a 2-year-old, 250 lbs. fat; as a 3-year-old, 275 lbs. fat; as a 4-year-old or older animal, 300 lbs. fat. 2. That the calves are by a registered pedigree bull. A certificate is issued by the secretary of the affiliated association under whose jurisdiction the marking has been carried out.

The scheme has immense possibilities. Marked stock carries a guarantee of two of the most essential qualities in a dairy cow, viz., breeding and butterfat backing.

It will undoubtedly discourage the present disastrous system of raising "scrub" calves—the vast majority of which, because they lack breeding and butterfat backing, never can be payable dairy cows. Owners of "scrub" calves will soon have no sale for them and so only the calves with good backing will be reared for the future requirements of the industry. Dairy farmers in New Zealand were quick to appreciate the possibilities of the scheme. Although the scheme is now entering only its second season, there has been a very decided slump in values of unmarked calves, whereas those owners who possessed the vision to go in for testing and marking have had an extraordinary demand for their marked stock and have been rewarded with high prices. The cost is negligible. In New Zealand the season fee is 25 cents for each calf marked.

Marked calf fairs are sponsored by the federation and those already held have proven a remarkable demonstration of the great advantage of the scheme. Auctioneering firms and financial institutions, too, are "behind" it. The calf marking scheme is one more proof, if this were needed, of what can be achieved by co-operation, co-operation not only of one section of the industry but of all those who are in any way connected with it.

Gunnite Silos in Austria

OARD'S DAIRYMAN:—I am very h interested to read in Hoard's yman of concrete silos construct-



G. 2—GUNNITE SILO ON A FARM N THE AUSTRIAN MOUNTAINS

n the Brant Rancho, California, ned to be the first made of gun- it I dare say they are not the first.



G. 1—APPLYING CONCRETE TO THE SKELETON WITH THE "GUN"

In September, 1924, I built a gunnite silo on my farm in Austria and several others on other places since.

To avoid the heavy steel framework, which is rather expensive and not easy to construct, I used a wooden skeleton which acts as a form, as reinforcement, and as a very effective support to the concrete jet. Fig. 1 shows the applying of concrete to the skeleton with the "gun." Fig 3 is the first gunnite silo. The wall is 2½ inches thick and consists of about two-thirds of wood and one-third of concrete. The silos erected with this method are permanent buildings and have proven absolutely water and air-tight. Moreover, the imbedded wooden skeleton has a remarkably good insulating effect. The method of using the wooden skeleton (mainly consisting of three layers of wooden laths) for concrete walls is patented in several European States and applied for patent in U. S. A.

The American readers will be astonished and, I am sure, they will laugh over the small size of the first silo constructed in 1924. But in this time we had no cutters and we had to fill the silo from a bridge (to be seen in Fig. 3 behind the silo.) Since we have the wonderful American cutters, we can construct and fill silos of more than 30 ft. as the one shown in Fig. 2 situated on a farm in the Austrian mountains. The little shed at the base has to house the filling machinery.

In the rough climate of the mountains the crop of silage corn is not satisfactory, but we have better results with sunflower and the best with Jerusalem artichoke and with another plant of the same family, *Helianthus Macrophyllus*. The silage of both the latter mentioned plants is quite as good as a good corn silage.



FIG. 3—THE FIRST GUNNITE SILO

Perhaps it would interest your readers to see that European farmers have begun to use the more effective American farming methods.

Austria. HANS KUPELWIESER.

An Ohio Guernsey Record

E. C. Peck of Ohio is proudly showing one of his good Guernsey cows as the new state champion for her age class. May Rose Daisy of Avalon has recently completed a year's record of 17,717.6 pounds milk and 840.8 pounds fat as a mature cow. During the year's test, she was in calf for 265 days. When she was a senior two-year-old she made a record of 12,179.1 pounds milk and 609.1 pounds fat, so her present record did not come as a surprise. She now takes sixth place for the entire breed in Class AA, and first place in the state of Ohio for the same class.—The American Guernsey Cattle Club.



Every meal made *a bit tastier*

WHEN it comes to meals — and three times a day it's mealtime — salt is next to indispensable. In the kitchen, it becomes a part of almost every dish; at the table, how often you hear, "please pass the salt."

Naturally, as a good cook and housewife, you know that salt is important in food, but if you only knew how much pure, mild flake salt adds to the tastiness of the meals you serve you would use no other than Diamond Crystal.

Diamond Crystal flakes, quick to dissolve, blend readily with the food, and make it more delightful and enjoyable by bringing out the true food flavors. This salt is refined by special process, which frees it of impurities, and makes it mild-flavored. Try Diamond Crystal for cooking and for the table—you'll see the difference it makes in the taste.

There is a Diamond Crystal Salt for every farm use—for table and for cooking, for butter and cheese-making, for livestock, for curing meats, for canning. Ask for Diamond Crystal at the store where you trade.

"The Salt that's all Salt."

Diamond Crystal Salt



Free!

We should like to send you a generous sample of Diamond Crystal Shaker Salt and the interesting booklet, "101 Uses for Diamond Crystal Salt," without cost or obligation to you.

DIAMOND CRYSTAL SALT CO.,
Dept. 1173, St. Clair, Michigan
Please send me, free, trial package and booklet, "101 Uses for Diamond Crystal Salt."

*Name*_____
*Town*_____
*R. F. D.*_____ *State*_____



Are You Buying a New Wardrobe?

I wonder what it is about the first warm days of spring that make a woman begin to think about new clothes. I suppose it is the same thing that makes her want to hang the bedding on the line, lay the mattresses out in the sun, take up the rugs or carpets, wash the windows, and make things in general uncomfortable for the man of the house with her spring cleaning. We see the trees putting on new dresses and an instinct as old as Nature herself stirs and makes us want to do the same for ourselves and our houses. I can think of no other reason for this craving.

An extra early spell of fine balmy weather came along a few weeks ago up where I live. I stood it for a few days but all the while something kept nagging at me to go shopping—buy new clothes—trick myself out. I wanted a thousand things I knew I could never buy, so why bother clerks and take their time showing things they could never sell me! Thus I disposed of the tempter until he appeared in a new form, suggesting that the women who read our home department would be interested in hearing what the stores say will be worn this spring and summer. I needed only the smallest excuse and armed with this one, I started out to the stores and shops that are dearest to a woman's heart this time of year and I talked to buyers who have been away to the big city markets. Here is a sort of digest of what they said about "what they will wear."

Sports styles have become the general favorite to such an extent that the term "sports dress" has come to mean general wear dress which includes practically everything except real evening clothes. This style is becoming to almost every age and type of figure and women wear the so-called sports dresses who never have and never will take part in any sort of sports but they like it for its comfort, good lines, and freedom from fussiness.

Suits are to be worn more than ever this spring and they are all of the trim sort that make most any figure look very neat and attractive. The skirts are short with two or more pleats that give a comfortable width for walking. The coats are of the straight box type, for the most part, either single- or double-breasted, sometimes bound all the way around with braid to match the material. As to color they seem to be either very light tans or grays or else dark blue or black. I don't believe I saw a single in-between color.

If you are going to wear a suit, it is important to have the right things to go with it. Suit blouses this year are very plain, some cut exactly like a man's vest with points and buttons in the front and a little strap across the back; others are cut straight across the bottom. Most people do not take off their coats even when they wear their suits to an informal party and for that reason many of the blouses have not a ghost of a sleeve. Others, if the material is thin, have long sleeves and tailored cuffs. Some wear no blouse at all under a suit coat—only a sort of false-front vest—but I have always thought this a shabby and unclean habit.

Hats are again nearly all of the small, close-fitting variety though you will see the annual attempt to have women take to the larger sizes. The comfort of the small hat has been so great, however, that it is going to take time to dislodge it. If you get a tan hat, it is nice to have a tan purse to match and a tan handkerchief—mostly for show, you know—sticking out of your pocket. A green purse with a green hat makes a nice combination, too. And speaking of hats, they are made of silks or satins, felts, or straws though the latter are of such a glorified variety that you would hardly recognize them as such. They are so fine and soft that they can be rolled into a small bundle, if necessary, for packing. There are just enough of the stiffer variety to make one feel comfortable if she happens to prefer that sort.

Shoes, it seems to me, are a trifle less fancily cut than they were a season ago but they make up for it by the way they use combinations of different colored leathers, the snake skin variety, especially, and by the height of heel on the fancy dress shoes. How anyone can walk in them is more than I can see but, of course, the correctly dressed woman does not wear such things except at formal affairs. Stockings are still of the sheer silk variety with the lightweight woolens and lovely lisles for more practical wear, which doesn't mean, however, that they are a bit less expensive.

It seemed last year that we were due for a change from the light colored hose we have had so long but they appear to be still the main standby though some well-dressed women are wearing the blacks and gun metals.

Materials for the spring dresses are the silks, satins, and thin wools. One buyer told me that black satin dresses had about run their course and that he was not stocking any of them; another said that they were still the most popular thing and that he was buying more than ever of them, so there you are. Figured materials seem to be very popular and for summer wear it appears that cotton will be in better style than silk which we have had so constantly the year around for so long. There will be lovely checked and plaid ginghams, and figured voiles and crepes all made with good plain lines but many of them with a flying scarf, jabot, or skirt ripple to give a softened appearance for in spite of the fact that the smartest clothes are of the plain sports type, there is more and more of a tendency toward soft femininity about them. Even hair, though the bob is going nearly as strong as ever, seems to be getting less mannish and the newer cuts are less and less of the boyish bob variety and more and more of the sort that permit a little softness around the face.

Coats for spring and summer are like all the other things—plain sports models, some with fur collars and some without; many of them with severely tailored collars that are meant to be partly concealed under a bright scarf.

No talk of styles would be complete without a mention of the flower that is so universally worn on the left shoulder. These seem to be in just as good style as ever and are pretty if bought to match the gloves. Some of these flowers are very expensive but I'll tell you on the side that I saw some perfectly lovely ones at the ten cent store. Gloves are still of the slip-on variety but I was told that the kind that button or clasp are expected to be worn later on.

I've left out all mention of underwear but we'll have to do that some other time. I hope that you have got some useful information out of this and I feel that I owe you a great deal of thanks for giving me an excuse to go around and see all the lovely things on and even try some on.—LUCY THOMPSON.



BATH ROOM IN FARM HOME OF O. C. LOWER, INDIANA

Easter

Do your children ever ask you, "Mother, why does Easter come in April this year when it was in March last year," and if they do, have you any idea how to answer them? If you have, you know more than most people for the fixing of the date for Easter is a very intricate thing and for many years a determined effort has been made to have one definite date set just as we do for Christmas so that we'll always know when it is. The main trouble about doing that, it seems, is that it would make Easter come on Sunday only once in seven

Miscellaneous Fashions



No. 3018—Simple and Smart. Cuts in s 38, 40, 42, 44, 46, and 48 inches bust meas The 44-inch size requires 3⅝ yards of 40- material with 1⅝ yards of 18-inch contrast

No. 3019—Harmonizing Tones. Cuts sizes 16, 18 years, 36, 38, 40, and 42 in bust measure. The 36-inch size requires yards of 40-inch material for blouse and s band, with 3⅛ yards of 40-inch material skirt and camisole. Emb. No. 730 (blu yellow) costs 15c extra.

No. 2955—Good Taste. Cuts in sizes 14 and 18 years, 36, 38, and 40 inches bust m ure. The 36-inch size requires 3 yards of inch material with ¾ yard of 36-inch trasting and ⅝ yard of binding.

No. 2953—Morning Dress. Cuts in size years, 36, 38, 40, 42, 44, and 46 inches measure. The 36-inch size requires 3½ y of 40-inch material with ¼ yard of 6- material for vestee.

No. 2707—Youthful Model. Cuts in s 16, 18 years, 36, 38, 40, and 42 inches measure. The 36-inch size requires 2⅞ y of 36-inch material with ⅝ yard of 36- contrasting.

No. 3010—Delightfully Girlish. Cuts in es 6, 8, 10, 12, and 14 years. The 8-year requires 1⅞ yards of 32- or 36-inch mat with ¾ yard of 36-inch contrasting.

No. 2766—Boy's Union Suit. Cuts in 2, 4, 6, 8, 10, and 12 years. The 8-year requires 1¼ yards of 36-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. your order to Fashion Department, Hoa Dairyman, Fort Atkinson, Wis. Every tern is seam-allowing and guaranteed t perfectly. Do not fail to state size.

Our patterns are made especially for u the leading fashion designers of New City. No stock of patterns is carried in office and, since all orders are forwarde the factory, kindly allow a reasonable for delivery of any pattern you order.

s though if we do not celebrate stmas on Sunday it seems unnec- y always to have Easter fall on day.

s now arranged in accordance the decree of the Council of , Easter is always the first Sun- after the full moon that falls on ext after the twenty-first of h. If this full moon comes on nday, then Easter is the follow- Sunday. This sounds very simple the trick comes in that expres- "full moon." The time of the moon differs in different parts he earth and therefore its so- d time has to be figured from things as "the dominical letter, , the golden number"—if you what these are—and only a n who has made a study of it lo the figuring accurately. It is, ver, correct, to say that the time aster varies according to the full and that it cannot be earlier March 22 or later than April 25. is variation of Easter is a source eat concern, of course, to mer- ts. In the warm localities they an early Easter and in the cold a late Easter so as to sell more for the "Easter parade." For- ely, this is coming to have less less significance and whereas women would actually stay from church if they did not new clothes, they now go in old winter outfits and enjoy the ce with perfect tranquility.

The Meal That Needs No Elaboration

rest secure in the knowledge you can meet any emergency is of the greatest satisfactions in keeping. To know that the pan- shelves are so stocked with d goods, supplies, seasonings, and flavorings, that an almost instantaneous meal can be conjured, is like taking out insurance for peace of mind.

In what household are there not emergencies? It may happen that on the day you are watching the last chicks hatch in the incubator that Johnny is sent home from school, a little ill, and needs to be doctored and dosed. Then you wish to substitute a quick meal for the regular dinner or supper.

Almost the first thought that comes to mind when considering the hasty meal is something for a main or meat dish. The farm woman is especially fortunate in having on hand most of the time ham, sausage, head cheese, and other semi-prepared meats. To the supply she has on hand of her own farm products she can add any or several of the following canned meats: beef, corned-beef, dried beef, whole tongue, and veal loaf. If her family will eat fish she can add a can of salmon, tuna, crab, lobster, and a box of flaked codfish.

For example, if you were in a rush to get a meal and you knew you had on your pantry shelf a couple of cans of corned beef and had some potatoes already cooked in the pantry, you could soon concoct a dish of corned beef hash and serve it in a baking dish with crisp bacon or with a garnish of poached eggs. If you wanted to serve some of your home cured ham and wanted it just a little different you could, with a can of tomato, soon make a sauce. Seasoned with Worcestershire sauce or a little chopped relish it will have a new flavor.

Tongue could be served with a currant sauce with a thick sauce as a base, made of 2 tablespoons of butter, 2 tablespoons of flour, 1½ cups of water, 1 tablespoon of Worcestershire sauce, and three tablespoons of currant jelly. Lay thin slices of tongue into this sauce and heat it thoroughly. Garnish it with a little parsley if you want to dress it up in company style.

Canned soups of all kinds are better than almost anything else to eke out a meal that is otherwise slim. If a meat or vegetable soup is used it can be diluted with milk or water and served as a soup with crackers, croutons, noodles, dumplings, rice, or macaroni. After a good plate of soup supplemented with one of these more hearty additions, a less heavy meal is required for the remainder.

Soups can be made to go further than the first course. I have known a perfectly good stew that was made from several cans of soup, vegetable and beef, heated together in one pot with the addition of very little water and served with dumplings. Such a stew is really excellent and is well worth trying.

A favorite ragout is made in much the same way. This makes a very complete meal and is made by emptying the contents of a can of spaghetti and tomatoes into a casserole and pouring over it a can of thick meat soup. Over the top crumbs are spread and the dish is set into the oven to heat through thoroughly and brown.

The salad has saved many a day. Other plans may go wrong but the woman who has or cultivates the salad habit can always meet an emergency. The secret of the quick salad is to have at least one kind of dressing always on hand. When the dressing is ready the rest of the salad is easily invented. Canned or left-over meats, chicken, and fish are easily combined with rice, potatoes, olives, celery, and hard-boiled eggs. Apples, which are almost always found in the farm home, especially during the season when the fresh garden greens are scarce, can be combined with bananas, canned pears, peaches, apricots, nuts, cherries, dates, raisins, nuts, or marshmallows. Pineapple may be combined with cheese, tomatoes with cheese, beets with string beans, peas with carrots, or meat with all sorts of vegetables.

Desserts seem to be the easiest of all. But even to make them hurriedly there must be the things in the pantry that will furnish the materials. If the stock of canned fruits is abundant in the cellar, then one needs only to go down stairs and bring up a can of sauce. But when it is nearing exhaustion then one needs to keep on the pantry shelf some of the jelly powders and ready mixed pudding powders. The trouble with the jelly powders is that it always requires some time for them to set, but they take only one minute to prepare and then they are ready to serve. Canned fruit juice thickened with jelly powder makes a delicious dessert, and the same fruit syrups thickened with a little cornstarch will make a sauce that will quickly convert a piece of stale cake or a dish of plain cornstarch pudding into an elaborate looking dessert.

Marshmallow cream, coconut, dates, and nuts help out a good bit in making up a quick dessert. When two or three different kinds of canned fruits are cut into small pieces and put into sherbet glasses and they are topped with a bit of cocoanut, marshmallow cream, or a nice red cherry, an interesting looking dessert is soon prepared.

When there is nothing else to serve for cake or cookies, one can make a thick paste with 1 cup of powdered sugar, 2 tablespoons of water, and 2 teaspoons of vanilla extract. This spread sandwich style between graham crackers makes a dainty cookie or cake substitute.

These are only suggestions. The



Sr rtness and Economy—There isn't any wonder for the popularity of the youthful box- ait skirt, seen in Style No. 3012. It affords many interesting changes of costume, worn th louses of different design or fabric. Pattern in sizes 16, 18 years, 36, 38, 40, 42, 44, d inches bust measure. For example, Design No. 3015 of wool jersey expresses the sports eli , and can be had in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. rked individuality is Design No. 3014 of silk crepe for general wear; pattern in sizes years, 36, 38, 40, 42, and 44 inches bust measure. A more frivolous affair of filmy iff or georgette crepe in Design No. 3013 can be had in sizes 16, 18 years, 36, 38, 40, and i es bust measure. The above pattern costs 10c each in stamps or coin (coin preferred). ir atterns are made by the leading Fashion Designers of New York City and are guaran- ed , fit perfectly. Send to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis.



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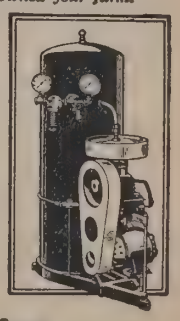
Water pumped against any lift up to 150 feet without clanking pump rods and without a surface pump. Water under strong faucet pressure without the use of a water storage tank of any kind. Nothing to freeze in Winter; no chance for water to get warm and stale in Summer!

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handy woman soon learns to use combinations that are new and very delicious, and when once she has her pantry equipped with a few of the things that can be thrown together hastily into a quick meal, she need dread no emergencies. It is quite true that such makeshifts would not do for every day. For steady diet there is nothing like well selected, well cooked food.—S. K. ORMOND.

A Stork Party

One of our readers recently wrote me saying that she was planning to have a stork party; could I suggest anything to do. I must admit that I was stumped for I had never been to or given a stork party nor had any of my friends; furthermore, none of the amusement books seemed to take such things into consideration.

I did, however, remember a game I had once played which I thought could furnish a good deal of amusement at such an affair. This is the way to play it: Give each person a pencil and paper and let one of the party suggest a certain letter of the alphabet, any one she pleases, only it should be a fairly simple one such as S. Then tell each one to write down as many names for the prospective baby as she can think of, all of them beginning with S. Give them ten minutes, or less if you wish, and then have all stop writing and put nothing more down.

Beginning with any one of them, have her read the list she has written. Suppose she starts out with Scott; if anyone else has that name written on her list the name must be discarded but if no one else has thought of Scott, the reader may give herself a grade of one. Continue until all have read their lists and give a prize to the one who makes the highest grade. The prize may be a box of animal crackers or a paper of safety pins. Of course there will be all the common names like Susan, Sarah, and so on, but there will be mixed in with these a lot that will make ridiculous combinations with the last name—Simon, Sinbad (the sailor), Snookums (the funny paper), Samson, Solomon, Salome, Sennacherib, and other Biblical names. Let someone else choose another letter and continue until you feel that the baby is well named.

If you want to give a guest prize for the mother, it might be one of those little round things that some people hang around the baby's neck with "Don't Kiss Me" printed on it. They can be had for about fifty cents from any of the larger dry goods stores.

If you want to give the mother a very practical present, provide yourself with the material needed for all the diapers for the baby, have them cut out in advance and let each guest hem one or more. It is a gift that any mother will appreciate.—LUCY THOMPSON.

Sour Cream Pie

1 cup of sour cream
1 cup sugar
1 cup of seedless raisins
1 teaspoon cinnamon
2 eggs
1 tablespoon flour
1 tablespoon butter
1 teaspoon vanilla
½ teaspoon cloves.

Put sugar in a granite pan, add flour, cinnamon, cloves, vanilla, yolks of eggs, sour cream. Stir well, add raisins, boil until thick. Bake the crust. Pour in the cream filling. Beat the whites of eggs stiff, then add two tablespoons of sugar. Beat in well. Spread over top and brown.—Household Nutrition.

Rural School Sanitation

The Board of Health of Wisconsin has recenty gone into the matter of what can be done for rural schools in cases where sanitary conditions are bad and where the school board does nothing to improve them. They are frequently in receipt of reports that state that certain schools are not properly heated, drinking water is not furnished, toilet facilities are lacking or else are in a deplorably bad condition, the school room is filled with smoke on account of defective flues and so on.

The Board has looked into the rights of the school patrons in this matter and their findings, while not applicable in every state, may furnish a clue to the proper procedure. The state superintendent of schools advises that "state aid cannot be denied a school district on the ground that the school board members have failed to provide adequate sanitary equipment." State aid consists mostly in taking the lead as to giving warnings to the school board and by cutting the district off from its share of the mill tax until the order has been carried out. If for two successive years the district fails to carry out instructions as to proper maintenance of the school property, the district can be abolished by the county superintendent of schools.—LUCY THOMPSON.

Spring is Here

Spring is coming! Do you know
Where the pussy-willows grow?
Down beside the little stream
Where the wavelets dance and gleam.

Spring is coming! Do you hear
Robin singing sweet and clear?
Yes, he sings a song for me,
In the budding cherry tree.

Spring is here! We romp and play
All the live-long, sunny day;
Not a care nor trouble, we,
We're as happy as can be.

—EULA G. LINCOLN.

"You won't go to the theater with me in your old hat?"

"Certainly not!"

"That's just what I thought, so I didn't buy a ticket for you."

What's Wrong?

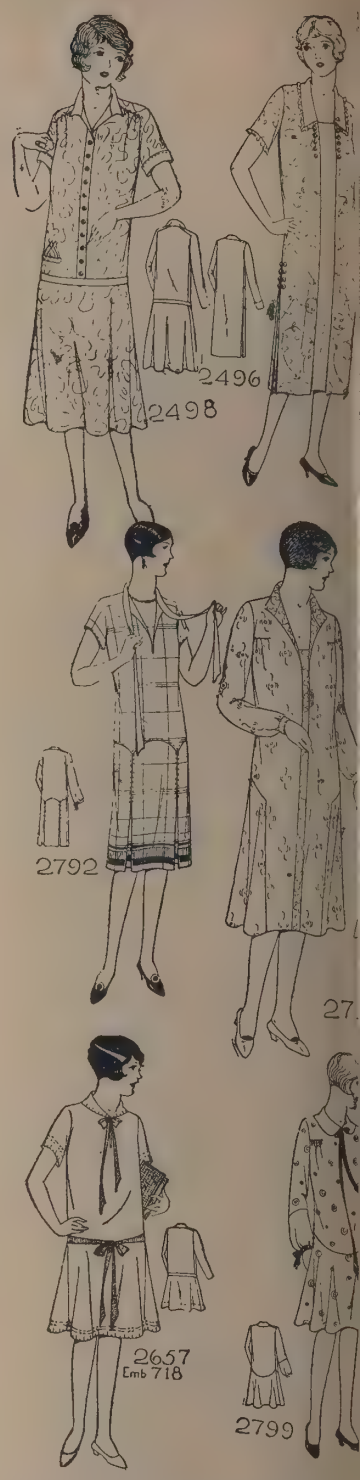


Serious errors in dress that border on the ridiculous. Errors made every day by women who should know better.

Our Spring and Summer Fashion Magazine shows these women as they should be dressed and points out other glaring faults and correctives. See Page 4.

Also there are dressmaking hints, a Beauty Article and a very pleasing variety of styles to choose from, any one of which you could easily make for yourself. The supply of these books is limited. So send 10 cents for your copy today. Address Fashion Dept., Hoard's Dairyman, Fort Atkinson, Wis.

Miscellaneous Fashion



No. 2716—Frock With Slenderizing Cuts in sizes 16, 18 years, 36, 38, 40, and 46 inches bust measure. Size 36 re 3½ yards of 40-inch material with 1¼ of 18-inch contrasting.

No. 2498—A Sports Frock. Cuts in siz 16 years, 36, 38, 40, and 42 inches bust ure. Size 36 requires 3⅛ yards of material with ¾ yard of 32-inch contra

No. 2792—Swagger Sports Frock. C sizes 16, 18 years, 36, 38, 40, 42, and 44 bust measure. Size 36 requires 2 ya 54-inch material with ¾ yard of 36-inch trasting.

No. 2496—Frock With Front Panel. in sizes 36, 38, 40, 42, 44, and 46 inches measure. Size 36 requires 2⅝ yards inch material with ⅜ yard of 44-inch trasting and 1¾ yard of ruffling.

No. 2657—Grown-Up Style. Cuts in 6, 8, 10, 12, and 14 years. The 8-yea requires 1¾ yard of 40-inch material. Design No. 718 (blue and yellow) is 15c

No. 2799—Cunning Style for a Junior in sizes 6, 8, 10, 12, and 14 years. year size requires 1⅞ yards of 40-inch terial with ⅜ yard of 36-inch contrastin 3 yards of ribbon.

To order any pattern illustrated, se cents to Fashion Department, Hoard's man, Fort Atkinson, Wis. Be sure to number and size and write your name a dress plainly. When you order your p enclose 10 cents extra and our large Fashion and Dressmaking Book will b to you. It contains hundreds of style ture dressmaking lessons, embroider signs, etc.

Grocer, to applicant for job clerk: Have you ever done clerking?

Applicant: Yes, sir, I used to draft clerk.

Grocer: What's that?

Applicant: I opened and shut windows.—The Progressive Gr

Marketing Knowledge Deficient

Boost for Co-operation

D. D. BRUBAKER, MINNESOTA

NOW that farm legislation seems to be a hopeless and visionary pot of gold at the rainbow's end, we hear a lot about farmers cutting down expenses still further, producing more economically, getting higher producing cows, using more fertilizer, working longer hours to save hired help in a strenuous attempt to beat old "financial hell" by making more complete failures of themselves and families. Of course, economy and efficiency are always advisable but let's see about much increased farm economy.

Why should the bricklayer's wife have an electric washer, electric mangle, electric iron, electric vacuum sweeper, hot and cold water in her laundry and kitchen sink, while a farmer's wife works the armstrong movement at the pump sometimes clear out to the barn to get the dirt out of her weekly wash, with elbow grease, in the woodshed or her overcrowded kitchen.

I'll tell you why: Her husband lacks something above the ears.

When I was a boy, a labor union was more of a joke among laborers than co-operation is among farmers today. You go out and hire a bricklayer, carpenter, or milk wagon driver and see if the unions are a joke now. They are taking care of their own business in pretty fair shape and with few exceptions; they are loyal to their unions and do not violate the scales. A whole lot has been added above laborers' ears in the last thirty years.

When laborers wanted more pay, they didn't go out and work more hours a day. They went to the union meeting and voted to cut down the working day from ten to eight hours. They created a shortage of labor. How does the farmer do it? He plows and sows and reaps with a motor that eats gasoline instead of oats, yet he raises more oats than ever before. Who does he think is going to use these oats?

According to the Cornell University February report of farm conditions, the weekly earning of New York factory workers was 2.32 times greater wages of the same class of workers and farm prices for February were 1.33 times pre-war prices. Today eight years now farm prices have been going down and factory workers' wages have been going up. Twenty-five years ago we used to think that oats were cheap when they were below a cent a pound. Last fall there were lots of farmers in this section of the country that sold their oats at around a cent a pound yet the average farmer continues to raise oats.

You could take a cross section of farmers' heads, lawyers' heads, millionaires' heads, or any other heads that you want to pick out and they would probably all look alike and measure about alike. Farmers haven't any less brains than the rest of the world; they simply lack some of the knowledge of how to work together, but that's an awful shortcoming in this day and age. In fact, I think that on the average, individual farmers put more thought into their business than most other folks do, but our civilization has grown very much like a mushroom. It has sprung up in the dark without any guidance or cultivation. Mechanically, there are enough farm devices to make the farmer as efficient a factory for producing foodstuffs as any other institution on earth. Technically, our farm schools have turned out as much valuable crop and live stock information as any commercial laboratory you can find. It's in his marketing knowledge that the farmer is way back there where his great grandfather was; before there were any milk pans, cans, or separators, or milking machines, or seeders, or reapers, or tractors, or trucks, or anything else but two willing hands, a few simple tools, and an indomitable will. The fungus of farm finances failed to fertilize.

Other business has been congregated in cities where men could consult and arbitrate with each other in settling their competitive differences, while farmers have been segregated so that they have competed with each other instead of co-operating. In the nature of things, it has been hard for farmers to work together in the business end of farming. Nevertheless, that working together is necessary. You couldn't make a 1927 car go with a 1900 engine in it. The gears wouldn't mesh.

This great modern, financial, and commercial America of ours might be likened to a 1927 car in which the engine is the farmer, for he furnishes the raw material, the power, that makes the thing go. For the last few years the engine has been squeaking and crying and the gears have been grinding and chattering.

Farm legislation proposes to grease up this old engine and do her up with hay wire and binder twine and force her to keep on delivering power for this new shiny 1927 financial bus we ride around in. Apparently, no one has thought of putting in a set of new pistons or driving gears. Just stop the noise and make the old thing go. Some day she may fall all to pieces like the one horse shay, but when that time comes we will do something else.

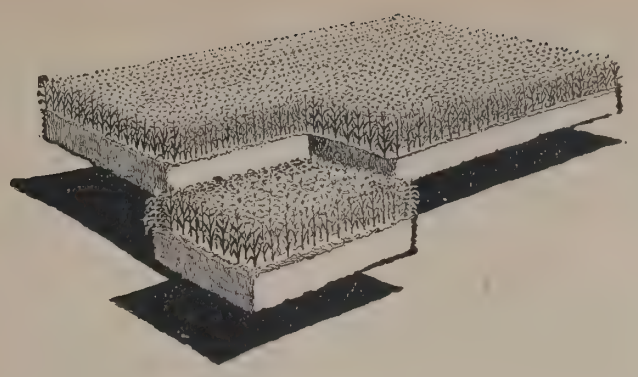
Government handling of farm crops would take away the individuality and initiative from farmers. There would never be any need or any opportunity for a capable man on the farm to use his head; just his broad, strong back to produce more, to create more surplus to increase the equalization fee to keep prices down where they are now. What's the use of trying to fool farmers with that stuff.

Now listen: This is supposed to be a representative government. Generally speaking, the majority rules. Roughly, seventy per cent of our population is composed of non-agricultural consumers. Regardless of the individuals composing any federal farm board, that other seventy per cent, who are better organized than farmers, could annihilate that federal farm board more easily than it was created if food prices were to go too high. Wouldn't that be a fine condition for farmers to pin their faith to.

The timer, driving gears, main shaft, and magneto of this engine must fit into the chassis and rear axle. Farmers' business must be built on the same plan as other business or it isn't going to mesh in and work. The incentive for developing and improving farm marketing methods has to be individual gain. The source of the improvements has to be individual initiative. We in America haven't yet arrived at the condition of social and financial equality they are striving for in Russia.

Farmers will have to learn to handle their products in their own local communities, then combine by states or localities and then nationally. It will take years but I hope we didn't ever expect Uncle Sam to reach into his hat and pull out a federal farm board all trained in handling these billions of farm dollars, and the clerks, inspectors, leaders, and laborers and the machinery to do this work inside of years.

Co-operation is on the way and you can't stop it. Better get behind and push.



Save a Fifth of Your Corn

Crop Insurance at Only 4c an Acre

EXPERIENCE has taught you to expect a 20 per cent to 30 per cent loss of your corn due to root, stalk, and ear rots. How much is a fifth to a third of your corn crop worth to you? You can save it at the insignificant cost of only 4 cents an acre. Three ounces of Semesan will treat a whole bushel of corn, sufficient for planting eight acres. Semesan will give you the same yield with fewer planted acres—save land, save seed, save planting, cultivating and harvesting labor. And your corn will be finer quality.

SEMESAN JR.

For the Prevention and Cure of Field and Sweet Corn Diseases

Simple to apply in dust form. No bulky solutions to handle. No skill, no elaborate equipment. Harmless to seed germs, deadly to all fungus. Ask your county agent to tell you about the Government tests of Semesan treatments on corn and other crops.

Prove it to your own satisfaction: Stokely Brothers and Company, of Newport, Tenn., did. They wrote a while ago: "We tested twelve different lots of seed corn, in boxes filled with earth that was well contaminated with bacteria of all kinds. On some of our seed corn which, through accident, was permitted to mold and heat slightly in the sacks, the Semesan treatment proved decidedly effective. The untreated, damaged seed corn germinated 30% weak while the Semesan-treated germinated 66% strong. We are positive that Semesan will greatly increase the germination percentage of corn."

Send this coupon for booklet that tells how to make more money out of corn.

DU PONT

H. D. April

E. I. DUPONT DE NEMOURS & CO., INC.
Dyestuffs Department,
Wilmington, Delaware

Gentlemen: Please send me free booklets checked:

[ ] Semesan Jr. booklet

[ ] Vegetable booklet

Name.....

Street or R. F. D.....

Town.....State.....

Dairy Exposition to be Held At Memphis

The twenty-first annual National Dairy Exposition will be held in Memphis, Tennessee, in connection with the Tri-State Fair. The dates are October 15 to 22.

Arrangements have been made by the Exposition and Fair Associations whereby the two events will be combined for the year in one big agricultural exposition. The large cattle barn will be devoted entirely to dairy cattle entered in the Exposition and a judging arena will be provided immediately adjoining the barn. The farm and barn machinery and equipment exhibits will be housed in a commodious building which is being designed for this purpose. It will be large enough to contain the United States Department of Agriculture display, dairy products exhibits, boys' and girls' club activities, and other educational features of the Exposition.

The Executive Committee of the National Dairy Association decided to hold the Exposition in the South this year because of the rapid development of dairying and the demand for diversified agriculture in that section. Memphis is centrally located and has splendid railroad facilities which make it easy to reach from all parts of the country. The hotel facilities are very good.

Arrangements are under way for holding the 1928 Exposition in St. Louis, in buildings to be erected especially for it.

There are reasons why

Portland means permanence



Our Vitrified Tile Building Blocks are perfectly insulated; most economical material for out-buildings

and Portland Silos have withstood fire, wind, and time.

Wet-mix staves, curved, tongued and grooved on both sides and both ends, sealed by our special process to the other staves at sides and ends, perfectly fitting hoops—make Portland Silos sturdy. Additional features mean convenience and better silage. Write for booklets. We also make vitrified tile, glazed and unglazed, silos; clay building blocks. Use a Portland Silo.

Farmer Agents Wanted

PORTLAND SILO CO., Box H
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HOARD'S DAIRYMAN JUNIORS



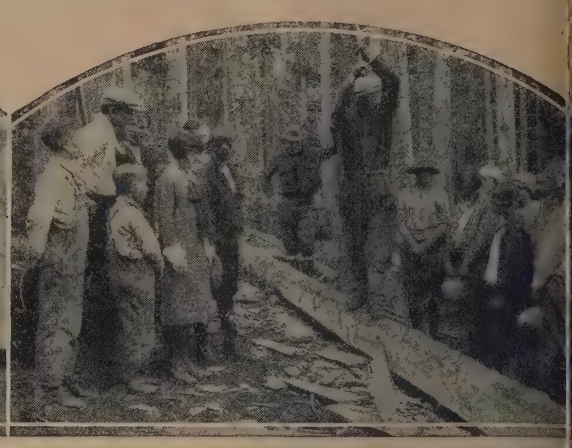
A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS



NEW HAMPSHIRE CLUB BOYS DEMONSTRATING IMPROVEMENT OF THE FARM WOOD LOT AT CAMP VAIL, EASTERN STATES EXPOSITION



HENRY FORD, AGE 15, MAKING A COLLECTION OF WOODS. HE ALSO DID IMPROVEMENT WORK ON HIS FATHER'S NEW HAMPSHIRE WOOD LOT



COLORADO CLUB MEMBERS SEE A TIE HEWIN DEMONSTRATION BY ROMAN CERNICH, ONE OF THE BEST TIE HACKS IN CAMP NELSON

Farm Forestry for Juniors

HOW would you like to live in a place where there was no wood and you couldn't get any?

Right away some of you boys may think, "Great! No wood to split, no kindling box to fill, no bucking the big saw with dad or brother, no axe to swing."

That's all right, but think of the other things you would miss. What kind of a barn could you have, what kind of a house, in fact what kind of buildings could you have on your farm? Or in town? The wheels of industry depend much more than you may realize on wood to keep going. What would we do for baseball bats; telephone poles; fence posts; railroad ties; pencils; paper; handles for tools such as hoes, pitchforks, shovels; hay racks? You can scarcely mention an article of common use that does not depend more or less on wood for its successful operation.

The great American forests are vanishing. Unless something is done to replace them there may yet be a woodless world. When Columbus discovered America it was covered with an almost limitless expanse of magnificent trees. As the white man settled here he had to clear land for dwellings and for cultivation. We are now facing a serious wood situation.

The axe, forest fires, insects, and disease take their annual toll and have reduced this stand of timber from 822,000,000 acres in the time of the red man to less than 138,000,000 acres of untouched forest now. Our forests are disappearing 4½ times as fast as we are replacing them. In 1924 forest fires burned over an area almost as large as the state of New York.

We are a wood using nation. We use about 23 billion cubic feet of wood a year. This means that about 250,000,000 trees are cut. If these trees grew in one solid forest they would cover an area about the size of Massachusetts, Connecticut, and New Jersey.

Do you know that about a billion wooden pencils are used every year? That it takes 16 acres of spruce trees to make enough paper to print just one Sunday edition of a metropolitan newspaper? That every four years enough newsprint is manufactured to make a strip as wide as a daily paper and long enough to reach to the sun and back?

If we continue eating up our wood supply at this neck-breaking pace where will we get our wood when this is gone? There are millions of idle acres not suited for agricultural use that are well fitted for growing trees. What a wonderful chance for you farm boys and girls to "plant trees and grow up with them!"



CLUB BOY CUTTING PINE CONES FOR SEED

The farm woodlot is important. Trees add beauty to the farm, increasing its value. Trees give storm protection. Properly planted windbreaks save fuel.

Boys and girls to the rescue! Nineteen states now have forestry work for 4-H club members on their program. New Hampshire, Vermont, Massachusetts, New York, Pennsylvania, Maryland, Kansas, South Carolina, Alabama, Tennessee, Louisiana, Oklahoma, and Colorado in 1925 were the pioneers. Michigan, New Jersey, and Wisconsin began in 1926, and North Carolina, Connecticut and Minnesota have trails blazed for a busy 1927.

Vermont, thinks E. L. Ingalls, the state club leader, may lay claim to being the first to have a girls' forestry club. This one, in Orleans County, has 10 members who have been learning all sorts of woodcraft and are now planning to procure a tract of land and plant trees of their own.

Tennessee forestry club members are planting the pecks of black locust seeds this spring they gathered, dried, and stored as their means of entrance into the club last fall.

New York club members have planted 92,000 trees to date, 95 boys completing their projects.

New Hampshire forestry members planted 58,400 seedlings last year and did improvement work on 81 acres of woodland. There are 40 m bers to date. East Jaffrey clu Cheshire County has 30 members have improved eight acres of w land.

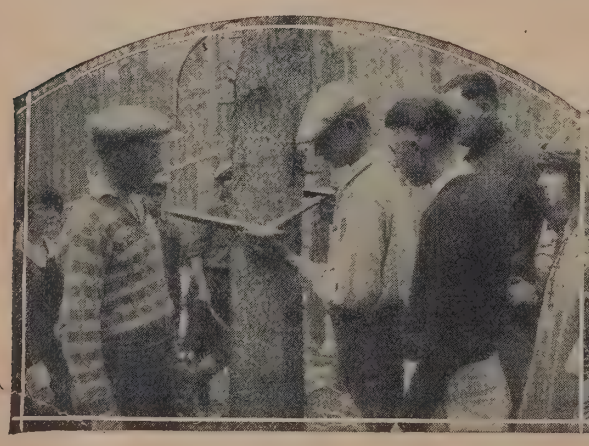
"Plant a forest and grow up the trees," say North Carolina estry club boys. Those who are planting may take charge of the provement of a half an acre of ber or may study tree identifica and quality of woods.

Connecticut also has outlined t phases of forestry work: woodc planting, and woodlot managem One of the features of the woodc enterprise is the building of a cabin or a lean-to.

New Jersey's first forestry organized in Warren County in 1 required that the members sh have the loan of at least one of abandoned or low-production land. On this the member ma combination planting of pine spruce, the pine as a timber crop the spruce as fillers to be rem at an early age for Christmas t This was planned to give the bo sizable income in six to eight y when most of them will need m to help finance their college ed tion or a farm enterprise of t own.

Pennsylvania's forestry club n bership increased from 15 to members last year, and every n ber completed the year's work. are interested in planting.

Wisconsin's members are ca "junior forest rangers." They advance through four "orders"— est crafter, forest planter, wo man, and cruiser. One thing a est crafter may learn is to ma bow and arrows with which he



A CLUB DEMONSTRATION IN SCALING TREES, MEASURING THE DIAMETER OF A STANDING TREE WITH CALIPERS AT BREAST HEIGHT



FOREST RANGER J. F. SMITH SHOWING JUNIORS AT CAMP NELSON HOW TO USE CLIMBERS IN VARIOUS TREE WORK, TELEPHONE LINES, ETC.

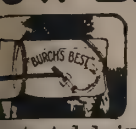


Photos by U. S. Department of Agriculture.

ROMAN CERNICH, KNEELING IN BACK, GIVING TW FORESTRY CLUB BOYS INSTRUCTIONS ON THE RIGHT WAY TO FELL A TREE

300 feet, keeping three arrows
e air at the same time.
every first year project mem-
he Wisconsin Conservation Com-
on gives without charge 300
erous seedlings, the variety de-
ing on soil and other conditions.
very second year project mem-
hey give 600 seedlings. These
furnished through the nurseries

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Cover your stock with "Burch's Best," the blanket endorsed by leading herd owners everywhere. Combine beauty, practicability and low price. patented design—fit perfectly.

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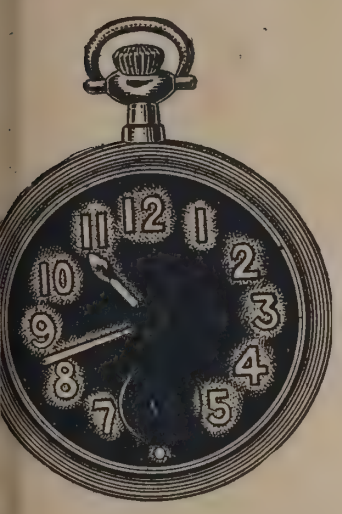


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Over 50,000 in use in America. For testing, conditioning and protecting cattle.

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ent=d 1909-1921 553 Third St., Milwaukee, Wis.

A WATCH



For YOU!

Boys, here's a real timepiece of standard make—AN INGERSOLL RADIOLITE. You can tell time by it on the darkest night without a light.

All you have to do to get this dandy prize is send us four subscriptions to Hoard's Dairyman at $1.00 each. Easy, isn't it? You'll be surprised how quickly your neighbors will subscribe for Hoard's Dairyman when you tell them it's three long years for $1.00. Or, for 3 subscriptions we will send you the same watch without the Radiolite Dial.

Your watch is waiting for you. How soon may we send it?

HOARD'S DAIRYMAN
Fort Atkinson, Wisconsin

of the state. One hundred thousand trees have been reserved for the 1927 planting and double that for the 1928 planting. There are now more than 300 Wisconsin club members enrolled in forestry clubs.

There are several ways in which forestry club members can realize direct profits from their work. The Wisconsin State Club Department outlines them as follows:

1. Make collections of seeds to sell nurserymen.
2. Grow seedlings to sell to those making plantings.
3. Plant seedlings in some private estate.
4. Make wreaths of cedar for Christmas decoration.
5. Sell pine knots for Christmas fire in the fireplace.
6. Collect balsam needles to sell in sacks for pillows.
7. Make and sell maple sugar and syrup.

It is planned to establish a forestry camp in Northern Wisconsin where the club boys can earn their way. This camp would give a one week's course in practical forestry.

If you want additional information on forestry we suggest that you write for "The Forestry Primer" published by The American Tree Association, Washington, D. C. The Forest Service of the U. S. Department of Agriculture at Washington, D. C., will be glad to send you literature and answer your questions. The Cornell College of Agriculture at Ithaca, New York, has published some good forestry bulletins, as have several other state agricultural colleges.

[EDITOR'S NOTE:—This week, April 24 to 30, has been declared American Forestry Week by President Calvin Coolidge.]

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

For further discussion of the following see the April 10th issue.

Is tuberculosis in cows a cause of tuberculosis in humans? "Yes," says Dr. C. H. Lochead of the Mayo Hospital, Minnesota, in the article "Bovine Tuberculosis in Humans."

How do tubercle germs get into milk? They may occur directly as a result of tuberculosis of the udder or they may occur in the milk indirectly through cow manure. With lung tuberculosis, the germs are coughed up, swallowed, and passed in the manure. This gets into the milk in many ways with which we are all familiar.

How does the germ enter the human body? By one route, the alimentary tract.

Are there as many deaths from tuberculosis as there used to be? "No," says Dr. C. H. Mayo. "Thirty years ago, the yearly deaths from tuberculosis in each 100,000 persons numbered over 200. They are now well under 100."

How would decentralization of industry help agriculture? By establishing relatively small plants in the rural districts, countless farmers' families would have the choice of a variety of occupations and would be able to realize the full measure of their earning capacity without disrupting home life. Secondly, it would bring electricity to many more farms. (See page 368.)

How much is land worth in Holland? Mr. Boer, who owns and operates 69 acres of land eight feet below sea level and entirely in grass, values it at $650 an acre. (See page 370.)

If clover has winter-killed, what legume crop can be substituted? Soy beans. (See page 370.)

What are some of the common varieties for Wisconsin? Manchu, Black Eyebrow, and Ito San in the southern half of the state and Pedigreed Blacks and Mandarins for the northern part of the state.

How should soy beans be planted? They may be sown with the regular corn planter, or grain drill. When beans are put in rows from 28 to 30 inches apart and dropped about 2 inches apart in the row, one bushel of soy beans will plant two acres. They may also be broadcast.

When should they be cut to make the best hay? Just after the little beans are beginning to develop. They usually reach the proper stage for making hay the latter part of August or first week in September.

How much milk was delivered to New York patrons in 1925? An average of 4,311,000 quarts of milk daily. In 1917 the average daily delivery totaled 1,600,722 quarts. Most of this milk was delivered by horse-drawn vehicles. (See page 384.)

Junior Letters

Homesteading in South Dakota

Hoard's Dairyman Juniors:—We came to South Dakota three years ago from town and like it very much on the farm. My father homesteaded a raw quarter, and we have about one hundred acres of it under cultivation now.

Last year we didn't raise any crop, although we planted it in March, and so will have to buy feed for our stock and turkeys this fall. Mamma has about 100 turkeys to sell this fall and have to buy all our corn. Some of them weigh 15½ lbs. Our turkeys are the White Holland breed.

We are milking eight cows in the morning and twelve at night. I milk three or four cows at a milking. I rather think it is fun to milk.

I graduated from the 8th grade this year, and as I could not get to a high school (the closest one being 40 miles away), I am reviewing the 8th grade. I am 13 years old, weigh 97 pounds, and am five feet tall. My birthday is on the 19th day of March.

If any juniors want to write to me, I will try to answer all letters I receive. My address is Sansarc, So. Dak. Leona Burns.

Winning in Club Work

Hoard's Dairyman Juniors:—I enjoy reading the Junior Page very much. My father has been a subscriber to Hoard's Dairyman for several years and he sure reads it, too. It is the farm paper he likes the best.

I sure like the club work; it is fun as well as educational. I certainly was well repaid for my work. I received from Pine County the blue ribbon and a free trip to the Minnesota State Fair with my calf, and a fine silver trophy from the Bankers' Association. I sure enjoyed my trip to the state fair where my calf again won two blue ribbons.

Now, after I am home, our club members elected me president of our local club and vice-president of our county organization and I am going to try my best to make our club do good work. My address is R. 2, Askov, Minnesota. Clifford P. Pedersen.

My Pony

Hoard's Dairyman Juniors:—I will have to tell you about the pony that I got for my birthday. She is a seal brown color and very fat. I have a little wagon, which is for a goat, and looks very funny with her, but papa put thills on it and fixed up a harness for her and I have lots of fun with her.

I have cultivated garden, mowed lawn, and used her on the wagon for odd jobs. Then I have ridden her after the cows and over to the neighbors. One time I was coming home and she threw me off and nearly broke my arm. But I still love her. I wish you could see her; she is a perfect picture. I almost forgot to tell you her name. It is Tootsie.

As I think I have written enough I will close and I sure want you to write to me. My address is Sand Creek, Mich.

Harold Elmore Willett.



THE PONY, HAROLD, HIS SISTER, AND ROVER

How to Become a Junior

Any boy or girl under twenty years of age may become a member of the Hoard's Dairyman Juniors' Club if one member of the family is a regular subscriber to Hoard's Dairyman. It costs you absolutely nothing to join.

In applying for membership, state your name, age, address, favorite dairy breed, your father's name and initials, and to whom Hoard's Dairyman is addressed at your home. Are you a member of a boys' and girls' agricultural club? If so what kind? Be sure to write plainly and give desired information in full.

All regularly enrolled juniors are sent the emblems of the Hoard's Dairyman Juniors' Club—the badge (a watch fob for boys, a necklace for girls), the pin showing the head of your favorite breed of dairy cattle, and a handsome creed. Mail your membership application at once to Junior Editor, Hoard's Dairyman, Fort Atkinson, Wis. Do it now!

They respect you—



when you weigh it on a

Fairbanks

The men you sell — the men of whom you buy — respect a man who is businesslike and they like to do business with him.

Guessing or bulk weighing or mere counting is unreliable. Accurate weighing of everything on your farm will save money and make money for you — also a reputation for accuracy. The scale that all respect for reliability is a Fairbanks Portable Scale, of course. The model illustrated is a remarkable value at $16.15, plus freight to your town. Please see your dealer.

Fairbanks Scales

Preferred the World Over

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900 S. Wabash Ave.,
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Without obligation, please send me free booklet, "Weighing for Profit."
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The rate for advertising in this department is 12 CENTS per WORD. Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Holsteins—Get your next Ormsby bred bull from State Institutional herd. Bred for high yearly production. Send for free bull list. Can furnish nice lot of grade heifer calves. BOARD OF CONTROL, State Capitol, Madison, Wis. 3-6

Choice grade Holsteins. Fresh and close springers. Guaranteed right. EGNER & OLSON, Stoughton, Wisconsin. 7-2

Holsteins—Purebreds and grades. Area tested. Buy direct. We are breeders, not dealers. WAUPACA COUNTY HOLSTEIN BREEDERS ASSN., 112 E. Union, Waupaca, Wis. 5-6

Nine richly bred Holstein heifer calves, practically purebred. Tested and carried. $175.00. ALFAKORN FARM, Evansville, Wisconsin. 8-6

For Sale—Choice high-grade Holstein heifer calves. S. J. FRICK, New Glarus, Wisconsin. 6-4

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

River View Guernsey Farm, Ogdensburg, Wisconsin, offers entire herd 22 young heavy producing Guernsey cows, registered bull, some calves T. B. tested, free from disease. Priced reasonable. 6-3

Registered Guernsey bulls and heifers for sale. State your wants. See display ad page 485. LINWOOD GUERNSEY FARM, Livingston, Wis. 6-*

Grade Guernseys. Springing and fresh cows and first class heifers from an area tested county. Clean cattle at right prices from a breeder with 30 years experience. Can also furnish grade or registered Holsteins. JOHN ERICKSON, Waupaca, Wis. 19-Spl

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

Registered Guernsey bulls, bull calves $50.00 up. Also few heifer calves. FERNHILL FARM, Wayzata, Minnesota. 8-2

For Sale—Two first class May Rose yearling A. R. show bulls. GUERNSEY RANGE FARMS, Edgar, Wisconsin. 6-3

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

For Sale—Purebred Guernseys, two yearling heifers, and four cows, three due to freshen May 14, one Aug. 13. Write for prices and description. Address BOX 352, care Hoard's Dairyman. 7-2

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

Registered Guernsey heifer calves for sale. GEO. Einfeldt, Greenwood, Wis.

Guernseys. L. W. MILLS, Racine, Wis. 6-*

Ayrshire cows for sale. Accredited herd. L. W. McCONNELL, R. 1, Wellington, Ohio. 6-3

Registered Jersey Bull Calves—2 to 12 months. $30.00 to $60.00. Also few heifers. M. EMERSON & SON, Wheeler, Wisconsin.

Jersey Cows and bulls for sale. Reasonable if taken at once. ELEANOR NOONAN, Mauston, Wis.

LIVE STOCK WANTED

Wanted—Registered Holstein bull calves, light colored, 6 to 8 months old, cheap. S. E. GEHRIG, New Douglas, Ill.

SWINE

Purebred Yorkshires—The hog that made Canadian bacon famous. Serviceable fall boars $30.00. Spring pigs either sex, $10.00. Raise them on pasture, finish with barley—beat the corn-borer. R. P. ULLMANN FARM, Route 1, Manchester, Michigan.

BABY CHICKS

Wisconsin Accredited White or Buff Leghorn chicks at new low prices. Catalog free. RIVERVIEW HATCHERY, Fort Atkinson, Wis.

Reduced Prices on Baby Chicks for May. 100% live delivery. Guaranteed purebred. Leghorns 10c; Rocks and Reds 12c; Wyandottes and Orpingtons 13c. Discount on large orders. Send for free catalogue and prices. MODEL HATCHERY, Box 7, Monroe, Indiana. 8-3

Baby Chicks from culled, inspected flocks. Satisfaction guaranteed. EVERGREEN POULTRY FARM, Kewaunee, Wis. 4-6

Quality Baby Chicks—Tancred White Leghorns, $15 per hundred. FERNHILL HATCHERY, Wayzata, Minnesota. 8-2

COD LIVER OIL

Cod Liver Oil for poultry, tested light yellow Vitamin potency guaranteed, 5 gal. $8; 10 gal. $15 at N. Y. Sample gallon $2.25 postpaid. JACONE PRODUCT CO., 624 Kent Ave., Brooklyn, N. Y. 7-2

TURKEYS AND DUCKS

Blue Ribbon Giant Brilliant Bronzed. Vigorous, disease-free turkeys, eggs and hardy turks, 100% arrival. Unrelated flocks. We're leaders. GREGORY TURKEY FARM, Cumberland, Wis. 5-4

Pure Bred Mammoth Bronze Turkey Eggs—Have large healthy flock well mated. Inquiries promptly answered. $4.50 per 9 eggs prepaid. R. M. MELVIN, Mankato, Minn. 7-3

HATCHING EGGS

Eggs from strictly purebred (267 egg strain) Barred Plymouth Rocks and (272 egg strain) White Leghorns $1.60 per 15; $6.50 per 100, postpaid. MISS MABLE HARDING, St. Peter, Minnesota. 6-*

Pure Bred Barred Rock hatching eggs, $1, 15; $5, 100. MRS. W. TAYLOR, R. 5, Medford, Wisconsin.

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Ann Arbor Hay Presses bale more hay at lower cost and last longer than others. Write for complete catalog and prices. ANN ARBOR MACHINE COMPANY, Shelbyville, Illinois. 8-6

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Blue Ribbon Milker. Used 6 months, excellent condition. D. W. TINSTMAN, Wooster, Ohio. 8-2

For Sale Cheap—New two unit Hinman milker complete. Never been uncrated. Address BOX 370, care Hoard's Dairyman.

Universal milker for sale. Several double units complete in running order $70.00 each. KLEE BROS., Fountain City, Wisconsin.

For Sale—Vacuum pump suitable any single pipe line milker. Simplest, easiest run pump made. Cheap. V. RICE, Dallas City, Illinois.

International Primrose cream separator. No. 3 with electric motor. Used six months. WILLARD OWEN, New Lenox, Illinois.

Bargains in rebuilt tractors and tractor plows with a guarantee back of same. Write us for prices. R. H. LEAVITT, Beloit, Wisconsin.

For Sale—Used Hinman milker in good working condition. Address BOX 363, care Hoard's Dairyman.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, Ohio. 7-4

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

Throttling Governors for Auto Engines when used for stationary power. CLARENCE WEGNER, Sheldon, Wisconsin. 8-2

Taylor vacuum engine $75. Double unit $50. 5 horse Galloway engine $40. H. VAN KUREN, Rummerfield, Pa.

STATIONERY

Milk Dealers Stationery—Milk tickets, score cards, tags, etc. E. F. WILKE & CO., 2424 N. Francisco Ave., Chicago, Ill.

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

DAIRY SUPPLIES

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer to consumer. $1.75 for Carton of 300 if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Michigan. 8-4

For Sale or Exchange, Babcock electric tester, direct current. 110 volts. J. HENRY, Sherman, N. Y.

DAIRY BARN EQUIPMENT

For Sale—40 new and complete Star cow stalls unit type. ½ price if taken at once—all or any part. Address BOX 362, care Hoard's Dairyman. 8-2

LUMBER

Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 9098, Everett, Washington. 7-2

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

SALESMEN WANTED

Salesmen—who come in direct contact with breeders of cattle can add substantially to their income by arranging with us for exclusive territory to sell Kineol, an odorless, colorless and tasteless chemical which is guaranteed to keep flies from stinging cows. Also Ridofly, a guaranteed fly repellent for dairy and creamery use. Practically no competition and very liberal commission. References required. Address AMERICAN OIL & DISINFECTANT CORP., 114-5th Ave., New York.

Salesmen wanted to sell "Waukesha Mineral Feed." Exclusive territory, good commissions. Ask for particulars now. H. J. WELSH, Box 111, Waukesha, Wisconsin. 2-8

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-Spl

Our New Household Device washes and dries windows, sweeps, cleans walls, scrubs, mops. Complete outfit costs less than brooms. Over half profit. HARPER BRUSH WORKS, 295 3rd St., Fairfield, Iowa. 7-2

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

English Bull Terrier pups—Males $10.00, females $5.00. Pedigreed English Bull pups, large size with undershot jaw—males $40.00, females $25.00. DANIEL GRUNZ, Owatonna, Minn.

Hounds, collars, medicines, supplies. Free book. KASKASKENNELS, F18, Herrick, Illinois. 6-4

For Sale—5 Collie pups, $5 each. GEORGE KNAPP, Route 5, Elkhorn, Wis.

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart.* 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

FARMS FOR SALE

Five Hundred Acre Dairy Farm For Sale. Located near Knoxville, Tennessee, on State Highway, 300 acres of excellent blue grass sod twenty to thirty years old. Grass will carry 100 to 150 cows, depending on season, for seven months of the year. Two 16 x 50 concrete silos. Eight room residence, lights, water and bath. Six good tenant houses, four with electric lights. Barns accommodate 125 cows; De Laval milkers, six units operated by electric power. Modern equipment throughout. 24 hour current, low cost. Sales last year—milk $30,000; hogs $4,000. Profits last year 6% above all expenses including salaried manager. Will sell land only or land with herd and equipment. Attractive terms to right party. BOX 365, care Hoard's Dairyman.

Farmers and their families will find a vacation in Oregon the best investment they have ever made. No one works harder than the farmer, and no one needs a vacation more. A change of air, of scene and of environment will give new health, new vigor and new energy—and there is no state in the Union better than Oregon for a wholesome, ideal summer vacation. If contemplating a change of location, the country life of Oregon will appeal to you. Intensive diversified farming in Oregon is profitable. There is a great diversity of soil and a great variety of crops. There is a temperate climate, lots of green feed, very short winters and dairying and stock raising are very successful. Write, today, for any kind of information, to the publicity department, room 744, PORTLAND CHAMBER OF COMMERCE, Portland, Ore.

270 Acre Money-Making Farm—1200 cords wood, 8 cows and heifers, horses, 100 hens, all crops, several plows, harrows, other machinery, cream separator, 5 harnesses, incubator and brooder included to settle quickly; estimated 150,000 ft. timber, lots growing; 70 acres level dark loam fields, 40-cow lake and spring-watered pasture, 400 sugar maples, 100 fruit trees; Colonial 10-room house, 90 and 50 ft. barns, garage, poultry house for 400 hens; ¾ mile school, 1½ to village, 4 miles to large manufacturing town and largest corn canning factory in New England. Age forces sale, price only $3900, part cash. Details page 17 big illustrated Spring catalog. Copy free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

Dairy farm 160 acres, Barron County, Wis. Modern 8-room house, light and water. 2 barns; 1 has cement floor, 16 stanchions; silo. Cement floor granary; machine shed; tile milk house; hog house. Soil clay mixed with sandy loam. 90 acres plow land; 70 acres pasture and wood lot. Will sell to experienced farmer at a price and on terms which can be met from income. References requested. A few other Wisconsin farms on same terms. For particulars write C. M. PUTNAM, P. O. Box 376, Madison, Wisconsin. 5-4

146 acres, state road, and beautifully located. Ideal stock and grain farm. Good orchard. Exceptional cropper. Close to markets. Town and railroad station. Master's house modern. Tenant house practically new. Complete set of buildings and in pink of condition. **252 acres.** Long Green Valley near Baltimore. Mansion 17 rooms, 4 baths, perfect condition. Modern dairy barns for 136 cows, latest equipment. 3 tile silos 15 x 55. 3 tenant houses. No more fertile farm in Maryland. Stock and farm equipment included in sale. POTTS & GRIFFIN, Frederick, Md.

400-Acre Dairy Farm, stock and equipment. Only ¾ mile Railroad station and advantages; 100 acres heavy loam, big crops hay, corn, oats, etc.; 100 acres valuable woodland, two 10-room houses, big cement basement barn stanchions 36 cows, also horse and hay barns, etc. Non-resident sacrifices at $7500 and will leave 15 cows, horses, farm machinery and vehicles for quick sale. Part cash. EDW. BRIZZIE, Strout Agency, Opposite depot, Chatham, N. Y.

Federal Land Bank Bargain—160 acres, 11 miles from Eau Claire, close to school and church. Excellent modern 6 room house, large barn, modern equipment (stanchions, drinking cups, etc.), tile silo, machine shed, ice, well, poultry houses and corn crib. 80 acres cultivated, balance timber and pasture with creek. Ideal place to live. Buildings alone are worth and price asked for the farm. $1,000 down, balance 36 years' time at 5%. THE FEDERAL LAND BANK, Dept. 20, St. Paul, Minn.

102 Acre Farm, good buildings, 17 purebred Holsteins, pair horses, machinery, vehicles, tools, dairy utensils; real money-making dairy in premier alfalfa county; 1½ miles RR town; 60 acres in nice-laying fields, 10 acres woodlot, spring and stream watered pasturage for 20 head; neat home 9 rooms, cement-basement hip-roof barn, silo, stable, milk house, hennery. Age necessitates early sale and low price $6500 takes all, only $2500 needed. W. H. MAYNARD, Strout Agency, P. O. Bldg., Canastota, N. Y.

Montana Land in the Bitter Root Valley is cheap. Here is 4000 acres irrigated. 1500 acres hay and grain. On railroad and adjoining Forest Reserve. Near school and churches. Stocked with cattle, horses, hogs and sheep. Close to big game and fishing. The right place for big family of boys. Is a going stock or dairy ranch. $50.00 an acre takes everything. Can make terms. GEO. F. BROOKS, owner, Missoula, Montana. 8-3

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

Immediately available, good opportunity, truck farm, thirty acres, Route 12, near Whitewater and summer resort. Easy terms to suitable couple. Write to BALTIMORE COMPANY, Room 1601, 77 West Washington Street, Chicago, Illinois. 7-2

Rich Georgia Farm Suitable for Dairying—1400 acres fine land in middle Georgia dairy belt cheap. Good markets for sweet and sour cream. Will pay 10% commission to anybody who will sell it for me. Write for information. F. P. STUBBS, Ezell-Griffin Co., Eatonton, Ga. 6-4

Chautauqua County, N. Y. offers opportunity for dairy and fruit farmers equal to any. Pool price for January milk 2,732 gross per cwt. We can sell what you want at ridiculously low prices. Write, CHAUTAUQUA GUERNSEY FARMS, Bank of Jamestown Bldg., Jamestown, N. Y. 5-4

Farms For Sale or Rent—Ask for descriptions of our Wisconsin dairy farms. Available now. Prices and convenient methods of financing. Write today. WISCONSIN DAIRY FARMS CO., 105 Wells St., Milwaukee, Wis. 6-3

Canada—480 acres near good town in Manitoba, all cultivated, good buildings, horses, cattle, pigs and chickens, feed and seed. Immediate possession. Balance contract, easy terms, 6% interest. Price $30.00 per acre, $5,000.00 cash. GEORGE A. YOUNG, 407 McArthur Building, Winnipeg, Man.

Dairy Farms—Davidson Plan. 160 acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota.

400 Acre farm, good buildings. Top prices paid year around for milk, cream, by Twin City Milk Producers' Association. $110 per acre. Write F. C. KLAUS, Farmington, Minn.

For Sale—Dairy farm and milk route. Good proposition offered. R. H. TRACY, Brighton, Iowa.

40 acre dairy and poultry farm. Established milk route. Write BOX 533, Kankakee, Ill.

Highly Improved 80 acre farm offered. FRANK THOMAS, Delavan, Wis.

FARMS WANTED

Wanted—Equipped farm; give price, etc. L. H. RAISLER, 6700 Wentworth Ave., Chicago, Ill. 3-*

Need several fully equipped farms, immediately. WALT MILLER, Carpenter Bldg., Milwaukee.

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

DAIRIES

For Sale—Dairy with about 400 grade and pure cows and heifers on eighty acres of land (not c vated). Established routes with approximately customers. Officially appraised value $140,000.00, be bought at a great sacrifice. It will take $40,000.00 cash, balance on time, to put deal thr and carry on business. For further information dress S. ARONSTEIN, Receiver, 423 N. Mesa El Paso, Texas.

For Sale—A thriving milk route business. Wit without Guernsey cows. Will rent or sell farm. reasons for selling. RAY CANFIELD, Owner, Prairie, Minn.

Sacrifice at once—Complete dairy plant; one hun gallon pasteurizer, coils, boiler, bottle washer, 1118 CONCERT STREET, Keokuk, Iowa.

EXCHANGE

40 acres improved land; trade for Holstein Clear of incumbrance. ED MOSS, Paris, Illinois

BUSINESS OPPORTUNITIES

We have bottling works, plumbing business, cr ery and amusement places, none other like it. several good dairy farms, all at very reasonable p C. H. BAGG & CO., Box 421, Owatonna, Minn

NURSERY STOCK

Frost Proof Cabbage and Onion plants. Open grown, strong, well-rooted from treated seeds. bage, fifty to bundle, labeled with variety name, moss to roots, Jersey Wakefield, Charleston Wake Succession, Copenhagen, Early and Late Flat D Onions: Prizetaker, Crystal Wax and Yellow Bern Parcel Post Prepaid cabbage: 100, 50c; 200, 75c; $1.00; 500, $1.25; 1,000, $2.00; 5,000, $8.00. On 500, 90c; 1,000, $1.40; 6,000, $6.50. Express Co 6,000 and over Cabbage, $1.00 thousand, Onions thousand. Full count, prompt shipment, safe ar satisfaction guaranteed. Write for free Seed and Catalog. UNION PLANT COMPANY, Texar Ark.

Postpaid Strawberry Plants. Progressive Everbe 100, $1.35; 500, $5.50. ALBERT H. SCHU Neillsville, Wis.

Bermuda Onion plants express collect 45c; Spanish 70c; cabbage 90c per thousand; 6000 per LIND PLANT FARMS, Cotulla, Texas.

SEEDS

Jacques Seed Corn—North Wisconsin Grown pure, Acclimated seed, under my personal superv Selected before frost, dried out perfectly. Every shel tested, 95—100% germination, strong vit Inspected and Certified by Wisconsin Experiment sociation. Golden Glow, Cold Resistant Golden Jacques' Northern Yellow Dent, Wisconsin 25, S King, Minnesota 13. Write for illustrated bo and prices. WM. H. JACQUES, Box H, Prescott,

Alfalfa Seed—Do you know why your alfalfa killed? You no doubt did not use hardy WESODAK alfalfa seed. The seed we mark grown by our members who live in Western Dakota. We market from producer to consumer grow S. D. No. 12, Registered Grimm and Co and absolutely guarantee genuineness of variety. for price and samples to THE WESTERN SO DAKOTA ALFALFA SEED GROWERS EXCHA Nick Caspers, President, Mgr., Rapid City, S. D

You are perfectly safe in ordering our Regist Certified Grimm Alfalfa Seed direct from this Shipped C. O. D. subject to your inspection. grade; purity 99%; viability 90 or more. Per 35 cents. On orders 100 pounds or more within miles of Fargo will prepay freight for additional a pound. Still have limited quantity Sweet Seed; send for samples. N. D. GRIMM ALFA ASSOCIATION, State College Station, Fargo, N Co-operative organization of over 500 growers.

Buy Your Grimm alfalfa seed direct from the troducer, and know that your foundation stock is pedigreed seed, bred from the original Grimm st Acclimated to severe northwest temperatures since A. B. LYMAN, Introducer, Excelsior, Minnesota. Home of Grimm Alfalfa.

Crop 1925. Seed Corn. 110 day yellow dent. per bushel, shelled, in two bushel lots or over. and tips discarded. High germination. Sacks apiece extra. Order from this ad.; and, do it R. W. BORDER, Kearneysville, Jefferson Co., Virginia.

Pure Certified Grimm's Alfalfa Seed direct the man that grows it. Hardiest and best. postal for samples and folder for full informa TRIANGLE RANCH, Cottonwood, S. D.

Seed Corn—Dependable, vigorous. Several eties. Experienced growers. Satisfaction guaran Write for prices. Supply limited. JOHNSON & NESON, Dassel, Meeker County, Minnesota.

Buy Hardy alfalfa seed; hulless and beardless ley; hulless oats direct from SAM BOBER, Ne South Dakota and save money.

Alfalfa Seed—95% pure, $6.50 per bushel; Sca sweet clover, 95% pure, $5.50; bags free. GEO BOWMAN, Concordia, Kansas.

Manchu Soy Beans, germination 97%, $3.00 bushel. J. V. STEVENSON, Streator, Illinois.

Minnesota No. 13 seed corn $2.75 up. Germin good. LEVI HAAPALA, R. 3, Dassel, Minn.

For Sale—Early extra quality Manchu Soyb White Minorca eggs and chicks. JESSE RUSH, hart, Indiana.

HAY

Alfalfa Hay for Sale. Write for delivered p ALBERT MILLER & CO., 192 No. Clark St., cago, Ill.

Alfalfa, Clover Hay, Dairy Feeds, for sale. or wire for prices. Weights and grades guaran J. A. BENSON CO., 332 So. La Salle, Chicago.

Alfalfa Hay for Sale—A. B. CAPLE, Rou Perrysburg, Ohio.

Wholesale hay and straw. Write us for p Consignments solicited. We buy straw or tim J. D. REID & CO., 79 Board of Trade, Chi Illinois.

Alfalfa Hay for sale. Get our delivered prices H. HALL CO., Kansas City, Mo.

Hay For Sale—Any kind in carloads. GEO FREDERICK, Beaver Dam, Wis.

FEED BAGS

For Seventeen years we have paid the highest to dairymen for their empty feed bags. Get quotations before selling. THE DAYTON BA BURLAP CO., Dayton, Ohio.

TOBACCO

Homespun Tobacco—Smoking or chewing. 4 $1.00; 12, $2.25. Send no money, pay postmast arrival. Pipe free for ten names of tobacco UNITED FARMERS OF KENTUCKY, Padu Kentucky.

Send us 5 names of tobacco users with order lbs. of our tobacco for $1.00 and get an extra free. Pay when received. FARMERS' ASSO TION, West Paducah, Ky.

Guaranteed Homespun Tobacco—Chewing 5 p $1.00; 10—$1.75; Smoking, 10—$1.50. Pipe Pay when received. UNITED FARMERS, Bard Kentucky.

ROCK PHOSPHATE

Make alfalfa profitable by use of Four Leaf dered Rock Phosphate. It makes a thriftier stand higher hay yield. Write for information. THOM PHOSPHATE COMPANY, 1027 Home Insurance B ing, Chicago, Illinois.

MATTRESSES

Mattresses made any size, low factory prices. log free. PEORIA BEDDING COMPANY, Pe Illinois.

MISCELLANEOUS

...re at big discount. Beautiful Sugar and ...heavily silver plated, regular $8.00 set for ...ay Postmaster when received. Satisfaction ...d or money back. Order today. EARL CUM... Rockford, Illinois.

...op Table Rice—Fresh and sweet. From ...onsumer. 100 pounds beautiful white rice ...cked $4.50. J. Ed. CABANISS, Box 444, ...as. 7-2

...s Wool—Made into blankets, batting and ...fair prices. Send for circulars. MONTI... WOOLEN MILLS, (Estab. 1866), Monticello, 7-4

...le Ties—Tallman's bale ties are better and ... Write today for special price list. THE ...N COMPANY, Shelbyville, Illinois. 8-6

...of our leather bound loose leaf pocket herd ... be able to give accurate information re... the animals you have for sale. Will ac... 100 animals, (sketches, sire, dam, date of ...rds, service date, etc.). Also service record. ...table. Price $2.00, postpaid. HOARD'S ...N, Fort Atkinson, Wis. 24-*

PRINTING

...t milk tickets, checks, shipping tags, etc., ...rs all over the country. Our work will ...a. Write us now so you will have your ...n hand. HOARD'S DAIRYMAN ART ...t, Atkinson, Wis. 26-*

TESTERS WANTED

...esters wanted for associations starting May ...e good openings for men experienced in ...n Advanced Registery, or in Association ...ersonal interview desirable last week in ...ldress A. J. CRAMER, Dairy Records Office, ... Wisconsin.

...w Testing Associations need testers. Sal... per year and up, plus board. Training ...fered. Give age, experience, references first ...AIRY EXTENSION, IOWA STATE COL...nes. 20-*



...ising in this department is 8c per word. Remit in advance.

HELP WANTED

...—First class hand milker. One familiar with ...achines on one of Wisconsin's finest dairy ...erything modern and up-to-date. Guernsey ...ding high grade milk. Living conditions ...h, hot water, heat, electric lights. Wages ...r month, board and room. Position open ...HITE PLAINS GUERNSEY FARM, J. B. ...wner, Kansasville, Wisconsin. 8-*

...—Experienced herdsman, married man pre... 00 Holstein cows on three time test. Must ... man in every respect. Send references and ...ected in first letter. Address BOX 372, care ...airyman.

...ced Dairyman wanted for Holstein herd of ... juvenile welfare institution. Boys assist in ...me experience in buttermaking advisable. ... good. Address BOX 364, care Hoard's

...at once—Two good milkers, either married ...for work on dairy farm and to assist with ...rm work. Also man and wife for general ... and cooking. Write particulars to J. M. ...Belle Fourche, South Dakota.

... Positions—Men, 17-49, wanting positions ...on trains, $125-$400 monthly, free passes, ... unnecessary. Write BAKER, Supt., 124, ... Mo. 1-24

...—Dairyman with family who can milk a herd ...70 cows. Must be first-class milkers, ex... handling milch cows. Good wages. Write ...KER, Route 3, Missoula, Montana. 8-2

...—Experienced man or boy of good habits on ...airy farm. Modern machinery. $50.00 board ... SHERMAN DAIRY CO., South Haven.

... Brakemen, beginners $150-$250 monthly; ... railroads everywhere (which position?). ... ASSOCIATION, Desk M-10, Brooklyn,

...—Married man with son. One for farm work. ...dairy work. Must be good man and know ...d contract. BERT SOUDERS, Cambridge ...na.

...—Man to plan and build an up-to-date ...rn. Write ATWOOD STOCK FARM, Win... N. C. 6-3

...—Reliable married man to feed and care for ... Must be able to take active charge of ... S. R. LEWIS, Marseilles, Illinois. 7-2

...—Reliable married dairyman and farm hand. ...modern equipment. BOX 234, Herndon, ...

...—Single man to work in dairy. Good op... or the right man. LARSENS FERN-DELL ...een Bay, Wis. 8-2

POSITION WANTED

...n man you may need. Good dairyman, A-1 ...e. Also good farmer, teamster and good ...anic on any machine used on the farm, ...ks, tractor, electrical equipment. Have been ...ng school this winter and can give anyone ...e, willing to help anywhere needed, cheer... ...gle, 45, healthy. Speak French, German ...h. Reference given. ALBERT FISHER, ...ect Ave., Cleveland, Ohio. 7-2

...rm Superintendent—Lifetime experience in ...dairy farming, cattle breeding, production ...ing certified and high class milk products. ...eliable in sixty days, any section, refer... ...fer Guernseys. Address BOX 334, care ...airyman. 6-4

...—Position as herdsman where results count. ...experience feeding, testing, showing, calf ...ge 35. Married; no children. State propo... first letter. Best of references. Address ...care Hoard's Dairyman.

...—Position showman Holsteins only. Like to ...eastern breeder who desires experienced ...or coming season. Know southeastern cir... ...ess BOX 367, care Hoard's Dairyman. 8-2

...or test milker. Single. Have years ex... ...th test cows and also very good calf raiser. ...very good references. State wages in first ...dress BOX 371, care Hoard's Dairyman.

... single, steady, wishes work on farm in Il... ...60 a month. With Catholic people pre... ...dress BOX 368, care Hoard's Dairyman.

...l, nationally known, college trained dairy ...ger desires extensive proposition. Address ...care Hoard's Dairyman.

...—Position as cow-tester. Experience, age, ... Address L. L. Q., Box 325, R. F. D. 6, ...d. 8-2

...ed a Vest Pocket Herd Book

A Minnesota Holstein Association Report

The Minnesota Holstein Breeders' Association recently sent us a report of the 1926 activities of the Ottertail Co. Holstein Association which is particularly interesting because it shows something of what can be accomplished by an active county breeders' association, in this case one whose members, 14 years ago, owned exactly two Holsteins.

During the year, the membership was increased from 18 to 114, the county being divided into districts with regular meetings in each district.

The pure-bred sire campaign sponsored by the state association and assisted in by the county organization resulted in the placing of 186 pure-bred sires, 41 per cent of them Holsteins.

A Holstein calf club with 44 members was organized and the county association assisted materially by loaning money to worthy boys and girls for the purchase of registered and grade calves.

The county sale manager plan was developed during 1926 and the two managers assisted in selling 253 Holsteins for association members.

A county show herd was exhibited at various county fairs and the state fair.

The county association was active in getting the required number of farmers signed up for the county area test for tuberculosis.

Certified Milk and Its Competitors

To certified milk, or more correctly its producers, is undoubtedly due a flag of leadership for showing not only our own country but the world what it is possible to do commercially in the way of cleanliness and cold in milk production.

With the local Medical Milk Commission as umpire to see that the game is played according to the rules, milk is regularly produced so clean and so cold that after traveling across the continent or even going to Europe and home again, it has been sweet for a month after it was drawn from the cow.

Certified milk represents the peak of man's efforts to produce clean, wholesome milk as free as possible from the faults and dangers of contamination to which a human food is inevitably subjected when drawn from an animal living in a barn, yard, or pasture.

Certified milk has passed from a product often produced by men of wealth, who use the salve of "altruism," "love of human service," the "lure of the land," or something else to cover up their regrets when they found it cost more to produce than it sold for.

It has become a business to produce certified milk at a profit.

This means, known costs in detail, elimination of the unessential. It also means daily volume, reduced delivery expense, development of new business. Here is where the competition comes in.

"Pasteurized milk,"—Grade A, Grade AA—"Guernsey Milk," "White Nectar," "Guaranteed Milk," and just common "milk," one or several are competing for the attention of the housekeeper, the home maker's and the mother's dollar.

Modern competitive business says —"Praise your own goods—render service—don't knock your competitors."

Certified milk has certain assets no other milk can claim. Build business on these assets.

High Production, Low Feed Cost



In 1926 **ALL JERSEYS** officially tested for 365 days **AVERAGED 10,209 LBS. OF MILK, 545.20 LBS. OF BUTTERFAT.**

You *can* have heavy production of high quality milk in your herd without a heavy outlay. Jerseys purchased at present prices will prove to be a very profitable investment. Prices are moderate and Jerseys produce at a remarkably low feed cost.

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THE AMERICAN JERSEY CATTLE CLUB, Dept. B, 324 West 23d Street, NEW YORK

1. Every cow is examined for health, frequently.
2. Every barn is cared for above the average.
3. Every attendant is a selected man.
4. All feeds are chosen for quality and uniformity.
5. All utensils are sterilized regularly.

In fact, everything known to the mind of man is done to produce a clean, cold, safe, raw milk.

Then on top of this a disinterested —neutral—scientifically trained umpire; the Medical Milk Commission, with its inspectors and laboratory tests, watches the business and certifies to the public that the care is taken and results secured.

All things human are comparative. More people are killed annually by automobiles than by guns or axes—yet, we sometimes hang the murderer who uses the axe or gun and let the others go free.

Certified milk should be raw—say you; certified milk should be pasteurized—say some; certified milk should be boiled—say others; all milk should be pasteurized or all milk should be boiled to please some people. You cannot please all by any one practice.

Let us recognize the humanly practicable.

Certified milk as a class is the best raw milk we know how to produce on a commercial scale. It costs more to produce this kind of milk than many people can or will pay for. We might as well admit it and build our business with due regard to this rock which we cannot remove or climb over, so we must go around.

There are many people who want milk clean, cold, safe, and raw, milk which has all the care and protection known to science and business. They will pay a fair price for it. This is the market for certified milk. A market not yet saturated, for new homes, new mothers, new lives by the thousand start each day.

Some may want certified milk pasteurized or even boiled. Let them do it, but don't require something done to all certified milk which cannot be undone and which figures may show is after all as not a conclusive necessity.

But, Mr. Certified Milk Producer, just as surely as I believe in the foregoing, I believe that the safest milk for the mass of people in a city of any size is good clean milk pasteurized. The human factor or even the mechanical factor may sometimes fail in the production of certified milk and of pasteurized market milk, yet the fact remains that common practice in certified milk production and in pasteurization of the general milk supply of modern cities gives American homes a larger proportion of healthful milk free from disease, than is found in any country of the world.

But let us not forget that certified or pasteurized milk is not universally available even in this land of ours. A health worker found a community where she saw no child seven years of age or under who had ever had a drink of fresh milk. Condensed or evaporated milk in tin cans had been the life saver of practically every child in that community.

The art and practice of concentrating milk by drying has reached the commercial stage and many pediatricians and welfare workers in this and other communities are finding it the salvation of youngsters by the score.

The essence of my message is that the crying need of today is that many children need more *milk* for their own health's sake.

We should *subordinate* to this thought whatever claim to glory a particular brand of milk may have, and advocate first an adequate consumption of milk daily.

Second, to present the claim of the different kinds of milk that the consumer may select—the kind that meets his or her pocket and taste and ideals. Build the demand for milk—don't knock any good milk.—An address by H. E. VanNorman before the annual meeting of the Certified Milk Producers' Association of America.

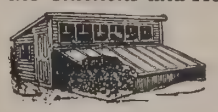
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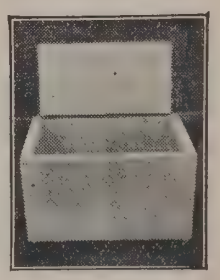
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3209 acres lying on and between Broad and Pacolet rivers. 23 miles to Gaffney, the county seat, 9 miles to Hickory Grove R. R., 1¼ to school, 2¼ to church. 1000 acres pasture, 700 acres timber, excellent farming land, colonial home in good condition, large barn with 20 stalls, upper story for provisions, with wide sheds sufficient for feeding 100 cattle, concrete silo, garage for 4 cars, other buildings, wells, springs, branches, etc. Price $40,000. A valuable plantation from every standpoint.
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	25 Chicks	50 Chicks	100 Chicks	500 Chicks	1000 Chicks
SINGLE COMB WHITE LEGHORNS	$3.50	$6.75	$13.00	$60.00	$110.00
SINGLE COMB BROWN LEGHORNS	3.50	6.75	13.00	60.00	110.00
SINGLE COMB BUFF LEGHORNS	3.50	6.75	13.00	60.00	110.00
BARRED PLYMOUTH ROCKS	4.25	8.25	16.00	75.00	140.00
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SINGLE COMB BLACK MINORCAS	4.25	8.25	16.00	75.00	140.00
WHITE PLYMOUTH ROCKS	5.00	9.25	18.00	85.00	160.00
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SINGLE COMB BUFF ORPINGTONS	5.00	9.25	18.00	85.00	160.00
ASSORTED CHICKS	2.75	5.25	10.00	45.00	80.00

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FREE Our new bulletin entitled "Are You Keeping Hens or Are Your Hens Keeping You?" will be mailed free to all who ask for it. A fund of valuable information based on actual experience in the poultry business. Write for our large, handsomely illustrated catalog and read it from cover to cover. Compare the facts contained therein with the claims made by others. Then decide for yourself where your investment will net you the greatest profit.

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Buy your chicks from heavy laying flocks that are officially accredited by inspectors supervised by Michigan State College and of prize winners at the Holland Poultry Show. White and Brown Leghorns, Anconas, Barred Rocks, S. C. R. I. Reds. 100% live delivery, postpaid. Send at once for free catalogue, full particulars and detailed prices.

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Chicks that are hatched from free Farm range breeders fed on milk from the dairy on the same farm. Our flocks and hatchery inspected and passed by representative of Mich. State College. Refer you to State Com. Savings Bank. Order from this ad.

PRICES EFFECTIVE MAY 9th	25	50	100	400	1000
S. C. Wh. & Br. Leghorns	$3.00	$5.25	$10.00	$38.00	$ 90.00
Bd. Rocks	4.25	6.75	13.00	50.00	120.00
S. C. Reds	4.00	6.25	12.00	46.00	110.00

Heavy Mixed $11.00 per 100. Light Mixed $7.00. Our chicks are Michigan Accredited. 10% down books your order. Free catalog. 100% live delivery prepaid.

HUNDERMAN BROS., R. R. No. 3, Box 35, ZEELAND, MICH.

WHITE LEGHORN HENS AND MALES
now half price. Thousands of eight-week-old pullets. Also baby chicks and eggs. Trapnested, pedigreed foundation stock, egg bred 27 years. Winners at 20 egg contests. Catalog and special price bulletin free. I ship C. O. D. and guarantee satisfaction.
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Just mail your order. We ship C. O. D. and **guarantee prepaid** 100 Per Cent live delivery of **sturdy, purebred** Chicks from healthy bred-to-lay flocks; Wh. Br. & Buff Leghorns 10c: Eng. Wh. Leg. 11c; Trapnested Wh. Leg. 13c; Bd. & Wh. Rocks, R. I. Reds, Anconas, Bl. Minorcas, 12c; Buff Orpingtons, Wh. Wyan., Buff Rocks 13c; Mixed 8c; all heavies 10c. Orders for 50 chicks 1c more, 25 chicks 2c more.

Silver Lake Egg Farm, Box H. D., Silver Lake, Ind.

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Send no money. Pay on arrival. Per 100; Big type **Wh. Leghorns** $13; Wh. & Br. Legs. $11.50; Buff Legs., Anconas $12; S. C. Reds, Bd. Rox $13.50; Wh. Rox, R. C. Reds, Blk. Minor. $14; Wh. Minor. $18; Buff Orps., Wh. Wyan. $15; Heavy Mixed $11; Ass'td. $9. $2.50 dis. on 500. Super quality chix 3c higher. **CAPPER HATCHERY, Box I, Elgin, Iowa.**

BABY CHICKS *FOWLS EGGS.*

68 breeds fine pure-bred chickens, ducks, geese, turkeys, fowls, eggs, chicks at low prices. 26 years with America's most profitable poultry, northern heavy egg producers. 10,000 prizes. Large catalog free. **A. A. ZIEMER, AUSTIN, MINN.**

Poultry on the Dairy Farm



New Furniture

The completion of the walls, floor, and roof of a poultry house means that the job is just nicely started. In this day when music in the dairy barn is supposed to sooth a cow sufficiently to result in an increased production; when artistic, harmonious, interior decorating of the home leads to a compatability that will prevent divorce, it may be possible to improve egg production by proper selection of the equipment for the laying house.

It is a positive fact that proper attention to what is really needed in a poultry house will assist materially in decreasing labor, lowering production costs, and increasing profit. When one has an opportunity to view the motley array of things that have, can, and should not be inflicted on a house in the way of equipment, it is not wondered why a flock can lose all idea of producing. There is a limit to all things.

First in importance and consideration is the mash feeder. This seems to be the starting point in the career of every poultry keeper. Some of them make a mash feeder because they keep chickens, while others only keep chickens as an excuse for designing a mash feeder. The rest either take something from someone else or use a substitute. Substitute feeders include hog troughs, iron kettles, half of the available kitchen utensils ranging from dish pans to pie tins or broken crockery and often means only an open box. The mash mixture in these instances would of necessity have to be powerful enough to act as a plaster applied externally. It is in most instances kicked into the litter, wasted, and then a complaint is raised because no results were obtained.

As indicated, there are an endless variety of mash feeding devices available. Regardless of what type one may adopt, it is necessary that the feeder have the mash available for the flock, eliminate waste, permit the hens to see what they are getting, and be sufficient in number to accommodate the entire flock.

Most of the wall type feeders are objectionable when considered on that basis. A particular type may be made that will feed a certain mixture. With a change in the mash it will either usually feed too fast and waste or will clog. One, then, must revert to the old practice of hitting it a kick every time in passing. A second objection is raised in that the wall feeders force the flock to work in the dark, since the light is cut off and decreases the number ing at one time since only one opened.

Nothing apparently is perfe the home-made type here recon ed is criticised because it de filling at regular intervals. T an advantage since regular means fresh mash and a bette ception of the proportion which between grain and mash consur This proportion is the check c nomical feeding.

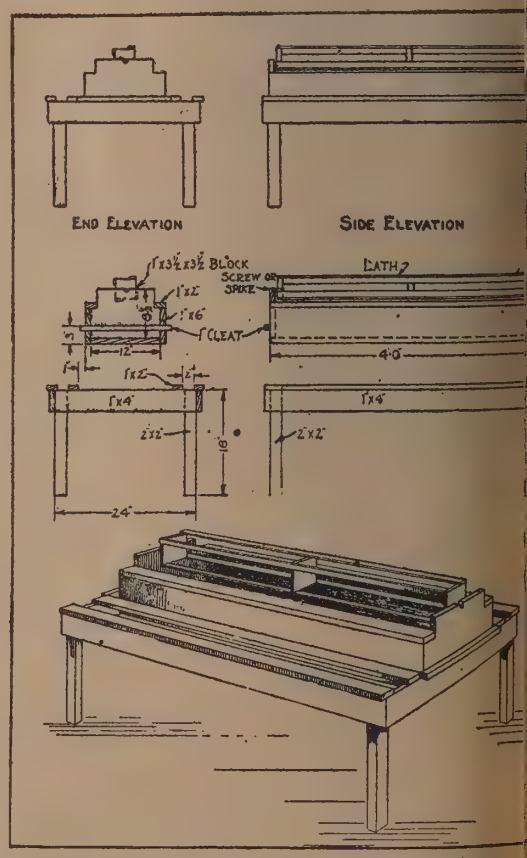
The cut gives one a definite i the construction of this feeder bottom is a 1″x12″, the side 1″x6″, and ends are 8½″ wid 1″x2″ strip is used on each sid lip to prevent wasting. Usuall advisable to set these sloping de a thirty degree angle to permi feeding space between this stri the reel.

A reel made of building lath and nailed on three 2″x3½′ pieces, revolving freely, preven hens from roosting. The entir struction is set on a stand ei inches high so that it can be r removed and cleaned. This t feeder is the equivalent of two foot wall hoppers since the flo access to both sides.

A storage bin used in conju with this makes a suitable ar ment and facilitates feeding. Th of the material required depend local prices, for the labor and required in constructing is small.

Roosts and Dropping Boar

In any building one assume all of the floor space will be av for the flock. This requires th



A NON-WASTING DRY MASH HOPPER

Two-way feeder which prevents waste of dry mash. ing top eliminates roosting. Can be as readily filled fro age bin as other type of hopper that tends to clog or fe rapidly. The bill of material is as follows: 4 pieces 2″ long, 2 pieces 1″x4″x24″ long, 2 pieces 1″x4″x4′-2″ l pieces 1″x2″x4′-2″ long, 2 pieces 1″x2″x4′-0″ long, 2 1″x6″x4′-0″ long, 1 piece 1″x12″x4′-0″ long, 2 pieces 1″x long, 2 pieces 1″x1″x18″ long, 3 pieces 2″x3½″x3½″, 4 lath, 2-2½″ No. 10 screws, ½ lb. 6d box nails.

pping boards. A little addition-
r in building this part of the
ent may mean the saving of
le time later.
table should be built about
d a half feet from the floor.
eight makes it possible for the
e fowls to get up without the
an incline and down without
jury.
h lumber is advised and one is
d to run the boards the length
house to save time in sawing.
ne boards from front to back
will aid materially in cleaning.
ts can be constructed about
six inches above the dropping
. For this purpose one will find
ny two-inch surface with the
edged bevelled will suffice. For
lengths one can use 2"x2" or
ger lengths 2"x4". The use of

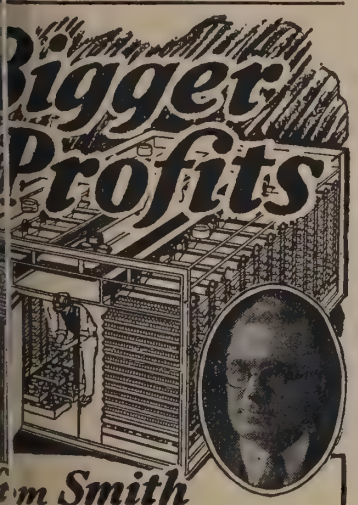
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& Br. Leghorns	$3.00	$5.75	$11	$52.50
Rocks, R. I. Reds	3.50	6.75	13	62.50
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Wh. Wyan.	3.75	7.25	14	67.50
S.L. Wyan.	4 00	7.75	15	72.50
Anconas	3.25	6.25	12	57.50
W. & B. Orp.	4.00	7.75	15	72.50
Heavy Asst'd.	3.00	5.75	11	52.50
H. & L. Asst'd.	2.75	5.25	10	47.50
Light Asst'd.	2.50	4.75	9	42.50

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THE OOCO CHICKERIES OCONOMOWOC, WISCONSIN

material such as iron pipe should absolutely be discouraged.

Any and every wood roost should be painted when built and at least once yearly thereafter with some good wood preservative. A thorough application once a year will tend to control mites satisfactorily. This is the only known means because, in so far as is known, no particular kind acts as a constant deterrent to the parasites.

Beneath the roosts should be nailed, and brought down the front, one-inch mesh poultry netting. The use of this netting assists in disease control, since it keeps the fowl from contact with the droppings; promotes cleaner eggs by keeping the hens' feet clean and retains any egg which may be laid while the hen is roosting. This represents a small but valuable investment.

Nests

The nests should never be suspended beneath the dropping boards. That is the dirtiest part of the house and hanging them in that place defeats the purpose of the dropping boards by cutting off the light. Both end walls are available when this type of mash feeder is used.

A nest 12"x14"x14" is sufficiently large. These can be banked at least three tiers high which will give sections of fifteen or more. It is not necessary to construct these with a back since they will hang on the end wall. Cleaning is facilitated without a back since swinging them out at the bottom allows the nesting material to drop out.

A 1"x6" strip attached by hinges to a 1"x4" strip allows for a run board on the front and keeps the nests closed at night if the hinges are put on backward. They can in this way act like brackets. The top of the nest should be slanted to discourage roosting.

There is always sufficient debate concerning the merits and demerits of open or closed nests. Personally there doesn't seem to be much reason or necessity for making the nests dark. If, however, it would make the flock owner feel better to provide the hens with nests of that kind on the assumption that they need solitude to concentrate on egg making, it may be advisable. The entire bank of nests may be moved out from the wall and entrance permitted from the back. A narrow board rather than a full walk will assist in keeping that portion cleaner and will tend to prevent the flock from laying in the run-way rather than the nests.

The watering device can be arranged when a pail or light vessel is used. The stand may be of slat construction to promote cleanliness and with a central hole or opening to retain the vessel.

All equipment must be built up off the floor.

The only other items that may be needed are long troughs for feeding moist mash. They are placed on the floor only when feeding and are then hung on the wall.

Grit and shell hoppers can be placed on the wall beneath the windows.

A certain amount of equipment is required. That may be either home-made, purchased, or a combination of

FLOCKS BLOOD TESTED

Our Flocks of Pure Bred, High Quality, Heavy Laying Fowls are annually tested for BOTH WHITE DIARRHEA AND TUBERCULOSIS under University of Illinois supervision. 35,000 HENS UNDER TEST. LARGEST PLANT IN THE WORLD PRODUCING CHICKS FROM BLOOD TESTED FLOCKS ONLY.
Our Stock is selected especially for vigor and High Laying Qualities and Ancestry in both male and female. We will have ONE MILLION OF THESE CHICKS for our customers during 1927. We also give a SEVEN DAY GUARANTEE on our Chicks by replacing the loss at half price. We will allow BIG DISCOUNTS on Brooders. PRICES EFFECTIVE MAY 15th.

	25	50	100	500	1000
S. C. White and Brown Leghorns	$3.75	$7.00	$13.00	$62.50	$120.00
S. C. Anconas	4.25	8.00	15.00	72.50	140.00
Barred Plymouth Rocks	3.75	7.00	14.00	67.50	130.00
Black Minorcas	4.75	8.50	16.00	77.50	150.00
S. C. & R. C. Reds	4.25	7.50	14.00	67.50	130.00
Light Brahmas	4.75	9.50	18.00	87.50	170.00
White Rocks, Buff Rocks	4.50	8.00	15.00	72.50	140.00
Buff Orpingtons, White Orpingtons	5.25	9.00	17.00	82.50	160.00
White Wyandottes, Silver Wyandottes	5.00	8.50	16.00	77.50	150.00
Assorted Heavy	3.75	7.00	13.00	62.50	120.00
Assorted Light and Heavy	3.50	6.50	12.00	57.50	

White Minorcas 100, $20. GET OUR BIG, FREE, COLOR PLATE POULTRY BOOK for 1927, before ordering Chicks elsewhere. Illustrates our Blood Tested Fowls in their natural colors and contains a great amount of information of value to you. PLAY SAFE FOR 1927 by buying our GUARANTEED CHICKS from fully TESTED FLOCKS. Ref.—First National Bank of Oneida.
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AMERICAN CERT-O-CULD
OFFICIAL Record of Performance Trapnest Pedigree Male, Quality, Exhibition and Foundation Stock Mating Chicks. 40 Popular and Rare Breeds. Jersey Black Giants, Hamburgs, Polish, Lakenfelders, Buttercups, Houdans, Campines, Sussex, Spanish, Cornish. Ducklings, Baby Turkeys, Goslings. Eggs for Hatching and Breeding Stock. Mem. International B. C. A. and American B. C. P. A. Chicks in Quality Matings as follows:

Postage Paid, 100% Live Arrival Guaranteed.	50	100	500
Wh., Buff, Br. and Bl. and R. C. Br. Leghorns	$ 7.00	$12.00	$ 58.00
Barred Rocks, S. C. and R. C. R. I. Reds, Anconas, Bl. Minorcas	8.00	14.00	70.00
Wh. and Buff Rocks, Wh. Leghorns, Wh. Wyandottes, Buff Orpingtons	8.00	15.00	75.00
S. C. and R. C. R. I. Whites, S. L. Wyandottes, Black Langshans	8.50	16.00	77.00
Go. and Col. Wyandottes, Wh. Orpingtons, White Minorcas	9.50	18.00	90.00
Part. Rocks, R. C. Anconas, Blue Andalusians, Light Brahmas	11.00	19.00	95.00
Part. and Buff Wyandottes, Bl. Orpingtons, Bl. Minorcas, S. S. Hamburgs	11.00	20.00	98.00
Silver Campines, Jersey Blk. Giants, Dark Cornish, W. C. B. Polish	13.00	23.00	110.00

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CHICKS — Backed By Gold
Our chicks guaranteed by a $500.00 gold bond on deposit at Denhart Bank of Wash. You take no chances in buying Bonded, pure-bred, vigorous chicks—they are bound to make good.

Varieties Postpaid Prices:	25	50	100	500	1000
S. C. Wh. and Br. Leghorns	$3.50	6.50	12.50	60.00	115.00
S. C. Mottled Anconas	3.75	6.75	13.00	62.50	122.50
Bd. Rocks, R. C. & S. C. Reds	4.00	7.50	14.50	69.00	135.00
B. Orp., Wh. & Buff Rks, Blk. Min.	4.25	8.00	15.50	75.00	147.50
Wh. and Silver Wyandottes	4.50	8.50	16.00	77.50	152.50
Light. Brah., Wh. Min., Col. Wyan.	4.75	9.00	17.00	82.50	162.50
Blue Andalu., Silv. Spgl. Hamburgs	5.25	10.00	18.00	87.50	172.50

Mixed Chicks $10 for 100—all heavies $12. Special matings at slightly higher prices. 100% live arrival. Send for new free catalog that tells all.
BONDED HATCHERIES Box 1 Washington, Illinois

MINKLER'S Hatchery
MINKLER'S CHICKS Are from good, pure-bred, vigorous flocks, bred for heavy egg production, carefully selected and cared for in a manner to insure greatest vitality in the chicks.

Full Live Delivery Guaranteed—Prepaid	50	100	500	1000
White and Brown Leghorns	$6.00	$11.00	$52.50	$100.00
Anconas	6.50	12.00	57.50	110.00
Barred Rocks	7.00	13.00	62.50	120.00
White & Buff Rocks, Reds	7.50	14.00	67.50	130.00
White Wyandots, Buff Orpingtons	8.00	15.00	72.50	140.00
Heavy Assorted	6.00	11.00	52.50	100.00
Assorted Left Overs	5.00	9.50	45.00	85.00

Order from this ad. Bank Ref. Member A.B.C. P.A. & National Hatcherymen's Assn. MINKLER'S HATCHERY, Dept. 19, Morris, Ill.

THE CHICK OF THE HOUR
CAMPBELL'S SUPER CHICKS GUARANTEED! — From DOUBLE IN. SPECTED FLOCKS, six years culling and breeding back of our high producing birds. Yearly egg production averages of 196 EGGS PER HEN. Leading strains in each variety such as TANCRED, MARTIN, etc. HEALTHY, VIGOROUS CHICKS, large capacity and extra good hatches enables us to deliver promptly chicks in any quantity without sacrificing quality. No better chicks to be had at these low prices post paid. 100 per cent live delivery.

	100	200	400	500	1000
W. & B. Leghorn, Anc. Heavy Asst.	$10.50	$20.00	$39.50	$58.50	$ 90.00
Barred Rock & S. C. Red	12.50	24.00	47.50	71.00	115.00
W. Rock, B. Orpington, W. Wyandotte	13.50	26.00	51.50	76.00	125.00

Faultless Chicks Blood Tested From specially mated egg producing flocks at 3c per chick higher. Order right from this ad. Prompt service. Reference: Schirding State Bank or this paper. Free Catalog CAMPBELL'S HATCHERIES, PETERSBURG, ILLINOIS

WALDBESER CHICKS~FOR PROFITS
CHICKS AND SERVICE. We have only Flocks that are TRUE to name. Culled and Tested for diseases, which will hatch Chicks that will live, and produce large quantities of eggs. Try our Leghorns for egg production, you will be back again next season. 100 Per Cent Live Delivery.

Prepaid	50	100	500	1000
White Leghorns, Anconas,	$4.50	$ 9.00	$43.00	$ 84
Barred & White Rocks, S. C. Reds,	5.50	11.00	53.00	104
Wh. & Buff Orpingtons, Wh. Wyandots,	5.50	11.00	53.00	104

White Minorcas, 50, $8; 100, $15; 500 $72. Asstd. 100, $8; 500, $40; 1000, $80. Order from these low prices. Chicks shipped on date ordered. Ref. Morton State Bank. MORTON HATCHERY, Chris Waldbeser, Jr., Prop., BOX 23, MORTON, ILLINOIS

FLOCKS TESTED FOR WHITE DIARRHEA
ILLINOIS ACCREDITED
ALL FLOCKS TESTED FOR BACILLARY WHITE DIARRHEA
Carefully culled for heavy egg production on free range, and properly housed, fed and cared for to insure the greatest vigor in our IDEAL CHICKS. S. C. White and R. C. Brown Leghorns, Barred and White Rocks, S. C. Reds, White Wyandots, Buff Orpingtons, Anconas. Our many years experience and labor is YOUR INSURANCE OF SUCCESS with your Poultry crop this season and at our VERY MODERATE PRICES you take no chances when you order our Hardy, Healthy, Vigorous, Pure Bred IDEAL CHICKS. Get our 1927 Literature containing full information and detailed prices now before placing any orders for Chicks.
LAFAYETTE HATCHERY, INC., Dept. 34 (Formerly LaFayette, Ill.) GALVA, ILLINOIS

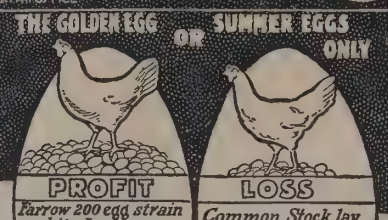
CHANDLER'S POULTRY IMPROVEMENT FARM
BLOOD TESTED STOCK
WE SPECIALIZE IN BETTER CHICKS AT REASONABLE PRICES
FREE — CONVINCING PROOF of OUR BETTER BABY CHICKS accurately described in cold facts. Flocks headed by Males Direct from Holterman's Aristocrat, Mapleside Barred Rocks, John S. Martin's Regal Dorcas, Wyckoff and large Barron Leghorns, Real Quality White, Buff Rocks, Reds, carrying the blood of Chicago Coliseum Winners. All Flocks Blood Tested. Write today for Free Illustrated Catalog and reasonable prices. $2.00 reduction on May chicks. Order now.
CHANDLER'S POULTRY IMPROVEMENT FARMS, Box C. MACOMB, ILLINOIS

FARROW CHIX
FOR SUCCESS
REGISTERED U.S. PAT. OFFICE

GOLDEN EGGS



THE GOLDEN EGG OR SUMMER EGGS ONLY



PROFIT
Farrow 200 egg strain white Leghorns are the Golden layers.
Profit with our Poultry

LOSS
Common Stock lay 69 eggs a year
They lose Money for their Owners

$4.00 Profit a Hen
from 400 Farrow White Leghorns made by Mrs. Beer in one year.
The golden eggs are layed in the Winter when eggs are high.

YOU CAN EXPECT MORE EGGS

with Farrow Chix because our customers tell us so. When eggs are high and scarce during winter, it pays to have Farrow Chix of our Star Matings White Leghorns to fill the egg basket. A few dozen eggs in the winter will more than pay the difference in cost of these chix and common stock. Scientific breeding and care are the important factors to produce these great layers. Early layers and profit makers must have winning blood lines in their system.

Confidence, Service, Reliability --- 3 Million Farrow Chix a Season
Quality Matings Pure-bred Farrow Chix

PRICES MAY DELIVERY.	100	200	1000
S. C. White and Brown Leghorns	$10.50	$20.50	$ 95.00
Barred Rocks, Anconas, S. C. Reds	12.50	24.50	115.00
White Rocks, R. C. Reds	13.50	26.50	125.00
Buff Orps, Wh. Wyandottes, Minorcas	14.50	28.50	135.00

Special Matings 3c a chick higher and Famous Star Matings White Leghorns 6c chick higher than Quality Matings.

AMERICAN CERT-O-CULD
EVERY CHICK A PURE - BRED

FARROW CHIX are from INSPECTED AMERICAN CERT-O-CULD flocks. There is no STATE INSPECTED ACCREDITED charge added to the cost of FARROW CHIX. Threfore, we can save you from 2c to 6c a chick and still maintain the high quality for which Farrow Chix are known. There are none better. You can order from these prices and chix will be delivered on date you desire or money promptly refunded. Write for 80-page catalog. It's free.

D. T. FARROW CHICKERIES Dept. 18 Peoria, Illinois

CARTER'S

CHAMPION CHICKS

Copyrighted 1927

CHAMPION CHICKS from Healthy, Carefully Selected, Heavy Producers, TANCRED, MARTIN, SHEPPARD, HOLTERMAN, QUEEN BESS, etc. Blood Lines. CONTEST WINNERS. Cream of Best Bred-To-Lay Flocks in Country. Extremely high records in Official Egg Laying Contests. Our Big Free Color Plate Poultry Book shows our CHAMPION FOWLS in natural colors and tells all about them. IT'S FREE. ORDER IT TODAY.

Postpaid 100% Live Delivery Guar.	50	100	500	1000
Wh. & Br. Leghorns	$7.00	$13.00	$63.00	$125.00
Anconas & Buff Leghorns	7.50	14.00	68.00	135.00
Barred Rocks, S. C. & R. C. Reds	8.00	15.00	73.00	145.00
Wh. & Bf. Rocks, Bl. Minorcas	8.50	16.00	78.00	155.00
Wh. & Bf. Wyandottes, Bf. Orps	9.00	17.00	83.00	165.00

Prices on other varieties on request. BIG 10% DISCOUNT allowed on all orders placed with us during this month. Save 10% and get your CHAMPION CHICKS this year when you want them. Members I. B. C. A. and A. B. C. P. A. Ref.—Burnetts Bank.

CARTER'S CHICKERY, Box 29 ELDORADO, ILL.

BABY CHICKS—C.O.D.

Pay for your chicks when you get them. We guarantee 100% live arrival. All chicks are pure bred from selected parent stock. They are bound to make good.

ORDER FROM THIS AD AT THESE PRICES

	25	50	100	500	1000
S. C. Wh. & Br. Leghorns, Anconas	$2.75	$4.75	$ 9.00	$42.50	$ 82.50
Bd. Rocks, R. I. Reds	3.25	5.75	11.00	52.50	102.50
Wh. & Buff Rocks; Wh. & Buff Orpingtons, Black Minorcas	3.50	6.25	12.00	57.50	112.50
White, Silver, Columbian Wyandottes	3.75	6.50	12.50	60.00	117.50
Light Brahmas, White Minorcas	4.00	7.00	14.00	65.00	127.50
Blue Andulusians, Sil. Spangled Hamburgs	4.25	7.50	14.50	70.00	137.50

Assorted, $7.50 per 100. All heavies $9.50. These prices are on chicks to be delivered after May 1st. Place your order now and be sure of getting your chicks when you want them. Write or wire your order and it will receive our prompt attention. You take no chances as you need not pay until you get the chicks. We gladly ship C. O. D. and guarantee safe arrival.

WASHINGTON HATCHERY Box 1 WASHINGTON, ILL.

SILVER SPRING HATCHERY



QUALITY BABY CHIX — Every Chick a Pure Bred

AMERICAN CERT-O-CULD
EVERY CHICK A PURE - BRED

from free farm range QUALITY BREEDERS. Inspected under the rules of the American Baby Chick Association. There is no State Inspection Fee added to the cost of SILVER SPRING CHIX, so we are able to save you from 2c to 4c per chick. 12 years' experience, best equipment. Bank reference. Order direct from this ad, or write for Catalog. Following prices effective at once. 100% Live Delivery Guaranteed, Prepaid to your door

	50	100	300	500
S. C. WHITE LEGHORNS, Heavy Assorted	$5.50	$10.00	$30.00	$50.00
WHITE AND BARRED ROCKS	6.00	11.00	31.50	50.00
S. C. AND R. C. REDS	6.00	11.00	31.50	50.00
BUFF ORPINGTONS, WH. WYANDOTTES	6.50	12.00	34.50	55.00

A trial order will make you another BOOSTER for SILVER SPRING CHIX.

SILVER SPRING HATCHERY, Box 115 ABINGDON, ILLINOIS

20TH CENTURY CHIX FOR 27 YEARS

WE HAVE BEEN PRODUCING AND SHIPPING CHICKS from our High Class, Heavy Laying Flocks to thousands of pleased customers all over the country and rendering Full Satisfaction. WE CAN DO SAME FOR YOU in 1927. Flocks AM. CERT-O-CULD.

100% Live Delivery Guaranteed, Prepaid	50	100	500	1000
Barron White Leghorns, mated with Impt. Males	$10.50	$20.00	$95.00	$180.00
Extra Quality Barron White Leghorns	7.50	14.00	67.00	130.00
White, Brown, Black and Buff Leghorns, Anconas	7.00	13.00	62.00	120.00
Barred and White Rocks, S. C. and R. C. Reds, Black Minorcas	8.00	15.00	72.00	140.00
White Wyandotte, Parks Ped. Barred Rocks (PC-33)	8.50	16.00	77.00	150.00

White and Buff Minorcas, 100, $20. Light Mixed, 50, $5; 100, $9.50. Heavy Mixed, 50, $6.50; 100, $12. If you have never purchased 20TH CENTURY CHICKS give them a trial in 1927 and be convinced of the High Quality we produce. Get our 1927 Catalog sure or order direct from this ad. Member A. B. C. P. A. Ref.—Commercial Bank. 20TH CENTURY HATCHERY, Box 27, NEW WASHINGTON, OHIO

Save Baby Chicks

If incubators are disinfected with B-K, brooders sprayed, and B-K fed in drinking water, you can easily prevent

WHITE DIARRHEA

dysentery and deadly baby chick diseases of a similar nature. Get this book and avoid heavy losses.

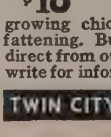


General Laboratories
Dept. 201DB Madison, Wisc.

B-K Bacilli-K — FREE BOOK

BUY FROM OUR ADVERTISERS

FOR CALVES AND POULTRY
POWDERED SKIM MILK



Feed powdered skim milk of first quality which you now can buy direct from The Twin City Milk Producers Assn., an organization of 7,000 farmers.

For calves: Skim Milk Powder is an excellent food: one pound in a gallon of water is more nourishing than 1 gal. of skim milk fresh from the separator.

For poultry: the best cure for Coccidiosis. A valuable feed for growing chicks, laying hens, breeders and for fattening. Buy skim milk powder (roller process) direct from our plants. Send $10 for 100 # sack or write for information. 2395 University Ave., St. Paul

TWIN CITY MILK PRODUCERS ASSN.

the two. When enough is available don't carry it to extremes by installing banana stalks, magic bottles, or other things to control mites, lice, and disease. Most of these are Paul Bunyan stories on a par with the "Blue Ox." Make the house comfortable and install enough equipment of the right sort to cut labor demands to a minimum. Any additional increases the overhead.—J. B. HAYES.

Worms Cut Down Egg Yield

That hens can't feed worms and lay eggs too is ever a point to keep in mind. It is a dual tax on flocks.

Pale combs—unthriftiness plus unusual appetite—paralysis—and diarrhea all point to worm infection of some sort.

Round worms, varying from microscopically small ones to those one-half to four inches in length, are commonly found in infected chickens' bowels. The flat, segmented type, the tapeworm, is even more tenacious in its habits and harder to get rid of than the round worms.

Oil of chenopodium—one tablespoon mixed with six ounces of cottonseed oil—has proven very effective in ridding chickens of round worms. One tablespoon doses of this mixture for adult chickens and less in proportion with partially grown chicks, is given by rectal injections, using an infant's enema syringe.

To rid poultry of tapeworms has always been quite difficult, until a drug known as kamala, an East Indian product, was recently discovered to be a very efficient remedy. It is harmless and effective, nearly 100 per cent so, reports the veterinary department at the University of Wisconsin, where the properties of kamala were brought to light.

They direct treatment to begin with an 18 to 24 hour fast, after which the kamala should be fed to the flock in a quantity of corn meal or dry bread crumbs, about a third as much in amount as the flock would ordinarily eat in one meal. Doses are computed according to the approximate weights of the chickens.

Birds weighing ½—1 lb. need ¾ grams.

Birds weighing 1—3 lbs. need 1 gram.

Birds weighing 3 lbs. or over need 2 grams.

Determining Sex by Eggs

Please tell me if there is any possible way of distinguishing sex in chickens by the shape of the eggs. If there is any other way I would like to know.

West Branch, Iowa. F. Y.

There has been some sort of a prehistoric idea inherited by each succeeding generation from the time of the establishment of the first hen's egg to the effect that there was a correlation between the shape of the egg and the sex of the chick. It is, I believe, thought that the round egg held a pullet and the pointed ones had cockerels, or vice versa.

This is, however, just one of the faddy, unfounded but accepted ideas that seem to be especially prevalent in connection with poultry keeping. We know, or rather believe, that this question of size of egg and shape of egg and color is an inherited characteristic as established by some work by Benjamin, and believe that as a person was to go on the principle of shape of egg controlling sex that in a short time we would have a flock developing eggs that would not be acceptable or desirable as a market type. In fact I have known of a few instances where the idea has been carried out and after a few years the eggs in the crate wo
tle like a bunch of dice in a

A little later another devi
put out something like a sink
went on a fish line, and this w
posed to have been held over
or anything else and by the
of this as indicated by the
which it moved it was supp
determine sex.

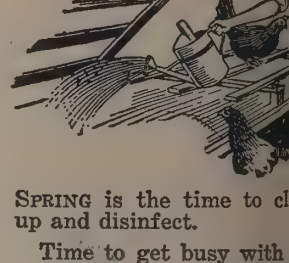
The only real way in whic
indicated in a flock is to ha
eggs, allow the chicks to g
and if they lay eggs the char
that they are females, and
they do not they may still be
because we occasionally find
that does not produce any egg

A person should absolutel
gard this idea and select onl
well shaped, two-ounce eg
hatching eggs, and by this
selection attempt to establish
flock the characters for pr
good marketable eggs.

We find that on a year aft
basis there is about 50% of c
and pullets, although some d
was collected last spring on b
showed that during the seas
they were running this t
centage of chicks carried thr
broiler age was about 65%
and 35% males.—J. B. HAYES.

Most of us try to avoid ma
same mistake the second tim
quite awhile from one spring
to the next. The difficulties
tered in last spring's chick f
tempered by time. If difficul
encountered last year from
and coccidiosis, it is certain
same difficulties will be enco
this year if nothing is done
vent it. A fine example of
the same mistake twice woul
turn chicks on the ground th
bored disease germs and
eggs last year sufficient to c
vere losses. Give the chic
range if last year's flock
from the old infected range.

Get busy with your
SPRINKLING CAN



SPRING is the time to cl
up and disinfect.

Time to get busy with
sprinkling can charged w
a solution of Dr. Hess
and Disinfectant.

Sprinkle it in the poult
house—in the nests, roo
floors. Spray it in the cra
and crevices to kill the mi

Sprinkle it in the
barns, in the pig-pens, si
drains and closets—where
there is filth or a foul o
It kills the disease ger
keeps everything, everywh
healthful and clean-smelli

DR. HESS & CLARK,
Ashland, Ohio

DR. HESS D
and DISINFECTA

Saves Losses Ross Broode

ROSSMETAL
Near round—no crowding—vermin proof. Diameter
bination Ventilato
flue. Glass window
for 500 chicks.
Special concession now. Write

ROSS CUTTER & SILO CO., 314 Warden St., SPRIN
Makers ROSSMETAL Silos, Hog Houses, Corn

Milk Fraud Stopped in Pennsylvania

RD'S DAIRYMAN:—Separating
eam from milk, viscolizing this
to break up the fat globules
make the volume of the cream
normal, then remixing this
d up" cream with the skimmed
to make a five-inch cream line
uart bottle of whole milk, was a
e recently attempted by a num-
f milk distributors in Pennsyl-

cials of the Pennsylvania De-
ent of Agriculture declared this
milk to be a fraud and ordered
lk dealers to stop the sale of
oduct. Several did not do so.
esulted in an arrest, a trial, and
nt court decision sustaining the
n of the state that viscolized
even though labeled as such,
nlawful.

complete victory won by the
and the honest milk dealers is
t from the fact that the court
n is being accepted without an
by the guilty parties. The
ure food officials have been as-
that the preparation and sale
scolized milk throughout the
will be immediately discontin-

nsylvania. GEO. F. JOHNSON.

Professor Hunziker on Foreign Trip

fessor O. F. Hunziker, director
research dairy laboratories of
lue Valley Creamery Company,
go, and manager of the butter
facturing department of that
ny, sails from San Francisco
20 for New Zealand and Aus-
He will be accompanied by
Hunziker, and the trip will take
four months.

tour is made to accept invita-
extended to Professor Hunziker
ding associations of creamery and dairymen in the two countries, to address their annual state conventions. He is the first American dairy scientist to be honored in this manner. State conventions in those countries usually last a week each, have large butter and machinery exhibits, and are big factors in the advancement of the industry.

Professor Hunziker's books, "The Butter Industry" and "Condensed Milk and Milk Powder," as well as many scientific papers on dairy manufacture, have made him a world authority in this field. In each country visited, official arrangements have been made for him to study dairy manufacturing problems at first hand and then address the important meetings of leaders in the dairy improvement work now going on there.

Illinois. H. SANDHOLT.

Illinois State Champion Four-year-old

One of the best four-year-old Guernsey cows of the year is Pergue's Lassie Beda, owned by H. C. Horneman of Illinois. Her recently completed record of 14,973.6 lbs. milk containing 750.6 lbs. fat is the highest class B, or four year-old, record ever made in Illinois.—The American Guernsey Cattle Club.

"MILKING ONLY ONE TEAT"

is the title of a very interesting and instructive folder which every dairyman should read. It can be had *free-of-charge*, by sending your name and address to

"NEPONSET" 31 Station St., Hyde Park, Mass.

VERNON COUNTY GUERNSEY BREEDERS'

Third Annual Consignment Sale

75 HEAD OF GRADES AND PURE BREDS

Fair Grounds

VIROQUA, WIS., SATURDAY, MAY 7

E. W. SCHELLING, Sales Manager

VIROQUA WISCONSIN

WHY BUY SHODDY?

You know that buying shoddy clothing or shoes is not economy. It is foolish extravagance. Buying a "shoddy" bull is even worse.

A shoddy suit of clothes you pay for once and the waste is stopped.

A "shoddy" bull you pay for over and over again in wasted time and work and expense. The bull calves have little value. The heifers are worse, because you keep on paying without getting results. You end up buried in debts and discouragement. What we don't do today is what causes most of the trouble tomorrow. Get rid of that "shoddy" bull now. Get a bull you will be proud of; a bull that will give you bull calves that will bring a good price; a bull that will give you heifers that will MAKE MONEY for you.

We have the RIGHT BULL at the RIGHT PRICE

LARSEN'S FERN-DELL GUERNSEY FARMS

A. W. Fox, Manager Green Bay, Wisconsin

On to New York and Trenton for Guernsey Week

MAY 9 to 14

Three Great Auction Sales
Fiftieth Anniversary Dinner
Fiftieth Annual Meeting
Sailing of the Guernsey Pilgrimage

The events of this week will include some of the most important in Guernsey history. Come if you can, —otherwise, write now for your copy of the "Guernsey Week Review," which will be published about June 1.

THE AMERICAN GUERNSEY CATTLE CLUB

8 Grove St., Peterboro, N. H.

BREIDABLIK FARM

Wilmington Delaware

Public Auction

50 SELECTED GUERNSEYS

JUNE 15, 1927

Included in this lot are 5 sons of Cherub's Nonpareil of the Prairie from A. R. dams. 12 daughters of Cherub's Nonpareil of the Prairie from A. R. dams. Also a number of Advanced Register cows on test and bred heifers sired by our former herd sires, Langwater Poilu 52117 and Brookmead's Taurus of Breidablik 47887.

Write for Catalog

Owner— H. J. KREBS

Manager— J. P. BROADHURST

Want to Sell Your Herd Bull?

BUYERS of Hoard's Dairyman Farm bull calves frequently have buyers for their herd sire when he is four or five years of age. A proven sire is always worth investigating and often they cost no more than a calf. Write us for names of breeders near you using Hoard's Dairyman Farm sires.

We also have a couple of young fellows for sale that will be ready for service this fall

Herd Accredited

Hoard's Dairyman Farm Fort Atkinson, Wis.

OHIO STATE SALE

85 females

100 of Ohio's BEST!

15 BULLS

WOOSTER, OHIO

TUESDAY and WEDNESDAY

May 3-4

REGISTERED HOLSTEINS

consignors are advertising their good cattle by putting some their best in this sale. Two cows in the sale have year records over 26,000 lbs. milk. 6 have over 800 lbs. butter. A number of good individual, highly bred cows that have no official records. State Fair winners, etc.

record bulls. 1 out of cow with year record of 30,320 lbs. milk, 1215 lbs. butter. 1 5-yr.-old son of Creator out of World record 1000-lb. 2-yr.-old and 38-lb. Wisconsin State Record 3-yr.-old. Sons of Friend Piebe, King Piet. Jewel Korndyke, Marathon Burke, Marathon Bess Burke 19th, Fair View Pontiac Pets Korndyke, (a bull with 9 1000-lb. daughters), Champion Pontiac Echo (a son of Queen Beulah), and others. Show bulls, out of great dams.

Big Show with large cash prizes at 8:30 a. m., May 3
Haeger, judge. Breeders banquet evening May 3

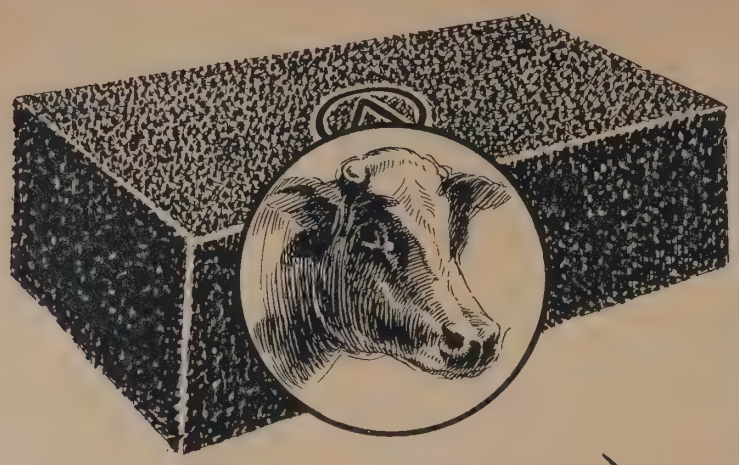
Usual terms and guarantees. Managed by

OHIO HOLSTEIN-FRIESIAN ASSOCIATION

I. D. Hadley, Field Sec'y, 2029 E. 102nd St., Cleveland, O.

SALE ANNOUNCEMENTS

April 25—Holsteins. U. S. National Blue Ribbon Sale at Oconomowoc, Wis. Haeger, Baird & Darcey, Sale Mgrs.
April 26-27-28-29—Holsteins. U. S. National Spring Sale at Waukesha and Watertown, Wis. Haeger, Baird & Darcey, Sale Mgrs.
April 28—Guernseys. Dispersion of E. B. Sawyer and A. H. Hinman herds with a consignment from Brant Rancho. Fond du Lac, Wis. Chas. L. Hill, Sale Mgr.
April 28—Holsteins. Surplus sale from G. B. McLellan Herd at Osseo, Wis.
April 30—Holsteins. Milwaukee Holstein Breeders' Ass'n., St. Martins, Wis.
May 3-4—Holsteins. Ohio State Sale, Wooster, O. Ohio Holstein-Friesian Ass'n., Mgrs.
May 3—Guernseys. South Carolina Guernsey Breeders' Ass'n. at Columbia, So. Car. A. L. James, Sale Mgr., Darlington, S. C.
May 4—Guernseys. South western Wisconsin Guernsey Breeders' Sale at Livingston, Wis. Chas. Wilkins, Platteville, Wis., Sale Mgr.
May 5—Holsteins. Echoland Dispersal (Dr. Egil Boeckmann), White Bear, Minn.
May 7—Guernseys. Vernon County Guernsey Breeders' Consignment Sale, 75 head, Vernon County Fair Grounds, Viroqua, Wis. E. W. Schelling, Sales Mgr.
May 9—First Annual Guernsey Sale. Emmadine Farm, Hopewell Jct., N. Y.
May 12—Guernseys. National Guernsey Sale at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
May 13—Guernseys. Coventry—Dunwalke—Florham—Rockingham, Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sales Mgrs.
May 14—Jerseys. Vernon County Jersey Breeders' Consignment Sale of 75 head, both grade and pure-breds, Fair Grounds, Viroqua, Wis. E. W. Schelling, Sale Mgr.
May 24—Jerseys. First Annual Sale of Belswood Jerseys, Waukesha, Wis. A. F. Block, Mgr.
May 25—Guernseys—Fond du Lac County Guernsey Sale at Fond du Lac, Wis. Chas. L. Hill, Sale Manager.
May 26—Guernseys. Chippewa Valley Guernsey Sale, Eau Claire, Wis. R. H. Loether, Mgr.
May 27-28—Holstein Dispersal. Grahamholm Farms, Rochester, Minn.
May 31—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. M. B. Wood, Sale Mgr.
June 2—Holsteins. National Holstein Sale at Springfield, Mass.
June 2—Guernseys. Highlands Dispersion, W. H. Gratwick, Owner, at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 9—Ayrshires. N. E. Ayrshire Breeders' Sale at Springfield, Mass., W. E. Brigham, Mgr.
June 15—Guernseys. Breidablik Guernseys at Auction. Breidablik Farm, Wilmington, Del. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 15-16—The National Ormsby Sale at the Minnesota State Fair Grounds, Minneapolis, Minn. Melin—Petersen Co., Sale Mgrs.
June 16—Guernseys. Louis Merryman's 16th Semi-annual Sale, Timonium, Md. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.



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Electricity in the Country Home

(Continued from page 437)

on high until my water boils, and then on low, which will keep it at the boiling point.

There are two types of burners, the open and closed elements. The open ones heat much faster but are far more liable to burn out, especially if something boils over on the burner itself, and then they have to be replaced. The closed elements take much longer to get hot but when they once have become thoroughly heated they retain the heat much longer. One can turn one of these burners off quite a while before you are through cooking on it. This means quite a saving in fuel.

When it comes to the cost of operating I find that my electric range costs me the same to operate as when I used gasoline for everything, or about four dollars a month for four people. Of course this will vary according to your rates, but I fully believe that it will not cost you a cent more than any other fuel you would have to buy. One can bake bread, like our mothers and grandmothers baked, in an electric oven; in fact, anything that can be baked at all can be baked perfectly in an electric oven. There is no doubt that electricity is the ideal fuel for cooking.

The electric refrigerator is something that will some day be quite common upon the farm. We farm women have longed for this for a long time. City people little realize what a problem we have in the summer to keep food without ice and the electric refrigerator manufactures its own ice. These refrigerators have been very expensive but the price is gradually coming within our reach. Many frozen desserts may be made in these too. The many disagreeable features that are a part of the old ice box are entirely done away with in this.

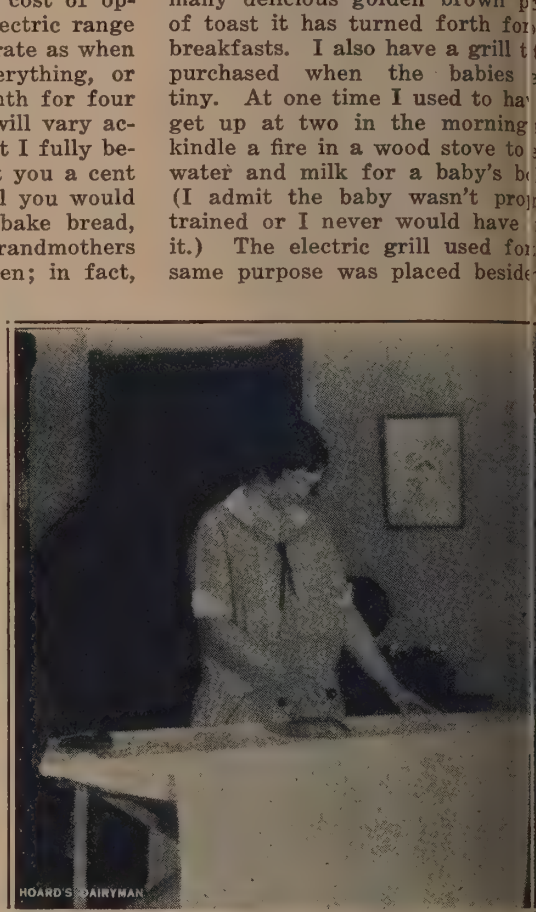
An electric mangle saves a great deal of ironing. Anything that is straight such as sheets, table cloths, napkins, pillow cases, and towels can be run through this with great ease, and they are given the same finished appearance that they would acquire with hand work. Aprons, nightgowns, and shirts may also be run through this if one cares to give them a touch by hand afterwards. Undoubtedly, in the future mangles will do a great share of our ironing.

There are many small appliances that are a great help and do not cost very much. The motor for a sewing machine is the greatest help to the busy mother with lots of sewing to do. It saves work and accomplishes the same results in half the time. This motor may be used for other purposes also.

A fan is such a comfort in the hot months and a radiant heater in the cold months. These heaters serve many untold purposes—to heat the bathroom on a cold night; turned on for a few minutes in the morning one can dress in comfort in a room in which the windows have been open all night. Run it under the car for thirty minutes if the engine starts hard when it is twenty degrees below zero. My husband even used ours this winter in the barn to keep the water pipes from freezing and bursting one exceedingly cold day.

My electric curling iron is or my greatest treasures. How i better it is to spend a few mi with it than to go around in curlers all day long. If anythin titles a man to a divorce, in my i it is to see his wife running abo day with her hair wadded up in a manner. The electric curler made so that they hold a con heat and thus there is no dang burning the hair. They are inv ble for either bobbed or long ha you were not blessed with locks.

I have a toaster that was us for a wedding gift and how n many delicious golden brown p of toast it has turned forth fo breakfasts. I also have a grill t purchased when the babies tiny. At one time I used to ha get up at two in the morning kindle a fire in a wood stove to water and milk for a baby's b (I admit the baby wasn't pro trained or I never would have it.) The electric grill used fo same purpose was placed beside



THE ELECTRIC IRON NOT ONLY SAVES COUNT STEPS BUT NICER WORK CAN BE DONE WITH AS IT HOLDS A CONSTANT HEAT

bed and I could then fix the b without even getting up.

We also have a battery cha and now can charge both our r and car batteries in our baseme very little cost. And sometime do them for the neighbors.

Whenever I am away for a days and my husband has to house and wash the dishes, he al assures me on my return that next electric appliance he buys be an electric dish washer. Per we women ought to go away oft

Have you ever stopped to t of the difference alone just in the pearance of your home that ligh can make? Nothing in the w looks so cosy and inviting as a r lighted with several electric lam perhaps a floor lamp by the da port, a reading lamp upon the t and a bridge lamp beside the r It is so restful, so pleasing in ef Do not turn on the large lights in center of the room if you wish cosy effect. In the bedroom a doir lamp upon the dresser aid dressing and a bed lamp hung on head of the bed is of use every n These two lights also add to charm of the room. Strong light the kitchen and bathroom for sha help both father and mother.

At the present time a water he is upon the market that holds haps ten or fifteen gallons of water. This is built so that hea elements surround the tank and

avily insulated. By turning the at on for a half an hour in the rning the water will stay hot all y. In fact it will retain a heat thin ten degrees of the original nperature throughout the day be- ıse of its insulation. Think of the ıvenience of this for dish washing ne.

Electricity has become such an im- rtant factor upon the farm and es- cially in the farm home that the estion has ceased to be, "Can we ord electricity? It is now, "Can afford to be without it?" Within past few years we have learned t if we are to keep up with the ıes, as well as with our husbands, must employ labor saving devices every possible way. Times have nged since our great grandmoth- s day. We must keep ourselves fit, the demands are far greater upon and by keeping fit we can accom- ish far more. Our husbands use ny things to help them in their rk that their fathers did not have: loaders, milking machines, mo- s, trucks, and tractors. We must the same. Our husbands want es who can be comrades, wives of om they can be proud; they do not at tired, faded out dishrags to live h. Our children want mothers t have time to listen to their little ries, time to play with them a bit who can chum with them; not n-out, cross, impatient mothers. ı we afford to fail our men folk l our children?

n our grandmother's day each mer's wife had her hired girl. Now is impossible to get that sort of p and so we must take the offer of p that the gods have laid at our t—and that is electricity.

Why Alfalfa Fails or Succeeds

OARD'S DAIRYMAN:—County nt W. E. Spreiter of La Crosse nty, Wisconsin, made alfalfa one his major 1925 projects. In the se of the year he visited hundreds ields to investigate the causes for ure or success.

preiter found that one farmer who reported an unsatisfactory alfal- ear had sown sweet clover seed in- d of the genuine Grimm seed he ught he had purchased. One of chief causes of failure was a sour Some farmers had put on a little but not enough to neutralize the conditions. One such field had ived a two-ton lime application acre when the soils test had shown four tons were necessary.

ı another field where the plants e yellow and the stand was thin ound that no inoculation was used, none could be seen at the roots of plants. One farmer who got a poor "catch" had only sown 8 ıds of seed per acre when the rec- ıended rate was from 15 to 20 ıds. One who reported that his lfa didn't come up had mixed the with barley and sown it with a n drill. Spreiter concluded that ıd been put in too deep, so it did come up on that account. Several s were found where the new seed- had been injured by not properly ing the soil at the time of seeding. ome cases the growth was injured utting too early.

immarizing the reasons for suc- s as given by the hundreds who are ing alfalfa pay in that county, iter says, "It is best to apply the on plowed land and harrow it in- ıe surface soil a few months be- the alfalfa is seeded. The seed should be well prepared and the sown on top of the ground and ed with a harrow. On light soil the cultipacker is probably the best machine to use for that purpose as it will cover and pack the soil well around the seed and leave the surface in small ridges so it will not blow so easily. It is well to top-dress the soil with barnyard manure as that will give the young plants a quick start. Good, scarified Grimm seed gives best results. All alfalfa seed should be inoculated with fresh culture before sowing.

Wisconsin G. A. PETERSON.



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First Calf Heifers

HOARD'S DAIRYMAN:—In your editorial column you have asked for experience with a heifer's first calves. My milking herd averages between 25 and 30, and of this number seven are heifers' first calves. Of these seven, Kingcrest Christina Vale is our biggest milker and is out of a cow who was herself a heifer's first calf. She was the smallest, puniest, purebred Holstein calf ever born on our farm. Now she is our biggest cow. Last year, and calving within the year, she milked about 13,000 lbs. Her full sister with first calf also milked well but I hardly expect her to excel the older cow.

From another dam we have three heifers, the first two full sisters and the third a half sister. Of the full sisters, the older, which was the dam's first calf, is a bigger, stronger cow and a heavier producer. The half sister is the equal of the sister which was the dam's first calf, both of them considerably exceeding production of the heifer which was the dam's second calf. Another heifer's first calf did well with her first calf this past season. She is developing into a big strong cow and we expect her to make an excellent record this year.

As I cannot give direct comparisons in the other cases I will not mention them further. In general we feel that a heifer's first calf is not only likely to be just as good as any which follow but is likely to be above the average. I mean by this that there are likely to be some calves even of exactly the same blood which for some reason or other develop into inferior animals compared with their sisters. It is our experience, however, that the first calf will by no means be inferior but will be the equal of any of the later offspring.

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Hoard's Dairyman **Fort Atkinson, Wisconsin**

The Low Cost of Railway Service

Prices of farm products are unsatisfactory; but even at present prices, a bushel, or a hundred pounds, of almost any farm product will buy more freight service from western railways than before the war.

The average price of all farm products in January, 1927, according to United States Government reports, was 37 per cent higher than in 1913—the year before the war began. Grains averaged 41 per cent higher; livestock and poultry, 36 per cent; other farm products, 35 per cent.

In the year 1926 the average freight rate of western railways was only 35 per cent higher than in 1913.

In other words, the farmer can now get, on the average, $1.37 for farm products which before the war brought him $1; and he has to pay western railways only $1.35 for freight service that before the war cost him $1.

At wholesale prices, for foods that he could buy in 1913 for $1 he must now pay $1.50; clothing, $1.67; fuel, $1.80; building materials, $1.70; household goods, $1.57.

These official figures show that the general condition of both western agriculture and western railways is mainly due to the fact that neither the prices received by the farmers nor the rates received by the western railways have increased as much in proportion as the costs of most of the things they must buy.

The return earned by the railways east of the Mississippi river in 1926 averaged 5.64 per cent on their property investment, while that of the roads west of the Mississippi averaged but 4.45 per cent, and during the last six years has averaged only 3.84 per cent.

The freight service of western railways costs the farmer relatively less than almost anything else he buys.

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS

740 Transportation Building, Chicago, Illinois

Idaho's Alfalfa Seed Industry

(Continued from page 439)

own, but most of the seed is sent directly to the warehouse "sealed in the dirt" as it comes from the threshing machine. The members are then paid on the basis of cleaned seed.

Qualifications for Growing Grimm Seed

Not every farmer can grow certified seed because they are not all willing to comply with the regulations. But just as the Land O'Lakes butter organization is demonstrating that sweet cream butter can be made, just so the Blackfoot co-operative is proving that it is possible for farmers to produce quality alfalfa seed. C. B. Ahlson, Idaho's state seed commissioner, gave us the requirements that must be met by Grimm fields to qualify for certification. They are:

1. Seed used in planting these fields must be from pedigreed origin, state tagged, and sealed.

2. Seed must be planted on clean land, that is, following sagebrush or two years cultivated crops. In case common alfalfa has been grown on land, at least four years of other crops must have been grown previous to sowing Grimm or Cossack. Two of these years must have been devoted to the raising of cultivated crops. The land must not be infested with any volunteer growth of non-pedigreed alfalfa plants.

3. The fields of Grimm or Cossack alfalfa should be approximately four rods from any field of non-pedigreed alfalfa and all such other fields on the farm must be cut for hay before there is any chance of cross fertilization.

4. The minimum distance between pedigreed alfalfa fields on one farm and non-pedigreed fields on an adjoining farm must be four rods. If both fields are on the line, a four-rod strip of the pedigreed field must be cut for hay, unless the grower of non-pedigreed alfalfa cuts his field for hay.

5. Only one variety of hardy alfalfa may be grown on the farm for seed production purposes. That is, a grower who is producing Grimm alfalfa for certification may not grow Cossack, common, or any other variety of alfalfa for seed. A grower may produce Grimm on one farm and any other kind on another but special supervision will be given at harvest time. Growers are urged to plow up and totally eradicate as soon as practical all stands of alfalfa other than the pedigreed fields of the one variety being grown for seed.

6. Ditch banks must be free from the growth of non-pedigreed alfalfa. The alfalfa on the ditch banks must be pastured or cut before it blooms, thus preventing cross fertilization.

7. Fields containing dodder or other noxious weeds or which contain an excess of sweet clover may be eliminated from certification.

Three Field Inspections Made

In addition to these safeguards, at least three inspections are made on every field. They are:

1. Seedling inspection. This inspection will be made after the grain crop or nurse crop has been removed or early in the spring of the next year for the purpose of detecting the presence of any old alfalfa plants.

2. Blossom inspection. This inspection is made the following season during the period the alfalfa is in bloom, for the purpose of determining the genuineness of the variety.

3. Weed inspection. This inspection is made for the purpose of checking on weeds in the field, principally the noxious weeds and sweet clover. This inspection may be made annually.

As most farmers know, Grimm alfalfa traces to the stock that Wende-

lin Grimm developed in Carver (ty, Minnesota. The question is times asked, "Can as hardy a of Grimm be grown under the severe climatic conditions of the where yields of six and seven bu per acre are not uncommon Minnesota, its original home, seed setting is so much more m and uncertain?" We put the question to Professor Graber. of the opinion that so long as is no mixing of the common wit Grimm we can expect as hardy from Grimm plants grown in t rigated sections of the mou states as from those grown in M sota. He said, "Hardiness in G seems to be a fixed genetic char Common alfalfa seed grown field that has stood for 30 yea Idaho in the region where Grimm alfalfa in that state is produced has winterkilled bad Wisconsin when Grimm fron same farm in Idaho sown in Wi sin adjacent to the field of co has lived through. We got simil sults with Grimm and common grown in Montana and South ta."

We Visit Seed Fields

The next day we started for ling to visit some of the Grimm fields, as very little of this se grown in the immediate vicini Blackfoot. We stopped at the of A. J. Snyder to find him an son busy mowing a nice field of There were few weeds of any ki that field and none of the no varieties. Such as were present varieties whose seeds could eas removed by the cleaning ma at the warehouse. Mr. Snyde dairyman, hog breeder, and man as well as an alfalfa seed cialist. He follows the common tice of pasturing his 125 acr pedigreed Grimm until abou 10th of June, after which it lowed to produce a seed crop. enough is cut for hay to suppl dairy herd as the sheep are f the alfalfa straw. Because th falfa straw makes such good feed, many growers keep a flo ewes the year around and fatt the young lambs on the alfalfa ture. Only a light seeding of one to three pounds per acre is This seed now all comes fro growers of short pedigree st Snyder told us that a man ca longer sow his own seed if he e to get his fields certified in the foot association because every caution is being taken to pr mixture with common.

George Line, vice-president association and the world's l producer of pedigreed Grimm just getting ready to thresh wh drove into his yard. He has than 400 acres devoted to the ing of pedigreed seed, every of which is sold through the erative. Line has been preside the Idaho Farm Bureau Federa number of years and has serv both the assembly and senate, finds time to superintend his just the same. Before the as tion was started he marketed hi without any help. He got $6,221 single load of it at Twin Falls, This is probably the biggest ever paid for one load of staple produce from an individual far told us about the weed district has just been formed. He said practically impossible for a farmer to keep his land free noxious weeds when his neig persisted in letting theirs gro the progressive farmers of

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Wisconsin, County of Jefferson, ss.
me, a Notary Public in and for the county aforesaid, personally ap- . D. Hoard, Jr., who, having been according to law, deposes and says s the Ass't. General Manager of 's Dairyman and that the following best of his knowledge and belief, a nent of the ownership, management, e aforesaid publication for the date the above caption, required by the igust 24, 1912, embodied in section Laws and Regulations, printed on e of this form to wit:
the names and addresses of the pub- tor, managing editor, and business are:
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Fort Atkinson, Wis.
A. J. Glover, Paul C. Burchard, Ben H. Walker
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D. HOARD, JR., Ass't. Gen'l. Mgr.
o and subscribed before me this April, 1927.
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My commission expires Aug. 26, 1928.

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Springfield — Sterling area put through a weed district making it compulsory for every farmer to keep such weeds down or have the cost of the job added to his tax role.

Call on "Father of Industry"

In the course of our journey through this land of ripening alfalfa fields, we came upon H. K. Wiley who is known in Idaho as the father of the Grimm alfalfa seed industry of that state. Wiley came to Idaho with the opening of the first land under the Carey Act in 1905. He had been a vegetable grower near Rocky Ford, Colorado, up until that time, but he wanted to try his hand at "pioneering," so he was one of the first to stake his claim on the dusty, sagebrush covered prairie a few miles from what is now Springfield.

When Wiley paid a visit to the experiment station at Rocky Ford in 1910 he heard about Grimm alfalfa. So well was he impressed that he ordered enough seed to sow 30 acres. He harvested his first crop in 1912, so it can be seen that this is an infant industry to say the least.

Wiley is the present secretary and treasurer of the Grimm organization. He has seen this association grow from an humble beginning of six members to the present organization that markets more than a million pounds of seed a year. The five other men who with their families belonged to the little pure-bred seed club that later grew to a state organization were A. J. Snyder, Ralph Davis, George Line, Dave Wiltamuth, and I. N. Noyer.

Ladino Clover for Pasture

Wiley had just finished threshing 15 acres of Ladino clover seed the day we saw him. This clover bids fair to become a valuable pasture crop in sections where the winters are not too severe and where plenty of moisture can be had. It certainly looked pretty on Wiley's farm but it did not fare so well on the state experiment station farm at Aberdeen. We walked through a pasture field that had carried 20 sheep to the acre all year but it was still in good condition.

Wiley told us that Carl Irwin of Twin Falls, Idaho, had been able to pasture just as many dairy cows on 3½ acres of Ladino as he could feed on 7 acres of bluegrass and white clover, although both fields were irrigated. He said a number of dairymen on the west coast of Washington and Oregon are finding it to be an ideal pasture crop. Being a luscious leguminous perennial with a good root system it has much to be said in its favor, but we doubt that it will survive the winters in most of the area covered by the two northern tiers of states.

Waukesha County Guernsey Sale

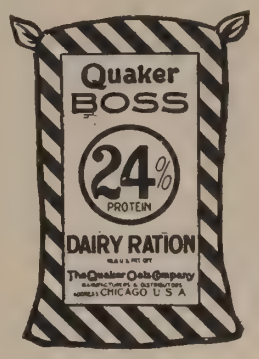
Waukesha County Guernsey breeders held their annual sale at Waukesha, Wis., March 24, selling 95 registered Guernseys to buyers from seven different states for an average price of $216. The top price of the sale, $1,000, was paid by Harry B. Cox, California, for a very good yearling son of Meadow Brook's Danny Duff from a 700-lb. dam, consigned by Larsen's Fern-Dell Farms. Emmadine Farms, New York, took the highest priced cow, a high class Glenwood consigned by D. L. Williams, for $600.

Benjamin & Heberlein did the selling with Secretary F. E. Fox in the box.

The average for cattle of the different age classes was as follows: Fourteen bulls averaged $203; 13 heifers under two years old, $135; 9 two-year-old heifers, $263; 7 three-year-old heifers, $246; 52 cows, $227.

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Germ-free Milk

A somewhat pompous or consequential gentleman, attending a farmers' institute, alleged that he made it his practice to produce "germ-free" milk and those present let the statement go unchallenged. Probably they did not think it polite or worthwhile to take exceptions to the statement or did not give it sufficient attention to recognize its fallacy; but it was misleading and should have been explained, for we believe the speaker was alluding to raw milk and none of it is germ-free. It could be made germ-free only by perfect sterilization, and few dairy farmers are equipped to so treat raw milk.

The facts of the matter are that milk often teems with germs at the moment it is drawn from the udder. The first stream or two of milk, however, contains most of the germs and if that milk be not mixed with the bulk milk the bacterial count will be amazingly lessened. The first milk is so discarded in dairies where "certified" milk is produced and it probably would be better for every dairyman who ships milk, takes it to the condensing factory or creamery, or who has a "milk route," to catch the first milk in a separate pail and use it for feeding rather than market purposes. The germs mentioned are not necessarily dangerous to man, but they lessen the keeping qualities of milk and, on general principles, are objected to by the milk inspector. As David Harum said, "You can't always most generally tell" and so, each municipality may dictate a certain standard relative to the number of bacteria permissible in milk, on the principle that multitudes of germs indicate dirty conditions and a certain degree of danger to patrons on that account. There can, we think, be no question that a requirement of low bacterial content in market milk is wise, as it necessitates extreme care to keep the milk clean and the product being so easily contaminated and such a splendid medium for the growth of germs, it certainly cannot be too carefully handled, from cow to consumer, to make it as safe, palatable, and pure as possible. Pasteurization is not, however, a good apology for milk made under unsanitary conditions, nor do we like to think that milk must be sterilized to "make it safe for democracy."

To make milk as germ-free as possible and lessen the necessity or desirability of pasteurization or sterilization, we must begin at the fountainhead—the cow—and put into practice every act and principle of milk hygiene that is sane and possible to the average producer, without going to great trouble and expense. As the ordinary market price does not pay for the expense of producing milk strictly according to the rigorous and sometimes impractical rules of certain inspectors or commissions, the farm producer of milk can only do his best, in a sensible and practical way, to safeguard his product from contamination in the stable, milk house, cans, and bottles and wagons and be careful that the milk is drawn from tested, healthy cows by healthy, cleanly milkers. That is a "big chore," at that, and one that practically every dairyman accepts as necessary and does his utmost to undertake and accomplish in an honest and efficient way; but he cannot produce "germ-free" milk and should not be held accountable when contamination occurs, as it often does, after the milk has left his hands.

Experience With Sabadilla Powder

HOARD'S DAIRYMAN:—In your issue of March 25 you have asked for reports on powdered sabadilla seed as a louse powder. I will say that I have used sabadilla seed powder, flowers of sulphur, and sodium fluoride in equal parts for lice on horses and cattle with good results. The boys also used it for fleas on the dog and it sure put the finish to the fleas. No bad results of any kind resulted. We also use sodium fluoride for lice on poultry. The first time we used it inside the poultry house, the next morning my nose was sore. When I cleared my throat the sputum contained some blood. Now we always take the chicken outside the door; lay it on a box and dust a small amount of sodium flouride in the feathers on the breast and between the legs, and set the bird back on the roost. This has been sufficient for all lice on the bird. When the lice are bad a good clean-up of the house and a dusting of the fowls—repeating the same in three or four weeks—have always done the job for us.

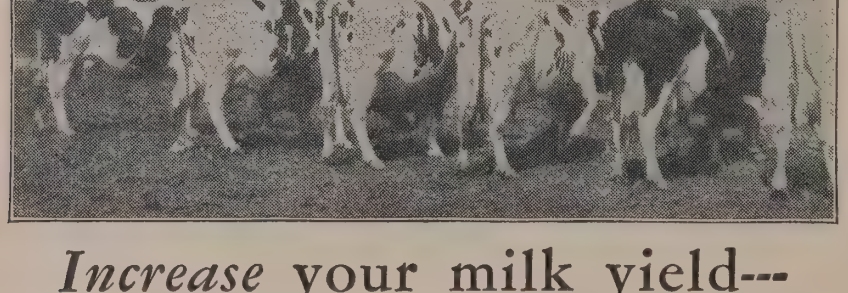
Ohio. F. J. HIGH.

Hard Milkers

Last year I had a heifer freshen with her first calf. She gave her milk very freely. This year when she freshened I could not get any milk only by stripping. Before I milked her in 10 minutes; now it takes 30 minutes. She seems to have little knots inside her teats, but they were there last year so I don't think that is the trouble. My neighbor tried tubes in the teats but it dried his cow up. I also have a cow that comes in heat every eleven days.

Turlock, Calif. R. J. D.

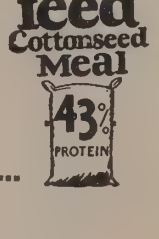
The growths cause the difficulty in milking. If they are located in the openings of the teats a veterinarian can remove them by operation, but if they are higher up it would be best to let a calf nurse or to dry off the



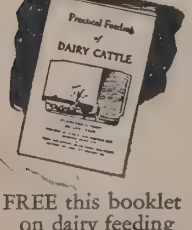
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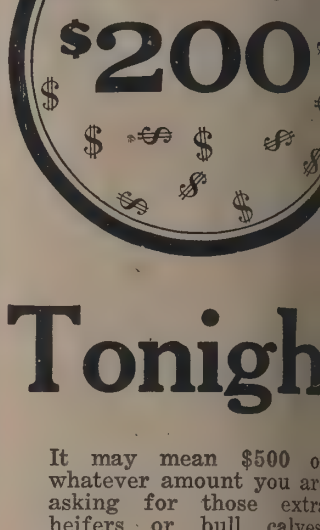
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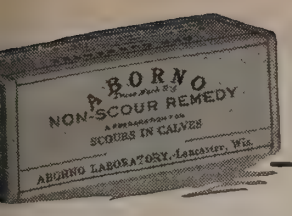
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secretion of milk and fit the heifer for the butcher. It may be that the veterinarian will find it sufficient to slit down through the obstructions in four different directions with a sterilized teat bistoury but we cannot decide as to that without making an examination.

The ovaries are in a diseased condition and the womb may also be affected. Home treatment will not avail. Isolate the cow and have your veterinarian massage the ovaries and give such other treatment as he finds necessary, but there is no certainty of recovery in such a case.

Sweet Clover Poisoning

I have been feeding sweet clover hay for four years with gratifying results but lost a very valuable animal this winter which my veterinarian told me was due to sweet clover hay although our state entomologist could not find anything wrong with the hay, but stated that sweet clover produced a poison which changed the composition of the animal's blood so it would not clot and that horses or cattle so fed were liable to hemorrhage either internal or external and that it was dangerous to feed to either horses or cattle for a term of 3 or 4 weeks. Now what I want to know does sweet clover hay or pasture change the composition spoken of by our state entomologist?

Rising Sun, Md. C. A. H.

As often stated here, old or moldy sweet clover hay is dangerous as it may cause fatal hemorrhages in the tissues. Many cattle have been killed in that way. It is also dangerous to dehorn or castrate cattle that have been living on such hay as they will be likely to bleed to death. Green sweet clover has not the effect mentioned and sound hay may also be safe, but it certainly should not be made the exclusive roughage of cattle that are to be dehorned or castrated. Transfusion of the blood serum of a sound bovine animal has proved curable in some cases, but prevention is all important. Discard moldy or otherwise damaged sweet clover hay. Make the sound hay but a part of the roughage ration. Apply to the North Dakota Experiment Station at Fargo for a bulletin on this subject.

Using a Young Bull

I would appreciate your advice as to how many days' rest a thirteen months' old Holstein bull should have between services, so that he may reach maturity in good breeding form without his growth or development retarded. How old do you think a bull should be when he is first used for service?

Barneveld, N. Y. W. T. McR.

It would be better not to let the bull serve before he is 18 months old. If you must let him serve now, 5 cows will be ample and they should be bred as soon as possible but not over one service a day and per cow. After the cows have been bred let the bull be worked in harness or otherwise adequately exercised daily and feed him well on oats, bran, and oil meal in addition to hay or grass.

Mastitis

I have a good grade cow that started to give lumpy milk about a year ago. That teat cleared up, then another got bad and is now all right. Now the third is bad. She has no lumps in udder. Will she be apt to get better or worse? I mean should I dispose of her?

Brookston, Ind. F. H.

The udder is affected with chronic mastitis or garget which is caused by germs (streptococci). The disease will be likely to persist and eventually ruin the udder for normal milk production. It would be best to isolate the cow and fit her for the butcher. Cleanse, disinfect, and whitewash the stable she has occupied, including the floor and gutter.

Soil Fertility and Animal Health

(Continued faom page 438)

duction and breeding require large amounts of phosphorus and calcium and unless these elements are supplied in the feed in sufficient quantities and in satisfactory form, the animal will draw upon its own system to meet this heavy drain. In many cases this demand becomes so pronounced that the breeding animal can save herself only by aborting the young and Nature apparently comes to the rescue in this manner. When nutritional problems reach this stage it is only natural to suppose that Nature's next step in assuring the survival of the individual is in the development of sterility in the breeding cow and then even avoid the necessity of abortion. Whatever the cause, it is a fact that sterility in dairy cows is very common in Western Washington.

To overcome these difficulties some producers have supplemented their feed with compounds like bone meal, lime, or rock phosphate in order to supply the necessary mineral matter and very satisfactory results have been reported.

Relief from this source, however, can, at best, be only temporary because it is pretty well established that the permanent success of the dairy industry in any section must be founded on the fact that dairy farming has cleared the way for cropping systems that justify rotations with legumes. Such crop rotations have a very beneficial influence on the maintenance of soil fertility and consequent yields. In other words, the success of the industry is based very largely not upon the direct return received from the milk produced but upon the fact that the keeping of dairy cows makes it possible to establish a system of farming that results in bigger and more profitable crops.

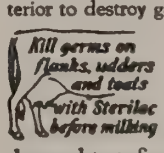
The findings of the Soils Department indicate that if many of the Western Washington dairy farmers who are growing and feeding little or no legume hay at present would treat their soils so that legumes would grow better, confidence in the success of the crops would be re-established and more clover or alfalfa would be grown and fed with the result that many of the present so called nutritional difficulties would disappear. That such crops can be made to grow successfully at little expense where they are a failure now, has been proven. It is true that in many cases a field examination may be necessary before definite recommendations can be made, but it would seem that in cases like this where the foundation of the whole dairy industry is frequently involved, such expense and effort is justified.

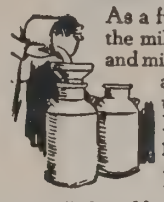


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Better Methods of Herd Improvement

(Continued from page 435)

veloped the Herd Test that every record should be recognized, regardless of whether it met a certain arbitrary standard or not. "Let us know the truth about every daughter of our herd bulls," remarked one of these breeders in an early conference and the wisdom of this principle has never been questioned. The possibility of being led astray by the records of a bull's best daughters when he may have many other daughters of very ordinary ability seemed a very important consideration to these leaders.

Recent publications from the United States Bureau of Dairying pointed out the difficulty of selecting herd sires that will just maintain production in a good herd, without even hoping to increase production. These governmental students of cattle breeding have long since recognized that the most accurate basis for studying the transmitting qualities of a sire depends upon having every daughter's record available. Supporters of the herd test are optimistic in believing that they will have a much more accurate record of the get of their herd bulls when they can see the record of each daughter year after year, without a selection that has given an opportunity to just a few of the best.

More Cows Under Test

Notwithstanding the reasonable theories underlying the herd test, it was generally believed that breeders would hesitate about exposing the actual production of every cow in their herds. But on the contrary the opportunity was welcomed. A dozen, a score, then fifty breeders lost no time in entering their cattle in the herd test.

Here was a plan for breed improvement that meant the elimination of the poorer cattle rather than the exploitation of the best. These men realized that the herd test furnished proof to neighbors, breeders, and prospective buyers that their herds were first of all practical dairy propositions, and perhaps, second, Ayrshire breeding institutions. In some cases there was made a long deferred culling of the odds and ends that almost invariably appear in the best of herds. Without exception these breeders are now glad that they removed the beasts that would have reduced their averages; and undoubtedly the breed has gained thereby.

Who Supports Herd Test?

The popularity of the herd test is well distributed through the various groups that are breeding Ayrshires. The largest number of entries are from the small farmer-breeder depending upon his cattle for a living. This group has enthusiastically received the herd test because it involves all the economic features of the cow testing association with which he is familiar, and also puts recognized records on his cattle at a minimum cost.

The larger breeding establishments are supporting the herd test because it helps them materially in their breeding problems as well as in the selling of cattle. The dam of every bull calf is given a record. Since every daughter of the bull that may be a satisfactory or unsatisfactory herd sire is tested as she freshens, evidence is quickly accumulated regarding the ability of a sire. In the first six months of the herd test several promising bulls have been brought to light, and undoubtedly still others will be discovered. Since all herd test records are made under quite similar conditions, the fairness of the comparison of different sires is quite apparent.

Still another group that seems quite well satisfied with the herd test are the busy men who enjoy the ownership of good cattle, and who must systematize their herds and all other interests in order to keep up with the progress of their own activities. The tabulated monthly report of the production of each cow, together with a debit or credit for feed consumed, furnishes a summary that visualizes conditions in the herds that may be only rarely observed.

Criticism of Herd Test

Of course, there are criticisms of the herd test plan. Most frequently the question is raised as to what the herd test will give that is not secured through the cow testing association. Undoubtedly there is a more careful check and a standardization of methods in herd test supervision than obtains in all states doing cow testing association work. Furthermore, the identity of thousands of pure-bred cows that have made records in local associations has been lost, while the herd test makes each individual cow's record available for the public. It would indeed be most fortunate if all cow testing association records for individual pure-breds might be recorded in some manner.

Still another criticism is a questioning of the accuracy of supervision. With a maximum of twenty cows for each supervisor in a day, and only a one-day test, the entire system has been subjected to a small degree of condemnation. Up to date there have been no unusually high records to support the contention that the system invites fraud. Good averages have been secured through consistency rather than exceptional producers. It is doubtful if it is as easy to practice deception that will increase the averages of a herd of twenty cows as to alter the record of one or two cows. With "surprise tests" the production of a herd may be checked at any time that it is considered advisable. As a matter of fact, there seems to be more consistency in the records of herds than of individual cows. But the most important reason for believing that there will be no more fraud with the herd test than with any other system of testing is the breeder himself.

Perhaps the most valid criticism of the herd test is the fact that it works a hardship on the man owning cows of proven worth as breeders, some of which may be unsound or beyond their prime. Perhaps a herd with a collection of such rare old breeding matrons should not be entered in the herd test. The progeny of such cows will always be in demand regardless of whether the herd is on test or not. But for one such cow that should be retained there are probably scores that are being unprofitably maintained and contributing very little to the advancement of the breed. Rather than attempt to define the cows that should be excused when their stablemates are in the herd test, the present rules permit no exemptions.

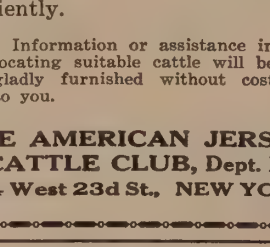
But notwithstanding certain limitations, the herd test is recognized as a plan that should raise the standards and also standardize the rank and file of the breed. Undoubtedly the Advanced Registry will continue to focus attention upon the high producing individual that will not receive so much glory from the herd test. On the other hand, it is reasonable to expect that the herd test will measure the value of the breed's best and also improve the lower level of the breed that should be either vealed or revealed.—Address delivered before the 55th Annual Meeting of the Wisconsin Dairymen's Association.

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JERSEY HEIFERS
University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.
AMBERG FARM, Hillsboro, Wis.

Bred Heifers an Young Bulls
by Xenia's Sultan and Yo Do's Volunteer. Breed quality, type, and product in your herd with an Elm H bull. Write for sale list.
ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachuse

FOR SALE!
10 BRED HEIFER
To Freshen in the Fall
Raleigh Breeding
SEND FOR PEDIGREES AND PRICE
RAVINE FARM
Breeders of Pure Bred Jersey Cattle
PRAIRIE VIEW, Lake County, ILLIN
Established 1913.

Easton Far
-- AN ACCREDITED HERD --
Of Representative Jers
Golden Fern's Noble and Fauvic's Prince Bree
MRS. L. F. EASTON, Owner, LA CROSS

SYBILS and MAJES
Bull—dropped March 6, 1926, solid straight and right. Ready for service. a grandson of Sybil's Gamboge with dam. Dam—a granddaughter of Golde esty. She with C. T. A. record of 49 fat. Price $175 F. O. B. Lake Gene
CEYLON COURT FARM,
G. D. Gilbert, Mgr., Lake Geneva, Wis

JERSEYS FOR SAL
YOUNG BULLS and BRED HEIFERS by Image's Owl, grandson of Vive La H Herd Federal Accredited.
H. S. HAGER, PRAIRIE DU SAC

Golden Sunset Jersey Bu
Young bulls and bull calves very reasonably Blue Belle, Golden Rosebay, Eminent, Flyi Gamboge and Hood Farm breeding. Herd est 1899. Free circular.
THE ENNIS STOCK AND DAIRY FARM, Festus,

When writing advertisers please m Hoard's Dairyman.

Jersey Bull Calves
We are offering at reasonable prices a few bull calves sired by Vive La France's Darlin and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 8 butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is si Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 11 fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON

FIRST ANNUAL SALE OF
BELSWOOD JERSEYS
A. F. BLOCK, Owner.



THE CID'S CLEOPATRA 505797, IMP. 10,455 lbs. 5.27 per cent milk in 361 days.
Dam of our herd sire, THE CID'S FONTAINE.

TUESDAY, MAY 24
WAUKESHA - WISCONSIN
Your opportunity to buy heavy producing cow of popular blood-lines, size and individuality Sale will include a number of good *Register o Merit* cows, some recently fresh and rebred others to freshen soon.
Several splendidly bred young bulls, out of Reg ister of Merit dams.
A choice lot of bred heifers, well along in calf t good bulls. A few open heifers and heifer calves
The cattle are right in every way and combine breeding, type and production.

For Catalogs address A. F. BLOCK Waukesha, Wisconsin
Auctioneer—Walter F. Andrews, Beach City, Ohio.

Read the Other Live Stock Advertisements on Page 47

Advertisements of live stock and of live stock sales received too late to classify will be found on page 477

Our 3rd Annual Sale!

LIVINGSTON, WIS., MAY 5

100 — GUERNSEYS — 100

50 Registered Guernseys - 50 Grades

HE GRADES are mostly young cows either fresh or close springers ith a few bred for fall freshening. Many have C. T. A. records.

HE PURE BREDS include, A. R. cows, some fresh, others spring- g; a few bred heifers, and a choice lot of open heifers about ready breed. These heifers are all from high producing ancestors and e wonderfully good foundation females.

BULLS. One son of Imp. Clara's Sequel from an A. R. dam. nwood Revelation is a 2 year old whose dam made over 700 lbs. t, his sire's dam 909 lbs. fat. One is a 5 year old sire whose dam oduced 775 lbs. fat. The others are a choice lot, ready for service. ese cattle are selected from the best herds in the county. They ve good breeding and the right type.

The sale begins at 10:30 A. M. in the sale pavilion.

For Catalogs or other information, write

SOUTHWESTERN WIS. GUERNSEY BREEDERS' ASS'N

as. Wilkins, Sale Mgr. PLATTEVILLE, WIS.

KLAND GUERNSEY FARMS (SINCE 1890)

CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also e high grade heifer calves express paid to your station for $150.

ND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. come and see us. Carloads furnished on short notice. Prices reasonable. Satis- guaranteed. Calves a specialty.

EW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

---

e want you understand —

oma Farms has purchased the Bay Cliffs Herd, formerly at Bay Mich. We are carrying on the breeding operations.

ing back of the animals we sell undamental policy with us.

us for low prices on bull calves.

LOMA FARMS

W. W. BLAKE ARKCOLL, MGR.

QUETTE MICHIGAN

ERNSEYS

istered and High Grades of Any Age For Sale

aha County you have an opportunity what you want from 250 tuberculin ds owned by members of the oldest eeders' association in America. Our vice, and prices will suit you. Write

IA CO. GUERNSEY BREEDERS' ASS'N

Sec'y WAUKESHA, WISCONSIN

***erin* Guernseys**

(SHERIDAN'S)

DU LAC WISCONSIN

es $100 and up. One serviceable od type, color, and size. Dam's 57.71 D. 677.13 A. A. *Also*, best nwood bull of the breed. Dam's 44.07 A. A. Sire's dam 799.61 A. dam 825.90 A. Exceptionally fine l, good color, well grown.

SALE — Yearling Purebred GUERNSEY BULL

veral young bull calves. Dams cords exceeding 500 lbs. Prices rticulars on request Address

EDWIN EVANS.

LL-TILDEN FARMS. Delavan, Wis.

HOW BULL FOR $125

nth-old calf is a fine show pros- dam produced 421.7 lbs. fat as ling. The herd is clean. Write rther information.

VEY, R. 2, Waukesha, Wis.

---

the other Live Stock ads ge 477, so placed because were too late to classify.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.

A Federal Accredited Herd

Guernseys For Sale

We have for sale here in Manitowoc County some very good calf club heifers, and serviceable and younger bulls as well as first class cows and heifers. Write us today or come direct to Manitowoc and make your selections.

MANITOWOC COUNTY GUERNSEY BREEDERS' ASSOCIATION,

Geo. S. Gilbertson, Sec., Manitowoc, Wis.

BULL CALVES

No. 1—born 5-30-26, light fawn and white, C. T. A. dam.

No. 2—born 6-28-26, fawn and white, dam 553 lbs. fat class A.

Typy bull calves at farmers' prices F. O. B. Athens. Herd Federal Accredited and free of Abortion.

HELENDALE FARM, Athens, Wisconsin

BULLS

A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.

GEO. E. LARSON,

Amherst Jct., Wisconsin.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.

J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION

Vilas E. Young, Sec. West Salem, Wis.

FOND DU LAC GUERNSEYS

Get our prices on **PUREBRED CALVES** suitable for clubs. Also **GRADE COWS** and **HEIFERS** at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N

Geo. O. Hill, Sec. ROSENDALE, WIS.

CALIFORNIA GUERNSEY BULLS

AT AUCTION — IN WISCONSIN



BROOKMEAD'S WHITE FACE A. R.
Greatest Transmitting Sire of the Guernsey Breed

TWENTY (20) HIGH CLASS GUERNSEY BULLS from the largest Guernsey Herd in the World, Brant Rancho, Owensmouth (Los Angeles) California, will be sold by Charles L. Hill at the Sales Pavilion, Fond du Lac, Wisconsin, April 28th.

Every bull will be from a cow with an Advanced Register record. These records will all be over 500 lbs. fat, or its equivalent if made by a heifer, and the records will run up to 889.5 lbs. fat. Every bull will be guaranteed a breeder. Every bull will have an individual certificate from a U. S. Veterinarian showing that the bull is from an Accredited Herd (No. 96073.) Practically every bull will be old enough for immediate service.

Brant Rancho has the largest herd of registered Guernsey cattle in the world (350). More cows are kept on A. R. test than in any other herd (60). And provisions are now being made to put every cow on A. R. test, making the herd an Advanced Registered Herd.

Records held by Brant Rancho cows include three world's records, seven class leader records and eight California State Championship records.

1 cow holds the largest record in the West with 934.7 lbs. fat.
13 records ave. 771.8 lbs. fat (every record over 700 lbs. fat) Mature equiv. 865.1 lbs. fat.
55 records ave. 678.5 lbs. fat (every record over 600 lbs. fat) Mature equiv. 757.5 lbs. fat.
117 records ave. 625.9 lbs. fat (every record over 500 lbs. fat) Mature equiv. 696.6 lbs. fat.
141 records ave. 600.6 lbs. fat (every record over 460 lbs. fat) Mature equiv. 675.4 lbs. fat.
170 records ave. 571.6 lbs. fat (every record over 400 lbs. fat) Mature equiv. 648.6 lbs. fat.
201 records ave. 534.8 lbs. fat (only 76 reds (37.8%) class A) Mature equiv. 615.9 lbs. fat.

One bull to be sold out of former world record heifer in EE and now fourth highest in both EE and AAA with 723.32 lbs. fat in EE and 568.1 lbs. fat in AAA. Dam of another will have finished a record in AAA of over 600 lbs. fat which when verified, will make her one of the top class leaders. (Both daughters of the great Brookmead's White Face A. R. "Greatest Transmitting Sire of the Guernsey Breed." His daughters increased the records of their 500-lb. dams to 712 lbs. fat each, or more than the daughters of any other Guernsey sire.) Four bulls will be out of his high record daughters and nine will be sired by his sons. Three will be sired by Nelly's King of the Rancho A. R. One of his daughters made 707 lbs. fat at three years old and another 889.5 lbs. fat in A and she is the dam of one of the sale bulls. Another is out of Little Beauty 2nd A. R. She has made more A. R. records than any other Guernsey Cow in the world.

California Guernsey Bulls are big, strong and healthy. They are out of some of the highest producing Guernsey cows in the world. They will renew the vitality of your herd and increase your high production. Many mid-western Guernsey breeders have desired an opportunity to buy Brant Rancho bulls. Express rates seemed prohibitive. This is a chance to buy these good bulls at your own price in your own section after you have seen and inspected them yourself. Attend the sale to see these fine animals even if you do not need a bull at present.

BRANT RANCHO, Owensmouth, (Los Angeles) California

D. O. BRANT, Owner OTTO, the Herdsman

High Grade Dairy Cows

The Chicago Dairy Cow Exchange is offering at private sale high class dairy cows, mostly Guernseys and Holsteins. Most of them are fresh or springers. These cows come direct from herds in accredited counties, from accredited herds, or herds that have passed at least one clean test.

When you are in the market for healthy, profit producing, cows, come to the "Exchange." Write us today for complete information.

CHICAGO DAIRY COW EXCHANGE

Reid Murray, Manager, Barn 12, Union Stock Yards, CHICAGO, ILLINOIS

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

LINWOOD GUERNSEY SIRES

COMBINE TYPE AND PRODUCTION

PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. **CINDERELLA'S FAME OF MOUND CITY 78385.** Dam: Cinderella's Josephine 909 lbs. fat.

We offer several fine bulls by above sires, dams 600 to 744 lbs. fat; also a few young heifers either bred or open. Write for prices, photos and pedigrees.



SOLD FOR $22,000.00

LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.

Homer Rundell Federal Accredited Herd

SERVICEABLE BULL — Show Type

FROM A CLASS LEADER DAM

I am offering Dairydette's Cherub of Chippewa for sale. Born Feb. 20, 1926. A growthy show prospect good enough to suit anyone. His dam, Dairydette's Verena of Chippewa A. R. 697.87 lbs. fat in EE is eighth in her class and first in both E and EE in Wisconsin. His sire, Proud Prince of the Prairie, a son of Cherub's Prince, was a prize winner at the 1921 and 1923 Dairy Shows. Write today if you are interested in a good herd sire prospect.

L. P. MARTINY, Chippewa Falls, Wisconsin

QUALITY GUERNSEYS — AT AUCTION

Trenton Interstate Fair Grounds — TRENTON, N. J.

NATIONAL GUERNSEY SALE

MAY 12 — 75 Head of the breed's choicest specimens—beautiful individuals, large producers of proven blood lines. 9 bulls from cows whose type, production and breeding justify the admission of their sons to this select company. 50 matrons selected for their individuality, breeding and proven production, two with records of over 900 lbs. fat, four class leaders, many prize winners at large shows. 16 heifers from proven ancestry including the daughter of the first cow in Class C and GG.

Coventry - Dunwalke
Florham - Rockingham

MAY 13—65 Head Carefully selected from these well known herds with an idea of making this sale a permanent event. Federal accredited. Negative to the agglutination test for contagious abortion.

Highlands Dispersal
W. H. Gratwick, Prop.

JUNE 2—50 Ne Plus Ultra Guernseys An unequalled opportunity to secure beautiful individuals carrying a large percentage of the blood of this famous sire.

For Catalogs of above sales, write

The Herrick-Merryman Sales Co., - - Sparks, Maryland

Proven Sires--More and More of Them!

Two years ago there were 2669 Advanced Register Sires (Guernsey bulls with two or more yearly record daughters.)

In 1925 the number was increased by 226 new bulls, while in 1926 a new group of 241 proven sires was developed.

These bulls mean proven production for you. Don't leap in the dark—learn more about Guernseys. Ask for

"The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
8 Grove St. — PETERBORO, N. H.

Fifth Annual Consignment Sale!

S. CAROLINA GUERNSEY BREEDERS' ASS'N

Fair Grounds, COLUMBIA, S. C., MAY 3

45 HEAD -- Cows and Heifers 3 Select Young Bulls

T. B. and Blood Tested for Abortion.

For catalogue write A. L. James, Darlington, South Carolina.

Mail bids to A. L. James, Sales Manager, Darlington, S. C. or W. W. Fitzpatrick, A. G. C. C. Fieldman, Clemson College, S. C.

REGISTERED GUERNSEY HERD
Offered At Private Sale !

Having decided to sell Oakwood Farms in small tracts, I am offering for sale my entire herd of Pure-bred Guernseys which was started in 1910 with three Foundation Cows purchased from W. W. Marsh of Waterloo, Iowa. My herd consists of 45 head of females and 10 males, mostly young, and in splendid condition.

My last two Herd Bulls were sons of Prince Cherub and Eminent of Sarnia. If interested in purchase of one or more Guernseys from a clean herd, it will pay you to write me for list with full description and prices.

THE HERD IS ACCREDITED

L. S. MEYER Route 8, Springfield, Missouri

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

TYPE Plus PRODUCTION
OFFERING

SHOREWOOD ULTRA CHERUB. Born August, 1926. An excellent individual, almost solid fawn, well grown. Double grandson of Ladysmith's Cherub 30760. **SIRE**—Cherub's Royal Leader of Shorewood 74296 whose daughters are doing splendidly on test. **DAM**—Cherub's Ultra May Rose of Shorewood 83707 Granddaughter of Ne Plus Ultra A. R. record 11314 lbs. milk 581 lbs. fat Class D. Here is Breeding and Individuality that will suit the most discriminating. Pedigree and price on request.

Buy Ladysmith Cherub Blood
SHOREWOOD FARM, Crystal Bay, Minn.

MAYOWOOD FARMS
GUERNSEY BULLS

Only one left of serviceable age. We are offering several calves of Cherub and May Rose breeding at very conservative prices. Buy your next sire young and save money. Price lists and descriptions sent on request.

O. C. JENSEN, Supt., Rochester, Minn.

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

FOUNDATION GUERNSEYS
FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

GUERNSEY BULLS

of **MAY ROSE GOLDEN SECRET** and **NE PLUS ULTRA** breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

First Annual Sale of

FOREMOST GUERNSEYS

MAY 9th at EMMADINE FARM

FIFTY HEAD

A very select offering from our federally accredited herd of 300 head. Cows in milk, fresh and bred, bred heifers heifer calves, bulls and bull calves.

Eighty-four of our cows have made A. R. records that average 603.8 lbs fat, 11,671.5 lbs. milk. During 1924—1925—1926 we won 601 prizes at State and National shows including Premier Exhibitor at the National Dairy Show each year.

Prospective buyers may be assured this is an opportunity to purchase bulls bred for both type and production and females worthy a place in any herd.

Catalogue only on request to

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N.Y
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

HOLLISTON

HOLLISTON

Be Proud Of
Your Next Sire

Buy a Holliston Bull.

Prices within your reach.

D. G. TENNEY
15 West 4th St., New York, N.Y.

Guernsey Heifer
FOR SALE

The very best breeding. Accredited Herd. Write for information

OTTO W. POST, Ensenore, N.

PROVINCE LINE FARM

BULL CALVES from 2 months to year old Sired by our great bull, Langwater Braver and from high producing A. R. dams. Pedigrees and prices furnished on application Federal Accredited, Certificate No. 115032

J. W. MILLER, Owner, Box 73, PRINCETON, N. J.

Bargains in Bull Calves

A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BL

Lines—May Rose through King of the Golden Secret, Langwater Cavalier; founder, France, Glenwoods. Greatest g of herd sires in any herd. A. R. record to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia,

PENNCREST FARM

ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, prono by authorities as the best son, individually, of Ne Ultra, whose offspring, for a number of years have invariably topped the sales of major import Near descendants of this great sire are bec harder to secure, and in the near future will be uable acquisitions. Breeders desiring the best th in this blood will do well to investigate, as w offering stock at the right price. Address inquir

WM. P. SMEDLEY, MGR., MEDIA

BARGAIN BULLS *prod* CLASS LEADERS

Guernsey Breeders' Journal says in Feb issue—OUR NEW CLASS LEADERS— Silverwood's Diana, 20,006 lbs. milk Sire:—BROOKMEAD'S BANNER A.

Sold sight unseen as a youngster.

Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., PHILADEL

Watch our Special Opportunities Pag real farmers' bargains.

Minerals in Water Not Utilized by Cows

ilk cows do not make use of the erals contained in drinking water aining large quantities of lime a trace of phosphorus, according ecent tests conducted by the Dairy artment at the Ohio Experiment ion. This is contrary to a belief ng dairymen that hard water con- ng a large amount of lime is a nct asset.

these experiments water which distilled to make it as nearly free all mineral matter as possible substituted for well water of a y high lime content without hav- ny apparent effect on the utiliza- of lime by the cows. Likewise a ge from distilled water to well r furnishing 8 per cent of the lime intake was without effect the lime retention.

e rations were low in lime and ows were all losing this mineral their bodies. Hence it was rea- le to expect that the addition of furnished by the hard well water help to overcome the losses.

e type of water had no noticeable on the utilization of either lime nosphorus which is also often g in the dairy ration. However, horus occurs only in small nts in well water generally and e water used in these experi- only a trace was found.

ps grown in limestone regions lime land contain more lime those grown on acid soil, and in limestone regions has a larg- ie content. The lime in plants lized by dairy cows, that in the is not utilized by them.—Week- ess Bulletin, Ohio Experiment n.

he Dehorned Ayrshire

take the following from the British Agriculturist, published nburgh, Scotland:

lking the bull by the horns" is a ld and suggestive saying, but vidently to apply no longer in mous Ayrshire herd. Mr. A. ntgomerie, Lessnessock, Ochil- as decided that all calves born herd in future are to be de- at birth. Mr. Montgomerie has studied the question from nts of view, and hence his de- that "the advantages to be de- from a dehorned animal far gh the other." It is always re- g to find a man giving practi- of of having the courage of his ions, and Mr. Montgomerie is this now, whether his convic- e wise or otherwise.

n the purely utilitarian point iv, Mr. Montgomerie's decision t be questioned. The horn of Arshire, as of the "Highlander," oubt a potentially dangerous ient. The remark applies also ny other distinctive cattle but one cannot help thinking there was to be a policy of de- all round, a very great deal picturesqueness of farm animal uld pass from us. That, how- a purely sentimental consider- but, coming to the business will not be denied that if Ayr- Shorthorns, Highlanders, and are to come into the show ehorned, the conscientious ill have a worrying time of it. the "poll" of the Aberdeen- must be carefully scrutinized ating breed character, so the often eloquently suggestive of haracter and quality when the breeds come to be judged. ll certainly be interesting to ther the new vogue is to be- pular, but there will be some who would prefer that in breeding animals, at any rate, nature should be spared such revolutionary liberties. Horns on cattle may be dangerous, but so are the teeth, and the heels of the horse.

French Canadian Cattle Breeders Meet

At the thirty-fifth annual meeting of the French Canadian Cattle Breeders' Association held Feb. 22, at Sherbrooke, Quebec, 150 of the 373 members of the organization were in attendance. The officers' reports showed an increase of 27% in membership, an increase of over 65% in registrations (727 animals were registered in 1926), and an increase of over 45% in transfers. Official testing also showed a decided increase, too, 4 bulls and 118 cows being entered in the Register of Performance in 1926 against 98 in 1925.

The officers elected for 1927 are Dr. Gustave Langelier, president; Ernest Sylvestre, vice-president; Adrien Morin, secretary.

AYRSHIRES

AYRSHIRE COWS
FULLY ACCREDITED
300 Head in the Herd
Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.
ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

Registered Ayrshire Cows
We are offering for sale a number of choice young cows bred for fall freshening. Several are bred to Aldebaran Victor, he a son of that great cow, Highland Polly. Others are daughters of "Victor" bred to a son of Bargenoch Gay Cavalier. Priced from $175 up. Herd under federal supervision.
ALDEBARAN FARM, E. J. Nelson, Mgr., RACINE, WIS.

Purebred Ayrshire Cattle For Sale
Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

Spring Valley AYRSHIRES
Accredited Herd
Foundation FEMALES - BULLS
For Sale At All Times !
Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.
We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.
L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL
AYRSHIRES
The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us.
Herd under Federal Supervision.
SYCAMORE FARMS, Douglassville, Berks Co., Pa.

Penshurst Ayrshires
HEALTH—PRODUCTION—QUALITY
Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.
PENSHURST FARM, NARBERTH, PA.

A HIGHLY BRED AYRSHIRE
BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.
GLEN FOERD FARMS TORRESDALE, PA.

South Farm Ayrshires
Will sell a limited number of Young HEIFERS and BULLS.
Let us know your wants.
SOUTH FARM, Willoughby, Ohio

Ayrshires
—are a plain business proposition. "Profit" is always the biggest possible return from the least possible outlay. That is "AYRSHIRES" in a nut shell.
Let us give you the official figures covering Pinehurst Farm Ayrshires. They are of value to every one who farms to make money. Address

PINEHURST FARMS, Mr. J. S. Dunlop, Pinehurst, N. C.
AYRSHIRE CATTLE AND BERKSHIRE HOG BREEDERS

Ask Me Another

1. What breed of dairy cattle is noted for its heavy production of four per cent milk?
2. What breed of dairy cattle has no equal in beauty?
3. In what breed of dairy cattle can a farmer get the most for his money?
4. What is the best and quickest method of improving a herd of ordinary cattle?
5. What Association enjoys furnishing you with information about its breed and will assist you in locating foundation animals?

Answers— 1st, The Ayrshire.
2nd, Everybody knows this one.
3rd, The Ayrshire is the Scotchman's favorite.
4th, By the purchase of an Ayrshire bull.
5th, The Ayrshire Breeders' Association, 10 Center Street, Brandon, Vermont.

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds
Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.
We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.
BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM
MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)
Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

Extra Sheets
— For —
Hoard's Dairyman VEST POCKET HERD BOOKS
Keep your book up to date. Price 50 cents for fifty sheets.
HOARD'S DAIRYMAN, Ft. Atkinson, Wis.

HOLSTEINS

MILWAUKEE HOLSTEIN BREEDERS ASSOCIATION
ST. MARTINS, WIS., APR. 30
SPRING SALE!
60 PUREBREDS 60
10 Serviceable Bulls—10 Calves
40 Springers and Bred Heifers
Sons and daughters of Halbach's grand champion bull; Carnation's "Joe" bull; Henderson's 46 lb. bull; Milwaukee Co. Farm's 1136 lb. herd sire and other outstanding animals of the breed. Sale Starts at 10 o'Clock
Catalog on request.
J. C. SARGENT, Secretary
308-10 Wells Bldg., Milwaukee
ST. MARTINS, WIS., APR. 30
T. M. E. R. & L. from Milw.—Highway 100

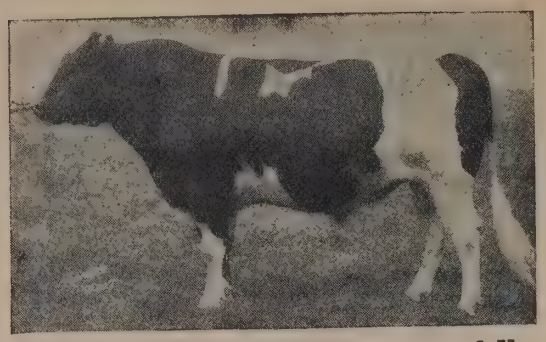
STATE and FEDERAL TESTED **HOLSTEINS**
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.
Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

HOLSTEIN Bulls - Females
YOUR PICK OF 150 HEAD. Abortion tested and T. B. free. First prize National Dairy Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.
F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

SERVICEABLE BULLS—FOUNDATION HEIFERS
Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.
BAIRD BROS., Box 177, WAUKESHA, WIS.

Read the other Live Stock ads on page 477, so placed because they were too late to classify.



There is Only One "Sir Inka May 2nd" and You Can Start Using Him On Your Herd Right Now

There is only one Sir Inka May 2nd—and this is the bull:—a long bodied, straight topped, beautifully marked son of Sir Inka May and (THINK OF IT) out of one of our most noted show cows. Furthermore, he is ready for you to start using at once.

Owning a son of Sir Inka May will bring considerable attention to your herd, but owning this particular son of Sir Inka May out of Tillamook Lola May De Kol will give you a herd sire that you can indeed be proud of. His dam was second prize aged cow at the 1922 Pacific International and is a full sister to the National Grand Champion, Tillamook Daisy Butter King De Kol.

You'd expect outstanding individuality with this combination, and that is just what you get in this bull.

His dam (a 29-pound cow with 895 pounds of butter in a year) has a 25-pound 3-year-old daughter.

His sire is from the Champion butter producing cow of the United States for one year, over all breeds and ages.

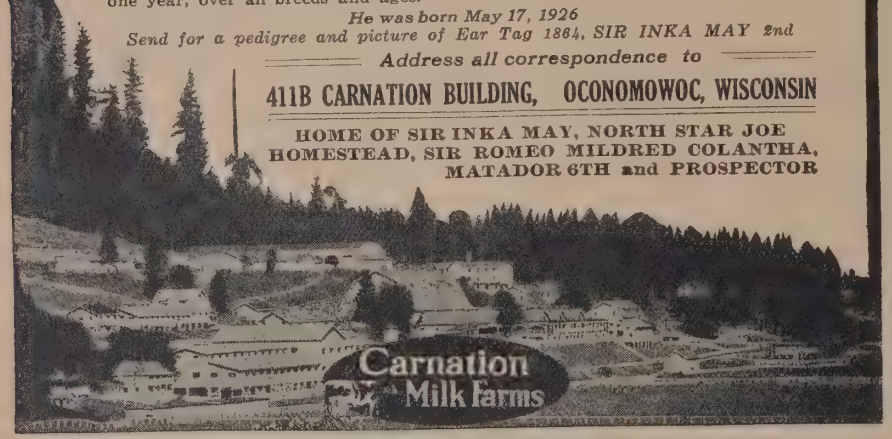
He was born May 17, 1926

Send for a pedigree and picture of Ear Tag 1864, SIR INKA MAY 2nd

Address all correspondence to

411B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Dr. Boeckmann's Famous Echoland Herd - At Auction

60 Head — all Ormsbys

The Echoland herd has produced many famous show animals and great producers. With one exception, all animals in the herd have been bred on the farm. These are descendants of the famous show cows shown a few years ago and all are by high record Ormsby bulls. Records up to 1017 pounds and many daughters of record cows. Females are mostly two- and three-year-olds.

If You Need a Bull or a Few Choice Females, Don't Miss This Sale

MAY 5

White Bear, Minn.

At Fair Grounds Pavilion

For Descriptive Folder Write

Melin-Petersen Co., Sales Mgrs.

306-B Gorham Bldg., Minneapolis, Minn.

This Great Herd Sire Selling!



ECHOLAND SIR ROMEO

Born Dec. 7, 1925

A bull of wonderful size and type. By Sir Romeo Mildred Colantha, twice first at the National and now heading the Carnation herd. His dam is Lizzie Pietertje Ormsby, a 36-lb., 1017-lb. 3-year-old daughter of Sir P. O. M. Here is a herd sire worthy of consideration.

"GRAHAMHOLM" ONE OF AMERICA'S LEADING HOLSTEIN HERDS

TO BE COMPLETELY DISPERSED

It can truthfully be said that this sale contains greater production than has ever before been offered at public auction.

MAY 27-28
ROCHESTER MINN.

See the May 10th issue and send for free illustrated folder on this great herd.

MELIN-PETERSEN CO., Sale Mgrs
306-B GORHAM BLDG., MINNEAPOLIS, MINN

Sir Bess Ormsby Fobes

Head Your Herd With a "Sir Bess" Bull

We have for sale a few very good young bulls by Sir Bess or from Sir Bess daughters and by Creation. If you want breeding, type, and long time production we are sure one of them will suit you. Write us or come to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) **DOUSMAN, WIS.**
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

A SPLENDID OPPORTUNITY

WE ARE CONSIGNING 4 SPLENDID INDIVIDUALS to the Milwaukee Holstein Breeders' Cooperative sale at **ST. MARTINS, WISCONSIN, APRIL 30, 1927.**

The 2 bull calves consigned are outstanding individuals bred both for type and production. HOW WOULD YOU LIKE THIS BREEDING IN YOUR HERD: Milco King Jude Homestead—No. 510178—Born Dec. 6, 1926—out of our Senior Herd Sire: King Canary Homestead Segis No. 297548—whose dam made 1123 lbs. butter and over 30,000 lbs. milk. The dam of this fine calf made 26.30 lbs. butter from 669.9 lbs. milk. He's in the sale at your price. The other bull calf is equally as good. The females are both daughters of King Canary Homestead Segis No. 297548—out of outstanding dams. REMEMBER here is an opportunity to buy individuals from an abortion free herd. T. B. under Federal supervision.

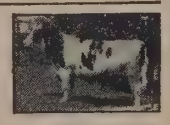
MILWAUKEE COUNTY INSTITUTIONS FARM, E. C. THOMPSON, Farm Mgr., **WAUWATOSA, WIS.**

HOLSTEIN BULLS

of serviceable age and younger. Good individuals out of good individual record dams.

THE NORRIS FARM *Fully Accredited* **Mukwonago, Wisconsin**

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, **ALLENTON, WISCONSIN**

GRAMLING FARMS HOLSTEINS

King Pontiac Inka Lunde Korndyke, our senior sire is a son of King of the Pontiacs, a double grandson of Pontiac Korndyke. Bell Farm Chancellor, junior, sire, is a grandson of Bessie Fobes Oak Homestead from a 34 lb. 4-year-old daughter of Carnation King Sylvia.

These bulls are being bred to our herd of Homestead females. We have sons and daughters of our senior sire for sale. The herd is clean.

GRAMLING BROS. **DOUSMAN, WISCONSIN**

Springers and Fresh Cows

HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., **WEST SALEM, WIS.**

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

Sheboygan County For Holsteins

85% of all cattle in county are Holsteins. Over 200 fine Federal tested herds to select from. Full time field man is at buyers' service. Write or come if you want good Holsteins.

SHEBOYGAN COUNTY HOLSTEIN ASS'N
Arthur V. Jensen, Fieldman, Plymouth, Wis.

BULL CALVES $50

Calves sired by 990-lb. grandson of Iowana Sir Ollie and out of daughters of a 1040-lb. Homestead bull. Accredited herd in an area tested county. Write.

CHAS. HUGHES & SON, **NEENAH, WIS.**

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to **A. F. GAFKE, secretary, JEFFERSON, WIS.**

HEADQUARTERS FOR Quality Holsteins

The kind we breed are the kind you need. Over 40,000 to pick from. To be convinced come to our headquarters and let our fieldman show them to you. His service is free. Whether you want grades or pure-breds, single or carload lots, we have them for you.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASS'N.
Fort Atkinson, Wisconsin

MILFORD MEADOWS

Where long-distance records and high test counts

Our daughters of King Bess Burke Ormsby (1164 butter) and Marathon Aggie (1,250 butter) are most all bred to

SIR TRIUNE PANSY (1,317 lbs.)

First to freshen in January. You will be pleased with this combination of type and production.

W. W. KINYON, Mgr., LAKE MILLS, WIS.

DICMERE HOLSTEINS

SHOW TYPE—PRODUCTION

We have for sale bull calves 4 to 10 weeks old sired by Walcowis Ollie Abbekirk, a 968-lb. son of that grand champion, Iowana Sir Ollie. They are from 23-lb. to 25-lb. 3-year-old dams. $150 to $200 and bargains at that price. The herd is federal accredited. Write if you want a bull with type, backed by proven production.

H. E. DICKINSON, Oconomowoc, Wis.

GOVERNOR FOBES

A son of Wisconsin Fobes 5th and Marathon Bess Burke heads my herd. His daughters have the right type and are proving excellent producers. A few "Governor" sons for sale from dams with records up to 30 lbs. in 7 days and 1,000 lbs. in a year. The herd is federal accredited. Come to the farm to buy your next herd sire.

SUMMIT FARM, John Zoberlin, **PLYMOUTH, WIS.**

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES

K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

L. E. FERGUSON, **LAURENS, IOWA.**

125 ORMSBYS

High Record Cows; Sons of Sensational Producers; Show Animals.

Representing the famous strain of this phenomenal family.



Watch for details in the near ture. Illustrated folder sent request.

MELIN-PETERSEN CO., Sale Mg
306-B Gorham Bldg., Minneapolis, Min

High Grade Holstein Springer

If in the market for big producti these cows will please you. Tubercul tested. Address

RIVER MEADOW FARMS, Portlandville, N.
P. S. Come and make selections.

OHIO HOLSTEINS

Registered COWS, HEIFERS and BUL Very choice Calf Club CALVES. We have sales agents in the field all the time who take care of all orders in fine shape. Al quiries are referred to our entire members

OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Co

UNITED STATES SOLDIERS HOME DA

WASHINGTON, D. C.

OFFERS FOR SALE at reasonable prices from accredited herd in the United States. **PURE HOLSTEIN-FRIESIAN MALE CALVES** fro month to seven months old, from yearly teste and sons of General Piebe 323266 H. B. One richest bred sons of the well known K. P. O. P. descendants have in the past eight seasons less than 553 first prizes. His five nearest da have 1,200 lbs. butter in 265 days. Also Grahamholm Colantha Pauline Lad 297377



HOLSTEINS

—Producers of Cash!

Holsteins stand supreme as butterfat producers. Holsteins in most instances are leaders in cow testing associations, both in individual and herd records. Under official test the important records for butterfat are all held by Holsteins. Their ability to produce butterfat, milk and calves economically, make them consistent producers of cash.

Write for Holstein Literature and Facts

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN *Association of America*

20 E. Ohio St. Room 601 **CHICAGO**

)R SALE -- A Line Bred "King of the Ormsby" CALF



: A grandson of Bess Johanna Ormsby out of a cow with ı,180-lb. butter record. Dam: A daughter of King of the sbys with 607 lbs. butter and 15,105 lbs. milk in 305d. at years. Second dam has a 750-lb. 305d. record. **PRICE $225.** ress charges prepaid up to 500 miles.

BULL 3116
BORN JULY 31, 1926

TERTHUR FARMS, WINTERTHUR, DEL.

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ealthy Holsteins

re in the market for grade or registered Hol- om tested herds write us today.

LINOIS HOLSTEIN-FRIESIAN ASSN.
earborn, St., CHICAGO, ILL.

---

msby-Homestead Bulls

ve for sale 2 very good calves born . and Dec. 27, sired by Rawleigh Ormsby je Posch, our 41-lb. Ormsby sire. They m 24- and 25-lb. 4-year-old Homestead with good year records, one a state cow. Priced to sell. The herd is Write

E W. T. RAWLEIGH COMPANY
Rawleigh's Ideal Farm, FREEPORT, ILL.

You Look Ahead?

a choice selection of Bull Calves on hand ld be ready for service before next winter. ices NOW represent a handsome profit for them. The selection is greater. Herd five Ogle County C. T. A. Federal Supervision od Tested."

ck River Farms, Byron, Ill.

OUNG BULLS

D TO SELL! I am sold out of ser- e bulls but have some excellent bull 2 to 4 months old, priced right. They e type and breeding that will suit you e from A. R. dams. Write today. En- rd blood tested for abortion without a

Y M. WOOD, Delavan, Ill.

---

alo Creek Farm Holsteins

re offering **BULL CALVES** rich in y breeding from tested dams. These om six to eleven months old. Some as low as $100.00. Write for pedigrees rther information. Herd under federal ision.

IAM BROS., Arlington Heights, Ill.

ARWOOD FARM HOLSTEINS

ve nothing for sale at present but will y have bull calves from A. R. and C. T. dams, sired by a 1,000-lb. grandson of S. P. 37th. Farmers' prices.

LANDORF, GLEN ELLYN, ILL.

ULL

BORN SEPT. 23, '26

a 24-lb. two-year-old with 460 lbs. of He is sired by a good proven bull. He is ¾ white and a real individual. Send digree and price.

ELLWOOD & NELSON
ALB ILLINOIS

---

llyde Park Farm

is now located at

s Park - Illinois

our fully accredited herd of high-producing d Holsteins is headed by a splendid son of r from a 35 lb. dam. We sell our Bull Calves nable prices to local dairymen.

JOHN A. CARROLL, Owner
Address all communications to
PARK FARM - WORTH, ILL.

Buy that herd bull from a ard's Dairyman advertiser. 'll be better satisfied.

A Son of This Grand Champion For Sale!



MINNEHAHA SIR PIETERTJE ORMSBY

Grand Champion at the Minnesota State Fair, 1926. He is a son of the famous Grand Champion, Sir Pietertje Ormsby Mercedes 14th.

We have a splendid son of "Minnehaha," born July 24, 1926. He is marked about half and half. His dam made 15.44 lbs. in 7 days as a junior 2-yr.-old. Her sire is a son of "37th" and a full brother to Wis. Pride 2d, 3d and 4th.

PRICE $175

Buy them young and save money!

FEMCO FARMS
Box 336-B, BRECKENRIDGE, MINN.

FOR QUICK SALE — A Nice Straight Serviceable Son of Man O' War —"That Son of 37th"

Dam—Large, straight show cow with a good square udder—1,000 lbs. 365 days, 30 lbs. 7 days. Royally bred—no blanks in pedigree. Picture and pedigree on request. Price $400.

EMPIRE STOCK FARM,
Wm. Schmidt's Sons, ST. PETER, MINN.

---

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by **KING PEITERTJE MERCEDES ORMSBY**, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

A GOOD BABY BULL

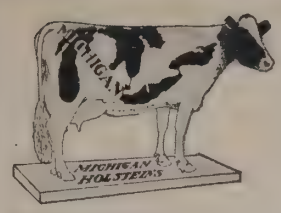
Sired by **ST. OLAF ORMSBY SENSATION No. 346641**, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

AKONA HOLSTEIN FARM

BULL CALF born Jan. 9, 1927, very good type. Sire's dam, 1,016 lbs. butter in year, dam's record 637 lbs. Accred. herd. **Price $85.**

B. A. NORRIS, ANOKA, MINN.



Highball for Michigan!

Get in ahead of the Rush—the rush of spring work and the rush of Spring Buyers. Good **PUREBREDS** plentiful and reasonable in price. Our 15 County Sales Managers are waiting for you. They quote you on what you want; they show you the purebreds free of charge whether you buy or not! What shall I tell 'em you want?

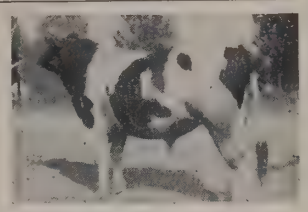
J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

SERRADELLA FARM *Offer*—

SERRADELLA KING ECHO
Born December 21, 1925

Sire—Eco-Sylv King Walker. Sire of 8 A. R. O. daughters. Four junior 2-year-olds above 20 lbs., one above 25 lbs. and state 30-day record.

Dam—Serradella Kornary. Butter 7 days 19.43, milk 384.7, jr. 2-year-old. Straight top, well built, more black. Price moderate.



SERRADELLA FARM (Federal Accredited Herd) Oscoda, Michigan



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

HEALTHY HOLSTEINS

In the development of a herd of pure-bred animals, nothing can be more important than health. Many breeders, overlooking this fact, have spent years of time and effort building herds and later have found them badly diseased.

Michigan State Herds have been tested regularly for tuberculosis for years.

The last test included 1708 animals and only three animals were found slightly infected in two of the herds.

Dependable producing Holsteins since 1889

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. **We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.**

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"



$250 — Dean Segis Bess Ormsby — $250

BORN AUGUST 26, 1926

We offer this week, a nice straight typy bull calf, eight of whose fifteen nearest dams, average 1070 lbs. butter for their 305-day or yearly records.

SIRE—Dean Colantha Segis Ormsby, a richly bred Ormsby show bull of 1000-lb. breeding.

DAM—Lashbrook Bess Ormsby, with a junior two year old record of 552 lbs. butter in 305 days.

You will like this bull. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

STEELE COUNTY HOLSTEINS

are noted for their size, type and production. Pure-breds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINN.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

Wonderful New Method

Milks Cows Like No Other Machine Ever Milked Cows Before

AT LAST something *new* has happened in the history of machine milking!

For 15 years milking machine makers have been bringing out new models—telling of the grand improvements they have made—BUT when all was said and done, it proved to be mostly talk, which didn't mean a thing to the farmer.

Now—the Pine Tree Milking Machine Company has brought out something *really* new.

The wonderful SURGE Milker has changed all old ideas of what a milking machine ought to accomplish. You cannot judge this machine by anything you ever knew of milking machines in the past. Breeders who used to be afraid to put a machine on their record making pure breds are using the SURGE. They tell us they making wonderful records—and the udders have never been k in better condition by the most careful hand milking.

Dairymen producing for city milk trade who couldn't make pu clean milk with old type machines are earning premiums for low b teria count—and spend no more time washing the SURGE th they used to spend washing milk pails.

The SURGE is sweeping everything before it. It is the great thing that has happened in the dairy industry for many years.

Send the coupon below for details of our surprising offer that gi you a chance to prove out these things for yourself before y obligate yourself to buy a thing.

Only 4 of These Rubbers To Wash

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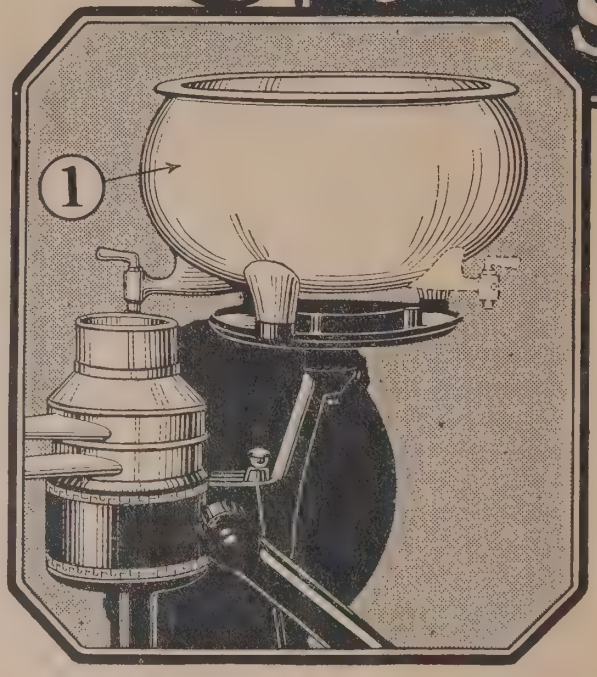
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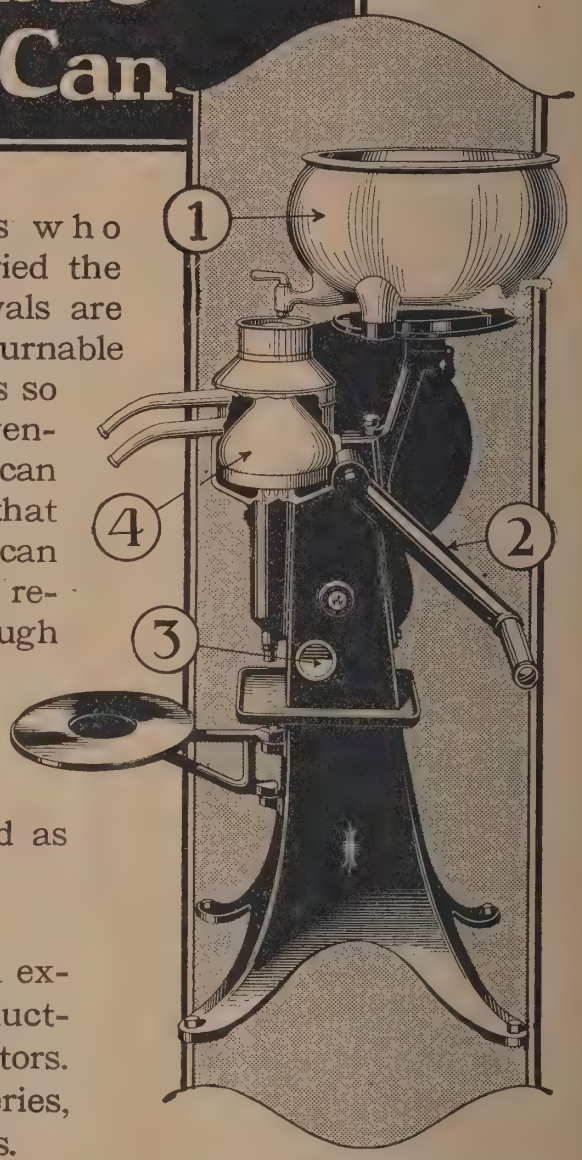


olume 72, No. 9 Fort Atkinson, Wisconsin May 10, 1927

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A JOURNAL DEVOTED TO DAIRY FARMING

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COMMON SENSE IN NEW ENGLAND DAIRYING

GEORGE M. ROMMEL, NEW YORK

THE Turner Centre System, one of the largest distributors of milk and ice cream in New ngland, is a most interesting adven- ıre of farmers in the co-operative wnership and management of their ısiness.

Dairy authorities cite Turner Cen- e as a model dairy institution. In ants and equipment there is little be desired. Buildings, machinery, rses, wagons are of the best and e kept in first-class condition.

Co-operative enthusiasts hold up ırner Centre as a brilliant example what farmers can do in co-opera- on with each other and with busi- ess men. But both dairy experts ıd co-operative partisans got a jolt ıen a permanent break threatened st summer between the Turner ntre System and the New England ilk Producers' Association—NEM- A for short—the leading dairy pro- ıcers' sales agency in New England. hen the basis of the trouble was scovered to lie in one ugly word— ismanagement—people who did not ow the facts jumped to the con- usion that the farmer wners were responsible r this condition of af- irs. That is not true, you shall see. Pardon little history.

Some five years ago e bright idea occurred men interested in urner Centre that it ould be a fine thing if e farmer patrons of e company should adually buy it and in me own it outright and responsible for the nduct of its business. here was no "nigger in e woodpile," no inten- on to sell the farmers gold brick or to unload ı them a good proper- for more than it was orth. It was a straight, o-sided business prop- ition. An issue of "co- perative common ock" was arranged hich patrons were to y over a period of five ars, at the end of hich time they would the bona fide owners the company. To make re that all would run oothly, the old man- gement, which had ilt Turner Centre om the ground up into e fine property that it as and still is, agreed remain in charge until e farmer buyers had ade the last payment their co-operative mmon stock.

It happened that there- lay the weak point of is otherwise sound and r-sighted conception. The promoters overlooked the fact that managers and boards of directors are not infallible, but just as human as other folks and sometimes inclined to make mistakes, as other people do.

Farmer ownership did not become an actual fact until February 1, 1926, and long before that the damage had been done. The company had for years been increasing its ice cream and city milk business, and the future looked so promising that quite an ambitious expansion program was adopted. It did not pan out in real good paydirt; very like overexpansion elsewhere. Then, with plants in Boston, Providence, and other New England cities, the directors continued to keep the working headquarters of the business in the little town of Auburn, Maine, where they had always been. And Auburn is some 200 odd miles from Boston where a large part of the company's products are sold. Boston competitors gave Turner Centre one trimming after another under this handicap, but the habits of a Maine man are hard to change, and Turner Centre stuck to Auburn.

While there were other things that showed more sot-in-the-wayness than good business judgment in management, the financial policy amazes one who knows something of the tenacity with which a New Englander cleaves to a dollar. In 1924 the company paid out of earnings dividends to the amount of $118,042.89, and added $59,954.88 to its surplus—not much profit on more than six million dollars' worth of business but still a profit. The surplus then stood at $264,131.23 on December 31, 1924. In 1925 only $18,047.45 was available as surplus at the end of the year, and the surplus fund had been depleted until it stood at $207,399.20 on December 31, 1925, including the item just mentioned. No dividend had been earned, but the directors paid one anyway—$112,660.98—out of the surplus, leaving that somewhat bruised and battered item of the treasury at $94,738.22.

When the farmer patrons became full owners on February 1, 1926, the first thing they had to face was the treasurer's report. In power at last, they elected their own board of directors who appointed a new general manager, Weston B. Haskell, who had grown up in the Turner Centre System.

Haskell's first move was to arrange to spend five days a week at the Charleston plant in Boston, thus, in effect, moving his headquarters to the Hub, and before he got through with the reorganization there was a new manager at every Turner Centre plant but one.

Then, on top of other troubles, 1926 was a poor ice cream year in Turner Centre territory, and the new management faced the problem of keeping going with a deficit. This brought on their clash with the New England Milk Producers' Association. NEMPA includes in its membership most of the farmers who produce milk for the Boston market, and about 80 per cent of Boston's milk comes from their farms. The association publishes the price for milk in advance, as such organizations do elsewhere, and the dealers who get their supplies from NEMPA producers pay the "known" NEMPA price, Turner Centre among them.

Faced with a critical financial situation, the Turner Centre directors could not see that passing dividends would meet the emergency. There was not likely to be enough earned to provide for dividends and there was even grave danger that expenses would exceed receipts. So the directors took the bull by the horns and announced that, beginning with August, they would not pay the NEMPA prices for milk, but would do as well as they could by their producers, hoping, if business was good, to make up the difference later on, perhaps paying better than the NEMPA scale in time.

That set off the fireworks. If one big dealer (and Turner Centre is a dealer, for all it is farmer-owned) refused to abide by the NEMPA scale, the entire structure which the New England dairymen had so laboriously built up

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THE WAY TO BALANCE FARMING



THE FARM HOME FOR LIVING

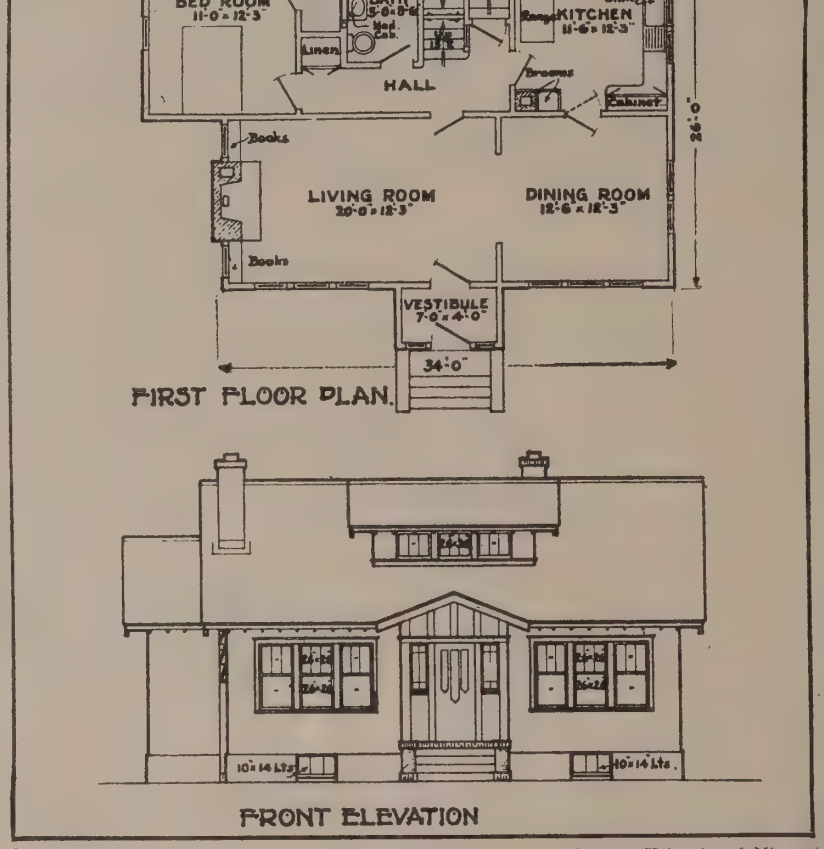
H. B. WHITE, MINNESOTA

THE farm home is not only the home of the farmer and his family but it is the factory for his farm business where he transforms his hay, grains, etc., into more easily marketed products such as pork, beef, milk, butter, and eggs.

Under pioneer conditions the farmer usually gave the major portion of his time and effort to clearing and developing his fields so as to enlarge his business. In many cases he gave too little attention to the arrangement of his farmstead and the location and planning of his farm buildings. In order that the farm home may be developed into a convenient and attractive place it is necessary that the farmstead as a whole be given careful consideration so that there will be suitable space for buildings which may not be erected until some years later. Figure 3 shows a farm home with modern buildings and up to date equipment. It is a real home.

Although the farmhouse is the most important building it has been developed very slowly. In its simple form it is a rectangular building in one end of which is the kitchen, the middle serves as a living and dining room, while the other end serves as a bedroom. As a house may be planned only once by each generation, there is not very much information passed on from one generation to the next. It is perhaps due in part to the influence of the automobile which broadens the view of farm people that more conveniences are now considered necessities which were a few years ago thought of as luxuries. The farmhouse of the successful farmer is now easily made modern with its water supply operated by windmill, gas engine, or electric motor, its septic tank, its heating plant in the basement, and its lighting plant which does so much to make living conditions satisfactory. With the modern conveniences to be installed in the house, the structure is more complicated and requires that more care be given to its planning in order that economy and convenience will be secured. Figure 2 shows a farmhouse that is a source of great satisfaction to the owner. It adds to the value of all the farm property in the community.

A house has so many different points to be considered in making it suitable for each family and the particular site which it is to occupy that numberless plans of farmhouses have been prepared and are now available. Some are especially suitable to face east, some will face north, etc. No one plan will be suitable everywhere. In order that a satisfactory home may be developed it is necessary that careful thought be given to the requirements and a house plan selected that will most nearly meet the requirements. It is often said that each time one builds he will build differently. This is very true as the conditions will have changed in the meantime and necessitate different arrangements.



—Courtesy University of Minnesota

FIG. 1—PLAN OF A ONE AND ONE-HALF STORY FARMHOUSE

The farmhouse should be given the most important part of the farmstead. It is desirable that it be high enough so that there can be drainage from the basement. The grove and plantings should serve as a frame or background with the house as the important feature of the picture.

A farmhouse may not be erected all at one time. In Figure 1 is shown a plan of a house of which a part only may be built. It may be built to include the kitchen and stairway at the rear and a living room and small bedroom at the front. This same house may be enlarged or built so as to include the kitchen, stairs, and bathroom at the rear and a large combined living and dining room and a bedroom at the front. If the house is built complete as shown it makes a splendid farm home. The kitchen is large enough to permit of the operations that are necessary. In addition there is a convenient basement which is reached through a grade door. This permits of going directly to the basement from outside without climbing to the level of the first floor.

The stairs to the second floor go up from the hall and land near the middle of the house where the three bedrooms are easily reached. The bathroom and first floor bedroom are very comfortable and convenient. They save many trips up and down stairs if there are small children in the family.

The dining room is planned so that with the house facing south or east the morning sun will light up this part of the house.

The front door of the farmhouse is one of the problems that has not been improved to suit changing conditions. It is important that it be reached by the visitor driving up in an auto. This means that the old habit of driving a team back near the barn to hitch it must be overcome and the driveway pass near enough the front door so that visitors may leave their car and enter through the front door instead of through the kitchen door.

Although the basement is not shown it is made up with masonry walls and convenient grade door. It is easily reached and will be used a great deal more than were the old time cellars. The basement serves as the location for the heating and lighting plants as well as a storage space for fuel, fruit, and vegetables. In many cases the laundry room is located in the basement. It also serves as a cool working space in summer and a warm place in which to work in winter.

The farm home is more than just a house in an attractive farmstead. It may be more helpful to consider that the finer farm homes are the result of planning and working of the whole family for a suitable home. The details of arrangement are only minor items in the carrying out of the plan for a satisfactory home. This broad viewpoint should be kept in mind even while working on the details of arrangement, utility, and beauty. It should, however, serve as an incentive to make one give more consideration to the far reaching effect of results that may be secured by carefully made plans.

The modern flat and duplex of the city have many features that appeal to the young people of this generation who are frequently changing their location and occupations, but it is very doubtful if the next generation growing up under these methods of home keeping will show the characteristics that have made the sturdy home-making pioneers of America so highly respected and loved.

The homes of these pioneers were almost entirely farm homes in which the whole family worked hard to supply the food and shelter that are so necessary in a new country. Each member of the family had some part in the daily routine of the home work and early learned to do those tasks with regularity and faithfulness. This training is not now a part of the city boy's or girl's early experience and there is grave doubt as to the future success of a young person without such training. The farm home still requires the attention of all the family in its operation and thus is given the training that has so well led t

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FIG. 2—A MODERN FARMHOUSE



FIG. 3—A WELL PLANNED FARM HOME

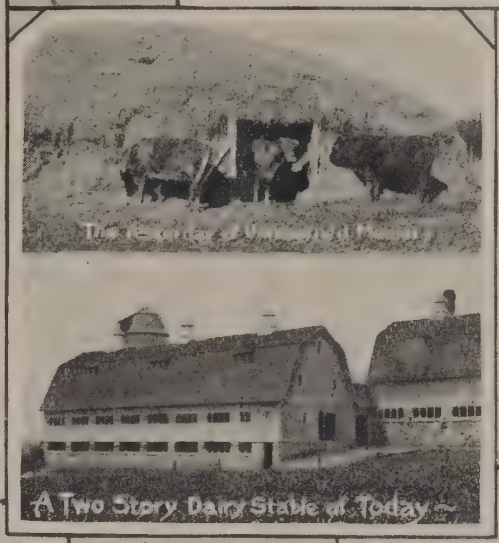
The Dairy Farm On Parade

Convenience, Beauty, Contentment





















HOW GOOD DAIRY BARNS ARE BUILT

IN order to be in a position to select the type of building construction, materials, labor, and feed saving devices best suited to his needs and pocketbook, the prospective builder should get all the suggestions and help available on the subject and study them carefully. Bulletins from agricultural experiment stations, and literature from companies manufacturing stable equipment, ventilating systems, etc., should be secured.

Of course, one of the first things to consider is the floor plan in order to determine the size of building that will be required to house the herd. It is folly to attempt building without a definite plan showing the layout and size of stalls, pens, feed rooms, walks, and alleys so the barn will not be too large or too small, but just right. Without an accurate plan, supporting posts, doors, silos, etc., cannot be located correctly and trouble will develop later when completing the stable.

Doors must be properly located so that they will come at the correct place for silos, walks, and milk house. Too often it is found that doors have been located in the wrong place and have to be moved simply because enough consideration was not given to the plan before starting the work.

The Foundation

A good barn must have a substantial foundation; if it is skimped and carelessly put in, the walls will settle and crack. Usually two to two and a half feet is sufficiently deep. It is not necessary to carry it below frost line, but it should never be placed upon loose or refilled ground. The usual practice is to figure that earth or clay in natural beds will safely sustain from three to four tons per square foot without settling. In view of this a footing for a post carrying six to eight tons should be twenty-four inches square and at least twelve inches deep. It is sometimes necessary to make them deeper in order to get down to good bearing soil. Footings for foundation walls are ordinarily from twenty to twenty-four inches in width and ten to twelve inches deep.

Concrete and stone are the two common materials used for foundations below ground. A good mixture for concrete is 1:2½:5, meaning one part Portland cement, two and one-half parts sand, and five parts broken stone or coarse gravel. Large stones are sometimes used and the concrete mixture used to fill the space between them. When this kind of foundation is used, care must be taken to work the cement until all the spaces between the stones are filled.

The Stable Wall

The construction to use for stable walls from floor line to second story joists is a question very often difficult to decide. Local conditions have considerable bearing upon the material available for this work at a reasonable cost.

The requirements are for a wall construction that is warm and durable, that will conserve the stable heat and keep out the cold. To get maximum results along this line, the walls should be insulated in some way so that there is no direct connection between the cold air on the outside surface of the wall and the warm air of the stable on the inner surface. In general, very little attention has been paid to building walls of this kind, with the result that a large proportion of the dairy barns have frost and moisture on the walls in cold weather.

A dead air space in the wall makes a very effective insulation. However, it must be dead to give satisfactory results, that is, there must be no leakage of any consequence or its efficiency will be materially reduced. The aim, then, must be to so build the wall that the air space will be tight or, in other words, dead. There are several ways of arriving at the desired results, it depending upon the material to be used and whether the wall is to be built new or is existing.

Concrete, stone, and brick can be built with air space in the wall in new work. Existing walls can be insulated by furring the inner surface and sheathing with dressed and matched lumber or by lath and cement plaster. Good results are also obtained by lining the inside of wall with a thin wall of hollow tile.

Wood walls should be boarded on the inside and outside of studding. This forms a dead air space, but due to shrinkage of lumber it does not remain effective for any great length of time. With this type of construction, it is advisable to use at least ½" thickness of special insulating material, of which there are several reliable makes on the market. This insulating material comes in sheets or rolls and can be placed between the studding or nailed directly to them and the inner sheathing applied over it. When placed between the studding it should be flanged at edges and fastened with wooden strips nailed over to make the job tight.

Wood walls should have a base of concrete, stone, brick, or tile at least 12" above floor line to protect the wood from moisture. Wood walls have the disadvantage that they are not as durable as concrete, stone, brick, or tile. They depreciate faster and require occasional painting.

Hollow clay tile for dairy barn wall construction is rapidly growing in popular favor. It makes a warm, dry wall, as the hollow air spaces in the tile provide the desired insulation. This wall material is strong and durable and does not require painting. The tile units can be obtained in a variety of finishes and colors and, if desired, the surface can be plastered with cement mortar.

A type of construction extensively used is to build the concrete or masonry wall up to the under side of windows and continue with wood. The advantages of this method are that the wood wall provides ideal conditions for building in the fresh air intakes of the ventilating system. With the large number of windows in the modern dairy barn, the expense of form work alone for the small amount of concrete wall between the windows would almost build the wood wall, and the labor of building small masonry piers between windows is costly.

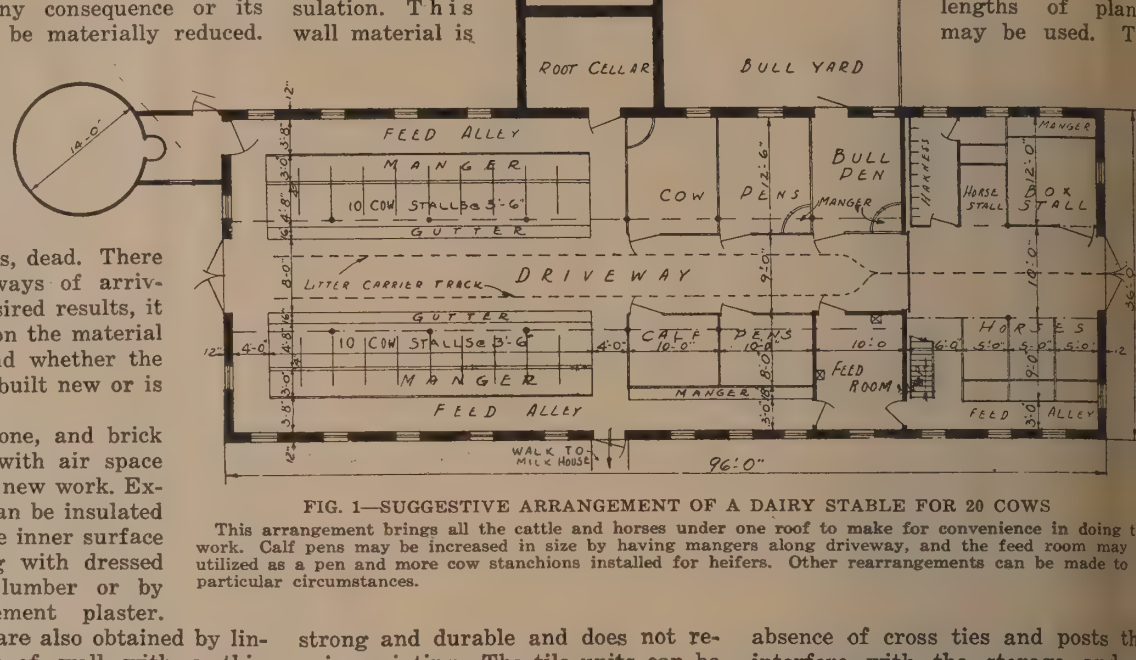


FIG. 1—SUGGESTIVE ARRANGEMENT OF A DAIRY STABLE FOR 20 COWS

This arrangement brings all the cattle and horses under one roof to make for convenience in doing t work. Calf pens may be increased in size by having mangers along driveway, and the feed room may utilized as a pen and more cow stanchions installed for heifers. Other rearrangements can be made to particular circumstances.

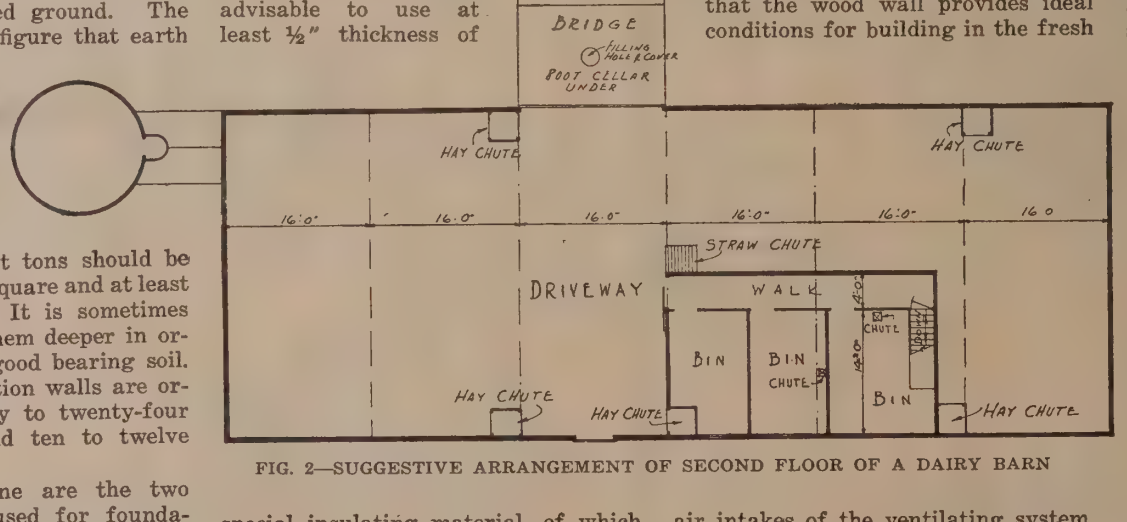


FIG. 2—SUGGESTIVE ARRANGEMENT OF SECOND FLOOR OF A DAIRY BARN

Types of Framing

The old style timber frame barn with heavy cross beams has been largely superseded by oth types of construction such as illu trated in figures 4, 5, and 6. The newer types of construction perm the use of two-inch plank in place heavy timber Shorter stoc lengths of plan may be used. T absence of cross ties and posts th interfere with the storage and r moval of hay are much appreciate

These newer types of framing ha been in use for many years and ha demonstrated conclusively that th are not only cheaper to build, b they are fully as strong as the old timber frame barns. Thousands these barns have been built and ha stood solidly through severe wi storms and heavy snows. They ne to be properly designed and bu but this is easily done by any ca penter or handy mechanic w will follow plans and specificatio that are readily available.

Timber cut from the farm wo lot can be used, for a portable s mill will saw the logs into plan proper size and thickness just readily as for large timbers. T lumber should be allowed to seas before using and care must be ta en to use good, sound, tough lu ber for the heavy bearing portio of the frame.

Admit the Sunlight

There should be an abundance windows to admit sunlight, wh is an important factor in keeping barn dry and the cows healthy. Su light is a powerful disinfectant. P vide not less than four square feet glass for each full grown animal a make the windows as long as prac cal up and down, as this gives a b ter distribution of sunlight.

Windows should be fitted w storm sash or the sash should be d ble glazed. The double glazed sash built by using two panes of gla leaving one-half inch air space tween. The reason for this is to c serve heat and prevent windo from becoming covered with fr and ice which shuts out the sunli that the windows are supposed to in. The sunlight is wanted in barn in winter, not in summer, any amount of barns have windo covered with a thick layer of fr and ice from the beginning to end winter. This frost and ice makes barn damp and unhealthy.

Good window construction provi insulation for the same reason t walls are insulated. Glass allows h to be conducted through it very rel ily and with the large amount glass in the modern dairy sta

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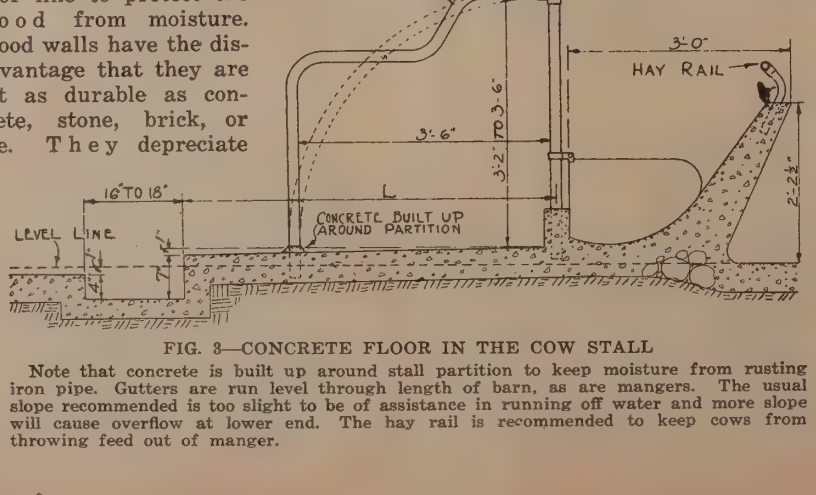


FIG. 3—CONCRETE FLOOR IN THE COW STALL

Note that concrete is built up around stall partition to keep moisture from rusting iron pipe. Gutters are run level through length of barn, as are mangers. The usual slope recommended is too slight to be of assistance in running off water and more slope will cause overflow at lower end. The hay rail is recommended to keep cows from throwing feed out of manger.

THE VENTILATION OF DAIRY BARNS

Well ventilated stables that provide pure, fresh air and that are comfortably warm and dry in winter are equally as important to insure comfort as are feed and water."—Professor George C. Humphrey of Wisconsin.

In these few words Professor Geo. C. Humphrey of Wisconsin, advocates the case for ventilation, which is merely the process of securing uniform circulation and keeping the barn supplied with proper air for breathing. It is accomplished by allowing fresh air to enter the barn without draft and foul air to leave the barn.

In order to produce the largest quantity of milk with the greatest economy, the cow requires a reasonably warm stable in winter, the preferred temperature being between 45 and 50 degrees. A tightly built and properly insulated stable will do this but the cow needs more than this. She needs fresh air to supply her with oxygen and dry air sufficiently dry to allow her vital processes to be carried on without too great a handicap. Unventilated stables not only do not supply the cow with fresh air but the stable is likely to be damp. This is bad for the cows and will cause the rusting of steel equipment, the rotting of wooden timbers and the molding of feed.

Why Fresh Air

A cow inhales approximately 224 lbs. of air in 24 hours, or about 1/12 the weight of the feed and water she consumes. The air contains oxygen, which is necessary for digestion and assimilation of feed as it is necessary for the burning of fuel. In both cases the process is known as "combustion" or burning. The feed "burns" (digests) and she needs large quantities of oxygen to do this properly. In breathing in air the lungs of the cow absorb oxygen into the blood and the air breathed out contains a greater proportion of carbon dioxide and more moisture. In 24 hours a cow will exhale 12 to 18 lbs. of moisture and a somewhat smaller amount of carbon dioxide. Don't jump to the conclusion that carbon dioxide is poisonous as it is of itself like the gas from the exhaust of a gasoline engine. This latter gas is carbon monoxide and is very poisonous. However, the constant rebreathing of air exhausts the oxygen and puts a heavier load on the vitality of the cow in securing sufficient oxygen to purify her blood. The effect of this extra load is not often apparent until the damage is done.

The lack of oxygen may result in a weakened constitution, temporary physical depression, fatigue, and in general less vitality to resist disease and the common ailments. Disease germs introduced into the blood are destroyed by the oxygen carried from the lungs by the red blood corpuscles, hence the importance of supplying plenty of oxygen by means of ventilation.

What Controls Ventilation

Warm surfaces of the animal's body and the colder air surrounding them cause an upward movement of air where the animals stand. By the same law of nature, the exterior walls being colder than the air in the room creates a movement of air down the outer walls, thus setting up a circulation within the room.

Besides the movement of air, the amount of moisture it contains is important. The warmer the air the more moisture it will hold. When cold air is brought into the barn and warms up, it will absorb moisture resulting from the breathing of animals and the manure. It is one of the purposes of ventilation to take out this moisture by means of allowing free passage for the foul air to escape.

Circulation is important, but an exchange of foul, moist air for fresh air is very necessary. This exchange is brought about in a gravity system of ventilation by applying the laws of nature.

When the air is heated by the cow's body it expands and due to this expansion it is forced out of the barn if there is an outlet. The greater the difference in temperature between the inside and outside of the building. the more rapid the movement of air up and out through the outlet. The movement of air through the outlet is also influenced by the wind passing over the upper end of the flue.

The intake opening on the outside of the building should always be lower than the upper end of the outtake flues. The greater this distance, the more constant and uniform exchange of air will be.

Intakes that permit back-drafting reduce the efficiency of more ventilating systems than almost any other one factor. Back-drafting through the intakes can be largely overcome by having the outside openings of the intakes near the bottom of the wall, or installing intakes with automatic dampers that permit the air to enter but not leave the barn through the intake flues.

Construction of the barn is also important. If the walls are thin or poorly insulated, they radiate heat, and this heat cannot be used to set up a difference in temperature that makes the ventilating system circulate the air. A warm wall and tight doors are needed in cold climates if the best results are to be secured from ventilation and the stable kept warm. There are many barns in which a well designed ventilating system fails to create a proper condition because the stable is too cold, due to a lack of proper insulation and windows and doors that are loose and drafty.

Different Systems

The King system, or the principle of ventilation as outlined by Professor King at the University of Wisconsin, provides for a number of small intake flues and one or more large outtake flues. Fresh air enters the intakes above the sills, rises between the studding, and enters the stable at the ceiling. The outtake flues start near the door, pass upward inside the stable, through the mow and under the roof, and finally out of the ventilator, which is usually located on the ridge of the roof. The total area of a cross section of the intake is usually somewhat less than the cross section area of the outtakes. Under average conditions it is figured that each cow requires approximately 34 square inches of area in the outtake flue, but this, of course, is varied by the warmth of the stable, the height of the outtake flue, and the location of the building.

The Rutherford System, which is one of the oldest of the present systems of ventilation and is largely used in Canada, delivers the fresh air through the inlet flues a little above the floor level, turns downward, and enters the stable at the floor level. The outlet flues start at the ceiling of the stable, and their total area is approximately twice that of the inlet. The recommended outtake area per cow is less than in the King system, the reason for this being that the Rutherford system is largely based on weather conditions existing in Canada.

The modified King system retains the intakes at the ceiling and also removes the foul air from the ceiling, as in the Rutherford system.

Construction Details

A further variation in ventilating systems has come into increasing use during the past two or three years. Both the intakes and the outtakes may be placed on the outer walls of the stable without regard as to which way the cows face or the type of system installed. This method permits the placing of the outtake flues where they are most out of the way and does away with the objection of having either the intake or outtake at the middle of the stable. The outlet flue will not draw air for more than the diameter of the flue below its lower end. Tests have shown that this method of installation does not cause a short circuit of air from inlet to outlet, but on the contrary it diffuses the air in a uniform manner throughout the entire building.

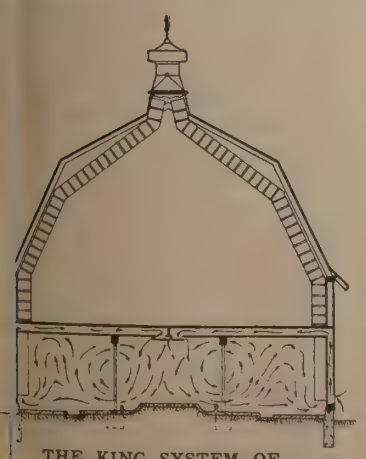
(Continued on page 536)

The Purpose of Ventilation

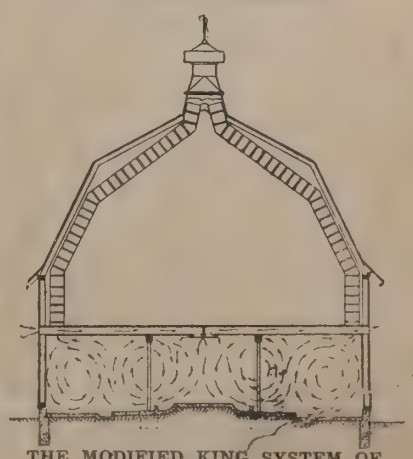
"A good ventilation system, if properly installed and operated, will supply without draft the abundance of fresh air necessary to the health and comfort of the cows; make possible control of barn temperature; preserve the building and feedstuffs from mold and rot due to excessive moisture and make spontaneous combustion less likely; and provide a measure of disease prevention and control."—M. A. R. Kelly, U. S. Department of Agriculture.



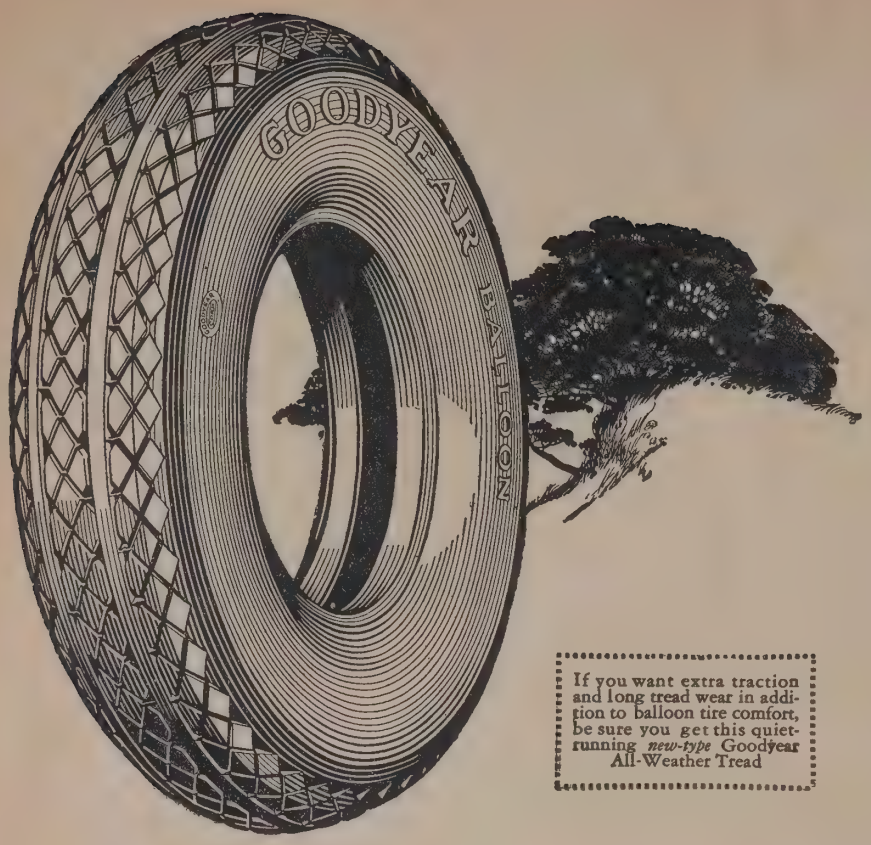
WARMLY BUILT STABLES ARE ESSENTIAL TO GOOD VENTILATION



THE KING SYSTEM OF VENTILATION



THE MODIFIED KING SYSTEM OF VENTILATION



If you want extra traction and long tread wear in addition to balloon tire comfort, be sure you get this quiet-running *new-type* Goodyear All-Weather Tread

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An important extra value you get when you buy a Goodyear Tire is quite outside the tire itself.

It is the *service* performed for you by the local Goodyear dealer.

He makes sure the tire you buy is the right size and type for your car. He puts it on the rim for you. He fills it with air.

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Goodyear makes a tire to suit *you*—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced Goodyear standard quality Pathfinder

Goodyear Means Good Wear

GOODYEAR

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THE DAIRY FARMSTEAD

A. G. CRERAR, WISCONSIN

IN planning a farmstead the essential things to be considered are: convenient arrangement, which conserves labor; the placing of buildings to get maximum benefits from sunlight and provide a sheltered barnyard; and a grouping which insures economy of space and at the same time presents a pleasing appearance.

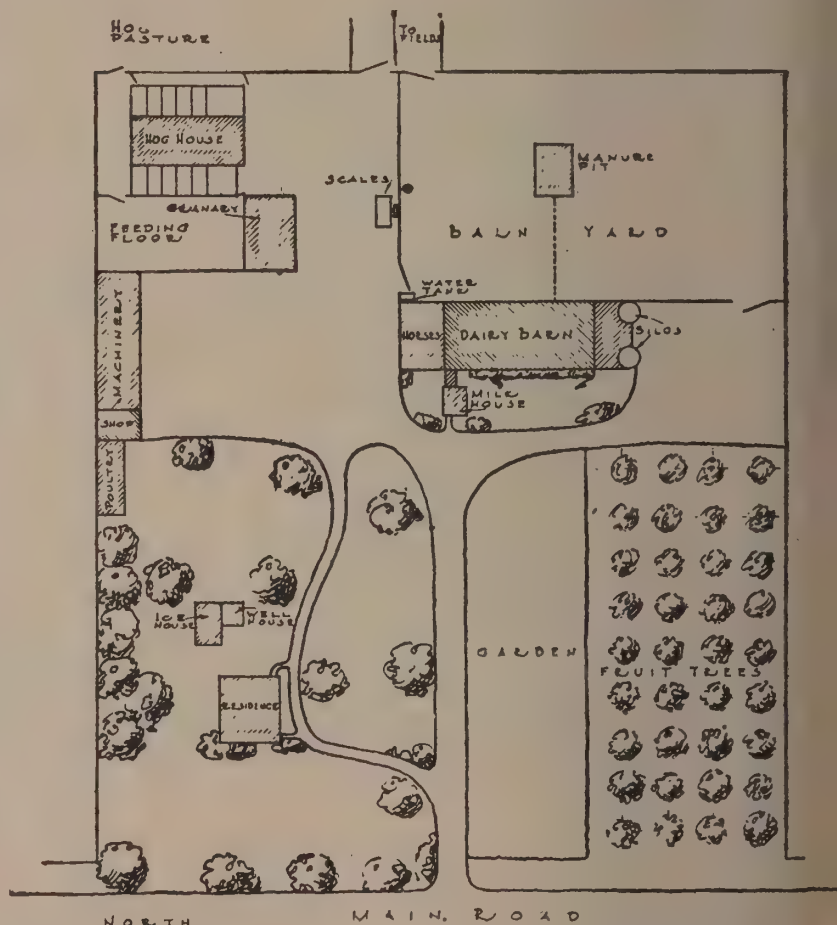
The barnyard should not face the house and should not be placed in the direction of the prevailing winds; that is, so that the barnyard odors and dust will be blown towards the house.

In plans shown below the barn is set long way north and south to get more sunlight into the building, as this arrangement allows sunlight to enter the east windows in the forenoon and west windows in the afternoon. When the barn is placed long way east and west the windows on the north side admit no direct sunlight. The barnyard has a southeast exposure and is sheltered from the west winds by the barn and from the nor winds by the other buildings.

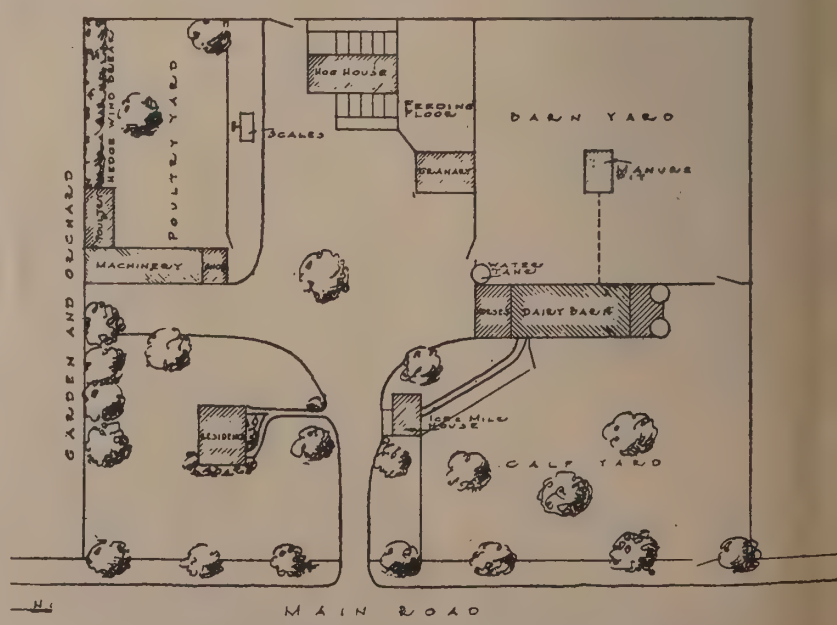
The poultry house faces the sou which is desirable. The hog house far enough away from the dairy ba and house to prevent it from being nuisance. The water tank is placed that horses can be watered witho entering the barnyard.

Select the location for the house the view will be most attractive. Pla it far enough from the road that du will be avoided and yet the house w be visible and inviting. It need n face the highway, indeed it is pref able that the housewife may lo toward the highway from her m used rooms.

The lawn should not be overplant with trees, but leave open spaces admit sunlight and air. Plant a f trees at the sides and rear of t house for shade. To present the m pleasing appearance the lawn needs well arranged planting of shrubbe

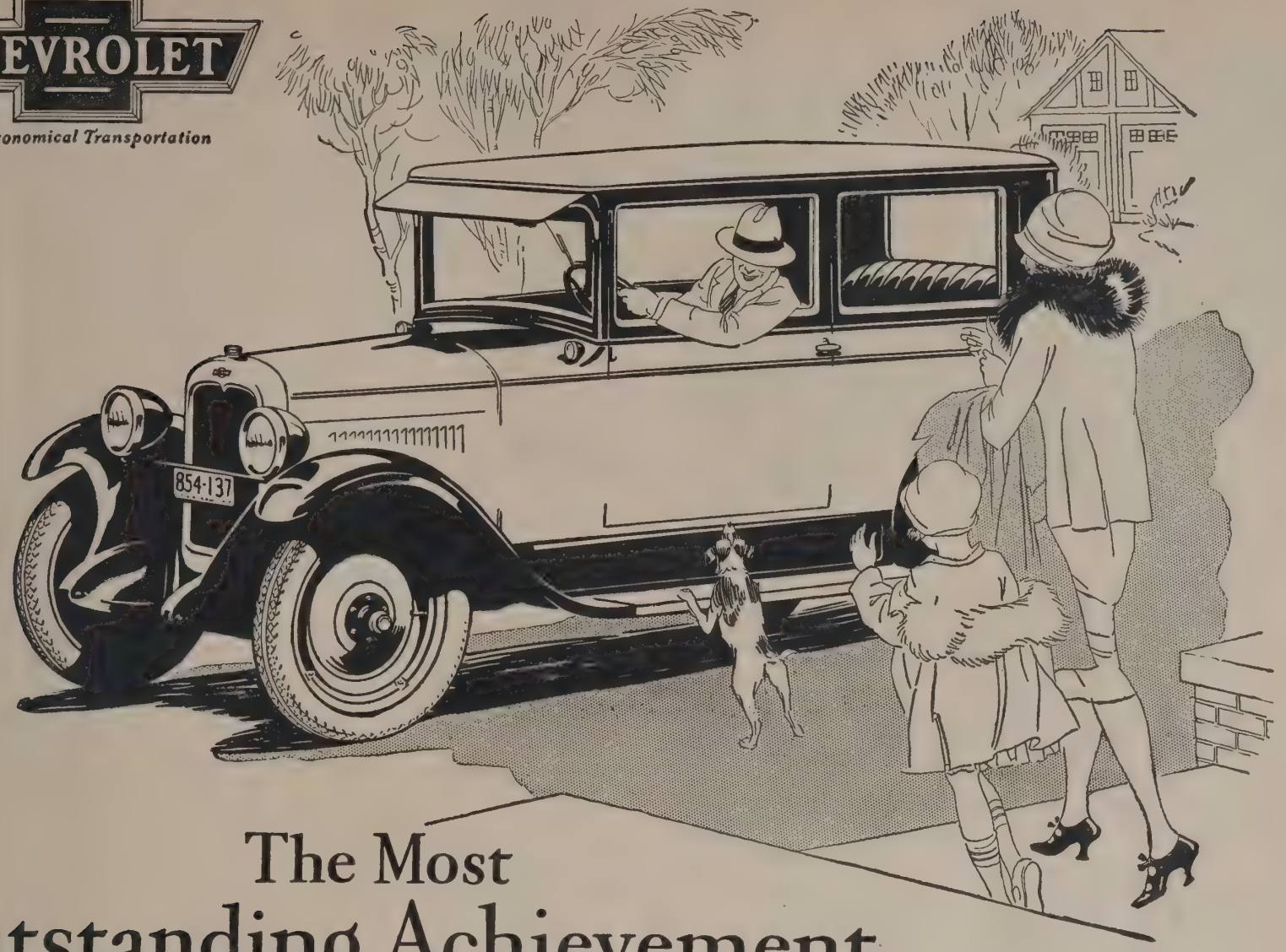


PLAN 1—THIS FARMSTEAD LAYOUT IS REPRODUCED ON THE SCALE OF ONE-SIXTEENTH INCH EQUALS 7 FEET, THE AREA BEING APPROXIMATELY 3¾ ACRES



PLAN 2—THIS FARMSTEAD LAYOUT IS REPRODUCED ON THE SCALE OF ONE-SIXTEENTH INCH EQUALS 8 FEET, THE AREA BEING APPROXIMATELY FOUR ACRES

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Bodies by Fisher . . . beaded, paneled and finished in attractive shades of lustrous Duco . . . smartened by narrowed front pillars, upholstered in rich and durable new fabrics . . . completely appointed, even to door handles located in the center of all doors.

Emphasizing the inherent beauty of the bodies themselves are certain new features of design previously regarded as marks of distinction exclusive to a few of the leaders in the high price field—heavy full-crown one-piece fenders, bullet-type lamps and "fish-tail" modeling, which lends a distinguished sweep to the rear deck contours of the Roadster, Coupe and Sport Cabriolet. A new AC oil filter and AC air cleaner, added to the famous Chevrolet motor, assure powerful, smooth performance over even a longer period of time. A full 17″ steering wheel, coincidental steering and ignition lock, improved transmission, a larger, more massive radiator, new gasoline tank with gauge, new tire carrier mounted on the frame and rigidly braced—all these are also standard equipment on the Most Beautiful Chevrolet.

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Division of General Motors Corporation



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in Chevrolet History

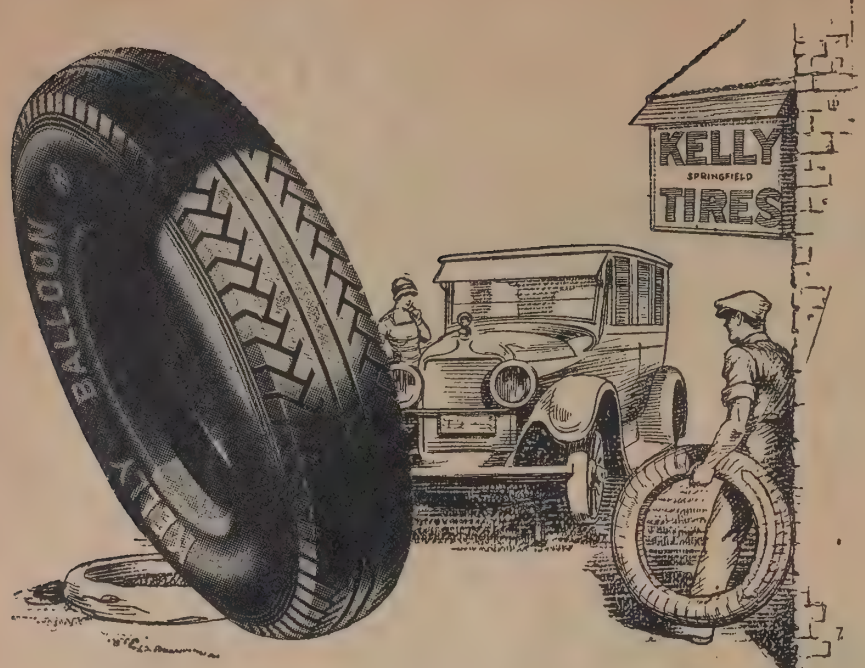
The COACH
$595

The COUPE	$625
The SEDAN	$695
The Sport CABRIOLET	$715
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Write today for descriptive literature and particulars of how Dr. Clark's PURITY Milk Strainers help you get Grade "A" test and more money for your milk.

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Standardizing Pure-breds

E. J. PERRY, NEW JERSEY

TODAY the standardizing of fruits, vegetables, eggs, and other products is a common practice among progressive farmers and co-operative marketing organizations. There are various kinds of certified seed, seeds that have been grown under very careful supervision and have passed rigid inspection. Such standardized and certified produce is in demand and sells at a premium.

At the present time the heavy milking cows are in great demand; the man who is finding it easy to succeed with good cows and who has a high herd average in milk and butterfat is interested in still further improvement. At least he doesn't want to recede.

There is now a movement on foot among many breeders to raise the level of the pure-bred industry through selective registration. Virtually all of the owners of grade herds, who have been using registered bulls, are hoping that selective registration will speedily become an actuality. It would mean that they would have less difficulty in finding good bulls in the future. Many who have not yet been "sold" on the value of pure-bred herd sires approve the idea. It seems unfortunate to many enthusiasts for the plan, that the sentiment among breeders regarding it is still much divided.

At a recent breeders' meeting held in an eastern state, everyone present opposed it. Doubtless there are in their minds obstacles connected with the practical working of the plan which seem to be insurmountable. If, however, the plan is right in principle, it ought to be made workable. We have enough faith in leading breeders now working on it, to believe that they will evolve satisfactory regulations.

Selective registration simply means standardizing the pure-breds. If the pure-breds are to serve as seed stock for grade herds, they should keep ahead of the grades in production, at least, a little ways ahead. With the wide use of registered sires at the head of grade herds in recent years, it was to be expected that many of the grade herds would overtake some pure-bred herds in production. This speaks well for the worthwhileness of pure-bred blood.

The grade owners have really been applying the principle of selective registration by raising calves only from their very best cows. This has been a big factor in explaining the rapid increase in yearly herd average among many farm herds; and thousands of dairymen now recognize this fact. Many pure-bred breeders have virtually raised every calf because where there was a heavy investment it was not altogether in accordance with human nature to do otherwise. Regulation is needed. Most of the pure-bred breeders are now practicing selective registration, but how about many of the small fellows who do no testing of any sort? A poor registered bull from their herds injures the whole pure-bred business by destroying confidence among the grade owners in the value of pure-bred herd sires. Surely the pure-bred breeders do not want to reach that state where they would have to trade only among themselves.

The pure-bred owners face a fact and not a theory. Cow testing association records from several states now attest to the fact that when it comes to production and particularly to returns above feed cost that there is little to choose between the pure-bred cow and the grade. A study has been made of the full year records recently completed in five New Jersey testing associations.

The results are as follows:

	Yearly production per cow		Feed cost per cow	Va...
	Milk	Fat		
	Lbs.	Lbs.		
576 pure-breds	8,862	309	$132.62	$13...
598 grades	7,989	287	124.94	14...

While the pure-bred averaged higher in milk production, yet her return over feed were $9.41 less than the grade. This was probably due to the fact that many of the pure-breds were fed beyond the point of economy and that the grades averaged one-tenth of one per cent higher in fat test than the pure-breds. It is truthfully stated by leading breeders that some of the very best herds of pure-breds are not in the testing associations while most of the best grade herds are; that if the big pure-bred herds were included in the pure-bred average, that the grades would be excelled by a much larger margin. This argument in itself favors selective registration. Close selection

IMP. FANCY BROWN BELLE

This cow is the world's record Jersey (12 years old or over) owned by Elm Hill Farm, Massachusetts. She recently completed a 305-day record of 13,181 lbs. milk, 693.7 lbs. fat.

ped to bring the best herds of re-breds up to a high level of effi-ncy. The big breeders therefore ve nothing to fear in selective ristration. They should welcome it a necessary means of winning the nfidence of that great rank and file the dairymen of the country who oduce milk from the cows that they mselves have raised.

The February cow testing associa-n letter from the Bureau of Dairy lustry contains this statement: ata from these records so far ulated show that about one-third the pure-bred sires are lowering production of their daughters in nparison with the production of dams of those daughters; about e-third are raising the production ghtly; but the great increases are ning from only about one-third of pure-bred sires in use. The high-the production of the herd, the re difficult it is to raise production ough the sire and the greater the ed for using a bull of proven lity."

Selective registration should auto-tically raise the standard of pure-d sires to such an extent that a her appreciation would be attached them. It is now most difficult to vince calf raising dairymen that y could afford to build strong bull ns and practice the exchange of ir sires to the end that they may proved or disproved when their ghters come into milk. Perhaps en selective registration begins to rk, the day of buying registered ll calves for little or nothing above l prices will have passed. Since oduction is of primary importance may be advisable to start selective istration from the production ndpoint alone.

It would be cheaper and easier to ck the records than the type. The ows would do much toward main-ning and improving type. The pic-es and models of the ideal type v and bull of the various breeds are stantly appearing in dairy and m papers, along with the show g winners.

The pure-bred sire work, which has n furthered by agricultural col-es, breed associations, dairy and ed journals, and other agencies, been of inestimable value to the mers of the country. It has never ed as a boomerang to those who ieved in it. These same agencies t have advocated good pure-bred s always want to be in a position that they can continue to urge ir use, enthusiastically and con-ntiously. It would seem natural refore that all who have stood on pure-bred sire platform should e a keen interest in actively favor-the adoption of methods making sible a sure and rapid improve-nt among pure-breds.

n Arkansas Dairy Program

HOARD'S DAIRYMAN:—The Arkan-Dairy Development Association organized last March with W. H. odley, Dairy Specialist of Agri-ural Extension Service, as presi-t, and George F. McKinney, agri-urist of the M. & N. A. Railroad, secretary.

The purpose of this organization is lend every assistance possible to development of the dairy industry safe and practical basis. After con-rable discussion of the problems fronting the development of the y industry in Arkansas it be-e apparent that the present situa-lends itself to certain dangers.

The present condition of the cotton ...ds itself to the develop-...es of agriculture ...re is great ...ely in order to buy into the dairy business. Under similar circumstances farmers have been induced to buy at fancy prices cows shipped from a distance that were no better, if as good, as the native stock, causing these farmers to be discouraged and to come to the conclusion there was no advantage in better bred dairy cattle. Therefore, the association urges that all organizations sponsoring the purchasing of dairy cattle and all individuals and agencies actually purchasing, should, before buying, consult their county agent who can command the assistance of every agricultural agency operating within the state.

Realizing the only practical way to secure high producing and profitable dairy cows is to raise them, which can only be done by wider use of higher class pure-bred dairy sires; we, therefore, unqualifiedly recommend the use of good pure-bred registered bulls of known high producing records backing them.

It is the belief of this organization, based on the advice of dietitians and physicians, that a large proportion of children of Arkansas do not receive a sufficient supply of milk and milk products to enable them to grow into stalwart men and women necessary for the progress of this state. It is for this reason that we recommend that a sufficient amount of milk be produced at home by each farmer to supply the needs of his family.

It is a generally recognized fact that permanent agricultural prosperity is dependent upon permanent soil fertility which can only be maintained in a practical way by the growing of legumes. Also, that no single factor in cow feeding contributes so much toward economical production as good pastures and a good legume hay. We strongly urge the improvement of pastures in every practical way and the growing of at least sufficient legumes to provide an abundance of legume hay for all cattle on the farm.

Arkansas. W. H. WOODLEY.

Fine art is that in which the hand, the head, and the heart go together. —RUSKIN.

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50 and more miles an hour.
5 to 25 miles in 8 seconds.
25 miles to the gallon.
Full-sized with ample seating capacity for all passengers.
Mohair plush upholstery.
Chrysler smartness and beauty.

From its very introduction Chrysler "50" has won overwhelming public acceptance for what it was designed and built to be—the giant of its class in Standardized Quality, outstanding performance, full family size, complete appointment and every essential that makes for indisputable value.

Coupe, (Genuine-leather upholstery) $750; Coach, $780; Roadster, (with rumble seat) $795; Sedan, $830; Landau Sedan, $885; f. o. b. Detroit, subject to current Federal excise tax.

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All Chrysler cars are protected against theft under the Fedco System of numbering.



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Our new improved model is a quality machine throughout—greatest of all milking machine values. Heavy pressed, seamless aluminum pails. New Departure ball bearings. Comes complete, ready for work. No extras. Cows like it.

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showing models for every purpose: single, double, double single, double double, etc. *Agents;* still some open territory. Write for attractive proposition.

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A Vest Pocket Herd Book is a good investment



A better living for the all'round farmer *in California*

FARM LIFE in California is all that you have imagined it to be.

There are many people from your state whose new homes in the Great Valley and neighboring valleys are but an hour or two away from the seashore, the inviting summer playgrounds of the Sierras, and the great cities on San Francisco Bay. You should see how their dooryards are brightened with golden oranges and scarlet blossoms at Christmas!

This pleasanter life is possible for any competant farmer of average resources who wants to come! With all its $700,000,000 annual farm production, California still does not produce enough of the "all 'round" farmer's crops to feed its own rapidly growing population.

California needs more farmers to produce the very crops that you know best. This need is shown by our butter shortage of 22,000,000 pounds a year—although the average butterfat production per cow in California is the highest in the United States, and California dairymen get 20% more for butterfat than the national average price.

And farming in California's golden climate is easier—so much easier that you will never think of going back. Abundant irrigation assures you of water, in place of rain, whenever you need it in summer. Farm buildings and shelters can be smaller and less expensive. Alfalfa will bring you five or six crops, and then another one for green pasturage through the mild snowless winter.

These conditions favor farming in many ways—in raising two litters of pigs a year, for instance. That means money, because California does not produce enough pork and the prices we pay our own farmers are middle-western prices plus freight.

A dairy herd with some hogs and poultry assures a profit right from the start for the capable farmer with a moderate stake. Your children will go to the finest rural schools in America. Housework as well as farm work is made easier by cheap and plentiful electricity. There are five million people already here, living better, by every standard, than any other five million people in America, with twice the average savings deposits and twice the average number of automobiles per capita.

Come out this summer, when the fruits and vegetables you buy by the dozen or in a can are ripening here on millions of acres. Or come and see California's frostless orange belt of the Great Valley in midwinter, and talk with the farmers in their shirt-sleeves. Let them tell you what it's like to live in California.

Low summer round-trip fares to California beginning May 15 —$90.30 from Chicago for example.

Californians Inc., is a non-profit organization of citizens and business institutions interested in the well-balanced development of the state. Its purpose is to give you authoritative information and to simplify your search for the opportunities that await you here. A carefully prepared 84-page book, written by two of California's foremost agricultura lauthorities, will be sent on request to any farmer who is thinking about moving to California. Send this coupon today for your copy of "Farming in California."



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Opinions, Brickbats, and Bouquet

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyman assumes no responsibility for opinions expressed.

Rural Police—Religious Freedom

HOARD'S DAIRYMAN:—In your issue of March 25, Mr. Gartell wants rural police. Are the sheriffs supposed to be rural police? In my opinion laxity in law enforcement is due to politics. Some have so much influence, police dare not arrest them. The people in general do not give the proper aid to the officers of the law. They do not demand the criminal caught. If a small amount of effort is put forth, the people in general are satisfied. The person robbed is the loser. Arrests in many cases would mean a lost job for the officer. The people show far too much sympathy for the criminals which in turn forces judges to give lighter sentences and thus increase crime.

As to Sunday observance, do you believe in religious and civil freedom? Does it hurt you to see your neighbor work on Sunday? If so, then you have not a true Christian experience. Perhaps they do not believe as you do. Then why force them to obey your petty whims? Can a man call his soul his own? Do you believe a sword can change a man's belief? What caused our forefathers (the Pilgrims) to found this country? Was it not for religious and civil freedom? Should you rule your neighbor's mind and conscience? Do you believe in the constitution of the United States? Why sentence and condemn, or imprison otherwise honorable citizens?

Colorado. R. MACKINTOSH.

The McNary—Haugen Bill

HOARD'S DAIRYMAN:—When the McNary—Haugen bill first appeared in Congress many hoped it would be remodeled and amended before final passage into a really worth while measure that would be really beneficial to the farmers and to the public in general. Those who entertained these hopes were, however, unfortunately doomed to disappointment for the effect of the changes and amendments made as time wore on, instead of improving the bill, were of such a character as to prove quite to the contrary.

In place of a law providing rules in making contracts in buying and selling corn, cotton, hogs, and all other products, the McNary—Haugen bill undertook to set up machinery to buy and sell a certain limited number of commodities, such as corn, cotton, hogs, etc., and in fact to make contracts respecting their purchase and sale.

The bill, when it reached the President, was fearfully and wonderfully made. Nothing like it had ever been seen or heard of before.

I would compare it to a law which would provide a government chauffeur to drive my car and for a select group of my neighbors; when all that is needed is a few sensible rules for me to follow in driving my own car and to be likewise followed not by a select group, but by all of my neighbors. Because it is reasonable that the law should require us all to keep to the right in the highway when meeting another, it does not follow that the government should furnish us with drivers for some of our cars.

We don't often wear a glove on one hand and a mitten on the other, so why not make our farm laws a public utility laws more uniform respect to contracts? Until our fa legislators learn to write farm la somewhat after the pattern used writing other people's laws, I fe the farmers will have a rough road travel.

Wisconsin. B. S. HAWLEY

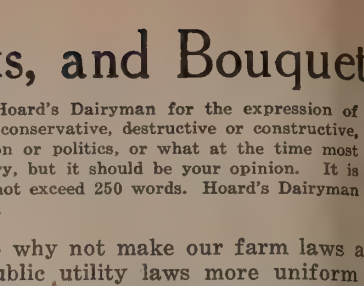
Against Rural Police

HOARD'S DARYMAN:—An Ohio far er writes in favor of a state ru police, or at least he pretends to and sounds like some Ohio farme But big business has so many pr agandists out pushing the rural lice movement that it is almost possible to know who is writing. state police will not help or prot the farmer.

A bill was agitated a short wh ago to create a force of 56 m Imagine what 56 men could do in state like Ohio. In the states wh they have rural police they h proven to be an expense and a bu of bullies. The farmer pays the pense while big business uses the lice to guard industries and c mines. They also come in handy the bankers later on to help set farmers off of their mortgage pr erties, just like they set the coal m ers out in the rain down in Virgi

It is better to equip your outbu ings with burglar alarms and bu shotgun and let your county she do the rest. Big business has kid the farmer into buying gold bri long enough.

Ohio. J. G. HUNTE



Going to Build or Reroof this Spring?

THE satisfaction that comes with the feeling that you have bought the best your money can buy, is yours when you buy

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¶ Tell us what your roofing plans are and how soon you will begin the work and we will send samples and literature.

¶ Your nearest Mule-Hide dealer will extend the same courtesy.

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CHICAGO, ILLINOIS

A Vest Pocket Herd Book is a good inves

The Dog

dog is man's most faithful friend,
love for him don't swerve nor bend.
lingers steadfast, fixed, and true
ough any luck that may ensue.
may be just a mongrel cur
h trusting eyes and yellow fur,
tubby tail and limpy stride
be withal a prince inside.

does not falter with the stroke
t leaves his master flatly broke.
ft of fortune, future, friends;
og's affections don't depend
tinseled trifles of the eye
ther's money well could buy,
on the man, without display
ught to glorify his way.

shares a home upon the road
gratefully as rich abode,
guards the vagabond's poor bed
zealously as kingly head.
dog reveals his love for man
very way a dumb brute can;
rubs his hand and licks his boot
barks affection in salute.

tolerates his kicks and blows
unshine tolerates the rose;
in his heart finds good excuse
exculpate him for abuse.
if the man depart this sphere
dog sincerely mourns him here.
seeks his grave and lays his head
orrow on his buried dead.

dumb devotion knows no art,
prings unbidden from the heart
less and gladden those who jog
nded by the faithful dog.
yright 1927) —I. A. KIMBLE.

ime and Phosphate for Clover Seed

ARD'S DAIRYMAN:—There is a
of liming that has not received
ient attention—this phase is the
ue from clover seed. I recall
well the discouraging experi-
of a farmer fifteen years ago
he had suffered repeated fail-
with alfalfa. Yet last year this
r located in Delaware County,
harvested a crop of alfalfa
But for the wet season that
red harvesting and threshing
sible another crop of alfalfa
would have been harvested on
ame farm this fall.

ainage has been employed and
has been applied and inocula-
has had ample time to become
ughly established all over the
But this farmer has followed
er sound practice during the in-
ning years that no doubt has
lenty to do with his seed har-
—that is the liberal use of acid
hate on a wheat seeding, this
around two hundred pounds of
hate on a wheat seeding this
r has figured that four hun-
can be applied with just about
ame labor and the only added
se is for the fertilizer, and his
diate grain crop is sure to take
of that.

running a locomotive the first
ed and fifty pounds of steam is
ie vital hundred and fifty—but
st fifty is the margin of steam
uts the long train at full swing
eeps it there. The mineral ele-
in soil fertility is much that
-two hundred pounds of phos-
on the wheat crop in rotation
vith lime pile up a fairly good
hay crop, but the other two hundred is the margin that makes the showing in the clover seed.

Acid phosphate is the known factor in grain crops, the limiting factor in many thousand cases. Clover seed is nothing at all but a grain crop, a crop bound to be responsive to soil mineral when once the lime requirement has been met. As a boy forty-odd years ago the writer used to help thresh clover seed crops on the farm previously mentioned and it seems evident that the maturity and harvesting of alfalfa seed crops on this land now is due in short to the restoration of the mineral elements in the soil—lime essentially first, but acid phosphate just as essentially second.

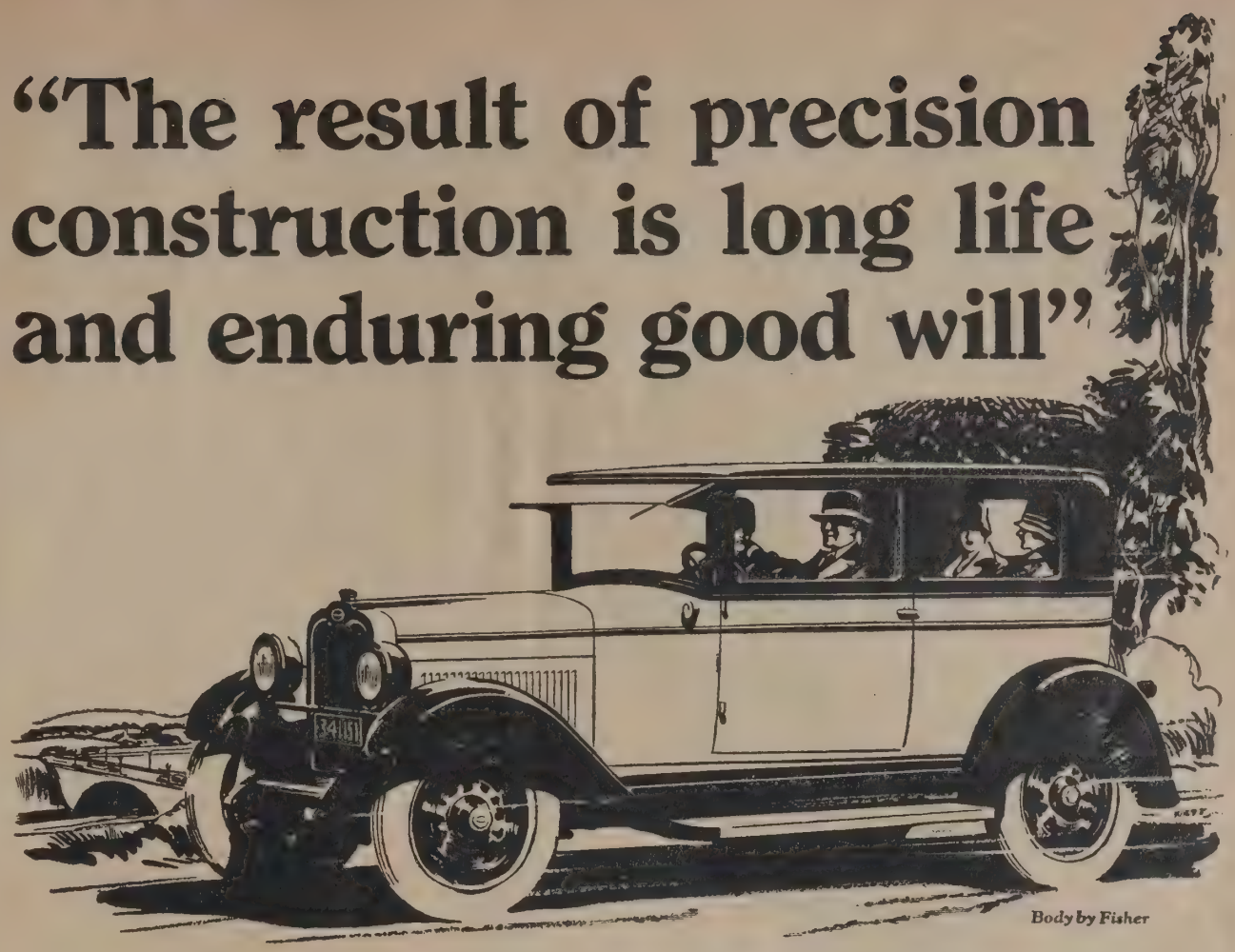
One of the shrewdest, old-time farmers that I know applied lime and phosphate heavily three years ago and in less than two years he harvested a clover seed crop that canceled the entire expense for the mineral application.

Ohio. G. P. WILLIAMS.



THRESHING RED CLOVER SEED FROM A MINERAL-FED SOIL, DELAWARE COUNTY, OHIO

"The result of precision construction is long life and enduring good will"



Body by Fisher

So much has been said and written about the standards of accuracy to which the Greater Oakland Six is built that "Oakland super-precision" has become almost an every-day phrase.

Owners, in discussing the car's flashing acceleration and buoyant smoothness . . . mechanics, when explaining the why of its infrequent repairs and adjustments—

—and even women, when exclaiming over Oakland's steadiness and steering ease—sooner or later use the words "super-precision," or others very similar. But we wonder, sometimes, if the users of that phrase really appreciate its profound significance. Do they know that in the manufacture of the the Oakland engine alone, eighteen operations are held to limits of five ten-thousandths of an inch? That *thirty-three additional* operations cannot vary more than three ten-thousandths of an inch? And that three ten-thousandths of an inch is one thirtieth the thickness of an average human hair?

Yet, after all, what if they do *not* know it? What if they do not even care that Oakland has invested millions for laboratories and equipment to make such accuracy possible for the first time in a car of Oakland's price?

All they are concerned with is results . . . the result of precision construction, which is long life and flawless operation . . . the result of rigidly controlled quality, which is lasting owners satisfaction . . . the result of enduring value, which is Oakland's enduring good will!

SEDAN $1095

Oakland Six, $1025 to $1295. The New and Finer Pontiac Six, $775 to $975. Pontiac Six Commercial Cars, $585 to $770. All prices at factory. Delivered prices include minimum handling charges. Easy to pay on the General Motors Time Payment Plan.

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DAIRYMEN!

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C. H. DANA CO.,
55 Main St., West Lebanon, N. H.

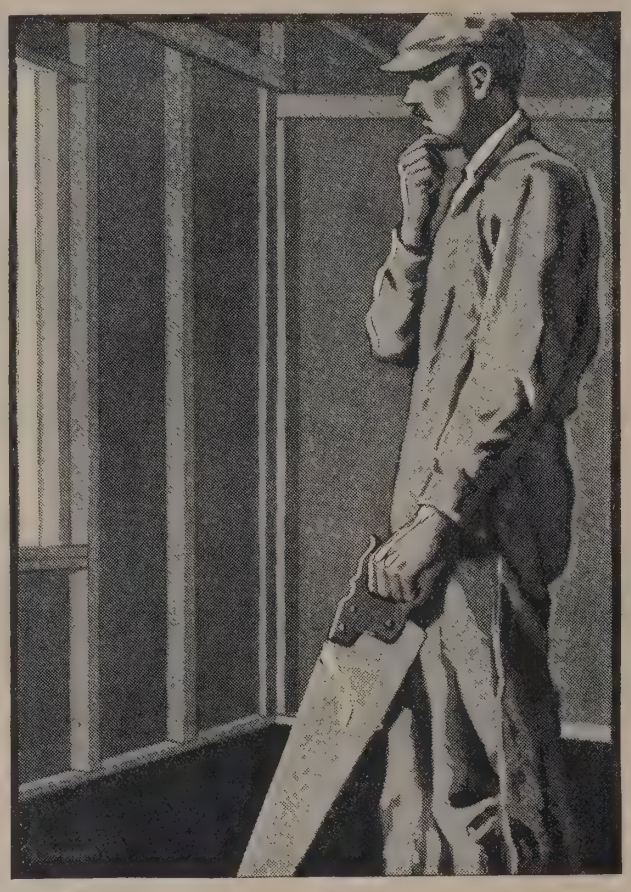
"MILKING ONLY ONE TEAT"

is the title of a very interesting and instructive folder which every dairyman should read. It can be had *free-of-charge*, by sending your name and address to

"NEPONSET" 31 Station St., Hyde Park, Mass.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

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You can have *safety* from fire—just as easily—at no extra cost—by using Sheetrock, *the fireproof wallboard.*

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R.F.D...... *Town*.....

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She Has Weathered the Storm

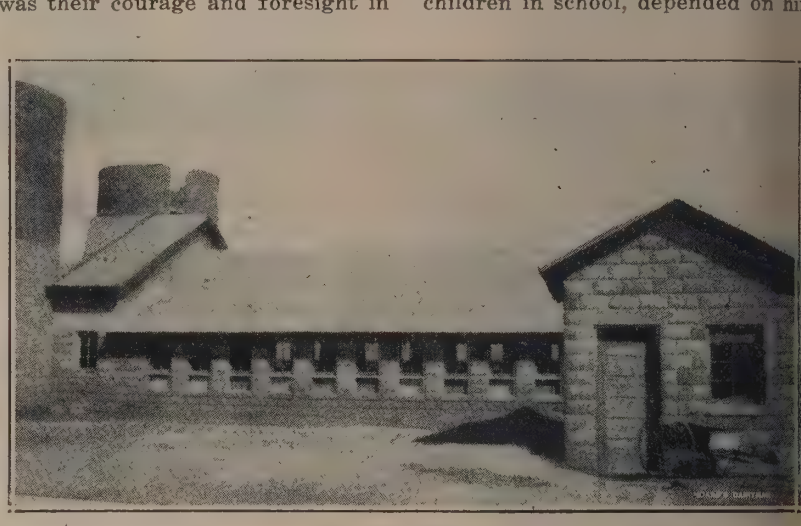
GRACE GORDON, VIRGINIA

IN the spring of 1924, Mr. and Mrs. J. C. Courter of Virginia felt that the dream of years was near fulfillment. They were $20,000 in debt but they had recently purchased a farm on the highway and built their modern dairy, cement block barn, silos, and dairy house and had one of the finest herds of Guernsey cows in the United States. They had started life on a farm away back three miles from the highway with nothing but their determination and courage to better their condition.

In 1917 they borrowed $1,000 and bought their first three Guernseys. Mrs. Courter said, "People thought we were crazy." A few years later they sold $2,500 worth of this stock and spent the money in buying a four-year-old bull, Langwater Foremost. Mrs. Courter showed us his picture, saying, "If it hadn't been for Foremost we would still be away back there off the road," but I think it was their courage and foresight in buying him. You know ten years ago public opinion in this section of Virginia didn't have much use for cows of any kind, let alone registered stock costing thousands of dollars. They said dairying could never pay here, that we couldn't raise enough feed. If we could we couldn't get anything for our milk and that the market would soon be glutted, and so on. You know it takes courage and grit to live and work our convictions when everybody thinks we are fools, but that is what the Courters did. About four years ago they sold Langwater Foremost for $20,000, keeping three of his sons and all of his daughters and bought and built their "dream dairy."

Then one afternoon in the last week of April, 1924, Mrs. Courter watched a cyclone pick up a neighbor's house, dash it to pieces in the lot beside her house, uproot great trees all around her, one falling on the corner of the house, and then whirled in its destructive fury to the new cement dairy buildings, and crushed and scattered them as if they were paper. In the barn were not only the fifty head of Guernseys which she and her husband had striven for years to acquire, but also her husband and two little boys. In the span of a few seconds' desolation, ruin and sorrow reigned at Courtland Farm instead of hope and joy. Mrs. Courter was left alone to care for her eight little children for her husband was fatally injured. What should she do, what could she do, her husband gone, and $20,000 in debt; some cows dead, others injured; and eight babies to raise—her youngest children twins but a f months old—and the eldest ch barely in his teens.

Friends advised her to sell every cow she had and then go and buy a few grades and sell little milk. She said, "No, I kn how hard it was to get what have; if I sell them and buy grad soon I will have nothing." She s off enough to enable her with w insurance she had to pay off all her debts, and she started to rebu Courtland Farm. Today, just th years later, only a few large uproo stumps, a pile of broken planks, one old badly crippled imported remain to tell the story of t storm. The barn is rebuilt on same foundation, is filled with ord making Guernseys producing s cial Grade A 5% Guernsey milk the Richmond market at a premi far above ordinary milk. She sur has weathered the storm to h done what she has done, kept children in school, depended on hi



THE BARN ON COURTLAND FARM REBUILT ON THE FOUNDATION OF THE WRECKED BARN

labor, contended with the adve weather conditions which we h experienced the past two years, "kept even," seems almost incre ble. Had she listened to her frie she would probably be selling n for about three dollars a hund and would not be preparing st for the state fair exhibit as she now doing.

Mrs. Courter is breeding not show animals but for year round p duction under ordinary farm co tions. She does not believe in for production and thinks the seven- test a farce.

Mr. Ingham, in a recent local st of Mr. Courter's work, stressed vision for Guernseys in Southw Virginia. Mrs. Courter is helping bring his vision to pass. She is only carrying on his work but sh making possible better cows for poor farmer. We asked what charged for a baby bull calf. " ten dollars I will register and tra fer them." I gasped and said, " thought we were having one given us when we got it for twenty-fiv "Yes, I know most breeders ask m but then there are so many scr through the country."

To each one of her children gives a registered heifer on th tenth birthday.

Ice cream bars are richer and m digestible when coated with ch late, creamery butter, and dry sk milk. This is the most recent use of skimmilk solids in the form. The new coating is delici and more popular than the coati now used.

A Wisconsin Bull Yard

HOARD'S DAIRYMAN:—In 1918 I rchased a five-year-old bull I de- ed to keep in breeding condition. ıad previously kept my bull in a all pen in the corner of the cow ble, but before the arrival of the w bull I cut a door through the n wall from his pen and built an rcise yard along the side of the n and in the cow yard. I kept s bull in service for four years, and en I sold him he was a sure and ck breeder although he was then r nine years old. Since then I e purchased three other old sires I ascribe their continued potency he exercise yard.

he accompanying drawing shows r I arranged it so my herd sire ld get exercise and still I would have to handle him. It keeps me and it keeps the bull safe. I can te use of an old, proved sire even e may be inclined to be ugly. The can be shut either in the pen or l whenever I want to do work in er one, and I never have to get re he can get me.

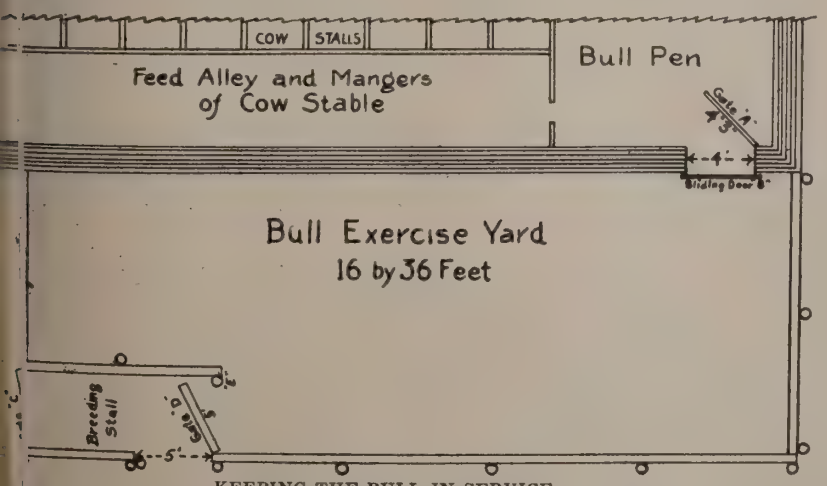
he door B shown in the drawing is g on a sloping track so it can be ned and closed from the cow le feed alley by means of a rope pulley. To keep the bull from ing the sliding door off its track n he is in his pen, I built Gate A, lowest bar of which is a foot above floor so the gate will open and e without interference with the r on the floor. I have had to re- this gate a few times because the has played with it when open. one point of weakness in my plan I don't know how to avoid it un- my conditions except to use bars I might slide through from the alley.

e breeding stall is so constructed when I desire to breed a cow the is closed to shut the bull in his cise yard, the cow is led into the ding stall, and the bull is then ad- ed. After service the bull is driv- ack into his yard and the cow re- ed from the front gate of the ding stall. At no time do I have e in the same pen or yard with ull.

e fence is built of six-inch planks ed six inches apart and it is six e high. I used large cedar posts, eight feet apart. To insure st the bull pushing the fence the posts are set rather deep in ete and on the outside of the ise yard.

e bull spends practically all his in his exercise yard, particularly the cows are turned out. He nly keeps in good breeding con- , but the walking and pawing in raveled yard keeps his hoofs in reasonably good shape. I have not handled a bull with the staff since this yard was built, and I find it convenient in every way.

Wisconsin. J. S. C.



KEEPING THE BULL IN SERVICE

The arrangement has been found safe and practical after nine years of service. The breeding stall is 5 feet by 12 feet, with 5-foot openings. Gate D is kept closed against post E with a chain. After the cow is led into the breeding stall gate D is closed against post F and gate C admitted. Following service the bull is driven back into his exercise yard, gate D closed against him, and the cow led out by opening gate C which is kept closed at all other times. A stanchion may be built in gate C or a breeding rack put just back of it to hold the cow. If a stanchion is put in gate C the breeding stall need not be over ten feet long.

Two Kinds of Cows

There are two kinds of cows on our farms today,
Just two kinds of cows and no more, I say.
Not Jersey, or Guernsey, Ayrshire, or Holstein,
For it isn't the breed of cows that I mean.

Not the fat, or the lean, or the large, or the small,
Nor the ones that stand in the up-to-date stall.
No, the two kinds of cows on our farms that I mean
Are the cows that lift and the cows that lean.

The lifter is one that brings large returns,
The leaner costs more for her keep than she earns.
Wherever you go you will find the breeds' masses
Are always divided in just these two classes.

And, strangely enough, you will find, as I've seen,
There are about ten lifters to twenty that lean.
And the dairyman finds by testing and weighing
That these noble lifters do all of the paying.

—FRANK E. ROUNDS.



The Mark of Quality

Firestone Dealers

ARE PIONEERS IN BALLOON TIRE SERVICE

Another Reason Why They Serve You Better and Save You Money—

Specializing in the manufacture of tires has enabled Firestone to concentrate upon tire development, with a record of many notable contributions to more economical highway transportation.

Firestone pioneered the low-pressure tire, and Firestone Service Dealers were the first to offer car owners Full-Size Balloons, with the latest methods and equipment for their expert care and repair.

Firestone Dealers have kept up-to-date on tire development and service—continually progressing and improving their ability to serve you better and save you money.

It will pay you to call on the nearest Firestone Dealer and let him tell you how to get more mileage out of your tires. If you are in the market for new tires you will be surprised at the low cost of a set of Firestone Gum-Dipped Balloons. See the Firestone Dealer and let him handle your tire requirements.

MOST MILES PER DOLLAR

AMERICANS SHOULD PRODUCE THEIR OWN RUBBER . . Harvey S. Firestone

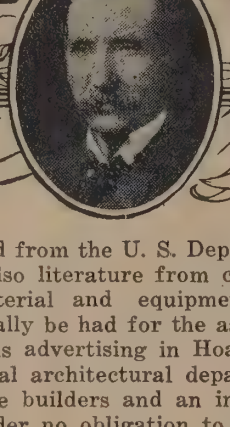


REICHERT'S
Anti-Suk Weaner
Double-hinged, the Reichert Weaner permits grazing, eating and drinking. Sharp-pronged, it discourages all contact with the udder. Strongly made, heavily tinned and easily applied. Made in two sizes—for calves and cows. Calf size, 45c; cow size, 50c. If your dealer can't supply you, we'll send direct.
Imperial Bit & Snap Co.
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RACINE, WIS.

Double the Value
of your Alfalfa and other crops for hay or seed, by shocking them on the Bradley patented folding curing racks which are 6 feet high, hay supported off the ground and ventilated.
Manufactured by
J. D. Thompson, Herndon, Va.

If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman—Ask Him Why!

EDITORIAL COMMENT



THE average price paid by the creameries of Wisconsin for fat for the month of March was 56.6 cents per pound. The lowest price reported was 42 cents and the highest, 62 cents. This variation of 20 cents a pound causes us to wonder what kind of cream was produced that would only bring 42 cents a pound for its fat, when butter sold at an average price of 50.3 cents a pound. The patrons who received this low price for fat should direct themselves to finding out whether it was the poor quality of cream or whether it was an incompetently operated creamery that caused the low price.

MICHIGAN T. B. PROGRESS

The state of Michigan is making splendid progress in the eradication of bovine tuberculosis. It started its area testing work in 1921, and now has 34 counties which are modified accredited areas, 20 counties which have completed one or more tests, 18 counties on the waiting list, and 73 counties which have adopted the area plan.

Fortunately the dairy stock of Michigan has so far shown a low percentage of reacting animals, making the expense of eradicating bovine tuberculosis in that state relatively small. If the work can go forward at the rate it has the past two or three years, it will not be many years before the state will be free from tuberculosis.

Those in charge of the work are asking for an appropriation of only $250,000 a year and $100,000 for additional funds to take care of eight counties on the waiting list in the Detroit milk area. It is very important that this appropriation of $350,000 be made, for the city of Detroit has passed an ordinance requiring all milk and cream sold in that city after January 1, 1928, to come from herds under state and federal supervision.

It is an investment for Michigan to make this appropriation, and its legislators will be short-sighted indeed to the welfare of that state if they fail to provide funds to carry on the work. The longer the time taken to eradicate tuberculosis, the greater will be its cost.

BUILD ON PAPER FIRST

This admonition we commend to the earnest consideration of every farmer when he starts to build, be the building ever so simple. Even before he starts to build on paper or to plan, he should investigate other buildings in his neighborhood and study the various bulletins and circulars on every building project.

Time and money spent on investigations and on planning will be the very best investment that can be made. It will not only save actual dollars in building expense, but there will be greater certainty that the building will prove exactly what is wanted and that its use will prove a lasting pleasure. Failure to do these things has too often resulted in illy arranged and inconvenient buildings, has entailed larger cost in construction because lumber was wasted or was of higher cost than a different type of construction, and so on through all the mistakes that come from hasty and ill considered action.

In this and a succeeding issue we have sought to present a discussion of each of the more important buildings on the dairy farm. We have tried to make these practical and useful, yet we realize that nearly every building is an individual problem and that there is no standardized plan for dairy barn or other building that will fit dissimilar locations and conditions. We do believe, however, that the suggestions made are valuable, particularly if they will arouse a desire for more investigation.

In order to select the type of building construction, materials, labor, and feeding devices best suited to his needs and pocketbook, the prospective builder should get all the suggestions and help available on the subject and study them carefully. Bulletins from the state colleges of agriculture and from the U. S. Department of Agriculture, as also literature from concerns manufacturing material and equipment of various kinds, can usually be had for the asking. Several of the concerns advertising in Hoard's Dairyman maintain special architectural departments to assist prospective builders and an inquiry of them places one under no obligation to buy their particular materials or equipment. There will be no charges for answering a general inquiry, but if special plans and specifications are asked for, and we believe they are desirable in every case, a reasonable charge that may be agreed upon before work is started will be made.

Building on paper first is the safe way, the economical way, the best and only sensible way. In these days when every foot of lumber saved is money earned, when every hour's labor saved is money in the bank, it pays to build on paper first. If one can't do it for himself, and most of us can't, then let somebody who knows build our paper barn or paper house for us and agreeable to our enlightened opinion of what we need.

OLEO INTERESTS ACTIVE

Indiana dairy forces have been able to secure a new law on labeling and branding oleomargarine and it contains a provision forbidding the use of dairy words and dairy pictures in advertising it. A similar bill to this was passed by the Indiana legislature two years ago under the supervision of Mr. W. B. Barney, representative of the Holstein-Friesian Association of America, but it became lost somewhere between the legislature and the governor. This taught the dairy forces a lesson and they were careful this year to see that the bill enacted by the legislature was placed in the governor's hands.

In Pennsylvania, oleomargarine merchants are making an effort to repeal part of the law relative to licensing and inspecting retail distributors of oleomargarine. It is essential that this provision of the law be maintained in order to prevent bootlegging of this so-called substitute for butter.

Dairy interests must be ever alert to secure legislation and to keep it on the statute books which will prevent the illicit sale of oleomargarine. Scientists have shown that butter is a superior food product and it is an injustice to the consumer and producer of dairy products to permit any so-called substitute to be sold as a dairy product. We need an adequate tariff on vegetable oils as it is essential that we protect our home industries and an industry which is essential to maintaining a fertile soil and provides our most perfect food.

CHICAGO PRODUCERS MEET

A report of a meeting of the Pure Milk Association of Chicago stated that about 200 dairy farmers were present. This does not seem like a large number, and some may think the occasion unimportant because there were not several thousand in attendance.

We have attended meetings of milk producers in Chicago when many hundred were present and the excitement run high. If a person were not seasoned in what constitutes a sound, progressive farm conference, he might be misled by numbers and fiery speeches. Such gatherings accomplish little.

Most farm organizations that render a substantial service to their members and to agriculture started in a small, quiet way. There is nothing very exciting or stimulating about principles and practices that develop sound business enterprises. The fact is, meetings which discuss these things are likely to be rather dry and wearisome. For this reason comparatively few care to attend and go through with the ordeal of laying plans and coming to an understanding of what must be done to build a substantial organization for carrying out the will of members and rendering them the service necessary to put their industry upon proper basis.

The Pure Milk Association of Chicago is star ing in a small way and so far it has kept its fe on the ground and its head out of the clouds. It making progress, and when producers in the Ch cago territory once understand its purpose and o ject, we are confident they will join it in lar numbers and it will ultimately become the kind an organization they need to market their mi upon a proper basis. When this organization fully complete, it should mean better prices to t producers, a better milk supply for Chicago, and better service to the dealers.

BLIND CONDEMNATION

We sat in the annual meeting of the Land Lakes Creameries, Inc., and listened to the fo lowing resolution which condemned its greate market and declared that its industry had n benefited to any degree by protection:

"Due to protection the industrial East has e joyed and is enjoying a high degree of prosperit industrial wages are higher than ever before, a profits as indicated by the prices of stocks a bonds are at an exceedingly high level.

"Agriculture, which has not benefited to any d gree by protection, has been at such a disadva tage that it is now practically in a state of collap as it is impossible for our farmers to buy all their supplies on a highly protected market a sell at a world price.

"Considering these facts, we condemn unqua fiedly those interests, political and commerci dominating the industrial East which with t highest degree of selfishness have prevented t passage of all measures tending to give agric ture any degree of protection.

"We believe that this policy which has proved disastrous to agriculture will in a short time pro equally disastrous to the cities which have so f benefited from the suffering of our fa population.

"Therefore, we demand that agriculture be gi en the same tariff protection now accorded indu try and labor."

Plenty of men in this great audience were o posed to this resolution, knowing full well that misrepresented facts. Rather than to precipita an argument which might bring discord into th splendid organization, they permitted it to pa without opposition.

It seems to us we would be negligent in o duty if we did not point out wherein this resoluti misrepresents facts and how it reveals the sho sightedness of those who prepared it.

In the first place, butter, the chief product so by the Land O' Lakes Creameries, Inc., enjoys tariff of 12 cents a pound. At present butter se for about 50 cents a pound, or $1,000 per ton, a a ton of butter is protected to the extent of $24 In short, the dairy industry is one of our best pr tected industries. It would be interesting if so member of the resolution committee would poi out the industry that is better protected.

The protected industries of the East have, wit out doubt, brought that section prosperity. Th have paid a wage which permits the consumer buy Land O' Lakes butter at from 55 to 70 cents pound. Would those who favor this resolution ta away this prosperity so the wage earner would unable to pay this price for their butter?

It seems passing strange for a group of m whose industry is so well protected by the tariff declare it has no protection and to condemn section that is purchasing 70 per cent of its pro ucts. The men who favored this resolution sh themselves to be extremely ignorant of the facto which have made their organization one of t most prosperous institutions in the Northwest.

Would it be safe to place in the hands of th men who favored these resolutions the respon bility of laying plans that agriculture may be m prosperous?

Influence of Age on Butterfat Percentage

have some heifers that produce milk contain-
a lower butterfat percentage than is desired.
I expect these heifers to give higher testing
as they advance in age?
iddlesex, Vt. W. R. T.

n the average there is little change in the per-
age of butterfat in milk as an animal advances
ears. The percentage remains fairly constant
cows reach 8 to 9 years of age when it grad-
declines. A heifer giving milk testing 5 per
would be expected to give milk testing about
per cent when 12 to 14 years of age.

Meeting Market Milk Competition

n milk that averages 3.3 per cent butterfat as
mes from the herd be satisfactorily raised by
rding the fore milk so that it will meet com-
ion in a retail milk route? Can milk be col-
by feeding corn meal, hominy feed, or some
feed to the extent that it will meet the com-
ion of milk of deeper color? Would a change of
is be more satisfactory? If so, how many
nseys would be needed to supply the same
nt of milk as 30 Holsteins?
rthage, N. Y. F. B. C.

ne inquiry does not state how much the fat
ent must be raised to meet competition. If the
peting milk is assumed to contain 4 per cent
it would not be practical to raise the fat con-
of the 3.3% milk to 4% by discarding the fore
. It would require the withdrawal of too much
milk.

here competition of this kind is of serious na-
more market milk producers are meeting it
iscarding some of the low testing cows and re-
ing these with Jerseys or Guernseys. It is le-
to standardize milk by mixing the complete
from different breeds but in most states it is
legal to change the fat content of the normal
of a single breed by withdrawing or adding
ne normal milk. Normal milk of a single breed,
low 3% fat, is also not legal milk even though
ing has been done to change the fat content.

the best outlet for the product of a dairy herd
is locality is for market milk and the compe-
n indicated is of a serious nature, it would
advisable to either replace a part of the herd
cows of the higher testing breeds or make
complete change. On the average, Guernseys
produce about 75 per cent as much milk as
teins. On this basis one would need 40
nseys.

Computing Herd Averages

indly instruct me as to what is the general
tice in finding yearly herd averages. Are all
cows that have been in the herd during the
figured in, or just those that have been in
for a period of seven months or over?
rcellville, Va. L. H. C.

arriving at herd and association summaries
the year, it has been the general practice to
ude all cows that have been in the association
nine months or longer. This would exclude a
er that freshened, say, the fifth month that the
ciation was in operation and she had only
n months in the association. It would also
ude any cows that were purchased during the
and had not been in the association for nine
ths or longer. However, it would include any
s that were in the association at the beginning
ne year and were not sold before nine months
he association year had passed.

ne newer method and more satisfactory way
omputing averages is to use what is known
ne "cow month" and "cow year" basis. Under
method, the monthly averages of a herd are
puted by dividing the total production of the
by the number of cows in milk and the num-
of cows dry. In securing the average for
year, the number of cows in milk and the
ber of cows dry, together with the total pro-
ion of the herd, are entered each month in the
lar herd summary in the herd record book.
he end of the year the two columns listing
number of cows in milk and the number of
dry are totaled. These two totals are then
d together and divided by 12 which would rep-
nt what is known as the number of cow years.
nder this system of securing averages, every
that has been a part of the herd is consid-
in the average, including cows that have been
hased during the year, heifers as they fresh-
and the records of cows that may have been
during the year. It more nearly represents
true average of the herd.

ossibly the following statement of a herd that has recently come to our hands will illustrate the method of securing the herd average:

Month	Cows in milk	Cows dry	Milk lbs.	Fat lbs.
May	13	2	8,339	363.5
June	13	2	7,778	382.6
July	15		4,986	229.5
August	12	3	5,761	271.6
September	14	1	5,939	273.8
October	15		8,530	405.5
November	16		9,987	509.0
December	17		11,852	550.5
January	17		11,870	576.2
February	21		12,532	630.4
March	20	1	13,959	631.9
April	20	2	14,102	713.6
Total	193	11	115,635	5538.1
Average, 17 cow years			6,802	325.8

It will be noted that for the month of May this herd had 13 cows in milk and 2 cows were dry. In July the 2 dry cows freshened, making a total in all of 15 cows in milk; but the following month 3 more cows went dry. In November a heifer freshened, in February 4 heifers freshened, and in April 1 heifer freshened. The total production for the year was 115,635 lbs. milk and 5,538.1 lbs. fat. The cows were in milk for 193 monthly periods and cows were dry for 11 monthly periods. Adding these two together, we have 204 cow months during the year. Dividing this by 12 gives 17 cow years. This is equivalent to an average of 17 cows for the year. Dividing the total fat and milk by 17 will give the average yearly production of the herd. The number of cow years will seldom come out an even number, in which case it would consist of a fraction like 10.6 or 8.3 cows for the year.

Name, Postoffice, and State, Please

We have an inquiry dated March 26 from C. L. G., Lincoln County, Wisconsin. The inquirer will look for a reply on this page. When he sees this, will he please send us his name and postoffice? We desire to make a reply by personal letter but fear the postal employees will not accept our letter if addressed to C. L. G., Lincoln County, Wisconsin.

Last week we had one from a man who signed his name and gave his postoffice but failed to give his state. Our postal guide told us there are three postoffices in the United States by the same name as given by this inquirer. Our mailing list indicated that he is a reader and not a subscriber. What could we do? In order to serve him promptly we sent a reply to each of the three postoffices and reached the right man. Two letters came back, as we knew they would.

Something like this happens every week. We do the best we can but cannot always deliver replies to inquiries, in which cases the careless inquirers are, no doubt, disappointed. Some of it is due to carelessness; others, no doubt, assume that their inquiries with our replies will be published and that all that is needed is their initials and state. To these let us say that only a very few of the inquiries received are used for publication; all inquiries received are replied to with a personal letter whether used for publication or not. It is our policy not to pay any attention to unsigned letters.

Always sign your name, give your postoffice and state. If you do this you will get a reply if the postal employees do their duty, and they rarely fail.

Lameness in Pigs

I have a brood sow that has gone down in her hind legs. It is only with great effort that she can get up on her hind feet. She seems very sensitive and sore in her hind legs, and when down rests with them crossed. My spring pigs are getting the same way. I am feeding whey, ground oats, barley and corn and boiled potatoes. What is the trouble and what can I do for it?
Thorpe, Wis. J. W.

The condition of lameness, stiffness, and occasional partial or complete paralysis in pigs is caused by a lack of minerals, particularly lime, and by a deficiency of the anti-rachitic Vitamin D.

Of the feeds now being fed all are low in Vitamin D and only one is comparatively good in calcium, that being the whey.

The remedy is to incorporate about 10 lbs. of bright green alfalfa meal or ground alfalfa hay with each 90 lbs. of ground oats, barley, and corn, mixing it thoroughly and feeding it in a self-feeder so the pigs will be forced to consume a proportionate share of the alfalfa. Continue the feeding of whey. In another feeder allow the pigs free access to a simple mineral mixture composed of equal parts by weight of salt, finely ground limestone, and wood ashes or bone meal. Do not look for immediate recovery. It will take several weeks for the pigs to get back to normal, if they are very far advanced in the condition.

Sows that are heavy milkers frequently go down behind if they have suckled large litters of pigs and have been fed rations low in minerals and Vitamin D. In addition to the remedy prescribed for the pigs, we would give this sow an ounce daily of calcium phosphate for several weeks.

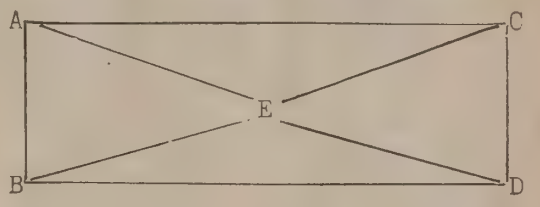
Standardizing Cream

How many pounds of 5 per cent milk will it take to make 100 lbs. of 30 per cent cream? Having 50 lbs. of 30 per cent cream and want to reduce it to 15 per cent cream, how much skimmilk must there be added?

How much solid matter, including butterfat, does 100 lbs. of 5 per cent contain? How much 3 per cent milk?
Davenport, Iowa. E. D.

It will require slightly over 600 lbs. of 5 per cent milk to produce 100 lbs. of 30 per cent cream. This is computed by figuring the pounds of fat in the cream and dividing this by the per cent of fat in the milk. In the particular example given, it would be 100 times .30 equals 30 lbs. fat, and 30 divided by .05 gives 600 as the number of pounds of 5 per cent milk. There would, of course be a small amount of fat lost in the skimmilk and it would probably take a little over 600 lbs. of milk testing exactly 5 per cent to produce 100 lbs. of 30 per cent cream.

To reduce 50 lbs. of 30 per cent cream to 15 per cent would require the addition of 50 lbs. of skimmilk. The most simple rule for the standardization of milk and cream is indicated by what is called the rectangular method, as follows:



At the point "A," put the test of the cream or milk used; at "B," put the test of the skimmilk or milk used; at "E" put the test of the cream or milk desired. Then in a diagonal line, take the difference between the figure in the center and at "A," and place it at "D." Likewise, place the difference between "B" and "E" at "C." The figure at "D" will be the number of pounds of cream or milk to be used of the test "A" and at the point "C" would be the number of pounds of skimmilk or milk of the test given at "B."

For instance, if 15 per cent cream is to be made from 30 per cent cream by the addition of skimmilk, place the 15 in the center of the rectangle, 30 at "A," and zero at "B." This would leave, making the subtractions, 15 at "C" and 15 at "D." This indicates that it requires the same amount of skimmilk as of 30 per cent cream to produce 15 per cent cream.

If 20 per cent cream had been desired, then it would have required 20 lbs. of 30 per cent cream and 10 lbs. of skimmilk to produce cream testing 20 per cent. In this case, it requires twice as much cream as skimmilk to produce the 20 per cent cream from 30 per cent cream.

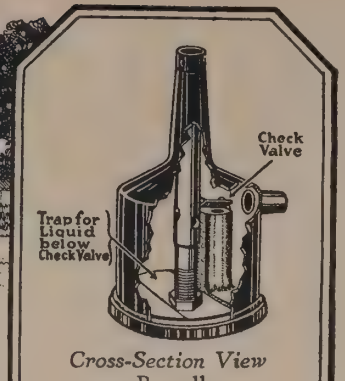
If a given number of pounds of cream of certain test is desired, the amount of cream and skimmilk to use is secured by first finding the pounds by the rectangle method, and then using the following formulas to get the total amounts to be used. To get the number of pounds of high testing cream, divide the amount at C by the total of C and D, multiplying this result by the number of pounds cream desired. To get the amount of skimmilk divide the amount at D by the total of C and D, multiplying the result by the number of pounds of cream desired. If 150 lbs. of 15 per cent cream is desired from cream testing 25 per cent and skimmilk, the figure at C would be 15 and at D it would be 10. Applying the formula we divide 15 by 25 (15 plus 10) and multiply by 150, the result showing that it will require 90 lbs. of 25 per cent cream; likewise dividing 10 by 25 (10+15) and multiplying by 150 gives 60 lbs. of skimmilk as the required amount to produce 150 lbs. of 15 per cent cream.

Five per cent milk will contain approximately 14.15 lbs. total solids per 100 lbs., as compared with 11 lbs. total solids for 100 lbs. of 3 per cent milk.

It Milks the Cows Clean



A scene sketched from a photograph taken on the farm of George Cusick, Parish, N. Y.

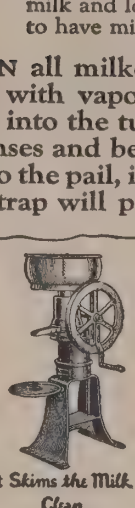


Cross-Section View
Burrell
Sanitary Moisture Trap

This Feature Is Essential For Low Bacteria Counts

"It is easy to make clean milk with the Burrell Milker. I consider the Burrell Moisture Trap absolutely essential for the production of clean milk and low bacteria counts. I supply the village of Parish and have to have milk of low bacteria count."—*George Cusick, Parish, N. Y.*

IN all milkers, the space in the pail above the milk is filled with vapor during milking. Some of this vapor is drawn into the tube leading to the vacuum pipe line. There it condenses and becomes contaminated, and, if allowed to flow back into the pail, it contaminates the milk. No ordinary check valve or trap will prevent this—but the Burrell Moisture Trap *does*.



It Skims the Milk Clean

For many years, the wonderful Link Blades of the Burrell-Simplex Cream Separator have made it famous as the *closest skimmer*. It has a greater capacity for the size of its bowl, for the speed at which it is operated, and for the power required to run it than any other separator. It is simple, light and easy-running. But, above all, *it skims the milk clean*—and that's what you want in a cream separator. Four sizes—350, 500, 750, 1000 lbs.—hand or power driven.

It Prevents Contamination

The Burrell Sanitary Moisture Trap catches any condensed vapor which flows back from the pipe line. The check valve, being located above the liquid in the trap, prevents an inrush of air from carrying this contaminated liquid into the pail. The Burrell Sanitary Moisture Trap is a necessary safeguard against high bacteria counts.

4 Exclusive Features

There are four exclusive features which make the Burrell the *perfect* milking machine. The first three are interdependent—each increases the efficiency of the others. (1) The *Automatic Controller*, which regulates the suction to suit exactly each individual cow; (2) the *Air-Cushion Teat Cup*, which supports and compresses the teats by air alone; (3) the *Positive Relief Pulsator*, which gives complete rest between pulsations and assures natural circulation; (4) the *Sanitary Moisture Trap*, which entirely prevents contamination from the pipe line.

The Burrell Milker is noted for its simplicity. It is a single tube system, with only half as many rubber parts as the ordinary type of milker.



Send For Valuable Free Books



Here are two valuable, illustrated books that are free to dairymen. One pictures and describes the Burrell Milker and explains how "*It Milks the Cows Clean*". The other tells about the Burrell-Simplex Cream Separator—all about its simple, sanitary, rugged construction, and how "*It Skims the Milk Clean*". Every dairyman should have both of these interesting, practical, helpful books for handy reference.

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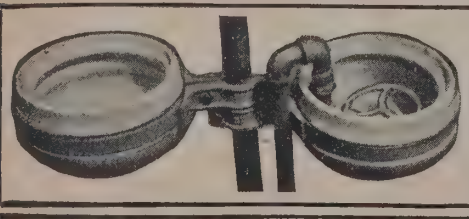
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SPECIAL PROCESS GLAZED STONEWARE WATERBOWLS, and SALT and MINERAL FEEDERS. This sanitary equipment is guaranteed against breakage by cows, and is very practical and efficient. Highly ornamental. No expense has been spared to make these goods the best that human skill can produce, regardless of price. We fit any make equipment, and sell direct where no dealer. Phamphlet and information free. SALESMEN WANTED. Inquire IDEAL SALT FEEDER CO., Morristown, Minn.

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Sweet Clover for Pasture

E. B. FITTS, PENNSYLVANIA

THOMAS Beaver, who operates a dairy farm on the outskirts of Bellefonte, Pa., has demonstrated in an impressive and convincing way the value of sweet clover as a pasture crop.

A field of thirteen acres near his barn and along the Bellefonte—Lock Haven Highway was seeded with sweet clover with oats in the spring of 1925. Following the oats harvest cattle were allowed to graze lightly during the fall months and considerable feed realized. Early last spring his entire herd of 22 Holstein cows was turned into the field and kept there day and night until September, excepting when in the barn for milking. The cattle had all they could eat and were barely able to keep up with the growth of the clover until late in the summer. No supplementary feeding was done excepting grain and of this much less used than during previous seasons. The cattle milked better than ever before and when the writer saw them early in August they were sleek and contented and in vigorous working condition. An increased milk flow of about 1,500 lbs. per cow over the previous year, when the cows were on ordinary grass pasture, was realized and the amount of concentrated feeds used during the summer reduced about twenty per cent.

An adjoining field of 15 acres seeded to sweet clover in wheat spring and this was used to sup ment the pasture as the feed g less during the fall months. This ond field will become the main ture during the present year.

It is Mr. Beaver's plan to dev three fields near his barn to a th year rotation of sweet clover, sil corn, and oats or wheat, respectiv He will thus have each year a f for pasture, another for silage c and a third for grain. He belie that this rotation will provide a m mum yield of milk per acre and low cost. In addition, his cows always be close to the barn, alw have an abundance of feed, and ways be in good physical conditi

The writer believes that sweet ver has the possibilties of great fulness as a pasture crop. Natu grass pastures have generally come sadly depleted and supply little feed excepting during ea summer. Sweet clover pasture s plies feed in abundance during most the entire summer and gi very large yields per acre.

Pasturing arable land is a revo tionary idea in many communit but Mr. Beaver and other progress dairymen are demonstrating that is a practicable and profitable pr tice.

Improving Marsh Soils

A new bulletin has just been issued by the Wisconsin Agricultural Experiment Station that should be of considerable interest and service to many Badger farmers. Bulletin 392, entitled "Fertilizers and Crops for Marsh Soils," discusses types of marsh soils, drainage, fertilizer needs, methods of application, and crops best suited to such soils.

As illustrations of the possibilities in crop increases from the application of fertilizer the following results are cited: The 5-year average of corn on peat marsh soil at University Farm was 22.8 bushels per acre on untreated land; this was increased to 70.6 bushels with the application of 12 tons of manure, while 200 lbs. of muriate of potash per acre resulted in 67.7 bushels per acre. The cured hay per acre was increased from 2,205 lbs. on untreated soil to 3,625 lbs. by manure and to 3,645 lbs. by the potash.

On an acid peat soil at Marinette no treatment resulted in a failure of barley and brought only 66 bushels of potatoes per acre, whereas one ton of ashes (potash 5 per cent) resulted in 26 bushels of barley and 142 bushels of potatoes. One ton of ashes and 300 lbs. of acid phosphate per acre resulted in 36 bushels of barley and 196 bushels of potatoes per acre.

At the Coddington Experiment Farm, about 12 miles south of Stevens Point, no treatment gave 3.3 tons of corn silage, 16.47 bushels of oats, 8.3 bushels of rye, and .8 ton of mixed hay per acre as a five-year average. The application of 150 lbs. of muriate of potash per acre gave 5.2 tons of corn silage, 34.06 bushels of oats, 22.84 bushels of rye, and 1.2 tons of mixed hay per acre. Eight tons of manure per acre gave 5.6 tons of corn silage, 28.89 bushels of oats, 16.96 bushels of rye, and 1.1 tons of mixed hay per acre.

The authors of the bulletin do not argue for increase cultivated acreage by draining and treating extensive marsh tracts, but rather that the improvement of small marsh tra on existing farms could well be dertaken. The bulletin tells how t may best be done.

A NEW BOOK

"QUALITY IN DAIRY PRODUCTS"

—BY—



PROF. E. H. FARRINGTON
Chairman of Dairy Department
University of Wisconsin

Answers Practical Questions of the *Dairy Farmer—Cow Milker* and *Maker of Dairy Product*

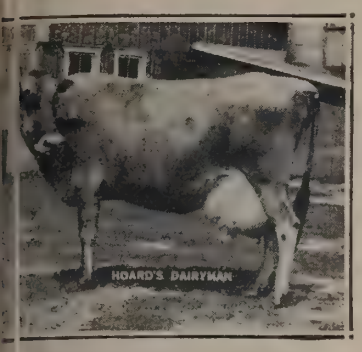
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A Long-time Record Cow

HARD'S DAIRYMAN:—Clayton Coun- the home of one of the most re- able dairy cows in the state of w She is Golden Rule Blossom, a ir bred Jersey owned by John er ghty & Sons, long-time members e McGregor Cow Testing Asso- at n. Here is her production for



GOLDEN RULE BLOSSOM

is registered Jersey, owned by John ghty & Sons of Iowa, has an average uction of 504 pounds fat for eight in the McGregor Cow Testing ciation.

consecutive years as revealed by erd books:

Yrs		Milk Lbs.	Fat Lbs.	Profit over feed
18	1919	6,312	307	$ 132
19	1920	10,189	503	273
20	1921	11,006	536	195
21	1922	10,900	514	115
22	1923	12,373	609	231
23	1924	8,823	402	136
24	1925	11,999	593	174
25	1926	11,591	573	222
ta		83,193	4,047	$1,478
e	e	10,399	504	185

his cow in eight years, from June 18, to May 31, 1926, produced e forty tons of milk and over two of butterfat, returning her own- s 1,478 over the cost of her feed. e average production was 10,399 s. milk and 504 lbs. fat, with an av- a return over feed cost of $185. he are not selected lactation peri- s but cover the entire period of ro uction for eight years. During is same period she gave birth to gl calves, four of which were i rs.

I doubt if there is another cow in w with a long time performance to a this. In this I do not include w on official test and with selected rds, although I have some doubt h er there are official record cows it as good a record for eight con- ive years. She was given such r and feed as any good dairy cow n d receive and was milked twice ai for the greater portion of the m

I a. IRWIN DAHLEEN.

Holmen Co-operative Creamery

O ned and Controlled by Patrons

H w the Holmen creamery became ue co-operative organization, v d and controlled by its patrons, a related recently by the manager, Keppel, before the annual con- n of the Wisconsin Buttermak- s Association at Fond du Lac.

Te Holmen Co-operative Cream- y Association was organized in 8 At the annual meeting of the o holders in 1922, it was voted to a a new creamery on a new site. he officers found that some of their o holders were not patrons, and m of their patrons were not stock- l rs. Under the terms of the build- g lan which called for a bond issue 0,000 to be retired in ten years o a fund created by retaining one- al cent for each pound of butter a during the year, patrons, not t k h o l d e r s, were contributing toward the payment of the new creamery, the title to which rested with stockholders, many of whom were not patrons.

To remedy this situation the articles of the association were amended (1) to grant every patron the privileges of a stockholder and (2) to offer to refund to any stockholder the money paid for stock certificates.

"These by-laws do not compel any stockholder to dispose of his stock," said Mr. Keppel. "But it can be made unprofitable to continue to hold such stock. We did this by stopping the payment of interest beginning the following year.

"We are now a non-stock co-operative association in possession of an up-to-date creamery building representing an investment of no less than $40,000. This investment reflects itself not as a stock certificate to the individual, but as an investment accruing to the farm in exactly the same way a good road investment reflects itself to abutting property.

"When a farm owned by one of our patrons is sold, the equity in the creamery goes with the farm the same as the good road equity does. The new owner becomes a patron stockholder of the creamery. When he ceases to be a patron he ceases to have a voice in the conduct of the creamery."

A teacher asked her class to write an essay on London. She was surprised to read the following attempt:

"The people of London are noted for their stupidity."

The young author was asked how he got the idea.

"Please, miss," he said, "it says in the text book that the population of London is very dense."—Brooklyn Standard Union.



Picturing the Light Six Sedan

A Quality Six with a Big 7-Bearing Motor
at the Price of a Four

Before you buy any car at less than $1000 glance over and into this Nash Light Six Sedan. And be sure to drive it!

It is a Six, not a Four, and a Six with 7-bearings, *the world's smoothest type.* And most aggressive, as well. Watch this Nash step ahead when you step on the accelerator.

This car has the finest type of 4-wheel brakes in all the world. Front wheel brakes internal expanding—rear wheel brakes external contracting—*two-way* action for greater efficiency and safety.

And nowhere else will such a low price buy so much quality in finish and fittings. There are Double Beam Headlights; Air cleaner; Oil filter; Gasoline filter; Alemite High Pressure Chassis lubrication; Automatic windshield wiper; Rear vision mirror; and 5 Budd Michelin Steel Disc Wheels.

Instruments, including a gasoline gauge, are grouped in an attractive panel on the dash. All these are features you need for safety, comfort and satisfactory performance.

You always will be proud of your good judgment—your satisfaction will never end —when you buy a Nash! (5662)

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A Compact Unit



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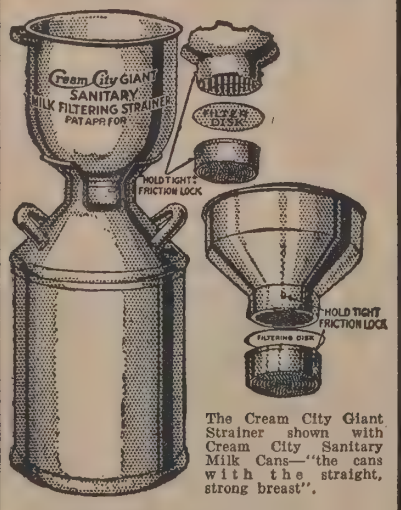


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More Profits from Cleaner Milk!



The Cream City Giant Strainer shown with Cream City Sanitary Milk Cans—"the cans with the straight, strong breast".

Two 14-quart pails can be poured into the Giant at one time

The Cream City Giant actually filters the milk, removing every particle of foreign matter. Contamination is removed at its source—pure milk can be kept sweet much longer.

Large, strong, seamless. Heavily retinned—indestructible. Two styles. The Giant for large production—No. 1090 for the small farmer. Both are easy to keep clean and sanitary.

Get bigger sweet milk profits!
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16-38 15th St., Milwaukee, Wis.
Please send me your catalogs on Milk Cans and Milk Filter.
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Address _____



This

answers the question

"What about getting a milking machine?"

You can't tell how fast a horse can trot by judging the speed of a cow. And you can't tell what a milking machine can do for you *until you use the Hinman.*

Success for 19 Years Straight

There's no question about what *this* machine can do. It *has been* a success on thousands of dairies, *for 19 years straight.* Why? *Dependable. Simple.* Only 2 moving parts. No complicated mechanism to get out of order. Valve chamber *guaranteed for life of machine* and easy to clean as a tumbler. Shortest hose.

Gentle application of vacuum and *complete* release after every suction. Soothing—cows like it. Many prize cows milked with it—made their winning records—including the champion cow of England.

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PORTABLE GAS ENGINE · STANDARD · PORTABLE ELECTRIC
MILKERS

Buy a Vest Pocket Herd Book



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Nebr.	Lancaster	Mar.	490	748	28.3	G. H.	19	1303	44.3	C. E. Olmsted
Ohio	Wayne Co.*	"	309	882	35.0	R. H.	7	1653	57.6	O. L. Thomas
Ind.	Spencer-Perry Co.*	"	304	657	25.2	G.	23	783	39.1	Shrode Bros.
"	Elkhart Co.	"	311	604	26.3	H.	16	1156	41.4	J. Loucks & Son
Minn.	Becker Co. 1*	"	270	767	30.2	H.	12	1393	47.5	W. L. Hansen
"	Morrison Co.*	"	350	771	29.7	R. G.	13	1124	48.6	Mortenson Bros.
"	Pope Co.*	"	339	651	25.3	H.	9	1202	42.0	C. H.-Bennett
"	Watonwan Co.*	"	376	737	29.4	J.	19	780	42.6	Brogger & Knudso
"	Cannon Valley	"	374	686	25.5	G. H.	9	1155	41.0	F. Laphan
S. D.	Day*	"	399	550	21.3	R. H.	6	1200	43.4	O. E. Howell
Texas	Wise Co.	"	334	494	23.4	J.	7	924	41.7	Kelly & Sons
Wash.	Cowlitz Co.	"	603	672	27.3	H.	19	971	34.9	J. E. Smearman
N. D. & Minn.	Gr. Grand Forks*	"	321	621	22.8	R. H.	9	1105	37.8	J. Ackerman
Tenn.	Hamilton Co.	"	638	584	27.3	G. J.	46	662	32.2	Derwent Farms
Iowa	Sac Co.*	"	336	736	28.5	R. G.	8	964	52.6	W. Bath & Son
Va.	Loudoun Valley 3	Feb.	648	568	24.9	H.-G.	19	717	34.1	M. A. Ankers
"	Prince William Co.	Mar.	622			M.	21	956	40.3	Harley & Kline
S. D.	Yankton*	"	313	707	24.4	R. H.	11	1105	37.1	J. S. Wipf
Kans.	Reno	"	301	660	25.4	H.	12	1036	37.3	F. Hoffman
"	Harvey	"	143	821	32.9	H.	19	1172	43.2	L. Vetter & Son
Utah	Rich.-Lewiston*	"	506	800	28.0	H.	17	1265	45.3	C. Z. Harris & So
Mont.	Cascade Co.	"	527	827	29.7					
Idaho	Weiser-Pay.-Gem Co.*	"	1069	626	26.7	R. H.	10	1425	46.4	A. Schuler
N. D.	Burleigh Co.*	"	427	685	23.1	H.	16	1031	36.5	F. J. Splonskowsk
Penn.	Allegheny Co.	"	412	728	29.6	M.	6	1093	42.4	Ardarra Herd Inc.
Minn.	Barnum*	"	328	650	27.8	G. G.	6	1011	47.3	Newman & Son
Mich.	Lenawee 2*	"	281	717	22.9	H.	4	1284	38.9	W. Kindschy
"	Leelanau Co.*	"	210	583	22.3	J.	8	871	43.1	C. H. Eitzen
"	Genesee 2*	"	219	790	29.0	R. H.	7	1361	46.8	B. J. Morton
"	Ogemaw Co.	"	283	542	22.2	J.-G.	6	775	35.9	C. N. Hamilton
"	Elsie-Ovid*	"	306	786	27.3	M.	13	1139	37.5	V. Easlick
"	No. Berrien*	"	238	679	30.2	G. G.	10	1072	44.8	F. Carter
"	Macomb 3*	"	248	650	24.9	H.	11	1336	47.4	A. Fistler
"	Missaukee 2*	"	258	525	20.2	R. H.	13	1053	35.2	L. Hunsberger
"	Ionia-Belding*	"	387	845	31.8	J.	8	796	47.4	H. Young
"	East Allegan	"	257	776	30.5	R. H.	3	1677	49.0	R. Monteath
"	No. Antrim*	"	228	536	23.6	M.	5	911	38.5	H. Fielstra
"	Mason Co.*	"	282	564	23.9	R. P.	9	931	40.4	L. Anderson
"	James.-Ottawa*	"	235	820	32.7	R. J.	10	823	46.1	P. Van Noord
"	Oscoda Co.*	"	157	744	32.9	G.-H.	7	1062	44.5	C. Gustler
"	Oceana East*	"	276	602	28.2	R. J.	8	797	41.5†	S. Robart
"	So. Kent*	Feb.	259	643	26.9	J.-G.	7	749	37.9	R. Sherk
"	Charlevoix	Mar.	289	665	26.0	G. J.	7	898	42.1	D. Swanson
"	No. Wexford	"	181	517	23.1	G. G.	7	709	31.8	W. R. Bryant
"	Cheboygan*	"	239	462	17.9	M.	6	1182	41.0	V. Goble
"	Osceola-Evart*	"	263	672	25.3	H.	8	1174	35.4	G. McKay
"	Saline-Washtenaw	"	241	720	26.0	H.	10	1202	44.0	Wilsey & Liptow
"	Chippewa*	"	291	593	21.3	G. H.	6	1133	40.8	G. Kamper
"	Osceola-Reed City*	"	242	588	22.5	G. H.	5	1223	49.8	W. Marcus
"	Mason-Ingham	"	295	851	31.1	G. H.	3	1373	54.5	G. Higdon
"	Hillsdale 2	Feb.	164	620	28.4	R. G.	7		40.7	O. Gilmore
"	Hillsdale 2	Mar.	194	706	31.9	R. G.	7		44.7	O. Gilmore
Wis.	Union-Wau. Co.*	"	332	729	26.4	H.	10	1335	42.7	L. P. Much
"	Merton-Lisbon	"	536	780	33.1	H.	27	1331	45.5	A. J. Cull
"	Cleg.-Eleva	"	429	600	25.4	G. H.	20	962	38.4	J. Wold
"	Denmark*	"	449	720	25.3	H.	23	1208	41.8	H. Hansen
"	Richland*	"	565	638	22.4	G. G.	13	877	39.3	W. C. Tyalor
"	Fond du Lac-Gr. Lake	"	464	782	28.9	H.	12	1269	42.7	H. Korth
"	West Bend	"	382	759	29.2	H.	11	984	41.3	R. Riemsthal
"	Rockfield*	"	409	766	28.9	H.	19	1149	42.5	Mrs. P. Nehrbass
"	Glenwood	"	509		28.9	G. H.	15	1256	48.0	M. Olson
"	Sparta *	Feb.	468	868	24.6	M.	9	786	36.7	C. Morgan
"	Arkdale-Necedah*	Mar.	310	700	27.8	H.	10	1182	48.3	A. Troemner
"	Poynette-Col. Co.*	"	447	877	29.6	R. H.	12	1262	42.8	W. W. Curtis
Ohio	Licking Co.	"	297	656	27.1	G. J.	8	803	45.1	H. Voohrees

† F. Bunnell's herd of 7 Jerseys also averaged 41.5 lbs. fat.
* Retest rules followed.

Fruit Grower Makes Good With Dairy Cows

HOARD'S DAIRYMAN:—Berrien County, Michigan, is preeminently a fruit county, so much so that a bad year or a late frost puts many growers in a difficult financial position. Efforts have been made to change this by the introduction of the dairy cow. Two flourishing cow testing associations now tend to stabilize the farm industry and make every year a good one.

Fred Carter is an example of what may be done. Realizing that he needed a crop rotation, impossible with fruit, also cheaper manure and a steadier source of income, he started with a few grade cows two years ago. Up to that time Mr. Carter had had no experience with the dairy cow so he joined the North Berrien Cow Testing Association and started an intensive study of feeds and feeding.

This month Mr. Carter's herd led the association with 1,072 pounds milk and 44.8 pounds fat.

He finds that the raising of alfalfa and sweet clover fits into his farming operations and that the manure produced saves the purchase of this ... cessity from the stock yards and ... the prices received from milk in a ... fruit county are very welcome in ... in the winter months when the ... and melon checks are few and ... between. IVER IVERSEN, Test.

Cow Testing Pays in Tea

HOARD'S DAIRYMAN:—The Tea ... C. T. A. in Wise County is ... some real good for the dairy indu... in the county.

The association report for ... month of March shows an increa... the number of cows and an inc... in the average production of ... pounds milk and 53.9 pounds fat ... that of last month. These result... due to the selling of 45 poor pro... ing cows, and to the feeding of b... rations.

That the association is saving ... dairymen money is shown by the ... lowing report given of a mem... herd that has been in only ... months:

The two tests are taken for 31... periods each, and the price of th...

Annual Association Reports

State	Association	Year ending	Total cow years	Ass'n Ave. Milk Lbs.	Ass'n Ave. Fat Lbs.	Cows culled	300-pound Cows	300-pound Herds	Fat records High cow Lbs.	Fat records High herd Lbs.	Tester
Minn.	Moose Lake*	Dec.	264	6,751	301	61	132	22	646	415	H. Christens
"	Mower Co. 1*	Jan.	416	7,093	289	46	163	7	561	421	L. W. Ma...
Ohio	Columbiana		232	6,926	298		131	10	548	398	
Nebr.	Lancaster-Seward		423	8,265	309	18	97		866	450	G. Pfeiffer
Vt.	Chittenden 1	Jan.	556	6,710	257		16	4	488	348	E. H. Lovn...
"	Chittenden 2	Feb.	580	5,386	236		5	2	446	311	E. H. Lovn...
"	Chittenden 3	"	449	5,975	235		3		430	296	E. H. Lovn...
"	Ascutney	Dec.	399	6,500	302		171	9	748	397	E. H. Lovn...
"	Addison	Jan.	643	6,455	251		110	2	501	342	E. H. Lovn...
Mich.	So. Kent	Mar.	2,941	7,491	321	31	117	16	556	415	F. Bender
Wis.	Alma Cen.-Jackson*	Jan.	331	8,551	329	84	205	19	606	442	K. Nehrer
"	Cleghorn-Eleva	Dec.	316	6,645	284	118		10	528	397	J. J. Tayl...
"	Dallas		462	7,235	290	26	115	12	545	373	H. L. Go...

* Retest rules followed.

figured at 43 cents per pound in
)th tests.
In the first test the herd produced
417 pounds milk testing 4.3% fat,
189.9 pounds fat worth $81.65.
he cost of the feed was $32.86. The
ılue of the product minus the cost
feed is $48.79.
In the second test the herd pro-
ıced 4,825 lbs. milk testing 5.1% fat,
243.8 lbs. fat worth $104.83. The
st of feed was $39.02. The income
ove feed cost was $65.81.
The increase in milk production
as 408 pounds, due to better feed-
g; the increase in fat was 53.9
unds, due to the removing of the
lves from the cows and milking all
e milk from the cows instead of al-
wing the calves to get the strip-
ngs or last milk. The feed cost was
creased $6.16 in the second test.

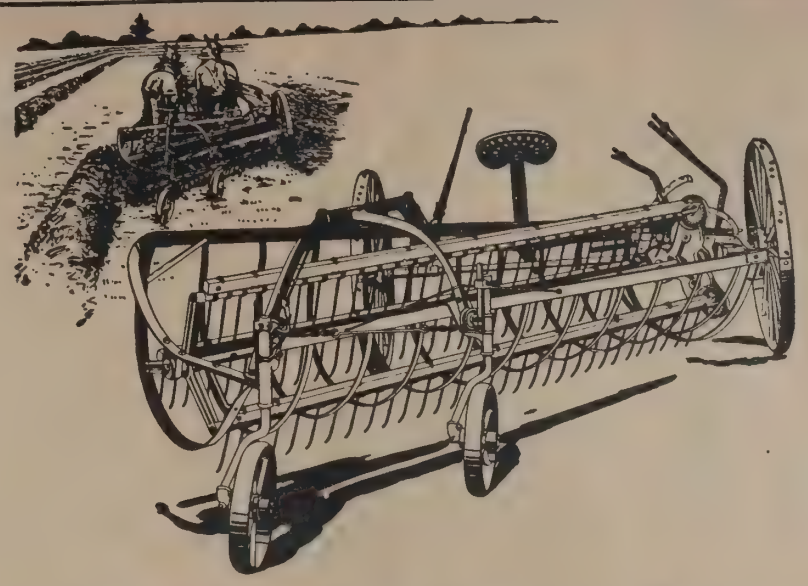
T. H. ROYDER, Tester.

Association Organized Calf Club

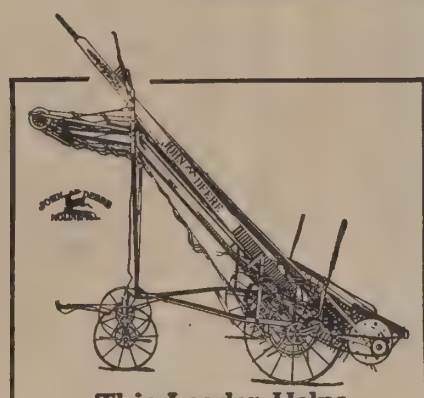
HOARD'S DAIRYMAN:—The Richland
ssociation, Wisconsin, has organized
calf club with 25 members enrolled.
is a big improvement to any asso-
ıtion to get young folks interested
young stock and in learning how to
ed and develop young stock.
Five members have ordered the
isconsin farm record books; two
ve signed for the soil test by soil
ecialist from the university. Mem-
rs are in favor that the state should
propriate enough money for the
isconsin Dairymen's Association to
pervise and promote C. T. A. work.
The duplicate barn book sheets are
ing left with the members. I be-
ve it a good plan as the members
n check up on the tester very easily.
The tester helped one member pur-
ase a herd sire from another mem-
r in the association. The dam of the
lf made 387 pounds fat last year as
2-year-old. PETER NELSON, Tester.

California County Has Big C. T. A.

Los Angeles County, California,
asts a cow testing association that
quires six testers and embraces
arly 5,000 cows with full year rec-
ds. The association is under the
rection of the Dairy Department of
e County Farm Bureau.
The herds average large in that
unty—70 cows to the herd. The
sociation has 62 members. Nine
rds have more than a hundred
ws each, the largest being the
ade herd of the Adohr Stock Farms
mprising 775 cows. This owner al-
s has a pure-bred herd of 70 Guern-
ys. The Arden dairy had 511 cows
ish yearly records. The average
oduction for 4,730 cows last year
s 346 lbs. butterfat.
The officers and directors of the
sociation and local business inter-
s believe in giving dairymen some-
ng to work for. At the last annu-
meeting held last November 34
autiful silver loving cups and 240
bons were given to winners of the
rious classes.
Awards are based on a point sys-
n of scores. The Pottenger Sani-
ium, Carl Williams, manager, won
e sweepstakes trophy donated by
rm & Orchard with 149 points for
re-bred herds. Twenty Holstein
ws in this herd averaged 559.8 lbs.
f. Second place was won by Santa
nica Dairy Company with 127
ints. This herd of 37 pure-bred
olsteins averaged 441.8 lbs. fat.
The sweepstakes cup for grade
rds was won by S. W. Baekema
h 150 points and a herd average
503.9 lbs. fat on 21 cows. Adohr
ck Farms won second with 147
nts and a herd average of 354.3
. fat on 775 cows.



"Hay in the Barn Seven Hours After Cutting"



This Loader Helps Cut the Costs

The John Deere Double Cylinder Loader is the ideal machine to use with the Side Delivery Rake—a combination that saves 40 per cent in labor costs.

The loader automatically adjusts itself to handle the heaviest windrow or lightest swath. It handles the hay gently without shattering the leaves. The floating gathering cylinder, studded with flexible fingers follows the uneven ground and gets all of the clean hay.

Adjustable carrier makes loading easy in windy weather. Easily raised and lowered by man on load.

"We had alfalfa in the barn seven hours after cutting and the hay was in excellent shape. Although it was poor hay weather, we never put up hay so cheaply or that was any better."

Thus Ralph I. Lesher of Antrim County, Michigan, relates his experience in making hay the John Deere Way, using a

John Deere Side Delivery Rake

The results obtained by Mr. Lesher explain why farmers in all sections are adopting the John Deere Way.

They know that the leafy, green, high-protein hay produced by curing the John Deere Way is good for their stock.

They know that hay made the John Deere Way grades uniform and brings high prices on the market.

The John Deere Way is simple and sensible. The John Deere Side Delivery Rake with Curved Teeth and Inclined Frame is the only machine that is needed. It provides for protecting the leaves in the shelter of loose, fluffy windrows, from the time the hay is cut until it is ready to store. The leaves are the "bran" of the hay, and when you save the leaves, you save 65 per cent of the feeding value.

The curved teeth lift the hay. The inclined frame gives greater capacity where the volume of hay is heaviest. Most of the leaves are protected; they do not become brittle and shatter as they do when exposed to the sun's rays.

See these machines at your John Deere dealer's. Write for folders describing them. Address John Deere, Moline, Ill., and ask for Folder SD-414.

JOHN DEERE

JOHN DEERE MOLINE, ILL.

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

The ration for the Pottenger Sanitorium herd for July consisted of a grain mixture composed of 200 lbs. each of wheat bran, ground oats, and rolled barley; 100 lbs. each of corn meal and cottonseed meal; 50 lbs. of cocoanut meal; and 12 lbs. of sugar refinery bone. Twenty-three cows consumed 340 lbs. of this mixture during the month, or about 15 lbs. per head daily. In addition the herd consumed 200 lbs. dried beet pulp, soaked before being fed, and each cow consumed from 17 to 20 lbs. of alfalfa hay daily.

Tuscola C. T. A. Shows Gain

HOARD'S DAIRYMAN:—This association has completed another successful year—successful in that there has been another substantial gain in average production over the previous year. The C. T. A. stands for more economical production of milk and fat. It aims to accomplish this by culling out the poorer cows, by assisting in the arrangement and care of buildings and equipment, by considering herd management, and by fitting the cheapest, correct ration to the individual cow.

The C. T. A. does not wish to encourage the horse-race aspect. It encourages the making and publishing of records only as a means of giving evidence that its aims are being accomplished, and as a stimulant to interest.

The report of last year's work gives conclusive proof that the dairymen of Tuscola County are coming to the front. The average fat production per cow in 1924 was 262 lbs.; for 1925 it was 306 lbs.; for 1926 it was 348 lbs. In 1924 thirty-one cows qualified for R. O. P. certificates; in 1925 forty-nine cows qualified, and in 1926 eighty-four cows qualified for the same.

Suppose a dairyman had ten cows which produced fat at a rate similar to the average production of the association, and sold it at 45c per pound. His average gain per year in terms of cash would be $193.50 from the ten cows. The cost to him for ten cows would be $45 per year.

W. A. SANSON, Tester.



Waukesha Ricardo

Replacement Head for FORDSON means

MORE POWER

Gives 3 to 5 horse power more. Saves its cost in thirty days' operation, then it's clear profit.

INSTALLATION EASY

Only a wrench and an hour's time needed. Nothing to fit, file or adjust. Sold on a money-back guarantee—low in price. Sold by dealers, garage men or direct. Write for "Ricardo Replacement Head" book describing and giving prices on Fordson, Ford and Dodge Ricardo Replacement Heads.

Saves a Dollar a Day on your Fordson

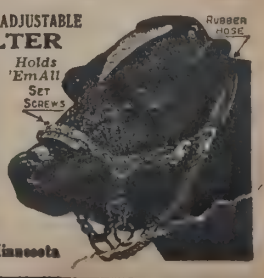
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960 St. Paul Ave., Waukesha, Wisconsin
BUILDERS OF HEAVY DUTY MOTORS FOR TWENTY YEARS

NEW IMPROVED JENSEN ADJUSTABLE
CHAIN HALTER

No loose Bulls or horses. A Universal snap no animal can open or break. Chain stakeout, lead chain with snap, extra quality bull rings, snaps, calf trainer. For more information write. Chain halters, fits all size bulls On 15 days trial, money back if not satisfied. PRICE $6.50. Shipped prepaid U. S. A. where no dealer.

(Cut this ad out)

Holds 'Em All Set Screws



P. W. JENSEN & SON
Princeton, Dept. H, Minnesota

Buy a Vest Pocket Herd Book

Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Are you going to let your boy have firecrackers this Fourth?

"No sir, not a one! If he wants noise he can turn on the radio."—Judge.

The difference between a cow chewing her cud and a flapper chewing her gum is that a cow always looks as if she were thinking.

Connecticut Milk Producers' Association

Marketing about half the milk produced in the state, from 3,352 members representing approximately half the commercial dairy farmers of the state, is the record of the Connecticut Milk Producers' Association upon rounding out a decade of operation.

With contracts for 302,000 quarts of milk daily sold in 35 different towns during 1926, the association has marketed *all* the milk of *all* its



CLIFFORD HOUGH

contracting members *all* the time. "Our pooling contracts deserve credit for this accomplishment," says General Manager C. E. Hough in his eleventh annual report, January 3, 1927. "In 1926 our membership produced and sold more than 12 million dollars' worth of milk. This volume has increased every year since we began operation."

That members of the association have received, as a result of co-operative effort, two million dollars more for their milk than they would have received had prices in surrounding territory prevailed, is the opinion of Mr. Hough. If this sum were divided equally among the members it would amount to $600 per farm.

"The government census figures show that in the last five-year census period, Connecticut has increased her cow population by one per cent. Our dairymen are spending a million dollars a year for the purchase of cows. They are apparently doing this because they consider the cow a profitable animal to own. Could we have purchased these cows if our income had been two million dollars less per year?" asks Mr. Hough.

"Government reports record the present value of Connecticut land at $77 an acre or approximately wartime value. What would be the value of our land if our members received two million dollars less a year and could not buy the cows to maintain fertility or to sell dairy products from?

"I will venture the assertion that without co-operative milk marketing in Connecticut there would be many abandoned farms and lower values would prevail on all farms occupied to the extent of many millions of dollars."

Increasing the membership, the milk contracts, the producing area, the number of markets and dealers, the price of milk, the number of cows, the value of farms, the stability of business, the public's confidence in milk, the consumption of milk, the dealers' confidence, the confidence and understanding of the membership, the prosperity and happiness of the members—these are the results of co-operative marketing in a decade of operation by the association.

The following table shows the growth of the association for the past six years and the price increase:

Year	Membership	Ave. price 4% milk per 100 lbs.	Quarts milk under contract daily
1921	1,445		58,000
1922	2,008	$3.48	118,000
1923	2,487	3.71	204,000
1924	2,934	3.64	224,000
1925	2,923	3.84	234,000
1926	3,100	3.84	277,000
1927	3,352		302,000

The last month reported, November, 1926, shows an average of $4.14 per 100 lbs., the highest price paid members in the history of the organization.

Producing Certified Milk

Scout John S. Thomson of Troop 159, Brooklyn Boy Scouts of America, has written the following article on producing certified milk. It appeared in "The Council Ring," the publication of the Brooklyn Boy Scout Council:

"A certified cow leads a darn hard life!!" That's what I said to my dad after I had visited a certified farm from which some of the milk certified by the Kings County Milk Commission is obtained.

Miss Cow lives in an individual stall with her neck in an oblong collar affair. The "collar" is arranged so that she can stand up or lie down in comfort, eat her meals from her own trough and drink her water from her own private water fountain. It is also possible to adjust the collar in such a way that it is impossible for her to lie down when the dairymen are ready to milk her, clean her, or fit up her stall.

For bedding, wood shavings are used. They are sweet, clean, and easily handled.

At the back, on the floor of the stall, is a ridge which is placed across the width of the stall and so arranged that Miss Cow, when she lies down, keeps herself on the clean floor covered with wood shavings.

Back of stalls runs a ditch where all her waste matter is deposited. It would not be very comfortable lying on that ridge and that is why she keeps her belongings inside the stall, out of the waste and thus clean.

Certified cows only go out of the stalls once in a while for exercise in the yard and a change of scene in the pasture. The food they eat is carefully planned so that she gets nourishment of the right kind to keep her healthy and make her milk of the best quality.

Before milking she gets a thorough currycombing. Her tail is wiped off. Her flanks and udder are washed. She is made so clean that dirt cannot get into the milk. It just isn't there.

The men who do the milking are as clean as the cows. They have shower baths. They have to wash before they work, and get all dolled up in white suits and hats that have just come out of the sterilizer. The milk pails are sterilized in a dry, hot room and so are the stools the milkmen sit on.

When the milker has a full pail he immediately takes it to a receiving tank. He pours it into the tank through a strainer made of sterilized gauze. From the tank the milk runs through a cooler. The cooler is made of covered coils of cold pipes over which the milk trickles.

From the cooler the milk goes through a pipe to the bottle-filler. It enters the bottles through a strainer of sterilized gauze. The bottling ma chine is a round tub that revolves. I has nipples on the bottom that fit ir to the necks of the milk bottles. Th milk bottles are taken from a meta box in which they have been steri ized by steam and placed on an auto matic conveyor. When they get unde a nipple they get pushed up and re lease just enough milk to fill then Then the bottle is conveyed throug the capping and sealing machine From there it goes to the man wh places the hooded, sealed bottles c certified milk in cases and cover them with ice.

The bottle of milk is now ready t be sent to the home of the bab who must have the cleanest mil obtainable.

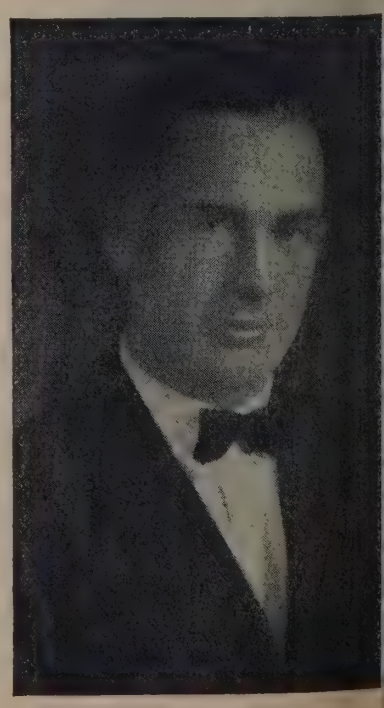
Wild Onions

HOARD'S DAIRYMAN:—For the pas three years we have eliminated onio flavor from our milk by using the fo lowing home-made mixture: Equ amounts by weight of salt and pow dered charcoal, one-fourth amou each of baking soda and powdere sulphur, all well mixed. We usuall add a little cottonseed meal to mak it more appetizing. Two days befo turning the cows out we start fee ing the salt mixture, one heaping t blespoonful at a feed. At first w mix each spoonful of the salt mix i one pound of the grain. As soon a the cows get used to it we put it d rectly into the manger and put th grain on top of it.

Our cows are turned to pasture b 6 a. m. and brought in by 1 p. m Some people say the onion flavor wi not be noticeable when the cows a brought in that early even if the are not fed the salt mixture. Our cu tomers can taste it for two days u less we use the salt, then the mo critical ones never have a sing complaint.

We do not turn cows out on o pasture until about the middle April, not because of the onions b because we have found that it pa big dividends to let the pasture get good start. Last year we had a ve early drouth and one of long dur tion. All early grazed pastures ga out, but our pastures carried through without causing a slump the milk production. We have tw pastures and alternate grazing fro one to the other, usually about eve three weeks. In this way we car more stock to the acreage than could do in any other way.

Virginia. GRACE GORDON.



Ernest M. Wright, newly selected field secretary of the Iowa Holstein Breeders Association, Inc.

News from Washington, D. C.

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, D. C., April 26—Preparations are now in hand for the general census of 1930 which will take place, unless something goes wrong with the necessary appropriation bill to pay the cost, during the month of January, 1930. In this census an effort will be made to get a more accurate count of the dairy cows which has proven a difficult problem. It has been easy to get a record of the number of cows milked during the year, but to segregate these into "dairy cows" and "beef cows" has proven another story. The item required on each farm schedule of total amount of milk produced, while it is believed to have produced a fairly accurate total, has in detail resulted in some very amusing figures being submitted, figures which at best have seemed to be pure guesses.

Continued reports reaching Washington indicate the seriousness of the corn borer situation, and while great expectations are had as to the effectiveness of the extermination campaign now well under way through federal and state co-operation, the general opinion is held here that its steady, although retarded, progress into the corn belt is indicated, and that great changes in farm systems will inevitably result. "The corn borer will not destroy the corn growing industry," says one careful student in the Department of Agriculture, "but it will make it necessary to handle the corn crop differently."

The Bureau of Dairy Industry just at this time is instituting a careful study into the methods of handling bottled milk, to determine the conditions and causes of the rapid and often hard-to-understand increases in bacteria count experienced in milk which presumably has had the most careful pasteurization and handling. Numerous cases have been reported where apparently without cause milk which has been going on week after week with a fine record of low count, suddenly develops a much increased count. The specialists of the Bureau have been surveying numerous milk plants to determine the causes for such phenomenon. In most cases they are successful in locating some weak place which has developed in the system in use. Careless opening of doors in cooling rooms is one frequently found error. Most of the error found is traceable to some human fault or failing. An interesting report will be issued on this study.

The principal dish set before the Dairy Pilgrimage visitors at the luncheon served to them by the Bureau of Dairy Industry at the Department Laboratories was waffles and maple syrup. The waffles were made with the new condensed sour milk, the manufacturer of which has been developed by the laboratories. The maple syrup was supplied by A. M. Loomis, Secretary of the Dairy Federation, and came from a sugar bush in Vermont alongside the bush on the John Coolidge farm, now owned by the President.

A last minute disappointment at the Dairy Pilgrimage was the absence of Secretary of Commerce Herbert Hoover who was scheduled for an address Thursday morning. Secretary Hoover was detailed by President Coolidge, on the Saturday morning before the Federation gathering here, to go to Memphis and take charge of the work of rescue and restoration in the flood situation in the Mississippi and Arkansas Valleys.

A consular report, received last week at the Department of Commerce from Frankfort-on-the-Main, Germany, indicates that German scientists have discovered that the new ultra-violet rays can be used to detect the adulteration and misbranding of dairy products, especially milk, cream, and butter. Under these rays from a quartz lamp, according to this report, butter shows canary yellow, while oleomargarine is bluish white. Adulterated butter can be detected by the change from yellow to the more bluish color. Whole milk shows yellow, skimmilk shows practically no color at all, and milk which has stood for cream to rise shows a yellow band at the top with an absence of color below the cream line.

Jessie M. Hoover, Milk Specialist of the Bureau of Dairy Industry, and her assistant, Florence L. Hall, have just issued an interesting summary of their work conducting "Milk for Health" campaigns in various places in the United States. An increase of 27 per cent in the milk consumption of the United States is noted. These two workers have taken part in more than 60 campaigns. An average of 12 per cent reduction in undernourishment of school children has been noted in the communities where this work has been done.

The U. S. Treasury has recently announced a decision which sets at rest the controversy over cooking compounds made and colored to look like butter, which have been escaping the oleomargarine tax. It is as follows:

"All vegetable or animal oils or combinations thereof, churned, emulsified, or however mixed, colored to look like butter, crystallized, salted, (or unsalted) and worked, will be deemed to possess a sufficient similarity to butter in flavor, texture, and appearance to bring the resultant product within the classification of oleomargarine.

"All compounds referred to above as being taxable as oleomargarine which are found on the market on and after the effective date of this Treasury Decision will be held subject to the tax."

The important feature of this decision is the holding that similarity in "texture and appearance" equally with similarity in flavor to butter brings the product within the scope of the oleomargarine law. This treasury decision is mandatory on all Collectors of Internal Revenue, but obviously their effort to impose the tax may result in further refusal to pay by manufacturers, in which case this would go to the federal courts. In view of this possibility, another case just decided in the U. S. Court of Claims is of great importance. This is a case in which the Jelke concern brought suit for the refund of taxes paid on a fat compound which they held to be a cooking compound but which was as a matter of fact "churned in milk" and therefore which had a flavor similar to the flavor of butter. The court, after a full hearing, rendered a decision against Jelke, holding that the churning in milk was clearly an effort to make the product "in semblance of" butter, and hence oleomargarine, subject to the tax under the oleomargarine law.

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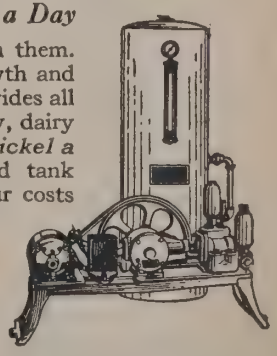
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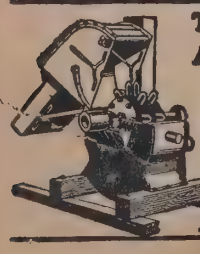
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Seasonable Live Stock Notes

IT is the beginning of another pasture season in the northern states. The yield of a given pasture depends on many factors. One of the most important of these is to prevent overgrazing. The rate of growth of pasture depends much on the amount of leaf exposure to light. A pasture that is continually grazed down closely to the ground cannot make maximum growth. It is especially important to rotate hogs from one pasture to another as often as the growth indicates a need for relief. The new growth is the part most relished by hogs as well as the best feed for them.

Grain to Cows on Pasture

Our correspondence from subscribers indicates a desire to know how much grain should be fed to dairy cows on pasture. A quick way to answer the question is to feed all the grain the cows will pay a profit on. This avoids wasting grain on scrub cows and gives the good cows opportunity to do their best. Three important factors govern the amount of grain that should be fed. They are (1) the abundance and quality of the pasture available, (2) the condition of the cows, (3) the milk producing ability of the cows. If the pastures are good a capable cow will make a pound of fat a day without grain. Cows capable of producing more than a pound of fat a day must have some grain if they are to continue in good condition and produce all they are capable of producing.

Seed a Little Rape or Sudan Grass for Pasture

It is not too late to put in some rape for hog pasture or some sudan grass for either hogs or cattle. Both are splendid pasture crops and where one is not assured of sufficient grazing from the established acreage small fields not included in the regular rotation, fields near the farmstead may be turned to good account with rape or sudan. Rape is seeded 6 to 8 pounds per acre on a fairly fine and firm seed bed. The seed must not be covered too deeply. Sudan grass may be seeded 15 pounds per acre on a seed bed prepared as for corn. Sudan is ready to pasture about 6 weeks after it is planted. Rape will carry 20 to 25 hogs per acre, sudan 15 to 20 per acre. A good many one,- two,- and three-acre plots near the buildings frequently grow up in weeds. Why not turn these to useful production?

Late Winter Calves Too Young for Pasture

Late winter calves offer a problem in feeding management at this time of year. The temptation is to escape the job more or less by turning such calves on pasture. This is a mistake. These calves are not ready for such a ration. They are not accustomed to eating grass; their digestive capacities have not been developed and are not large enough to handle the amount of grass necessary to supply the nutrients for normal growth even though they could eat enough of such feed. Successful dairymen do not put late winter calves on pasture at all the first summer. They continue them on grain, hay, and skimmilk, giving opportunity for exercise and direct sunshine in a yard near the barn.

Give the Bull Something to Do

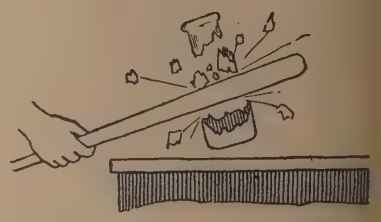
To leave the dairy bull confined in his winter quarters is to deprive him of a useful means of keeping fit for effective service. It has been demonstrated repeatedly that exercise is a potent factor in keeping bulls fit. In the swing from the winter routine work to the busy time of planting don't forget to give the bull a fit place for exercise.

Cull Out the T. B. Chickens

What have you been doing this spring and now to keep the new generation of chicks protected from diseases and parasites? Is your flock of mature chickens free from tuberculosis? If not, what are you doing to keep the disease from the baby chicks? These are important questions right now. County agents and poultry specialists who cull thousands of flocks each year will tell you that quite a large percentage of farm flocks have some tubercular chickens in them. It has been clearly demonstrated that tubercular chickens will infect hogs. It is known that the disease is kept alive in the flock by transmission from the older chickens to the young ones that follow in their scratching paths. Now is a good time to examine all of the older chickens in the flock and to remove, kill, and burn those that are tubercular. If you don't know what a tubercular chicken looks like, find out—ask your county agent.

Examine the Fit of the Collar

It is time to examine closely the fit of collar and harness of the work horse. The fit may have been all right at the beginning of the season but, like many things, needs adjustment. Warm weather causes the harness to stretch. As the horses get



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to the heavier work there may be me change in the size of the neck d condition of the shoulders. Every rse that does his work willingly serves a well-fitted harness.

Castrate Pigs Before Weaning

Young male pigs should be castrat- at about 8 weeks of age and before ey are weaned. To do this shortly ter they are weaned and before they e fully adjusted to their new ration to give them a heavy setback. Ex- eme cleanliness is imperative for ccess both before and for several ys after the operation is performed.

To Prevent Self-sucking

Some cows on pasture develop the bit of sucking themselves. One ay of preventing this and at the me time not interfere with the cow grazing, is to put a halter on her, sten one end of a smooth, stout ck securely in the ring or to the in strap; run the stick between the re legs and fasten the other to a lt placed around the cow's chest.

Time to Set Flytraps

The more flies that are captured d killed during the early part of e season, the less there will be to ntaminate food and antagonize ople and animals later on. The fly- ap is not a cure-all for controlling es; breeding places must also be minated. The flytrap is a great lp if properly placed and baited. Farmers' Bulletin No. 734 of the . S. Department of Agriculture, ashington, D. C., gives descriptions how to make and operate flytraps.

hosphate Pays in Missouri

The average net return from the of steamed bone meal as fertilizer various outlying soils in experi- nt fields in Missouri has been $9.79 each 4-year rotation over a iod of 20 years. The net return m acid phosphate in the same ro- ion but for less time has been 36. The use of rock phosphate shown a net loss of $1.79 for h 4-year period.

When acid phosphate was used h manure the combined net return s $20.81 for a 4-year rotation. e return for manure alone was), leaving the net value of the acid sphate as $10.81. On the same is rock phosphate with manure has wn a loss of $2.93 per rotation.

The Missouri Station ordinarily ommends an application of 250 nds per acre of the 16 per cent l phosphate or its phosphorus ivalent in the 20 per cent phos- te for corn and a slightly less unt for wheat.

arm Building Insulation

OARD'S DAIRYMAN:—Dairymen and k raisers in increasing numbers giving more attention to the fact h a certain percentage of the feed sumed by animals is used to keep n warm. In view of this they are ding their barns, poultry houses, houses, etc., with better con- cted walls to prevent loss of heat n off by the animals. The money t for insulation is saving dollars eed consumed. The stock is more fortable during the cold winter ths and as a result will make e money for its owners. There are he market today various kinds of lating material and lumber sub- tes, some are flexible while oth- are stiff boards or sheets. Each has its particular advantages use. The value of an insulation rial must be judged by its dur- ty and its ability to resist the smission or loss of heat through it. e insulating value of materials for this purpose varies consider- and in view of this care should be exercised in selecting the material used to get one made by a reliable concern whose product has proven its value and has a low heat loss. When selecting an insulating material for the walls of the building to be built or remodeled, consideration must be given to the application so that it will give satisfactory service. Without exception, all good insulating material must be protected from rough usage in order to stand up and give satisfaction over a period of time.

Walls of barns and stables are subject to very rough usage and must be of very durable material. The so-called hard insulation boards will not stand up when used in such buildings as a finish material or sheathing except when used on ceilings or above the reach of animals.

Wood walls are commonly insulated in two ways; one method being to place the insulating material between the studding and sheath the interior with matched lumber as a finish to protect the insulation. Another method is to nail the sheets of insulation to the interior of studding and then apply matched boards over it.

Concrete, stone, and brick walls may be insulated by setting up studding or furring strips against the inner surface, to which the insulation is nailed. Matched boards are then applied over the insulation. New concrete walls often have the furring strips to which the insulation is nailed built into it when it is poured.

For barn ceilings and buildings such as poultry houses where it does not receive rough usage, a stiff insulating board will be satisfactory as a finish without a protective covering. If it is desired to have a better looking job the joints between sheets can be covered with wood strips which will divide the surface into panels and when painted presents a pleasing appearance.

Many of the stiff insulation boards are so constructed that they make a good plaster base and are often finished by plastering directly upon them.

This is a very satisfactory way of finishing the interior of a poultry house.

Wisconsin. THOS. BURTON.



AT LEFT: *Mowing and raking alfalfa in one operation with the Farmall, 7-ft. Farmall mower, and combined side rake and tedder. An ideal combination for speeding up operations and improving hay quality.*

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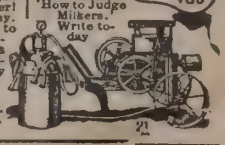
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Ohio Farms With Electricity

W. A. MILLER, OHIO

SAVING three of four lambs, born on a wet rainy night, by drying them with an electric glow heater has made Wm. Ell, a farmer near Marysville, Ohio, a strong advocate of complete electrification. Mr. Ell is one of 13 farmers on average farms on the Marysville power line, all of whom are co-operating with the Agricultural Extension Department of Ohio State University and are enjoying the many benefits derived from rural electrification.

The Ell Farmstead boasts electric lights in the house, barn, poultry house, and barnyard. There is also an electric percolator, sweeper, cream separator, and latest type modern washing machine. When installing the electrical system on Mr. Ell's farm, B. P. Hess of the Agricultural Extension Department of Ohio State University, in charge of Rural Electrification, located a switch just inside of the door to the rear enclosed porch of the house, as well as inside the second door to the house proper, for lighting the light on the porch.

"I couldn't see why so many switches should be used for one light until the first night Mr. Ell and I returned home after the power was turned on," says Mrs. Ell. "That extra switch beside the first door certainly does help. You know how it is returning home after dark, one must fumble and stumble about until the first light is on, then everything is easy. That outer switch makes it easy right away."

Having had the experience of saving lambs, Mr. Ell remarked to Mr. Hess, "I wish you would get me about 50 feet of wire and run a line over to that little shed over there. I have a sow that is going to have pigs soon and if we have some cold, windy nights I'll just take my little glow heater out there and fix things up."

Stopping at another of the farms we found a dairy barn equipped with light and an abundance of plug-in sockets and switches, as well as an electric milking machine. In the grain crib were grain elevator, feed grinder, and large double feed corn sheller all operated by a five-horse power electric motor. The house on this farm was equipped with a deep well pump and a water softener.

On the farm of J. P. Renner is found an imposing list of electrical equipment including a fireless cooker ironer, fan, percolator, toaster, heater sweeper, washer, five-horse power motor, two-time switches for lights in his poultry houses, a deep-well pump, a shallow-well pump, two brooders of 500 chick capacity each and an incubator of 165 egg capacity. All of this is in addition to complete lighting on the farm. Mr. Renner has water piped from his deep-well pump to five different places besides the house. "I'll never have any more use for the old wind pump," says Mr. Renner.

One of the outstanding features of electrification is the fact that in most instances it brings running water to buildings on the farm and white shining sinks to farm home kitchens. Farmers are discovering that they can pump water cheaper with electricity than they ever imagined possible. One man reports pumping 500 to 600 gallons on less than one kilowatt hour of electricity.

On another of the farms, Albert Raush, the owner, says that with his corn sheller and electric motor he shells all the corn for 39 hogs for one month with a consumption of only four kilowatt hours of electricity.

All of the farms have at least one light advantageously located in the barnyard with switches for controlling it usually located in several different buildings. Feed grinders, considered heavy users of electric current, are used on 12 of the 13 farms. Several of the farms have combination grinder and corn sheller outfits hooked up in various ingenious ways. Two electric refrigerators are being run all winter. Three farms have electric ranges and two more have orders in, so it looks like the old wood pile is eventually doomed.

Electricity, through the medium of rural electrification and the many modern appliances, has and will work wonders in rural communities. The cheery mien of the farmer's wife on the electrified farm reveals the pleasure derived from the use of her drudgery-saving devices.

The Marysville installations are a part of a national rural electrification movement now on in 22 states including Ohio. This movement is sponsored by a National Committee on the Relation of Electricity to Agriculture

From Renter to Owner

HOARD'S DAIRYMAN:—Five years ago John Sims, County Agent of Hillsdale County, Michigan, asked that a dairy record project be started in Woodbridge township. There was no C. T. A. and record keeping was a new idea, but Earl Speith, a renter at that time with a herd of grade Jerseys, consented to co-operate. Jan. 1, 1927, completed five years of record work in his herd. A compilation of his five years' work shows that his herd has averaged six cows in milk for 317 days, with an average production of 6,781 lbs. milk containing 314 lbs. fat per cow. Each year there has been two heifers added to the herd and older cows sold.

After studying his work, and knowing that he had purchased an 80-acre farm two years ago, I asked Mr. Speith to tell me something of his work. He replied by saying, "Wife and I are partners. Such success as we have had is the result of her help and understanding of the problems that confronted me." I found Mrs. Speith helped with the milking when necessary, did her own sewing, and has raised and sold $3,850 worth of poultry and eggs in the past 13 years.

Mr. Speith started farming 1 years ago with an indebtedness of about $1,000. Not being able to buy a good cow, he purchased an open yearling Jersey heifer for $17; sh



MR. AND MRS. SPEITH AND DAUGHTER, ONNELE

vas said to be pure-bred but not registered. This cow, now 15 years old, s mother, grand, or great-grand-nother to his entire herd. During he past year she milked 8,953 lbs. of nilk with a fat content of 394 lbs. At the present time he has 13 head f females, and has sold 15 head.

For a number of years Mr. Speith rove his cows five miles in order to



TURKEYS AT FEEDING TIME

ave the service of a registered Jer-ey sire. He says the neighbors used o laugh at him for going so far. In ne first 12 years $4,800 was paid or cash rental of farm. When the ew farm was purchased two years go they remodeled the barn and Irs. Speith says that the barn will elp fix the house.

Mr. and Mrs. Speith take an active art in community work, have two ildren, and are living comfortably nd within their means. Who wishes o say they are not successful?

Michigan. RAY BAKER.

Dairying in the Yakima Valley

HOARD'S DAIRYMAN:—Our country so far from Wisconsin and condi-ons are so different that we have ought Hoard's Dairyman readers ould be interested to learn some-ing about dairying out here.

Our valley is so noted for its fruit oduction that it is seldom thought as producing anything but fruit. airying is, however, an important dustry. We have a live dairymen's sociation here with one plant in r city and another one fifty miles wn the valley. Besides these there e several privately owned plants d some cream shipping stations.

As you readers probably know, we do not depend on rain for our mois-re in raising any crops. We de-nd almost entirely on irrigation lt on some of the low lands near te streams the water in the ground iso near the surface of the ground tit crops are grown by subirriga-tn. It is on these lowlands that rst of the dairies throughout the lality are operated. Pastures do vll on these lands and water is easi-l obtained for stock watering which i not true on the higher lands where cterns are the only water supply dring the winter months when the irigation water is off.

Do I hear you ask, what do we f d our cows? Alfalfa hay is the nst common and principal feed and cvs do fairly well on it alone, al-tlugh continued good production is n assured.

On our own ranch, or farm, as e tern people would call it, consist-i of 40 acres, there are about five a es in dooryards, barnyards, and w ste land where no attempt is made t raise any crop. There are also fi acres set to young pear trees and tl crops grown between the trees a not used in feeding stock. This l ves about thirty acres on which c produce the feed for our twenty c s, bull, and two mules.

We will use sweet clover in two p tures and bluegrass in the third p and are confident we can raise e ugh corn to make plenty of silage c the cows during the winter. We raised twenty tons of silage per acre last year. We find that cows that have plenty of good silage do not need much hay. We buy alfalfa, using the stack-burned hay if we can get it, as it is cheaper and also better feed. We bought some of this class of hay baled at $10 per ton last fall and later bought some hay in stack at $10 per ton and paid $2 per ton to have it chopped. Besides the hay and ensilage for winter feed we give the cows about 5 lbs. each of mill feed.

Since selling our milk in bottles we have discontinued the raising of hogs but expect to take it up again if we can produce enough pasture for them over and above what our cows take. Hogs can be produced without much grain when we have pasture and can get cull fruit for them. Ground barley is not an expensive feed with us.

Quantities of alfalfa hay are raised in our valley. A good farmer on good land should produce five tons per acre in the three cuttings. Understand me, not five tons in each of the three cuttings but five tons in the three cuttings together. Some produce more than five tons per acre but more do not produce that much.

Climate is a big asset in dairy work here. Last season we pastured for seven months, turning our stock out the first of April and yarding them on November 1. December and January are the only cold and stormy months we have and winds are uncommon during any season of the year. Irrigation is a lot of work but it is also a great convenience to be able to put up hay or any other crop, or do any of the many jobs on a farm without fear of interference by rain or wind storms.

We are selling 180 quarts of milk per day and getting 10c a quart for it. It is rather difficult to make our place pay as we are not on the place and all the help is hired.

Yakima, Wash. H. C. F.

Emmadine Farm, New York, reports that a total of 81 A. R. records have been completed by their Guernseys, less than half of them made by mature cows. The records show an average production of 11,140 lbs. milk, 580.5 lbs. fat. But one cow was fed as much as 12 lbs. of grain a day, and the ration for a majority of these test cows was over half composed of bran, hominy feed, and ground oats.

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And yet DL Water Systems are low in price —as low as $83 f. o. b. Dayton, Ohio. Like other products of General Motors, they may be bought on the General Motors plan of deferred payments.

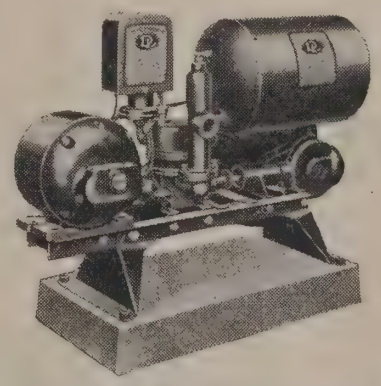
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DAIRY MARKET NEWS

Twin City March Milk

The Twin City Milk Producers' Association paid $2.50 a hundred for 3.5 per cent milk delivered in St. Paul during March. The Association handled 27,838,457 lbs. milk, of which 53.5 per cent was surplus.

Cream patrons were paid 58 cents a pound for butterfat in first grade cream during March. This is 8 cents above the average price of 92-score butter on the New York market.

April Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 111 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributors' country plant:

Table I—April Producers' Prices by Geographic Sections.

Sections	Range of prices per cwt.	Comparison of average prices 1927 Apr.	1927 Mar.	1926 Apr.
New England	$2.69—3.95	$3.32	$3.33	$3.44
Middle Atlantic	2.35—3.00	2.80	2.83	2.68
E. No. Central	1.80—3.13	2.52	2.57	2.59
W. No. Central	1.66—3.10	2.32	2.35	2.17
South Atlantic	2.80—5.00	3.62	3.60	3.78
E. So. Central	2.05—3.39	2.46	2.62	2.44
W. So. Central	1.90—2.70	2.33	2.44	2.66
Mountain	1.79—3.20	2.33	2.35	2.36
Pacific	1.70—3.13	2.54	2.60	2.82
United States	1.66—5.00	2.71	2.73	2.80

Table II shows for certain representative city markets the prices of standard grade milk (Grade B test 3.5%) received by producers f. o. b. city and paid by consumers:

Table II—April Producers' Prices f. o. b. City and Consumers' Prices.

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.	$3.42—3.91	17
Phoenix, Ariz.		10—12.5
San Diego, Calif.		15
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	2.10	12
Hartford, Conn.	4.22*	16
Washington, D. C.	3.60*	15
Jacksonville, Fla.	4.01—4.53*	18—21
Atlanta, Ga.	2.80	
Chicago, Ill.		14
Indianapolis, Ind.	2.10	12
Des Moines, Ia.	2.65*	12
Topeka, Kans.	2.10—2.20	8—12
Louisville, Ky.	2.42—2.59	13
New Orleans, La.	2.81*	14
Baltimore, Md.	3.55	14
Boston, Mass.	3.62*	14
Detroit, Mich.	3.00*	14
St. Paul, Minn.	2.70*	11
St. Louis, Mo.	2.60	13
Butte, Mont.	2.60	13
Lincoln, Nebr.	2.01	10
Trenton, N. J.	3.41	13
New York, N. Y.		15
Cleveland, Ohio	3.24	14—15
Tulsa, Okla.	2.45	15
Portland, Ore.	2.10	12
Philadelphia, Pa.	3.49*—3.52*	13
Pittsburgh, Pa.	3.45*	14
Providence, R. I	3.62*	14.5
Sioux Falls, So. Dak.	2.50*	12
Memphis, Tenn.	2.58—2.73	15
Dallas, Tex.	2.60*	13
Salt Lake City, Utah	2.45	10
Richmond, Va.	3.83*—4.05*	14
Seattle, Wash.	2.83	12
Spokane, Wash.	2.15	10
Milwaukee, Wis.	2.90*	11

*Basic prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at the producers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III—April Prices at Country Stations.

	At country stations	Freight zones to which prices apply
New Haven	$3.70*	28c rate
Washington	3.02*	35c 10-gal. can
Chicago	2.50	All
Baltimore	2.97*	35c rate
Boston	2.86*	181—200-mile zone
St. Louis	2.00	34c rate
Trenton	2.85*	41—50-mile zone
Buffalo	2.62*	28c rate
New York	2.95*—3.00*	201—210-mile zone†
Cleveland	2.86*—2.93*	All
Pittsburgh	2.70*	All
Philadelphia	2.91*—2.95*	51—60-mile zone
Scranton	2.82	30c rate
Dallas	1.90*—2.10*	All

*Basic prices for fluid milk. †53c rate.

The following net prices were reported paid to members of producers' associations supplying the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade, and the latter applying to that portion classed as "Surplus," which is used for manufacturing purposes:

Table IV—Net Prices Paid Members of Producers' Associations for 3.5% Milk.

Cities	Paid*	Period	Previously announced prices for same period Basic	Surplus
Hartford	$3.97	Feb.	$4.22	Butter markets
Des Moines	2.49	Feb.	2.65	$2.15
Baltimore	3.47	Feb.	3.55	Butter markets
Boston	2.51‡	Feb.	3.62	Butter markets
Detroit	2.89	Feb.	3.00	Butter markets
St. Paul	2.50	Feb.	2.70	All milk pooled
New York	2.67†	Feb.	3.00	$2.31—$2.56
Akron	2.86½	Feb.	3.40	$2.00
Philadelphia	3.455	Feb.	3.49	Butter markets
Pittsburgh	3.375	Feb.	3.90	Butter markets
Milwaukee	2.66	Mar.	2.90	Butter markets
Duluth	2.42	Mar.	2.89	All milk pooled

*F. O. B. city unless otherwise indicated.
‡181—200-mile zone. †201—210-mile zone.

Table V gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat.

Table V—April Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Akron	15—18	20	8	10	16
Asheville	19	25			20
Baltimore		30	14	15*	16
Boston	18½	26	10		
Buffalo	14	26	10	15	20—22
Chicago	17	25	10—20	15*	16
Cleveland	19—20	25	12—13	15	17—22
Columbus	17	25	12	15	14—15
Denver	14		8	14*	12—14
Des Moines	14—25	20	11	14	13—14
Detroit		25	35		16
Duluth	14	25	8		17
El Paso	17		10	20*	15—17
Indianapolis	16		10—12		13—25
Jacksonville	25		10—12	30	20—30
Kansas City	15	25	10	20	10—15
Lincoln	14	15	10	15	10
Louisville	16—17	24	13	15*—17*	16
Memphis		30	6—7	20	13—15
Miami	30	28—35	20		25—30
Milwaukee	14—18	25	6	9—10	13—14
New Orleans	18	31	14		17
New York	30	28	11		
Philadelphia	15—16	30	9—13		17
Pittsburgh		25	10		17
Salt Lake City	15			15	15
San Diego	20	28—32	9		15
San Francisco		25	14	20	20
Seattle	25	18		20	15
St. Louis	18	25	10—18	15	17
Trenton	17	30	13		15—16
Washington	18—22	30	15	15—20	20
Wilmington	20		10	13*	17

*12 oz. Package †18 to 25% Fat.

Butter and Cheese in April

The 51-cent average for butter on the New York market for the first 26 days of April gives assurance that the average for the whole month will be the highest on record by nearly five cents, except in 1919 and 1920 when butter reached 62 and 67 cents. That the price seems unduly high to buyers is indicated by the erratic course of the market as shown in the accompanying chart. Butter opened at 50 cents, rose and fell rapidly, and closed on April 26 at 47.5 cents. Apparently buyers felt prices should rule lower, and the market was very sensitive to the supply. April cheese prices declined one cent from the opening price of 23 cents on the Wisconsin Boards, averaging 22.3 cents for the first 26 days. However, the average is only one-tenth cent below March, while it is 3.3 cents above April a year ago.

March Dry Milk

(From U. S. Department of Agriculture)

The wholesale prices given below are based on reports from manufacturers covering actual sales F. O. B. factory du March:

Dry Skimmilk: Prices ranged from cents to 11.5 cents for dry skimmilk in averaging 9.3 cents a pound for sales ing 6,324,616 lbs. When packed in pound cans the price reported was 31.7 a pound.

Dry Whole Milk: Prices ranged fro cents to 28.5 cents for dry whole milk, aging 27.5 cents for sales totaling 52 lbs. When packed in one-pound cans price reported was 46.6 cents a pound.

Dry Buttermilk: Prices ranged from cents to 10.5 cents for dry buttermilk in averaging 8.9 cents a pound for sales tot 2,594,715 lbs. When packed in one-p cans the price reported was 10.3 cen pound.

The Wheat Market Situation

(By the Grain, Hay and Feed Market Service, U. S. Department of Agricult

Under the influence of an urgent con ing demand wheat feed prices have made ther advances during the past two weeks though shorts and middlings have been tively weaker than bran. Pasturage has become available as rapidly as appeared sible in March and offerings of most feeds have been only moderate. Less strength i corn markets has also favored slight adva in feedstuffs prices.

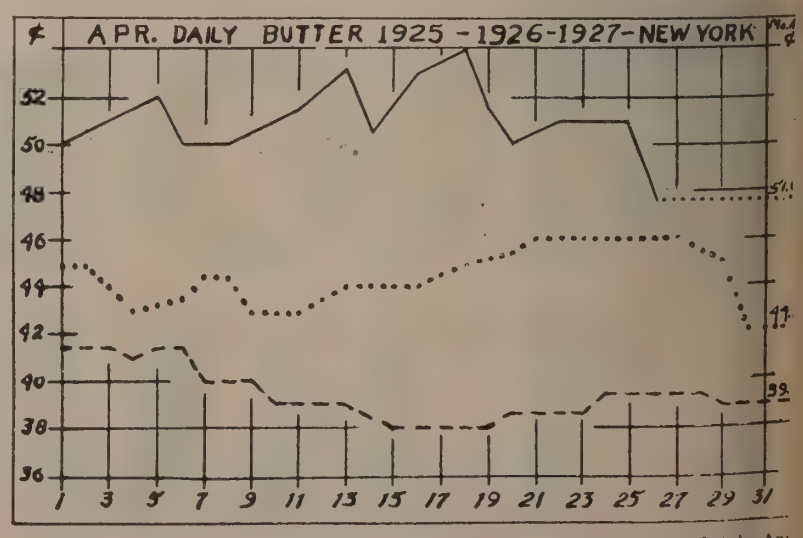
Demand for bran has been especially a in the Northeast. Bran on hand at P delphia is quoted about $4 higher than June shipment and Buffalo mills are about three weeks behind on shipping ins tions. Only limited amounts of Cana wheat feeds were available in the Nort both because of slightly restricted grind and on account of the demand for these in Canada. Hardly any bran could be bo at Minneapolis until after the first of but middlings and the heavier feeds were atively easier at that market. Eastern de was active at Kansas City while large were reported to California. Flood condit were restricting inquiry for wheat feeds i South but dealers expected a good trade this territory when transportation difficu should become cleared up.

Linseed meal has been irregular. Offe of 34 per cent meal at the present wr (April 26) are scarce at Buffalo but de at that point was less active for 32 per meal, which was being offered freely prompt shipment. Limited offerings held Chicago market firm but at Minneapolis light production of the local mills was plemented by considerable amounts of from outside points, which resulted in easier situation.

Cottonseed meal has been somewhat aff by flood conditions in the South which have destroyed or damaged some meal prices have been influenced upward. S of cake and meal on April 1 were abou same as on this date in recent years with exception of last year when they were e tionally large. Exports of cake and meal been much larger this year than last but difficult to tell what proportion of e sales were made early in the season prices were much lower than at pr Crushers had around 10 per cent more tonseed on hand on April 1 than a year Demand recently has been slightly more tive and although it is mostly in carlots smaller units it has accounted for a amount of cottonseed cake and meal.

Gluten feed has moved briskly at the r tion to the "grass price" basis. Some o independent mills were practically out o market at Buffalo but the Corn Products pany there continued to offer freely at basis, which carries a premium of 50c for each successive month after Apr which shipment is made. Orders were coming in freely in central western terr

Hominy feed has advanced at most ma in sympathy with strength in the corn



The upper black line represents the erratic course of the New York market in Apr of this year when the supply of butter was very short, the dotted line in the midd the course of the April market in 1925, and the broken line at the bottom the mark in 1926 when the supply of butter was relatively large.

Some export trade was reported at Phil- ia and most of the larger mills were sold Buffalo for the next few weeks although rs at that point were pressing sales of eed, especially in transit and for imme- shipment. Demand was quiet at Balti- but prices at Cincinnati and Chicago affected by the destruction of a large elevator at Springfield, Ill., although the offerings at Cincinnati were equal to t requirements there and demand was at Chicago. Prices advanced $1—2 a t Omaha.

kage continued in fair demand but were reduced $5 a ton at Chicago in with the recent reduction at other ts.

alfa meal continued very quiet. Best s were nominally steady at Chicago and y was very poor at Kansas City al- h manufacturers were reporting an in- d inquiry from feed mixers in central . Texas dealers were expecting new crop to be on the market in that territory in

tations on April 26 were as follows:

	Bos- ton	Buf- falo	Phil- adel- phia	Chi- cago	Min- neap- olis	Om- aha
	37.00	32.00	36.00	31.00	28.25	
ings	36.50	33.00	36.50	31.00	28.00	
. S.						
l	42.00	39.00	39.75	36.50	37.00	35.10
. S.						
l		47.00		49.50	48.00	53.50
feed	36.75	33.50	35.60	29.60	32.80	
ny	33.00	29.50	33.00	28.00		27.00

andard spring bran. Hard winter wheat was $27.75 in Kansas City and $32.50 in nnati, with soft winter wheat bran $30 . Louis and $35 in Buffalo.

April Condensed Milk

U. S. Department of Agriculture)
ces paid producers for 3.5% milk F. O. tory were as follows for April, reports ng those factories manufacturing both and bulk goods:

aphic ion	No. of factor- ies	Range	Aver- age
England	1	$2.30	$2.30
e Atlantic*	12	2.20—2.56	2.41
orth Central	80	2.02—2.30	2.15
orth Central	6	1.75—2.20	2.02
Western	6	1.84—1.85	1.84
Western	10	1.84—2.20	1.98
d States	115	1.75—2.56	2.14

ty-three additional factories reported to be based in part on the current 's wholesale butter quotation. Twenty- actories reported prices not determined t and 20 reported plants closed.

nufacturers' wholesale selling prices for ned condensed and unsweetened evap- milk were as follows for March:

	Range	Aver- age
nsed, per case	$5.34—$6.55	$5.93
nsed, per cwt.	9.50—13.00	10.44
rated, per case	3.80— 5.05	4.34
rated, per cwt.	7.50— 9.42	8.58
nsed skim, per cwt.	5.00— 7.00	5.87
rated skim, per cwt.	3.00— 6.45	4.00

wo Wisconsin Holstein Sales

the Lake Mills, Wis., Holstein gnment sale held April 12, 59 brought $8,165, an average of with $395 the top figure. The rs were from Pennsylvania, Illi- and Wisconsin, the out-of-state rs taking about one-third of the ng.

erages for cattle of the different lasses are as follows: Nine bulls, ges, averaged $80; 6 heifers un- wo years, $71; 19 two-year-old rs, $156; 6 three-year-olds, $176; ws four years old or over, $158. and Everson did the selling.

Madison, Wis., the two days im- ately following, 116 head were for $15,770, an average of $136. top price was $270 paid for a typy 5-year-old cow.

erages for the different age es were as follows: Twenty-three averaged $125; 24 heifers under years, $94; 8 two-year-old heif- $133; 8 three-year-old heifers, 53 cows, 4 years old or over, Everson, Krause, and Pohlman he selling at Madison.

The Corn Borer and Good Plowing

HOARD'S DAIRYMAN:—The rapid spread of the European corn borer in Northeastern United States and more especially in the Great Lakes region —Michigan, Indiana, Ohio, Pennsylvania, and New York—reminds us of the fact that the plow has again become the basic tool of warfare against the pest. The grave menace of the corn borer makes every farmer anxious to do the best possible job of plowing.

During the last few years, no farm tillage operation has been more neglected than plowing because we have had tools that would give the surface a pretty thorough stirring even if the plow did cut and cover or leave some stalks on top. Much plowing has been merely a matter of turning the furrow slice up on edge rather than completely turning the soil.

Just a little sketch will show why the corn borer despises the plow operated by a careful plowman. The corn borer passes the winter as a worm hidden in the burrows of the cornstalks. They continue as worms until well along in May when they change to the resting stage. The pupa stage is terminated in late June when the moths emerge and fly during late June, all of July, and the fore part of August.

From a study of the habits of the insect in its various stages it has been found that when stalks which contain the borer are completely covered with soil, the worm comes out of the stalk and works its way to the surface of the soil. If it finds bits of cornstalks or cobs on the surface, it goes into these and completes its life cycle but if no such remnants are found, birds and other predators consume the worms. Moreover, a very little direct exposure to the sun and wind is death to the corn borer.

So it is that the plow is the one tool by which millions of these borers can be forced out of their hiding places and out into the open. And farmers in the infested areas are studying the art and science of plowing as never before. Plowing is an art that every farmer must master.

In general, wide bottom plows do a more complete job of turning under standing stalks than narrower ones. The best jobs I have seen were done with 16" and 18" plows although I am forced to believe that for the other plowing jobs on the farm, narrower plows are preferable. Years ago the jointer was considered an indispensable attachment but later this was taken off as a sop to speed. But now with the imperative necessity of doing a clean job in order to pass the government inspection, the jointer has come back into its own, especially when combined with a rolling cutter. Rolling cutters of large diameter pull easier and cut the stalks better. They do their best work generally when adjusted to about a half inch to the land from the plowshare since this causes the furrow slice to wedge in beside the last furrow when the first fitting tool is put on.

Where cornstalks are light or where they have been pastured, the combination cutter-jointer does a satisfactory job. Where they are heavy, as they are in unpastured fields of the corn belt, there is required still another simple attachment to most satisfactorily turn the trash down. On a walking plow, a chain does better than anything else but the links should not be too large. If the links are too large, they will catch the cornstalks rather than drag them under.

On the sulky plows, three wires attached to the cutter shank seem to do the best work, and in many cases they do better work if the stalks are still fastened at one end rather than when previously cut up with the disc. This will vary some with the plow but in general attaching the wires so they will trail back about equi-distant up and down will accomplish a good job if the wires are so long that the weight of the furrow gives them tension enough to draw the loose stalks and trash up close to the soil.

Three No. 9 wires, each from twelve to fourteen feet long, do the most satisfactory work. Attach one as far down as possible on the cutter shank, attach the next one in the middle and place the top one on the cutter shank but just under the beam. There is on the market a disk coulter—I don't mean a rolling cutter—that combines cutter and jointer functions and will become a very valuable plow attachment in corn borer districts.

No farmer should consider that these details of how to do a more complete job of turning apply only to those who are unfortunate enough to be in the large territory already infested. The fact is that now the pest is on the divide where the water on the north drains into the Great Lakes basin while the land to the south drains into the Wabash, Ohio, and Mississippi river valleys. Even the most ardent believers in the efficiency of quarantine and clean-up doubt that the pest can be kept from eventually invading the fertile acres of the corn belt. We are told by some reputable entomologists that all of us must learn to live with the corn borer and if that is so, then we can best stave off the evil day by doing a thorough job of plowing before it gets to us.

Indiana. I. J. MATHEWS.

Superintendent Gardner of the Holstein-Friesian Association of America reports that the 5-year-old cow, Pansje Prilly Abbekerk, has just completed a 7-day record of 40.39 lbs. fat (50.49 lbs. butter) and 567.1 lbs. milk. This new record breaker was bred by the Bridgford Holstein Co. and is owned by Mrs. Fred Stenzel of California.



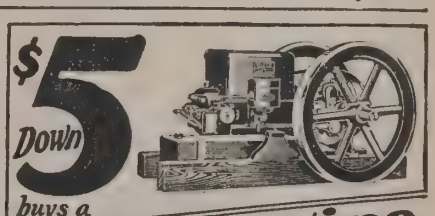
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The Laborer is Worthy of His Hire

One time I got some printed figures that had been worked out by a couple of women showing how much a farm woman's work was worth, supposing she was getting paid for it. If she made a plain cake they figured that she had earned so much, just as if she was hired; if it was a fancy cake, it was worth more, and so on.

Shortly after that I was talking to a very intelligent man of wide experience with all sorts of people and I asked him what he thought of my writing something about the value in money of farm women's work with a view to its appearing in Hoard's Dairyman.

"Don't do it," he said instantly. "Let the farm women alone with such ideas; no use in putting fancy notions into their heads about how much they are worth." We passed on to other topics but I couldn't help wondering if he thought farm women were so narrow-minded that the only way to make out with them at all was to keep them in total ignorance of what is going on around them.

I well remember one time when the census taker came to our house years ago. He asked my father this and that when filling out his papers and finally, in a perfunctory fashion, "Your wife has no occupation?" and my father replied, "Oh, no, none at all. All she ever does is to tend seven children, raise chickens, run the house, look out for the garden, help at the church and school, feed the hired men, and a few little things like that but of course from the census point of view she has no occupation and I guess we'll have to put her down that way."

Farm women, as well as other women, should realize the value of the work they are doing, not so that they may become discontented about it and try to start a reform or something, but so that they may find joy in it. Too many people are like the man who, when asked what his youngest daughter was doing, replied, "Nothing. She's just keeping house out on the farm." Now, no woman is going to be very happy doing work that is generally classified as "nothing." She must feel that she is doing something of enough value so that if it remained undone, some life or lives would be the worse for it. That sort of work has value whether the woman doing it ever gets—or wants—pay for it.

Sometime ago I heard a speech by Mrs. Nellie Kedzie Jones of the University of Wisconsin—a woman who has more sympathy and understanding for the problems of the farm mother than any person I have ever known. Some of her facts and figures will be sure to interest you and I am going to give you part of her talk. I am omitting the opening part on budgets for lack of space.

"There are today in this country more than 40 million females, ten years old and over, listed in the census. Of these, more than 31 millions are not listed as being occupied. One of these probably is the farm woman the hired man told about. He was telling a friend about the new place in which he was working. 'The woman turned to me this morning from baking pancakes and said, 'Do you know how many pancakes you have eaten this morning?' 'I told her I hadn't had no call to count 'em and she said, 'Well, this is your twenty-sixth' 'and I was so mad I went right out to work without my breakfast.'

"It may be of interest to know where the women who are listed as gainfully employed are working. There are 1,737 women clergymen, 1,829 women dentists, 7,200 women physicians and surgeons, and 10,075 college presidents and professors. There are 564,000 women stenographers and typists while there are only 50,000 men in the same field and it is interesting to note that in aeronautics there are 1,300 men while only eight women have entered the profession. In short, while there are over 31 million women, over 10 million not listed, there are still large numbers who, even in the census, are given credit for doing productive labor. But is it not productive labor when such meals are prepared and placed before a family of growing children that there results splendid men and women? Is it not productive labor when such meals are prepared for a man that he can carry on the finest kind of labor? Is it not productive labor when a man or woman can so be cared for in a home that every day's work is a joy and pleasure because of good health?

"If a woman spends one hour of a day night and morning milking, should she not have the credit of two hours of hired man's work? When the wage of a household worker is saved by the woman in the home, is that not income and should it not be credited to her? It seems to me very possible to say, when the mother makes a dress for herself or for the children, that it should be credited as productive labor, and so on all down the line. When illness comes, the mother who tends the sick child should be credited with the price of a trained nurse. Whatever she lacks in technical skill, she will more than make up by the love and devotion she puts into her task. Whatever is done in the home in the way of definite tasks, should be credited with the amount that would have had to be paid if the work had been hired done.

"I suspect that in many a home the woman's income, so credited, might be twice that of the man. On many days the farmer does his chores, comes in, and sits down, while the woman goes right on, rain or shine, finding tasks to keep her busy all day and far into the night. Of course, there are a thousand things done by the mother that cannot be credited; first aid for the little fellow who has pinched his thumb; understanding of the boy who has been teased by the neighbor children because he loves his dog; help for the girl who has come to the awkward age and sometimes tries to cover it up by being pert when she doesn't really mean it; smoothing the way for the boy who has come to the age when he is all hands and feet. All these are the special privilege of the mother and no one can ever put a money value on them.

"There are, however, enough tasks through the long day to credit the mother with an appreciable income. If the farmer in his budget is planning to put in his labor at so many dollars a month when calculating the money end of his farming work, there surely is no reason why the wife should not have her work listed in the same way.

"It is not necessary, and perhaps it is impossible, to list such work in the census but the woman in her heart should appreciate that she has given such service. After finishing haying and harvesting when the farmer feels that he has a right to go fishing, his wife should equally well be able to plan for a little release from her 'three meals a day, 365 days a year.' The hay and grain go to the making of better cattle, sheep, and hogs but the regular meals of wholesome food go to the making of better men and women and who shall say that this is not productive labor?"

It was with no intention of making anyone dissatisfied with her work that I decided to write this, but only with the wish to make farm mothers feel that their work has a tremendous value, no matter if they never see a cent in pay for it. It makes my heart ache to see a thing like this happen. I was eating a fine farm-raised and farm-cooked meal, prepared by a plucky but not overstrong mother of several children. At the table there was one of those beasts of men—



VIEW FROM FRONT YARD LOOKING TOWARD THE BARN AND SHOWING THE SCREEN OF SHRUBS AND FLOWERS ON THE FARM OF MRS. J. M. SMITH, INDIANA

Miscellaneous Fashions



No. 2939—Exceedingly Smart. Cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 3¼ yards of 40-inch material.

No. 3004—Slender Lines. Cuts in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 3⅜ yards of 40-inch material with ⅜ yard of 40-inch contrasting.

No. 3021—Clever Belt Arrangement. Cut in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 3 yards of 40-inch material with 4¾ yards of 1¼ inch ribbon.

No. 3009—Smart Junior Costume. Cut in sizes 6, 8, 10, 12, 14, and 16 years. The 8 year size requires 1 yard of 36-inch material for skirt and 1⅜ yards of 36-inch for blouse.

No. 2639—Junior Frock with Flare. Cut in sizes 6, 8, 10, 12, and 14 years. The 8 year size requires 2 yards of 40-inch material.

No. 2741—For the Smart Matron. Cut in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 3 yards of 40-inch material with 1½ yards of 20-inch contrasting.

No. 2932—Youthful Apron Design. Cut in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 3 yards of 36-inch material with 7 yards binding.

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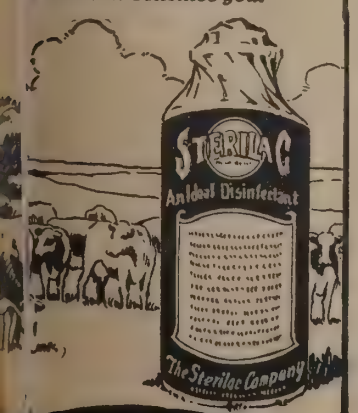
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that's the only name I can think of that fits—who has the idea that on the farm things just happen without any work. He took a fancy to the red raspberries, canned the summer before, and ate and ate until I wanted to weep, for no woman ever minimizes the work that goes into the picking and canning of such fruit. If this man had had to go and buy a similarly good product in the store he would have whined in protest at the terrible price, for they are very expensive. After he had had his dish filled twice he, in a semi-apologetic fashion, accepted an invitation to have some more and Mrs. A. had to open another can. "Oh, it's all right," she said. "They didn't cost a thing. I had the cans, and the berries grew up in the pasture."

I wanted to say, "No, all they cost was hours of an aching back over the bushes, more hours over a hot stove, strength to turn those lids onto the jars, and pricked fingers that were sore for days, and if you had gone to buy them at a little food shop as I did once you would have paid $1.25 a quart or else you would have done without them."

Your work *is* valuable and things like that *do* cost something though never a nickel of money is spent, and a modest realization of one's worth in the world is one of the finest assets one can have in the way of really productive work.—LUCY THOMPSON.

Neighborly Notes

'Tis Friday afternoon in the country and this means mothers' club in the rural school districts. Let us lay aside our work for today and visit one. Driving up to the schoolhouse early in the afternoon we find several cars there already.

School is not out, but the teacher will be very glad to have us visit school until dismissal. In fact, that is one thing about a mothers' club that the teacher likes so well. The mothers come early and visit school. In this way they learn what the teacher and the children are accomplishing. Both the children and the mothers of the country have needed greatly this contact. Until recently it was a rare thing to have a mother in a rural school visit it. It was all left to the teacher. The parents did not feel that any duty rested upon them after they had hired a teacher and sent their children off each day.

We hear the little ones recite and are astounded at the words they can read and spell. The second graders surprise us with their arithmetic. We hear the upper classes recite history and geography and we are all interested in hearing their current events class. How things have changed since we attended school—and it was not so very long ago either. Now the children sing and we should like to join in the chorus. Gathering up their books they march out in orderly file to the tune of "On Wisconsin" played upon the Victrola.

After they have gone the mothers gather together in small groups and visit for a few minutes. The teacher brings forth some of the children's notebooks for us to look at—notebooks of physiology, history, geography, arithmetic, and a booklet they have made of reproductions of famous paintings and the story of each masterpiece.

The president of the mothers' club now calls the meeting to order and we hear the minutes of the last meeting read and approved. We are fortunate, for this seems to be the day for several yearly reports to be given and thus we can ascertain just what they accomplish in a year.

The sunshine committee gives its report and it is surprising the number of plants and cards they have distributed among those sick or in sorrow. They have also given a silver spoon to each new baby born within the district and have sent a sum of thirty dollars to a relief fund.

Several ladies who have attended a convention of mother's clubs and of parent and teachers' associations at the state capital give a report of this convention and bring back numerous new ideas for the home club, ideas they have gathered from these various other organizations and their activities throughout the club year.

Next the secretary gives the yearly report for this mothers' club and we learn that they have accomplished many things, most of which were suggested by the teacher. First they bought and fitted out a medicine cabinet to be used by the teacher for first aid. Often a child is injured while playing and needs first aid badly.

Next they purchased a scale for the children to be weighed upon each month in order to check their weight and height and find who were undernourished. These children were supplied with milk at the noon hour each day.

They had subscribed for a daily newspaper and three magazines for the school children to have for their study.

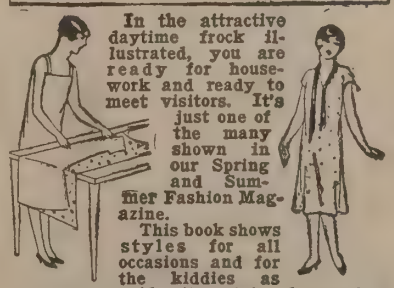
Probably the most expensive venture had been to purchase playground equipment, consisting of four teeter-totters and six swings. This was something needed very much. Children cannot expect to be kept out of mischief and out of harm's way unless they have some clean, healthful recreation. Next year they hope to add a couple of slides for the children.

The year previous the mothers' club had purchased the Victrola for the school and now the question has

(Continued on next page)

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Connect a Perfection Kerosene Water Heater with your kitchen pump. With our new method you can pump either hot or cold water. Just light the burner. In 5 minutes there's enough hot water for shaving, in 10 minutes enough for washing dishes, in 30 minutes enough for washing, scrubbing or a bath.

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Four models—reasonably priced. Two have thermostats which put out the flame when the tank is hot. One has a 30 gallon "Stay Hot" storage tank. This keeps the water hot for 36 hours after the flame is out. They all burn kerosene—the cheap fuel. All work equally well if you have running water instead of a pump.

Free Booklet

Ask your plumber or write for full description and prices.

PERFECTION STOVE COMPANY

7600 Platt Avenue
Cleveland, Ohio

Sold in Canada by The Sheet Metal Products Co. of Canada, Ltd., Toronto, Ontario



Hot water for "washing up" in 5 minutes. Model 421

PERFECTION
Kerosene **Water Heaters**

arisen of the purchase of a piano. Quite a discussion takes place but it seems they actually need one as the old organ has wheezed out its last tune. Finally it is put to a vote and they decide to buy one.

While the two ladies who serve are preparing their lunch, the other ladies discuss how they will raise the money to pay for the piano. Many ways are suggested. One lady tells how an adjoining district has put a water system into their school and paid for it by serving hot oyster suppers in the winter and having bazaars. Another school raised their money by food sales. Still another raffled off two quilts, and another had given a series of card parties and charged so much a person. Another lady suggests a box social and still another that an entertainment be given some evening at the school with special music and a good speaker. The latter they decide to adopt and charge admittance and then after the program they will serve a free lunch. A committee is appointed to attend to the details of this and secure a prominent man to speak if possible.

The teacher has a few things she wished to talk over with the mothers and she seems to appreciate so much the opportunity to meet the mothers in this way. This concludes the business and the meeting adjourns.

The lunch is delicious—chicken sandwiches, angel food and hickory nut cake, and coffee. Everyone present is taxed ten cents and after shaking hands with the teacher and other ladies we take our departure.

Eggs for Supper

Of all the great variety of products from which the busy housewife can choose the evening meal, nothing has greater possibilities from the standpoint of easy preparation, economic efficiency, and nutritive value than eggs.

Eggs are usually considered a breakfast dish. They are, however, coming to be used more and more as a main course for supper. Omelets, especially, are most attractive for an evening meal. Here are a few egg receipts for supper which show how attractively and easily supper requirements may be met by using eggs:

French Omelet:—4 eggs, 4 tablespoons milk, ½ teaspoon salt, ⅛ teaspoon pepper, 2 tablespoons fat. Beat eggs slightly, then add the milk and seasonings. Put fat in a hot omelet pan; when melted, pour in the egg mixture and cook slowly. As it cooks, stir with a fork until the whole is of a creamy consistency. Place on hotter part of stove to brown quickly underneath. Fold and turn on a hot platter. Before folding, grated cheese, chopped meat, jelly, etc., may be added.

French Omelet, Spanish Sauce:—2 cups tomatoes, 2 onions (chopped), 1 green pepper (diced), 3 tablespoons fat, ½ teaspoon salt, ½ teaspoon sugar, ⅛ teaspoon pepper. Melt fat, add other ingredients. Cook 10 minutes. Spread half the mixture over half the omelet, fold, place on platter and garnish with remainder of sauce.

French Omelet, Onion Sauce:—2 onions (chopped), 3 slices bacon (diced), 2 tablespoons flour, 1 cup milk, ½ teaspoon salt, ⅛ teaspoon pepper. Brown the bacon slightly, add the onions and cook slowly 10 minutes. Now add the flour and seasonings; when blended, pour in the milk and cook until it thickens, stirring constantly. Place the folded omelet on a hot platter and garnish with the onion sauce.

Plain or Puffy Omelet:—4 eggs, 4 tablespoons water, ½ teaspoon salt, 1-16 teaspoon pepper, 2 tablespoons butter. Separate yolks from whites. Beat yolks in a small bowl with a Dover egg beater until thick and lemon-colored; add salt, pepper, and water. Beat whites on a large platter with a wire egg beater. Pour the yolks over them and carefully fold until the mixture is blended. Melt butter in an omelet pan and pour in the mixture. Spread evenly, place on a range where it will cook slowly for 15 minutes. The last minute the fire may be raised to brown the bottom. Place in a hot oven a few minutes to cook the top. it is firm to the touch the ome done. Crease across the top and Serve at once.

Grated cheese, minced ha jelly may be placed on the omel fore it is folded.—National P Council.



No. 2832—Afternoon Frock. Cuts in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 3⅜ yards of inch material with 3¼ yards of banding.

No. 2806—Long Waisted Dress. Cuts in sizes 16, 18 years, 36, 38, 40, 42 and 44 inches bust measure. The 36-inch size requires 3½ yds 36-inch material.

No. 2312—Attractive Apron. Cuts in sizes 36, 40, 44, and 48 inches bust measure. The 36-inch size requires 2⅜ yards of 36-inch ma

No. 2636—Cunning Junior Frock. Cuts in sizes 6, 8, 10, 12, and 14 years. The 8 year size requires 2⅛ yards of 40-inch materia No. 718 (blue or yellow) costs 15c extra.

No. 3008—Sister and Brother Suits. Cuts in sizes 2, 3, 4, and 6 years. For requirements see pattern envelope.

No. 3011—Entirely New. Cuts in sizes 6, 8, 10, 12, and 14 years. The 8 year size requires 2⅞ yards of 36-inch material, made wi

No. 2978—Smart Sports Dress. Cuts in sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. The 36-inch size requires 2¾ rds 40-inch material with ¾ yard of 40-inch contrasting.

No. 2804—Smartly Shirred. Cuts in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 2½ yard of or 36-inch material with 1 yard of 40-inch contrasting.

No. 2805—Smart for Many Occasions. Cuts in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requ yards of 40-inch material with ⅝ yard of 40-inch contrasting.

No. 3012—Box-Plaits Give Distinction. Cuts in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size qu 3⅛ yards of 36-inch material with ⅞ yard of 36-inch for camisole.

No. 3013—Particularly Pleasing. Cuts in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 1¾ rds 40-inch material with 1½ yards of 18-inch contrasting.

No. 3014—Becoming to All Ages. Cuts in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requ yards of 40-inch with ¼ yard of 27-inch contrasting material.

No. 3015—Distinctly Sports Version. Cuts in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requ yards of 40-inch material with ⅜ yard of 36-inch contrasting.

To order any pattern illustrated, send 10 cents to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Be sure to state nu and size and write your name and address plainly. When you order your pattern, enclose 10 cents extra and our new Fashion and Dressmak Book will be sent to you. It contains hundreds of styles, picture dressmaking lessons, embroidery designs, etc.

EDITORIAL COMMENT



FAR-FETCHED FEAR

To increase the returns of the dairy farmer and to keep production within consumptive demands we advise selling cows that do not pay for feed consumed. It is not good business for any man to milk cows that do not pay him as much for feed as it can be sold for to the elevator. In many instances we recognize that the poor cow is due to the poor way in which she is handled and fed, but we also know there are cows incapable of returning any profit regardless of what the prices of dairy products may be and such animals we advise selling to the butcher.

We were taken to task for this advice some time ago and this question was asked: "What will you say if so many of these poor cows are sold that there is a genuine shortage of dairy products and perhaps our babies can not get sufficient milk to supply their needs?" To us this is a far-fetched fear but we answered it as though the condition which our friend anticipated might happen. In the first place we said to him that there is no danger the owners of all the poor and inefficient cows will follow our advice; and, secondly, when the prices of dairy products become sufficiently high we can increase production from 20 to 25 per cent by simply giving cows better care and better feed. When we have this reserve and when prices warrant increased production through better feed and care of dairy herds, we need not fear a shortage of dairy products.

MORE MILK WANTED

According to reports, J. W. Slocum, president of the New York Dairymen's League, has urged Commissioner Harris of the New York Health Commission to permit the price of milk to advance one cent per quart. The purpose of the advanced price in milk is to stimulate production in the season of short supply.

The New York milk shed is not producing all the milk necessary to supply the city of New York and evidently Mr. Slocum considers it a mistake to ship milk long distances in order to get a sufficient supply during the season of low production.

We believe he is right in this contention. It is evident, however, that he has failed to read the addresses of certain congressmen and articles by proponents of the McNary—Haugen bill. Several of these persons have shown by statistics that the lower the price of a farm commodity, the higher the production. In other words, if production is to be stimulated in the New York milk shed, according to the arguments of certain persons, a lower price should be paid for milk.

It is perhaps just as well that President Slocum has not seen these statistics showing that low prices stimulate production, for it might be very disconcerting to him. It is our opinion he had better remain in his present state of ignorance and urge that milk be advanced one cent per quart if it is desirable to stimulate production of that product.

TO STOP TICK ERADICATION

How anyone in the present light of live stock knowledge could be opposed to the eradication of the cattle tick is difficult to understand. This insect has caused thousands of animals to suffer and spreads Texas fever among cattle wherever it exists.

Some years ago it was discovered that cattle tick could be easily eradicated by dipping cattle and by keeping them away from fields infested with ticks. Dipping destroyed the ticks on the cattle and by keeping the cattle away from the pasture, the young ticks starved to death. Thousands of square miles of territory once inhabited by the tick and inflicting suffering upon the cattle and loss upon their owners, have been cleaned of this scourge. However, we find men in the country where the tick exists, still favorable to its existence.

A bill was recently introduced in the Florida State Legislature proposing to abolish the state live stock sanitary board and, incidentally, to put an end to the eradication of the cattle tick in Florida. In discussing Senator Hodge's bill, the Pensacola Journal says:

"It is inconceivable that a man of his mature years, one who has lived in Florida for many years and has seen the struggles of those working for the best interests of the state to build up the cattle industry, should attempt to nullify the program that is making it possible for cattle raisers to pursue their business to best advantage.

"Not only are Florida cattle bringing better prices than formerly, but it soon will be possible to import thoroughbred dairy cows and develop the dairy industry throughout the state."

PRICE AND SURPLUS

According to a statement in the Illinois Agricultural Association News Service by Mr. A. D. Lynch, director of marketing, the average price for butter was 49.4 cents for March, 1927, or 8 cents higher than March, 1926. The report attributes the 8 cents a pound less for butter in March, 1926, to the 26,313,000 pounds of butter which were in the warehouses of this country at that time. We are quite willing to admit that the higher price for butter in March, 1927, is due in part to the small quantity of butter in storage. The higher price was also due to lower production of butter, to the tariff, and to other causes.

If we used the same character of reasoning that is evidently exercised in the statement made in the News Service, we would say something like this: On December 1, 1926, we had 64,377,000 pounds of butter in storage. The highest quotation for butter on the New York market for December was 56 cents, and it averaged for the month 54.8 cents, or 5.4 cents higher than in March, 1927, when less than 8,000,000 pounds of butter were in storage for that month. In other words, the more butter we have in cold storage, the higher the price, and the foregoing figures show that this is true. This, of course, is a false conclusion but it shows clearly how imperfectly many people reason concerning things that influence price.

After Mr. Lynch says that the farmers received 8 cents less per pound fat for cream in March, 1926, than they did in 1927, he draws this conclusion: "This is one of the clearest illustrations of what surplus control provided for in the late McNary—Haugen bill could do for farmers and the nation's prosperity. This small quantity of storage butter could be given away at a bargain price, or dumped into the lake so the one billion pounds consumed could have brought five or ten cents per pound more."

How does Mr. Lynch know the consumer would have paid ten cents a pound more for one billion pounds of butter? Some dairy farmers are now consuming oleomargarine because they think butter too high in price.

The butter market has been fluctuating, due to the fact that the handlers of butter fear the consumer will not buy the supply at the present quotations and the danger of increased production due to high prices. In other words, the price of butter has been as high as it is possible to keep it and still consume the butter produced. The little in storage has been very largely a stabilizing force which is not at all injurious to the dairy industry.

Let us see what happened in the fall of 1925. Butter sold on the New York market for about 52 cents a pound wholesale, and retailed at 58 to 65 cents a pound. This caused consumers to curtail consumption. In the last three months of 1925, 22,000,000 more pounds of oleomargarine were consumed than in the last three months of 1924 when butter was cheaper. The normal consumption of butter did not take place until about May 1, 1926, when its price was about 40 cents. The fact is, when prices of butter go beyond what the consumers think it worth, the cocoanut cow of the South Sea Islands comes in with her product larger quantities.

For the year ending June 30, 1909, the total co sumption of oleomargarine was 89,337,664 poun or about one pound per capita; for the year en ing June 30, 1926, the total consumption was 23 166,482 pounds, or a little over two pounds p capita. Grant that if the McNary—Haugen b had been in operation, the prices of butter wou have increased. This means more oleomargari would have been consumed and a larger supply surplus butter. Is this an advantage to the dai industry of this country? This brings about con tions for lower returns to the dairy farmer a many concrete instances can be cited to prove th More dairy products are being consumed per ca ta and at higher prices than ever before in t history of the dairy industry, due, in part at lea to educational campaigns to inform the public their food value. The last year or two there h been a slight decrease in per capita consumpti of butter in this country, indicating its price h reached a level that curtails consumption and t increased consumption of oleomargarine also in cates this. Would it be to the advantage of t dairy industry to have this continue further wh butter is selling relatively higher than at any ti in the history of dairying, except in the years 1919 and 1920 when the price of labor and fe made the production less profitable than it was 1926?

It seems to us that instead of putting into op ation a law like the McNary—Haugen bill wh would impose an equalization fee upon all butt whether produced by the poor or the good cow, it better to dispose of the cows that are not pay for their feed consumed and are only surplus p ducers. This is the simplest and the most effect way of keeping prices of dairy products on a pr itable basis. Also let us keep up the work of e cating the consumers to the importance of but in the diet so that they will willingly pay a f price for it.

FARM RADIOS

The radio has made it possible for every fa home to come in direct contact with the affairs the world. It seems to us the radio must m more to the farmer than to any other citizen. brings him music, information concerning his bu ness and discussions on subjects of national imp tance, advises him concerning the weather, a brings stories and lullabies to help send his you children to dreamland.

It is evident the farmer appreciates the ra for, according to the United States Department Agriculture, there are now 1,252,126 fa equipped with radio receiving sets. On July 1925, there were little more than a half million dio receiving sets on the farm. At this rate it not be many years before every farmer will hav receiving set and it will be possible for one per to talk to the entire farm population of t country.

The radio is something that passes human derstanding and makes us wonder what will be next great invention. It is difficult to conceive anything that would be of more value and en tainment than this invention which can pick m and speeches from the air. We accept all this a matter of course and give little heed to its won ful mysteries and the enjoyment that it bring those who live on the farm.

In a survey made by the United States Dep ment of Agriculture to gather facts concerning desires of the farmer, it was found that they fer radio talks to music nearly two to one. untary comments accompanying the formal swers indicate a strong dislike for jazz. In mu they want old-time tunes and classical music.

Aside from educational farm programs, weat and market reports, political talks are evide popular and more current news programs are demand.

U. S. National Holstein Sale

At the second U. S. National Holstein Sale held April 25—29 at Oconomowoc, Watertown, and Waukesha, Wis., 371 Holsteins from herds in seven states were sold to buyers from twelve different states and Canada. It was a good sale, well managed, that deserved even better support from Holstein buyers than it had, for if any man wanted to buy black and white cattle, he had an opportunity here to purchase good ones at very fair prices.

The Blue Ribbon sale held at Pabst Holstein Farms, Oconomowoc, on the 25th was properly named. The consignments there were unusually good, perhaps too uniformly good for the buyers to appreciate them all. Certainly it seemed as though buyers generally got full value for their money and some of them more than that.

Sixty-eight head, exclusive of small calves, were sold for $42,390, an average of $623. Fourteen bulls, three of them small calves, averaged $781 and the females averaged just over $522. Seven head, four females and three bulls, sold for four figure prices. Two of the bulls went over $2,400 and one to $3,600. The top of the sale, appropriately Catalog No. 1, was a 7 months' old son of the 1178-lb. 4-year-old cow, Bess Finderne Pride Fayne, sired by a 1,000-lb. grandson of Colantha Johanna Lad. He was consigned by Dutchland Farms, Massachusetts, and purchased by A. M. Dunn of California.

The second animal in the price list, Bell Farm Honor, is a well bred senior yearling bull from Bell Farm. He is from Bell Farm Bakker, a show winner as well as a 1,000-lb. producer and sired by North Star Ozone Champion. "Honor" went to A. C. Hardy of Ontario for $2,450.

R. V. Rasmussen of Illinois took several of the best females including Bell Farm Susie, the top priced cow, at $1,875. She is a 35-lb. 4-year-old herself, is by a son of Mabel Segis Korndyke and from Susie Abbekerk Colantha (White Susie), 35-lb. 1,113-lb. cow that was reserve All-American in 1923.

The sales at Watertown and Waukesha were intended for the purchaser who wanted first class cattle but did not want the high record unusually good ones that very properly command high prices, and those last 4 days of selling saw a very good lot of good Holsteins go through the ring.

The entire 371 head averaged $271. The 303 head sold at Watertown and Waukesha averaged $192, with 3 head going for $500 or more, two of them bulls that sold for $775 and $7[illegible] respectively. One of these, a [illegible]-ar-old, 953-lb. son of Iowana Sir Ollie consigned by Philip Linker, Wisconsin, went to the Detroit Creamery Farms of Michigan. The other was Dodge County Homestead Boy, a 6-year-old grandson of S. P. O. M., purchased by Christ Mayer, Wisconsin.

Haeger, Mack, Kelley, and Wood did the selling. The sales were managed by Haeger, Baird, and Dacey.

Following is a list of those animals selling for $500 or more and buyers:

[illegible]. Dunn, California	
[illegible]utchland Bess Quality	$3,600
[illegible]r Puls, Wisconsin	
[illegible]rilly Lyons Vassar May	$ 800
[illegible]eneral Homestead Mercedes 6th	1,100
[illegible]ar Farms, Missouri	
[illegible]von Echo Daisy	$875
[illegible]rmsby Korndyke Pauline Segis	800
[illegible]egis Sindt Flora Butter Girl	600
[illegible] Johnson, Illinois	
[illegible]urton Avon Viola	$505
E. A. Baker, Massachusetts	
Wisconsin Mercedes Fobes Ormsby	$ 750
Pearl Mooie Ormsby	1,500
Pietje Girl De Kol	715
H. E. Dickinson, Wisconsin	
Dora Ormsby Fobes	$720
R. V. Rasmussen, Illinois	
Bell Farm Susie	$1,875
Pabst Creator Ella Spofford	500
Bell Farm Cleopatra	620
Bell Farm Soldene	650
M. B. B. Beauty	1,675
A. C. Hardy, Canada	
Bell Farm Palmyra	$1,500
Bell Farm Honor	2,450
Swartz—Muckleston & Baird, Wisconsin	
Bell Farm Valor	$630
Detroit Creamery Company, Michigan	
Daisy Queen Fobes Ormsby	$500
Walcowis Sir Ollie	775
Knauf & Tesch Company, Wisconsin	
O. K. L. P. Abbekerk	$520
H. E. Shadle, West Virginia	
Ormsby Sensation Abbekerk	$540
Carnation Milk Farms, Wisconsin	
Avon Echo Viola	$900
Miss Alice Inka May	500
Waldholm Farm, Wisconsin	
No. 62	$625
Christ A. Mayer, Wisconsin	
Dodge County Homestead Boy	$750
E. M. Bayne, Michigan	
Juliet Sunnybrook Ormsby	$500



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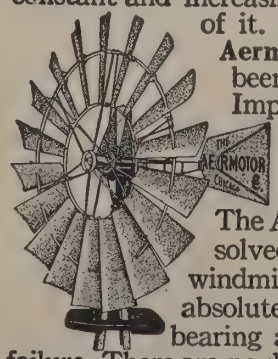
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A WONDERFUL SUCCESS

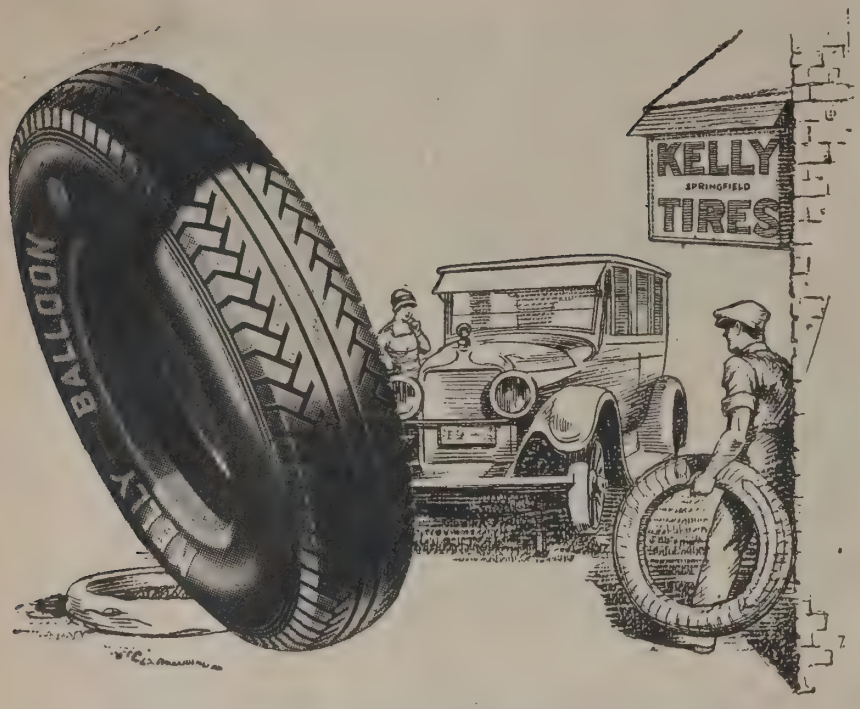
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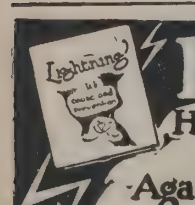
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FREE How to Protect Your Farm Against Lightning

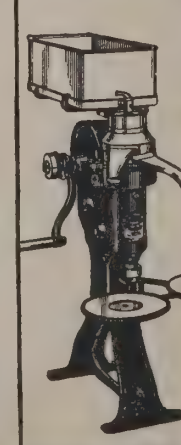
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Seven sizes—the larger sizes with motor or gas engine attachments. Complete separators or repair parts shipped from eight warehouses.

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AGENTS: Some desirable territories open for live user-agents. Write for plan.

UNITED STATES

Seasonable Live Stock Notes

THERE has been a rush to get the seeding done and the corn in the ground. In that rush to give crops the advantage of seasonal timeliness there may have been a tendency to neglect little things that promote the best welfare of live stock. The pigs may get sore mouth, calves may get the scours from moldy feed or dirty feeding pails, cows may have been turned out to pasture too soon and their grain feeding neglected, shell forming material may have been neglected in the poultry ration and the production suddenly drops, poorly fitted harness may have caused sore necks or shoulders on the hard pressed horse. After corn is planted and before cultivation begins is a good time to check up on the things that may have been neglected in the press to beat the inclemencies of an unfavorable season.

Mineral Matter for Calves

Skimmilk and legume hay go a long ways in supplying enough of the essential minerals for calves. If one wants to make certain that the calcium and phosphorus requirements of calves are fully met, the feeding of one or two ounces per head daily of finely ground sterile bone meal will suffice. It is convenient to feed it with the grain. Salt should be provided after calves are well accustomed to grain and hay. Calves under 3 months of age should never be forced to get the greater part of their feed from grass.

Grain Mixture for Cows on Pasture

For the month of June while the pastures are at their best, the grain mixture for high producing cows may be very simple and it need not contain over 12 per cent of digestible protein. Such a mixture could be made of 200 lbs. of ground corn or ground barley or ground sorghum grain or hominy feed, 300 lbs. of ground oats, 100 lbs. of bran, and 50 lbs. of linseed meal or cottonseed meal. The amount to feed is governed by the quality and quantity of pasture available, the level of the ability of the production of individual cows, and the condition of cows. One pound of grain for each 5 pounds of milk produced is liberal feeding.

Mineral Mixture for Cows on Pasture

The best time to feed the essential minerals to cows has not been positively determined. Scientific investigation indicates that if there is any best time it is in the summer pasture season when the cows have access o fresh green pasture and when tl y get a maximum of direct sunshine f the greatest quality. The essen l minerals to feed have been fairly v ll determined. They are calcium, ph - phorus, chlorine, and, in certain s - tions, iodine. We suggest giving e dairy herd free access to a sim e mineral mixture composed of eq l parts by weight of salt, finely gro d limestone, and bone meal during e summer season.

Amount of Skimmilk to Feed P s

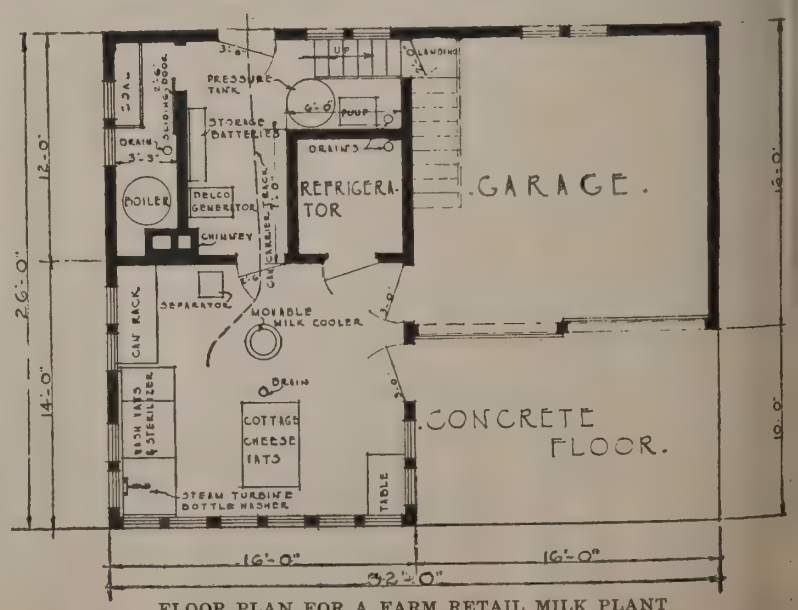
A little attention at this time i f year to the amount of skimmilk d to pigs goes a long ways in gett g the greatest return for such f d. Some farmers pay little attention o this. They have so much milk to s t rid of and they dump it in the g trough and forget about it. Just f - ter weaning, from 4 to 6 pounds o f skimmilk to each pound of grain i s sufficient to make maximum gain i n dry-lot feeding. Pigs on past e need only about half this amoun o properly balance the ration.

Remove Cockerels Early

If one is interested in getting h best development possible in h pullets from a hatching of chi s the cockerels should be separ e shortly after one is able to iden f them. Profitable production o winter eggs depends to no little x tent on how well the pullets are e veloped. Late hatched pullets r handicapped in this respect. E l hatched pullets should not be allo e to lose this advantage by poor m agement in their development. e move the cockerels.

To Expel Long Round Worms f Pigs

If pigs are infested with wo n (the long round kind) the so e they are removed the better. W expellers may be made as foll s Give in capsule 2 grains of santo i 1 grain of calomel, 1 dram of a c nut, 1 dram of sodium bicarbo t for 100 lbs. live weight. Hav druggist prepare a mixture as s the above proportions, then have h mixture put into capsules in the r h quantity for the sized pigs to b treated. Another good expeller s be made by mixing 128 ounce o castor oil, 8 ounces of oil of Ch o podium, and 8 ounces of chlorof m Give one ounce to a 50—60-po n pig and 1½ ounces to a 100-po n pig. Pigs should be held off feed o 24 to 36 hours before being tre s



FLOOR PLAN FOR A FARM RETAIL MILK PLANT

The work room provides facilities for bottling milk and cream, for making cottage cheese, and for convenient storage in the refrigerator. The boiler room conveniently provides space for boiler, coil, lighting and water systems, and pump. The garage houses the automobile and milk wagon. If desired, the building may be extended to two stories to provide a farm office over the work room, with a bedroom back of this and storage room over the garage.

Milk Cooling Tanks

When milk is cooled by well or spring water, a minimum net width of 24 inches is recommended for the tank, but in case either iced water or mechanical refrigeration is used this width may be reduced to 19 inches. The tank is made only deep enough to permit water to come well up on the necks of the cans. To lighten the labor of lifting cans in and out of the tank, part of its depth is below the floor level. The length is variable, depending upon the capacity desired.

If ice is not available, milk usually can be cooled to 55 degrees Fahrenheit or lower by circulating spring or well water through the tank. A uniform flow of water is secured by

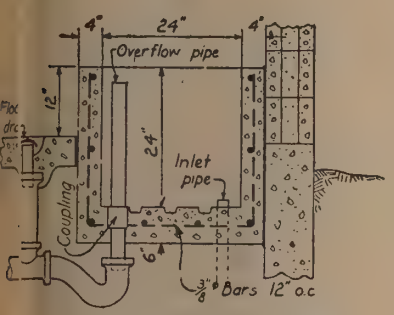


FIG. 1—CROSS SECTION OF TANK

placing the inlet pipe at one end of the tank and the outlet or overflow pipe at the opposite end. The overflow pipe screws into the outlet drain and is equal in length to the depth of the water desired. The grooves in the tank floor permit water to circulate freely under the cans, resulting in more rapid cooling of the milk. These grooves are made by pressing wood strips in the concrete at the time the floor is finished. Before the concrete has hardened the strips are removed.

When the tank shown in Figure I is to be built, the floor and walls are concreted in one operation. The floor of the tank is made 6 inches thick and the walls, 4 inches. Reinforcement consists of ⅜-inch rods spaced 12 inches apart. The reinforcement of the floor and walls is made continuous by bending the rods "U" shaped. Rods are also extended around the tank walls, with ends lapped at least 12 inches. At all intersections reinforcing rods are firmly wired together to hold them in correct position.

A 1:2:3 concrete mixture for both type of tank is considered most satisfactory. Use screened gravel or crushed stone up to 1 inch in size.

The Insulated Tank

Figure II shows details of an insulated tank in which corkboard is used as the insulating material. The concrete base below the corkboard may be not less than 3 inches thick and placed first after the reinforcing rods are arranged in place. Two-inch corkboard mopped with hot asphalt is then laid on the base, also mopped with hot asphalt. The corkboard for walls is dipped in or painted with hot asphalt at the same time. Coal tar pitch may be used if asphalt is not available. Wooden forms for both the outside and inside walls of the tank are placed next and 2-inch corkboard for wall insulation is erected, making certain that all abutting edges between sections are thoroughly covered with asphalt. Corkboard must be braced to prevent displacement. Outside and inside walls are made the same thickness as the lower base of the tank—3 inches. Forms are then filled with concrete of a consistency that will place readily. A sloppy mix should be avoided. Bolts to which wooden plate or rail around top of tank is to be attached are placed in top of walls. The concrete base of the inner tank is placed next, making it 4 inches thick as is shown in Figure II.

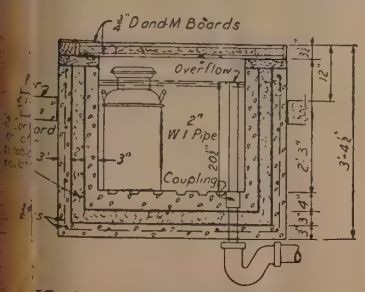


FIG. 2—CROSS SECTION OF INSULATED TANK

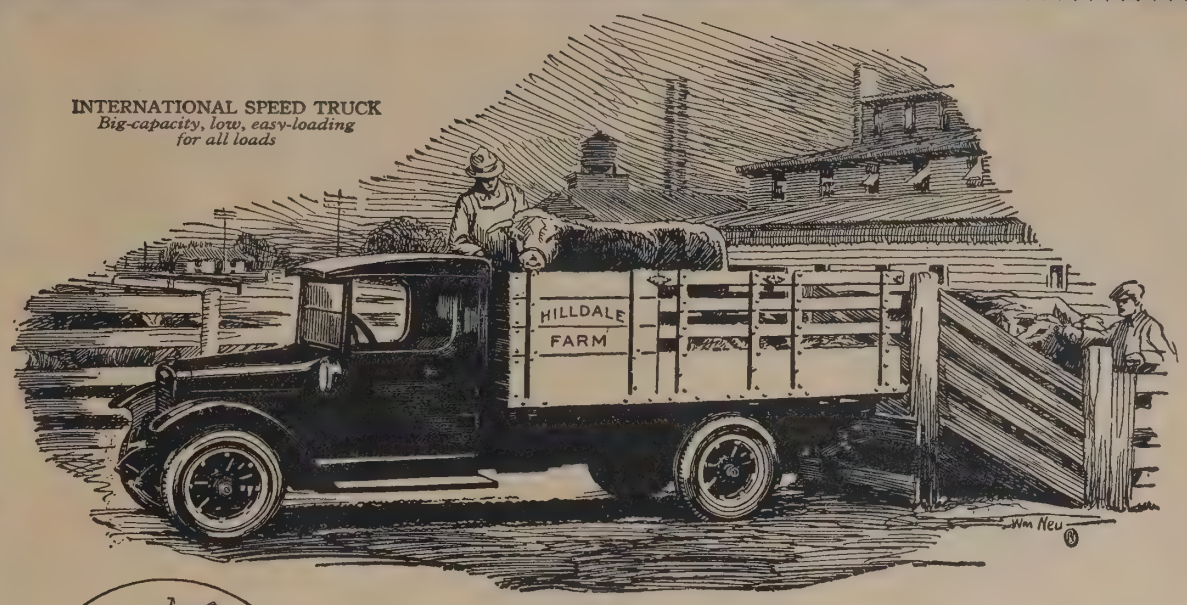
When mechanical cooling is employed use inch corkboard for insulation.

Mechanical refrigeration may be easily installed. An opening for the coil may be made in the wooden rail or in the concrete wall of the tank, according to manufacturer's directions. If it is desired to build the tank so that mechanical refrigeration may be employed at some future date, it would be well to provide an opening for installation of the coil. This hole may be filled with a wooden plug until the cooling apparatus is installed. Three-inch corkboard insulation is recommended when tank is built for mechanical refrigeration.

The wood cover for the tank should fit snugly and be of rigid construction to prevent warping. The framework is covered with dressed and matched boards after corkboard has been placed in the frame. The cover is fastened in place with galvanized hinges and should be thoroughly painted on all sides and edges.

Placing the Floor

Where the ground on which milk house is to be located is sloping, the area should be leveled off and tamped so that the entire floor rests on firm soil. A 5-inch floor made of 1:2:3 concrete is generally used, with stone or gravel not larger than 1½ inches in size. One-course construction is recommended which means that the full thickness (5 inches) of concrete is placed in one operation and thoroughly tamped. A dense, even surface is produced by smoothing with a wood float. A little 1:2 mortar may be used in finishing, if needed. —Portland Cement Association.



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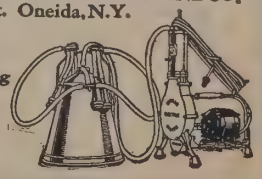
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Opinions, Brickbats, and Bouque

These columns are open to the readers of Hoard's Dairyman for the expression o their opinion on any subject, whether radical or conservative, destructive or constructiv wise or foolish. It may be cows or crops, religion or politics, or what at the time mo interests you. It may be critical or commendatory, but it should be your opinion. It your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyma assumes no responsibility for opinions expressed.

Getting at the Milk in the Cocoanut

HOARD'S DAIRYMAN:—So much has been said recently about "farm relief" that I am somewhat like Will Rodgers, I believe the farmer has been relieved of about all he has to be relieved of.

As I see the matter, it all resolves back to the two things, producer of raw materials and producer of finished products. Almost always it costs much more to produce the raw material than to produce the finished product, but invariably the finished product sells for many times more than the raw material. The farmer is wholly a producer of raw materials, hence his low prices and financial embarrassment.

It takes a whole year to produce cotton, wheat, and other crops and he sells his wheat at approximately 1½ cents per pound and in one day's time that same wheat can be converted into bread for which he has to pay ten times as much for as he got for it.

He sells his cotton at approximately twenty cents per pound which can be converted into cloth at very little expense and a few days' time into cloth for which he has to pay from $1.50 to $5.00 per pound.

He gets about six cents per pound for his hides which, with present day machinery, cost less to tan than to skin the cow and only about twice as much to manufacture into shoes and other leather goods as it costs to skin the cow, but the farmer has to pay from $2.00 to $6.00 per pound for the finished product made from the hides.

The source of all wealth comes from the farm but not to the farmer. Here is my solution but it does not solve the whole problem, but as I see it, offers a plan by which it can be solved.

Let every farmer, when he finds a short cut to production, advertise the way he did it as in the case of J. Howard Cliffe of Pennsylvania who wrote in Hoard's Dairyman April 10 and explained how he made a short cut to harvesting corn for the silo.

Let us help one another and not depend on designing politicians to get us relief, or get us "relieved."

Missouri. CHAS. CROW.

Keeping the Sabbath

HOARD'S DAIRYMAN:—I have been a solicitor and reader of Hoard's Dairyman for a number of years and expect to continue so long as I remain a breeder of Guernsey cattle. We find it more than mere interesting O. B. B. We are inspired to better living, better service, and better returns are the results. So we wish you continued success.

The truth is what made us free. We appreciate the truth in deed as well as in spirit. Therefore, it gives me pleasure to submit the following Bible teaching about the true Sabbath:

Sabbath means rest. Six days may work be done; but in the seventh is the Sabbath of rest. Ex. 31:15. There is no questioning that under the Mosaic dispensation the seventh day of the week was the day set apart by Jehovah as a holy Sabbath.

There is no evidence whatever that anyone had knowledge of or kept the Sabbath before the time of the exodus from Egypt. Moses wrote Genesis 2:3 many hundreds of years a creation; so, when did God bless sanctify the Sabbath Day? Ans "I caused them to go forth ou the land of Egypt.....Moreover I gave them my Sabbaths." (E 20:10:12.) "And remember thou wast a servant in the lan Egypt, and that the Lord thy brought thee out thence;....th fore the Lord thy God comma thee to keep the Sabbath d (Deut. 5:15.)

The New Testament Sabbath is the keeping holy of any parti day but is a state of soul-rest. C tians, however, have followed th ample set in apostolic days (20:19-20; 20:26; Acts 2:1; 2(hence, during all the years and turies from Pentecost down to own day they have met together worship on the first day of the —"the Lord's day" (Rev. 1:10)

Pennsylvania. E. N. LYDI

Keeping Young

HOARD'S DAIRYMAN:—About years ago I wrote you about pla Japanese walnut trees as an in ment for nuts and timber. That I planted a few and sold a few t neighbors. One lot I saw a few ago and some of them were o inches through and had one-h bushel of nuts on three of the t last season. That looks to me the farmer who will plant a acres, like a good investment. make fine shade trees if wante that purpose. For timber I c say how its quality for furn would compare with our Ame black walnut, but no doubt it v be quite valuable. The nuts ar eating and it's a well known f pound of nuts is worth at least of the best beef. If we eat more and less meat we would live l and have less trouble while l As the years go by you will n the price of nuts have gone up, more than doubled, and will ke going up as the people learn th ue of them as food.

A gentleman was in our city days ago and gave a lecture on to live. He said we should l least 150 years instead of 37, th erage span of life, and the rea we do not live as nature intend to live. He gave as a sample h live, himself. Twenty-five year he was given up by the best do They said there was no help for So he called in another doctor another school of medicine ar said the first thing was a fast least 30 days. He took it, th entirely different diet was pres which he has rigidly followed and today you would think h most a spring colt although 78. said when starting on the 30-da he had such a bay window he h seen his feet for 5 years, but it gone and he can kick out the ch liers. While on the platfor kicked as high as his head. He nuts as a part of his diet. So not grow a large part of them. years ago I looked into the n dustry and found at Syracuse, one orchard of 3 acres. I di find the age of the trees but year $3,000 was taken in for th son's crop. They were black nuts.

Wisconsin. JAS. H. BIRCH

Substitute Crops for Oats and Corn

HOARD'S DAIRYMAN:—Today the weather bureau at Fort Wayne, Indiana, announced that there has been more than six inches of rainfall during April, 1927. The normal for April is but 2.91 inches, hence it appears that over a considerable area the April rainfall has been more than double the ten-year average.

And taking a look about over the area which includes some counties inside the corn borer quarantine line and some without, it is quite apparent that farmers are going to have to be thinking about substitute crops for the oats and corn which they ordinarily plant. Careful estimates are that not over two per cent of the normal oats acreage has been planted and not over 30% of the cornstalk ground of 1926 has been plowed under. And it should be remembered that all this land is ordinarily sowed to oats by this time. Even the oldest residents can scarcely remember when they sowed oats in May. The picture in the two paragraphs above is as of May 1.

Even the most optimistic concede that it is humanly impossible to get more than 70 per cent of the stalks turned under together with what sod ground is usually put to corn by the first of June, hence the problem of determining early the most desirable of the alternatives is in season since whatever course is charted, seed must be purchased and other plans made.

Interest is quite keen in varieties of corn that mature in less time than those ordinarily planted. State entomologist, Frank N. Wallace, contends that the advent of the corn borer into the corn belt will necessitate that farmers grow earlier varieties of corn that can be planted later in the season. This has point when it is known that the corn borer moth seems to prefer to lay her eggs on corn that is from a foot and a half to two feet high. In the past, the infestations have been much worse on corn that height than that smaller. In the minds of the uninitiated, we should well revert to flint corn but the Canadians have found that this is not good advice since the flint corn generally has a smaller stalk, hence is seriously injured by a fewer number of borers than the most stocky growing dent corn. But this year, there is quite a portion of the corn belt that will plant early maturing dent corns such as Golden Glow and Wisconsin No. 12 in June, rather than plan substitute crops.

Among the substitute crops that give most promise for the dairyman and the stockman, none offers more than soy beans. True, the past two falls have been very discouraging to the soy bean grower but some of the difficulties which have been experienced can be overcome by different methods of sowing and the use of different varieties of beans. The fact of the matter is that the soy bean, while in itself a very valuable crop, has never found its exact niche in corn belt rotations. If sowed in rows, it competes with corn for time in cultivating and if sowed to hay, it runs into the usual unseasonal rains when haymaking is over and that out of season. If grown for seed, difficulty of curing and cost of threshing are drawbacks.

The farmer who has a rotary hoe can fill his soy beans solid, using from four to six pecks of seed to the acre and then cultivate them twice or three times with the rotary hoe. In this way, he will have clean beans and get away from the competition of corn. Perhaps the Manchu has better reputation than any other single variety both for yield of seed and hay. Those who have tried this variety rather generally like it better than the Ito San. From present indications, the Dunfield is to be the coming bean because of its habit of not shattering either in the late fall or winter. Last fall, several farmers who had planted Dunfield soy beans were able to cut their beans with mowing machines and thrash them the same day and such a thing could not be done with any other variety. And then, if the soil should be too wet for teams to get on the field, hogs and sheep can gather the beans during the days in the winter when the ground is frozen. This gives them an appreciable amount of high protein feed, at the same time inducing them to get that exercise which is so essential in winter.

In the territory which is under the corn borer quarantine now, general practice on most farms is to have some permanent pasture. And on the whole where permanent pasture is all that is provided for summer feeding, there are generally about six weeks in July and August when the picking is rather slim. Those who experience this difficulty can turn some of this late plowed soil into milk by planting it with sudan grass. This substitute would have a limited use but five or six acres on each farm would work in very well. This can be sowed in June and would furnish some pasture in late July and August.

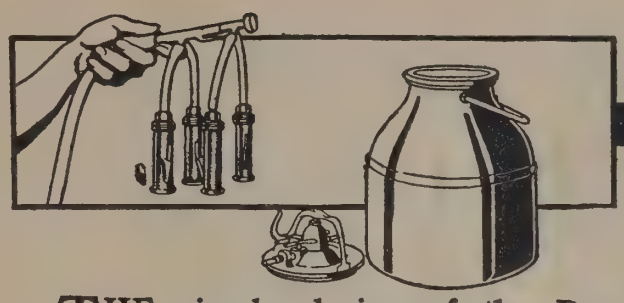
There is quite a large part of this territory where a limited acreage of navy beans could be planted to good advantage except that they would require cultivating.

With the weather as it has been, it seems that this should be THE summer for live stock men to plant alfalfa. Alfalfa seed is relatively low in price, limestone and fertilizers are at about as low a level as they have ever been, and there is much to lead one to believe that alfalfa planted now would be a long time investment that should yield very satisfactory returns. In fact, at the present, the only men in this territory who can see another shower coming and still look pleasant are those who have a relatively large acreage of alfalfa, sweet clover, or grass land.

Some of this land will, of course, be fallowed during the summer and sowed to wheat and rye next fall but everything indicates that a fair portion of this, at least, should be sowed to alfalfa.

Indiana. I. J. MATHEWS.

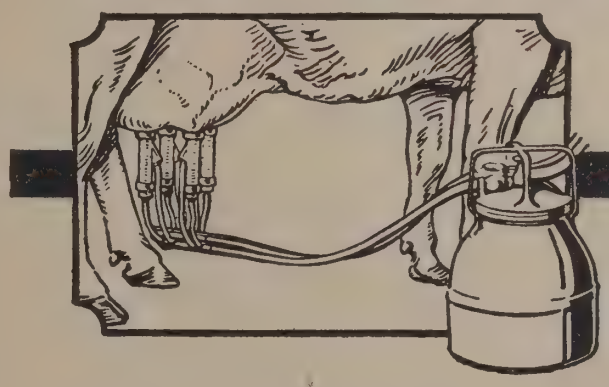
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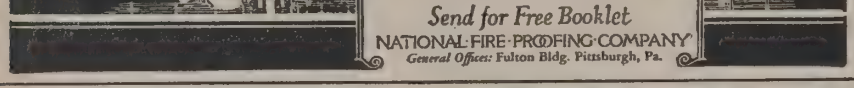
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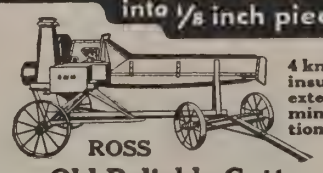
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Wayside Musings Unity in the Home

JOSEPH S. MORRIS, WISCONSIN

IN the Bible story of Jacob and Esau we note this statement: "Now Isaac loved Esau and Rebeka loved Jacob." There was a division in sentiment and that division was bound to spell trouble. Nowhere else in life is greater tact, caution, fairness, and love more essential than within the home. The spiritual union of the home rests upon mutual trust and mutual love. When the sentiment of the home divides and more is given to one of its members than to another, unhappiness generally follows.

We have a saying that "blood is thicker than water," meaning by that that we are expected to stand by and to defend all the queer, unreasonable, unjust, and stubborn actions of those who are kin to us because of this "blood is thicker than water" idea.

The fact is, that genuine love within the home must be corrective. The member of the family, whether it be son or daughter, who seems somewhat different and more difficult to discipline, is in all the greater need of understanding and sympathetic love. It is quite easy to favor the one who seems most pleasing to us but we dare not forget the needs of all. The world is a hard place for those sons and daughters who have been allowed to go on with their objectionable ways until those ways have become deeply imbedded in character. Certainly we shall always be more or less bound by ties of blood and that fact gives us the strongest reason in the world for trying to tactfully, understandingly, sympathetically, and sometimes sternly loving the members of our home into the kind of beings who will make it possible for us to own the relationship with pride.

It seems to me that Jesus of Nazareth gives us a fine idea of what is meant by spiritual unity. He had been busy dispelling evil spirits from people and his enemies accused him of being the prince of these evil spirits because he was able to cast them out. Jesus said to his accusers, "You are wrong; every house divided against itself shall not stand; if I were the prince of the demons I would not be casting out those who belong to my own house. Be consistent; the unity of the home is a unity of spiritual likeness in tastes, ideas, thoughts, expression."

Of course, the great hope for the spiritual unity and peace of the home ought to be looked to before the initial step is taken in the establishment of the home. It is pitiable to se people whose ideas, tastes, ideals a as far apart as the poles entering u on the enterprise of building a hom Sometimes people differ radically their religious views. They ought stop and consider whether there any possibility of compromise or a justment. Religious differences a exceedingly difficult of adjustmen Again we find one of the partners the marriage compact very religiou faith means everything in the wor to this one while the other party the proposed union may be dispos to scoff at the idea of religious fait So soon as the first enthusiasm wedded life is gone they will be fa to face with the reality of their e tirely different ways of thought a life. Should children come into su homes, and come they do, need v wonder if there is not that spiritu unity, peace, and love that is so e sential to the best development children?

Of course, two thoroughly reaso able and fair-minded people m succeed in composing their differe es and it is a splendid exhibition manly and womanly courage when is done. Sometimes the father quite willing to let the mothe splendid influence have its way. have known some men who, thou they themselves never took any pa in things religious, were very ca ful to permit no word to be said th would in any way weaken the wo being done by the mother to have t children grow up with a sweet a happy faith. I admired these m very much but I am constrained wonder what the difference mig have been had these men found possible to step out and set the e ample for their sons and daughte

Love is a wonderful thing and it truly remarkable that human bein do so well in the great sphere of t home. The tragedies come in t homes where there is no capacity f adjustment. We cannot overlook t fact that children are specially sen tive to what I shall call lack of sp itual unity. We may be very clev but we are not clever enough cover the fact that there is not th sweet accord that shows itself in t look, the manner, the day-in-and-da out little courtesies that are so l in their significance.

And yet, tragic as is the case of home of divided affections, there not much that outsiders can do better the case. There is nothi that is in worse taste than "m dling." Men and women must fi their own way to spiritual unity.



ATTRACTIVE FARM HOME OF D. M. YOUNG, ILLINOIS

THE FARMER'S POULTRY HOUSE

R. M. HOOPER, Manitoba Experimental Farms

DURING the past decade there has been considerable development in the poultry industry in estern Canada. Coupled with this velopment has come improvement in ethods of feeding, management, id housing.

The old time poultry house in which e poultryman sought to provide armth for the laying stock during nter, is becoming a thing of the st and is being replaced by houses which more emphasis is laid on yness and abundant supply of fresh r. In the old style of house the at-mpt was made to retain the heat nerated by the birds in order to aintain the heat of the house. Fowl nerate very little heat in compari-n with other classes of live stock, d very little circulation of fresh air uld be allowed. A well constructed use under this system could be kept asonably warm but the air would evitably become foul or stagnant, nich is not conducive to health in e flock. Houses that are capable of ing kept warm by the animal heat nerated usually have few windows. here little or no circulation of fresh r is allowed the house will very soon come damp. Damp houses with in-equate light and poor ventilation, nether warm or cold, will inevitably ing disease of some kind.

Colder, But Drier and Healthier

The new type of house in which ovision is made for ventilation is mewhat colder than the old style, t better results in winter egg pro-ction are obtained. It has not been oved that hens will lay better in d houses than in warm ones, but it s been amply demonstrated that esh air and dryness in the house are sential to health, and health is a ime factor in egg production. The sults of investigation in the ques-n of proper housing indicate that ds kept in the fresh air type of use not only produce more eggs ring winter but the fertility of eggs ring the hatching season is in-eased and the vigor and vitality of e flock and the chicks are improved. here provision is made in the hous-g of poultry to keep them healthy, better results will be obtained and greater profits made.

While there are no hard and fast rules as to general type or dimensions of house, there are certain principles of construction that should be followed in order to insure the house being adequately lighted, well ventilated, and dry. Briefly, the essentials in construction are: the slatted ceiling, the straw loft, and the glass and cotton front. While no definite size or type of house can be stated to be the best for all conditions, the houses shown in the accompanying illustrations are most highly recommended for farm conditions in Manitoba.



A BROODER HOUSE

This picture shows the brooder house at the Experimental Farm, Brandon, Manitoba. With the exception of the roof, the construction is the same as the "Farmer's Poultry House." The space between the ceiling and roof does not allow sufficient space for straw for mature birds in winter.

These houses are sixteen feet wide and thirty-two feet long. One partition is made in the center, making two pens sixteen feet square. Each pen will accommodate fifty birds. Where it is desired to have smaller matings in the spring each of the pens can be sub-divided and four pens of twenty birds each accommodated. A few details of the construction of a house of this type may be of interest.

Building Details

The location of the poultry house is best on well drained soil so dampness will not enter the pens through the floor. Natural protection in the way of trees is helpful as a windbreak. The house should face the south, that is, the side with the cotton and glass should have a southern exposure. In making the foundation it is not necessary to dig ditches. The floor and foundation are made together of concrete. A good plan is to have a layer of five or six inches of small stones. On these stones the first layer of concrete may be filled. The first layer of concrete may be made of coarse gravel and cement in the proportion of ten to one. The finishing coat should be made of sand and cement to make a smooth surface. Bolts should be embedded in the concrete at the outer edges to fasten the sills.

For sills, two by four or two by six pieces may be used. Two by four pieces are used for studding and are spaced at 24-inch centers. Tarred or other building paper is put on under the siding. Paper is also used for the inner wall before putting on the shiplap lining. By boarding the outside and inside of the studding a four-inch dead air space is left. If it is desired to construct a house that will have better insulation, this can be accomplished by filling the dead air space with straw or planer shavings. Inside partitions are made of studding and wire netting to within thirty inches of the floor, the remainder of one-inch boards. Rafters of two by four material are used. The sheathing is of one-inch material, on top of which may be used ready roofing or tarred paper and shingles.

The Straw Loft

Two by four material is used for joists and on the under side of these the boards are nailed for the ceiling. Boards one by three inches spaced three inches apart on the ceiling allow free circulation of air from the pens to the straw loft. The space between the ceiling and roof is filled with straw. In each gable a door should be made at least thirty inches square. It is a good plan to have the gable doors slide vertically and hung from the peak by a rope or sash cord. In this way the doors can be opened sufficiently to allow outside air to pass through the straw and keep it dry. In extreme weather or when a direct wind is blowing, the doors may be partially or altogether closed.

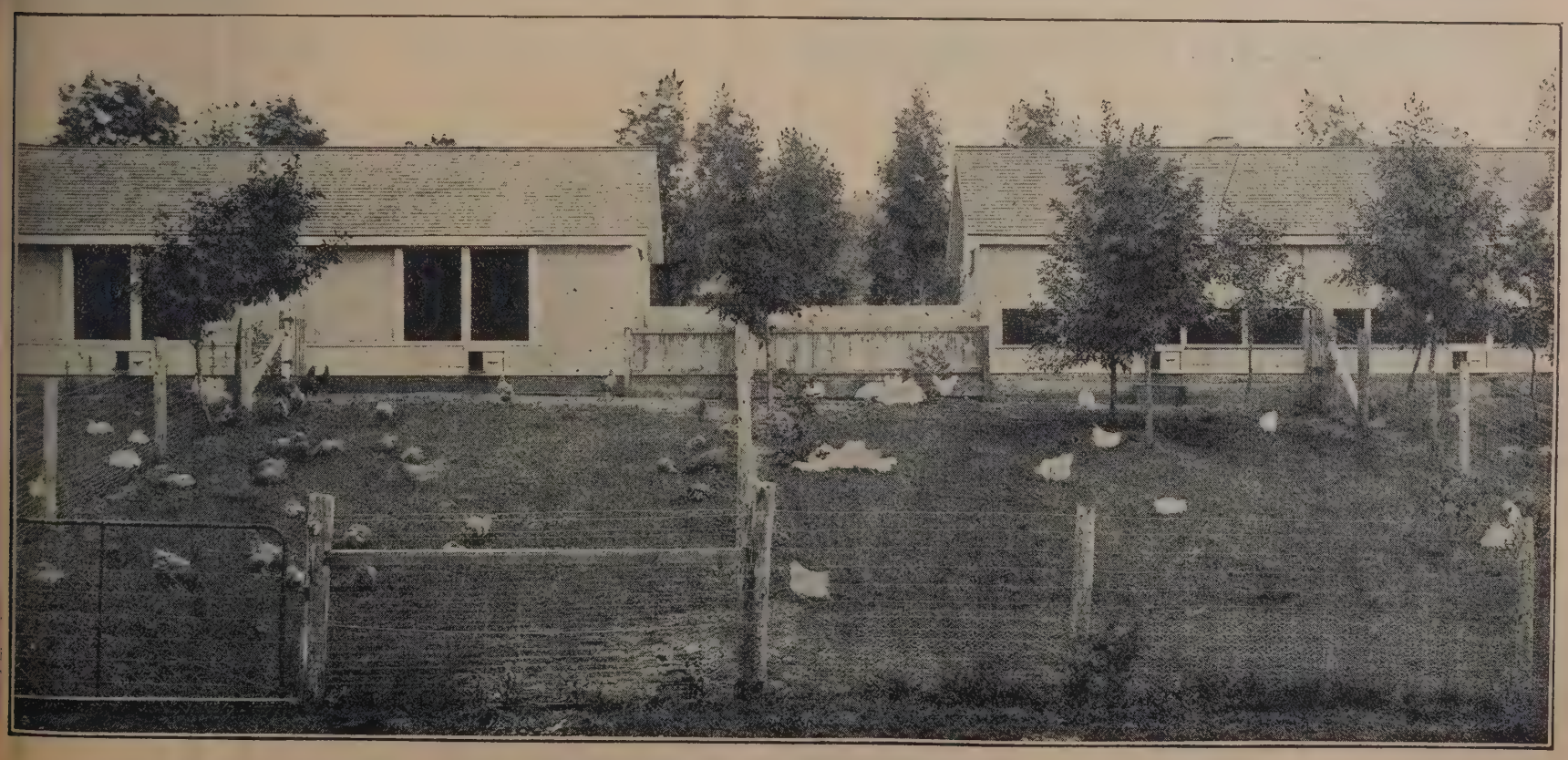
The front or south wall of the house is made up of one-third cotton, one-third glass, and one-third wood. The arrangement of cotton and glass is shown in the illustration. The house at the right in the larger illustration has the glass and cotton arranged in continuous rows, while in the other the panels of cotton and glass are alternated. The arrangement of cotton and glass in continuous rows has advantages over the other system. The windows are placed about eighteen inches from the floor and are fitted so they can be removed during the summer. The cotton panels are hinged at the top so they can be opened during the summer and during mild weather in winter. Poultry netting of one-inch mesh is used over the windows and cotton panels to keep sparrows and other small birds out.

One door is made in each end of the house. For convenience and economy of space the doors are best made near the wall with the cotton and glass. One large window is used in each end of the house. They are made adjoining the door in each end.

Equipping the Poultry House

The equipment recommended for this type of house includes a dry mash

(Continued on page 577)



THE MANITOBA STRAW-LOFT POULTRY HOUSE

This picture shows two "Farmer's Poultry Houses" that have been used at the Experimental Farm, Brandon, Manitoba, for several years and with splendid results. Many houses of this type are now in use throughout the province. Note the different arrangement of cotton and glass in the two houses. The continuous rows of cotton and glass, as shown at the right, have advantages over the other arrangement.

HOUSING THE HOG

A DISCUSSION of the subject "Housing the Hog" involves not only hog houses but also a system of management. Twenty or thirty years ago the central community hog house was the "jack of all trades," meaning that it served every need of the swine herd every month in the year. During the past decade or so changes have come rapidly in methods of feeding hogs and in methods of preventing parasites and certain diseases. Because of this, one cannot think of hog houses without giving thought also to the way they are to serve the best interests of the herd. Let us discuss types of houses first and then give thought to housing.

There are two well defined classes of hog houses, each class comprising a number of types differing in design and construction but all for the same main purpose. The central or permanently located house represents one class and the colony or movable house the other.

The essential features to be considered in any hog house are warmth, dryness, abundance of direct sunlight, ventilation, sanitation, convenience, serviceability, durability, reasonably low first cost, and minimum cost of maintenance. It is not easy to get all of these in the same house.

The most common mistakes made in building hog houses are incorrect placing of windows to get direct sunshine at the right place at the right time, improper construction of floors, inadequate ventilation, unnecessary high cost for the service rendered, and lack of ease in carrying out sanitary measures necessary for the control of parasites and diseases.

Community Hog Houses

The three types of permanently located community houses in common use are the shed-roof type, the half-monitor type, and the gable roof house built with the long axis north and south, having the windows in the roof. Of these, the half-monitor house predominates. Each type may be built with slight variations.

The shed-roof type is, perhaps, an evolution of the early shed made of poles and covered with straw or swale hay. It is simple in design, built facing the south and has only one row of pens, without alley for convenience. Windows and doors are placed in the south wall to admit sunshine and make possible the attention of the caretaker as well as providing entrance and exit for the hogs. In severe weather this type of house is cold; beating rains or snow from the south may easily get inside; it is hard to control ventilation; if well built of modern lasting material the cost per pen is higher than in the half-monitor or the sunlit houses. For the farmer who produces no more than 6 or 7 litters a year, who is willing to sacrifice convenience and the discomfort of doing much of the necessary work outside, it serves the purpose fairly well.

The half-monitor house as compared with the shed-roof type represents a desire for more convenience, for an escape from stormy weather, and perhaps is partly evolved out of the ease with which shed-roof types of houses could be converted to houses of double capacity without doubling the cost.

The cross section of a correctly proportioned half-monitor house is illustrated in Figure 1. The floor plan of the same house is shown in Figure 2. The same type of house may be built with a 4-foot alleyway instead of a driveway 8 feet wide. The pens are the same size, 6x8 feet in each plan. The principal objections to this style of house are that a large amount of space is enclosed for no other purpose than to admit sunlight to the back row of pens, the north part of the south row of pens never receives sunshine, and the house does not lend itself to perfect ventilation. For convenience in taking care of the hogs it is ideal. The most serious and most common mistake found in houses of this type is the incorrect placing of windows.

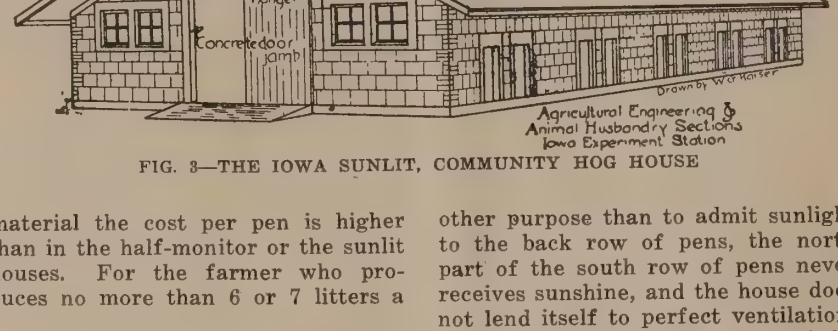


FIG. 3—THE IOWA SUNLIT, COMMUNITY HOG HOUSE

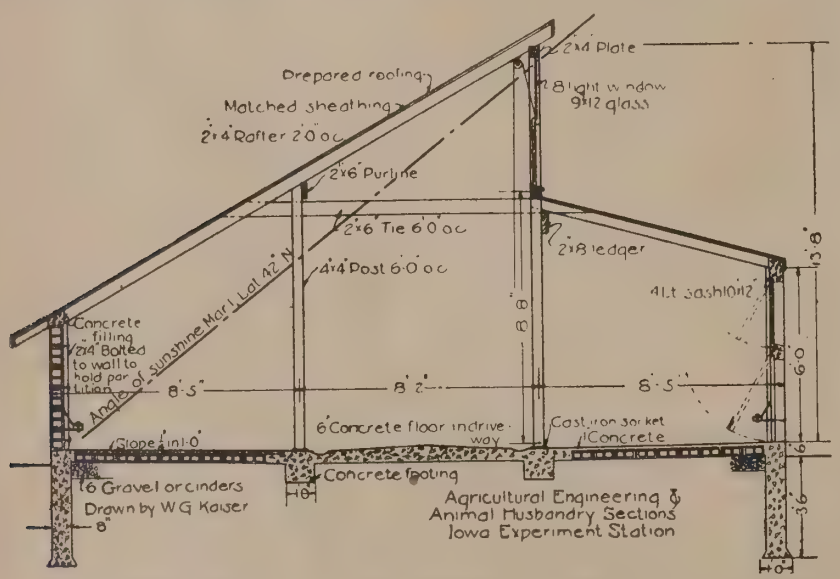


FIG. 1—CROSS SECTION OF THE HALF-MONITOR, COMMUNITY HOG HOUSE

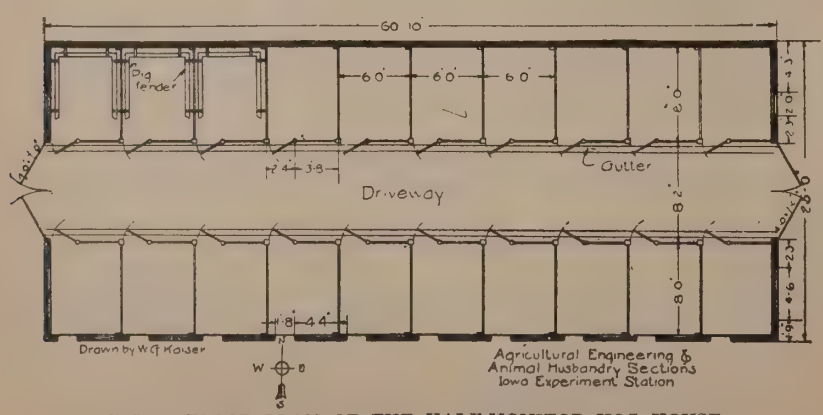


FIG. 2—FLOOR PLAN OF THE HALF-MONITOR HOG HOUSE AS SHOWN IN FIGURE 1

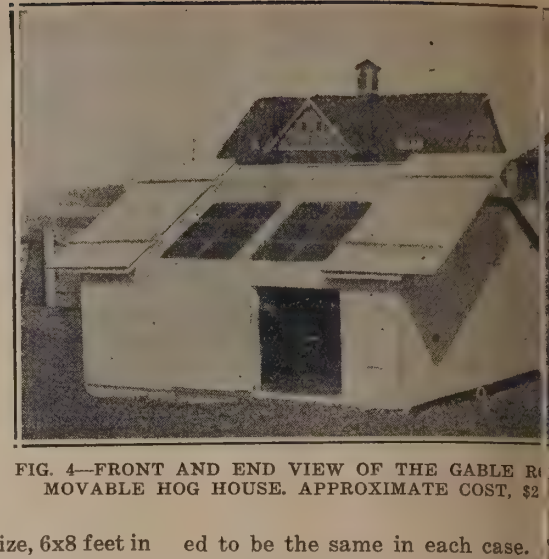


FIG. 4—FRONT AND END VIEW OF THE GABLE R MOVABLE HOG HOUSE. APPROXIMATE COST, $2

The Sunlit House

The third type of community house to find a place on many farms, particularly the larger farms where a good many hogs are produced, is the "Iowa Sunlit" house, built north and south with windows in the roof. This house is illustrated in Figure 3. The floor plan is similar to the half-monitor plan where the driveway is 8 feet wide. An advantage of this house over any other type is that the entire floor space is reached with direct sunshine. The walls are lower than in the half-monitor house. In comparing the costs of materials for a house of this type with one of the same dimensions of the half-monitor type, a 20 pen house in each case, the Iowa Station finds the latter type costs about 12 to 14 per cent less. The labor of construction is estimated to be the same in each case. "Iowa Sunlit" house presents a pleasing appearance. It must built north and south without o in sun obstructions on either si

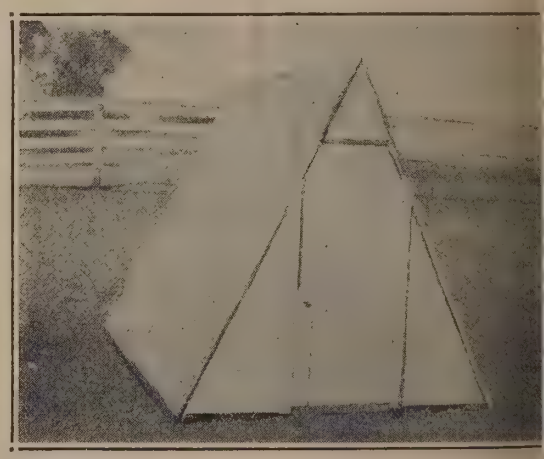


FIG. 5—FRONT AND SIDE VIEW OF THE "A" MOVA HOG HOUSE. APPROXIMATE COST, $18.

Movable Hog Houses

One of the best texts on mov hog houses is to be found in Bul 152 of the Iowa Experiment Sta In it 6 types of colony houses a lustrated, described, bill of mat given, and estimates of the co each given.

Two of these types are illust and named. Their comparative mated costs are likewise given i legend beneath the illustrations. tailed information on each type be found in the bulletin above tioned.

Housing Management

Housing the hog involves than class or type of hog house. remember visiting a farm in Ce Iowa some eleven years ago on w the owner had built a modern munity house of permanent con and clay block construction. house was ideal in its service pregnant sows and later their until the pigs were old enough t let outside. When this time the pigs scampered out on the seen contagion accumulated in yards over a period of nearly years of hog raising. It proved

(Continued on page 593)

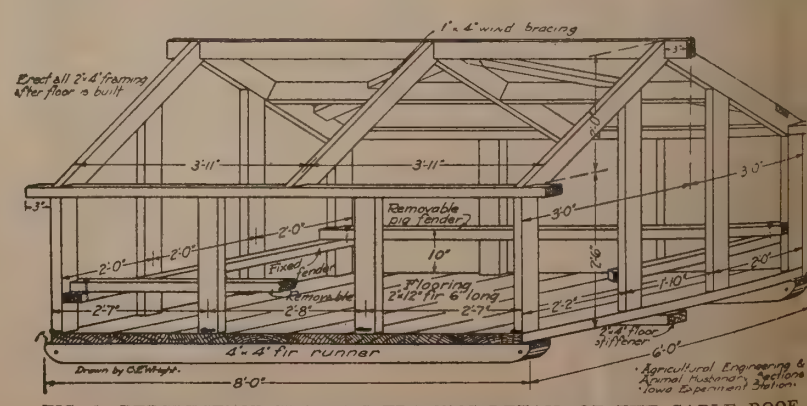


FIG. 6—PERSPECTIVE SHOWING FRAMING DETAIL OF THE GABLE ROOF, MOVABLE HOG HOUSE AS SHOWN IN FIGURE 4

HOT WATER AND STEAM FOR THE DAIRY

C. A. HUTTON, TENNESSEE

N farms where dairy cows are kept, an abundant supply of hot water is one of the greatest nveniences and an absolute necessi- or properly washing the dairy e ils. They cannot be properly ased unless the water is hot,— iz ing" hot, not lukewarm. Where lya very few cows are kept the wa- r is often heated on the kitchen o, but this method is not very sat- fs ory, as the amount of water a d is apt to be very small and it rt usually very hot by the time it c ried to the dairy house.

Te hot water heating outfit, de- gn d by the writer and shown in e ccompanying illustration, is an e: ensive and very efficient system lating water. It also furnishes a ffient amount of steam for ster- zig the cans, pails, etc. A small nt of coal or wood will heat a r l of water to the scalding point . few minutes. The same outfit a also be used for heating water r he farm laundry, bath, etc., in dion to furnishing t water and steam r he dairy.

A the water in the tr jacket or pipe il surrounding the e ot is heated it t natically moves w rd into the barrel d cold water from e ottom of the bar- ows into the jack- coil through the w pipe line. In this y all the water in e arrel is soon heat- . The barrel should s curely anchored to e wall and floor of e nilk house to pre- n the connections i; shaken loose by e movement of the n caused by the nt boiling of the tr.

tng Up the Outfit

I setting up the t. begin at the back of the heater. Put on the connections on both the top and the bottom pipe lines until the barrel is reached. Bore three 1-inch holes in the barrel at the proper places and complete the connections to the barrel with lock nuts and washers. Then complete the hot water and steam lines to the wash sinks and steam shelf.

You Can Also Have Steam

Steam for properly sterilizing the utensils is of great assistance in properly cleaning them. The outfit shown will furnish plenty of steam in addition to hot water. When the water in the barrel has begun to boil and the operator is ready to begin washing the utensils, the globe valve A, on the hot water discharge line, is closed. This stops the upward movement of water from the heater to the barrel and the water in the jacket or coil is quickly converted into steam. The utensils are first rinsed out with cold or lukewarm water, then washed in the wash sink, laid over in the rinsing sink filled with scalding hot water, and then inverted over the steam jet for a few minutes. They are then pushed over onto the sunning rack to dry where they may remain until used again.

While steam is being generated, hot water flows into the jacket or coil from the barrel through the lower pipe, and steam will continue to flow through the steam jet as long as valve A is closed and valve B is open. When both valve A and valve B are closed the steam backs up through the lower pipe line and bubbles up through the lower pipe line and bubbles up through the water in the open barrel, making the outfit absolutely safe so long as an open barrel is used. Valve A should be kept open except when steam is wanted, because the water in the barrel will heat faster if it is open than if it is closed.

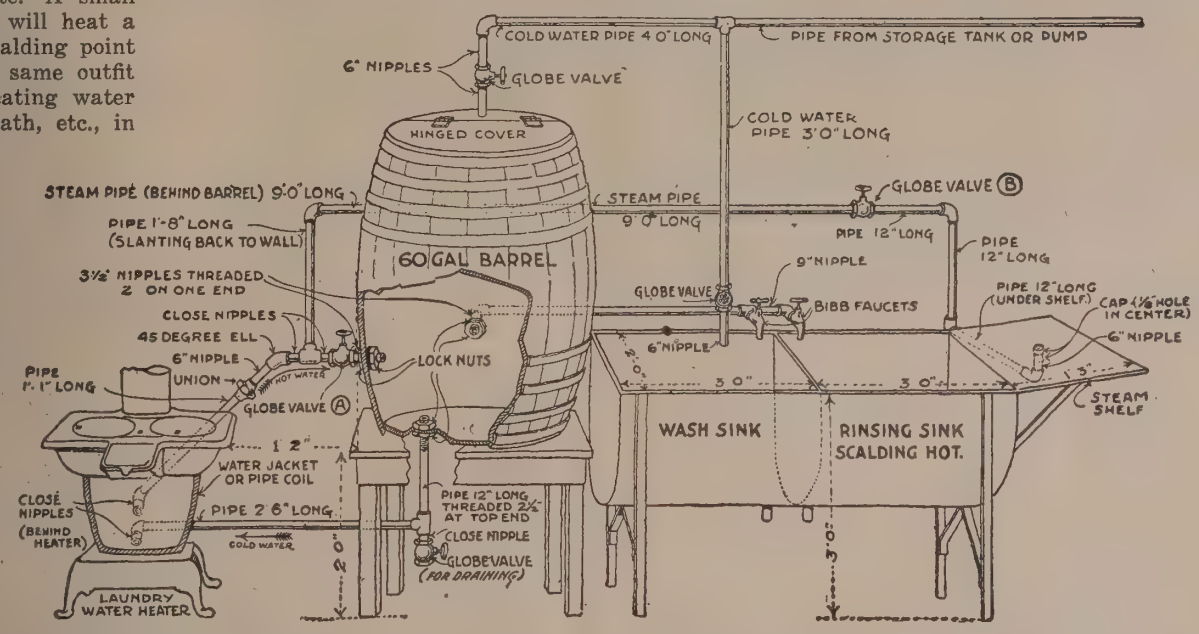
The steam pipe behind the barrel must be higher than the level of the water in the barrel to prevent the water from flowing through it before it is converted into steam.

When Barrel Tank is Not Used

To secure steam where the outfit is connected with a pressure water system or an air tight hot water tank, it is necessary to place a valve on the cold water pipe entering the tank so that the flow of water into the tank can be stopped while generating steam. If this is not done the pressure from the storage tank will force water through the steam line before it is converted into steam. Also place a pop-off valve or an air cock on top of the tank to relieve any excess pressure caused by not using the steam as fast as it is generated. When through steaming, the valve on the cold water pipe entering the tank and valve A should be opened and the water allowed to circulate freely, the same as when heating the water.

If only hot water is wanted the steam pipe and valve A may be omitted and the heater

(Continued on page 580)



AN INEXPENSIVE OUTFIT FOR HEATING WATER AND SUPPLYING STEAM FOR STERILIZING MILK UTENSILS

The following pipe and fittings are required to set up the outfit as shown, not including the cold water line from the storage tank or pump to the barrel and wash sink; 5 close nipples; 2 three-and-one-half-inch nipples, threaded 2 inches on one end, ordinary threads on the other end; 2 six-inch nipples; 1 nine-inch nipple; 8 ells; 1 forty-five degree ell; 3 tees; 1 union; 3 globe valves; 6 lock nuts; 6 washers with 1⅛-inch hole; 2 bibb faucets; 1 cap with ⅛-inch hole in center; 3 pieces pipe 1 foot long; 1 piece pipe 1 foot long, threaded 2½ inches on one end, ordinary threads on the other end; 1 piece pipe, 1 foot, 1 inch long; 1 piece pipe 1 foot, 8 inches long; 1 piece pipe 2 feet, 6 inches long; 1 piece pipe 4 feet long (hot water pipe from barrel to faucet); 1 piece pipe 9 feet long; sufficient pipe and fittings for the cold water line from storage tank or pump. All pipe and fittings ¾-inch galvanized. Many water heaters have one-inch holes for the pipe connections. In such cases two ¾x1-inch reducers should be included in the list of fittings. Due to an error in lettering the drawing the length of the wash sink and the rinsing sink is shown as 30 inches. Each should be 3 ft. long. The outfit will be more permanent if a metal gasoline barrel is used instead of the wood barrel. If an airtight barrel or tank is used with the steaming arrangement, either a pop-off valve or an air cock should be installed on the top as mentioned in the article. The outfit can be set up complete as shown, not including the wash sink, for $25.00 to $30.00.

DAIRY FARM CORN CRIB AND GRANARY

LTHOUGH dairying may be the main source of income from a farm it is well to keep in mind the farm is very much like a ifacturing plant. The buildings as the factory in which the raw rials are turned into a finished product. The shelter for the raw materials should prove a good investment and in order to do this they must last a number of years.

A building that will economically shelter the corn and grain for feed and seed on the dairy farm is shown in Fig. 3. In some cases it will be necessary to increase the length in order to secure sufficient capacity. The size should be determined by the rule that a bushel of ear corn occupies 2½ cubic feet and a bushel of grain occupies 1¼ cubic feet. The weight per cubic foot of grains is as follows: Barley, 39 lbs.; corn and cob, 25 lbs.; corn shelled, 25 lbs.; flax, 45 lbs.; oats, 26 lbs.; rye, 45 lbs.; wheat, 48 lbs. The work room is usually filled at threshing time as it is not used as a

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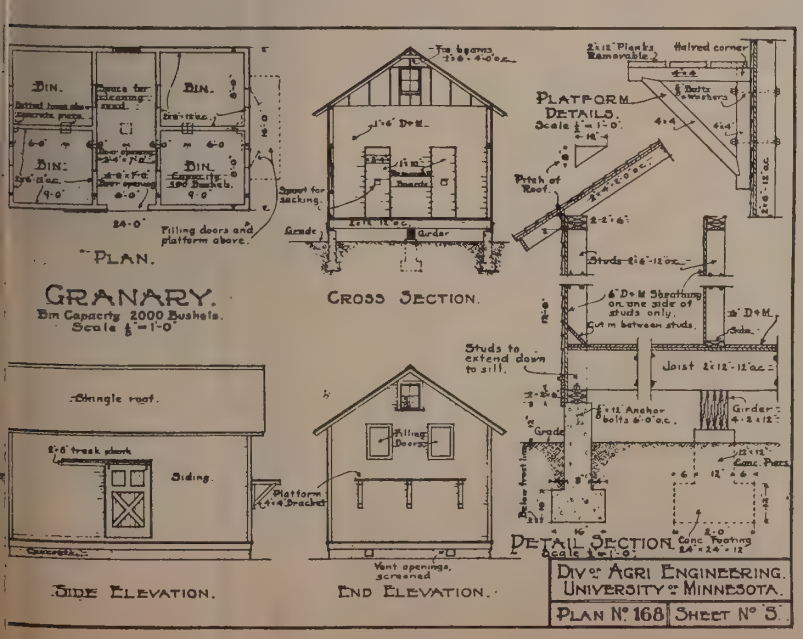


FIG. 1—A 500-BUSHEL GRANARY

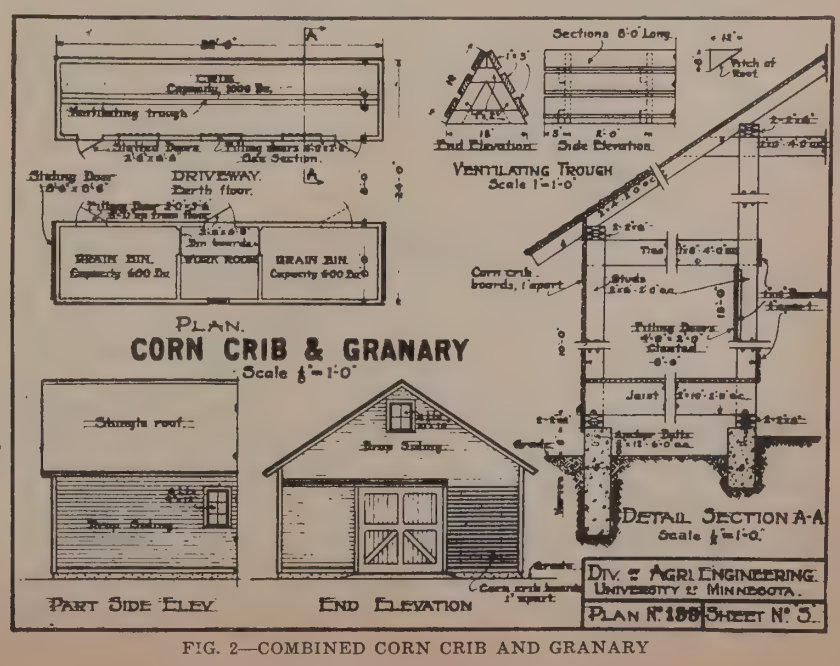
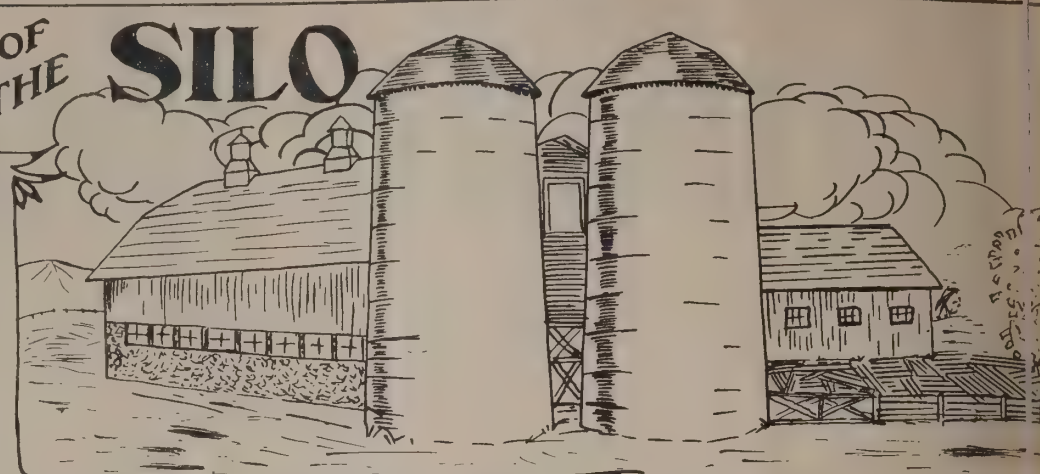


FIG. 2—COMBINED CORN CRIB AND GRANARY

The SIGNAL of THE SILO



The sea boasts prim light-houses, perched along the stormy shore,
To guide th' wind-tossed sailor; when his own eyes see no more;
Whilst we--we of the inland, have our Silos standin' guard
Through snow and rain and winter, with its fists a-beating hard.
And, somehow, we compare 'em, in a tidy sort of way,
With them as stand out yonder, where th' ocean roars, today.
Th' treasure-trove of cattle that are hungry with the morn
A storm-bound Silo, standin' in a restless sea o' corn

And whether made of cement, or stave, or iron, or tile,
Or woods of all creation, from up Maine ways to th' Nile,
Or whether concrete fellers get th' local upper-hand,
God bless 'em--they're ALL Silos, for th' better of th' land
A munch of tasty silage, makes th' Dairy records grow;
Who gives a hang for feed-bills and a winter full of snow
Th' herd is plump as butter...and if folks have cause to thank
It's because each farmer's Silo is a sort o' Savings Bank!

—W. L. LARNED

ALTHOUGH silo propaganda has been continued for a half century and although the merits of silage as a feed for dairy cows have been fully demonstrated for these many years, yet there are many farmers who at the present time are soliloquizing as to whether to build or not to build a silo *this* year. All the force of argument would seem to indicate favorable action, yet amidst it all there is confusion as to whether it will really prove profitable, and more confusion as to the particular type of silo.

But you ask, "Will it pay?" It is generally recognized and accepted that silage is a good feed for dairy cattle. It is palatable and succulent; it has an excellent effect on the digestive tract; and it supplements legume hay in such a manner as to make it an ideal basal ration and one with which almost any combination of available grain feeds may be used. But, will it pay? Does its cost overbalance its benefits?

There is much that can be said on this subject, but probably the best ar-

"If dairy cows were less practical and not so deeply engrossed in their daily business of milk, they would, long ago, have set apart a special day of thanksgiving in honor of the introduction of the silo."—Roy Harris.

gument is that practically every successful and prosperous dairyman has one or more silos. There were over a half million silos that proved their worth this winter in reducing feed bills and increasing milk yields. Figures of profit could be quoted but, after all, the general adoption of the silo by the best farmers is most convincing proof that it is a profitable investment.

The Kind of Material to Use

Having decided that we shall erect a silo, the next question is the kind of material to use. The writer could state his own personal preferences, but he finds that the man next to him has other preferences. Both realize that with silos, as with machinery, only general principles may be laid down. If the manufacturer has followed these, then the decision is up to the farmer. In the building of a silo there is a choice of materials, different methods of erection, various types of doors, different forms of roofs, etc. However, there are certain fundamentals that should be considered.

1. Walls air- and water-tight. The side walls of the well constructed silo are air- and water-tight. If air can get into the silage, it will cause the silage to continue to ferment, and molds will grow, thus spoiling the silage around the outside of the silo. The water in silage helps to pack the silage, displacing and forcing out the air. If this moisture is then allowed to seep out through walls or around doors, air will find its way in, resulting in spoiled silage.

2. Walls smooth, strong, and plumb. The inside of the silo walls must be smooth and plumb. Rough or irregular places on the walls prevent the silage from settling evenly and often cause air pockets to form. Unless the walls are plumb, the silage will settle away from them and allow air to find its way down between the walls and the silage. The silo wall must be strong to withstand the bursting pressure of the silage which increases with the depth of the silo.

3. Cylindrical shape. The principal cause of the excessive amount of spoilage in the early day silos was due to the shape of the silos. Many of the early silos were rectangular or hexagonal. It was exceedingly difficult to pack these silos so that the silage would not spoil. King of the Wisconsin Station suggested the use of the cylindrical silo which overcame this difficulty and greatly aided the adoption of the silo.

Size of the Silo

The successful use of silage is dependent to a considerable degree upon the size of the silo being suited to the size of the herd. If the diameter of the silo is too great, the silage will not be fed off rapidly enough to keep it from spoiling, and a slightly spoiled silage may be fed during part of the year.

The diameter of the silo is determined by the amount of silage needed per day, and the season of the year when the silage will be fed. It is necessary to remove at least two inches of silage daily in the summer, while one inch will be sufficient during the late fall and winter.

Table I—Rate of Feeding From Silos of Different Diameters

Diameter	*Approximate minimum lbs. to be fed daily Summer	Winter	†Number of mature cattle to keep silage from spoiling in summer when fed at daily rate of 40 lbs.	30 lbs.	20 lbs.	15 lbs.
10	526	263	13	17	26	35
11	634	317	16	21	32	42
12	756	378	19	25	37	50
13	884	442	22	29	44	59
14	1030	515	25	34	51	69
15	1178	589	29	39	59	79
16	1340	670	33	44	67	89
17	1520	760	38	50	75	101
18	1690	845	42	56	84	112

*This is one inch in winter and two inches in summer, which is the least amount it is practicable to feed off and avoid spoilage.

†If silo is for winter feeding, it will require only half as many cows to keep the silage from spoiling.

The height of the silo depends upon the number of animals to be fed and the length of the feeding period. In winter silage is usually fed at the rate of 3 pounds for each 100 pounds live weight of cattle or 30 pounds daily for a 1000-pound cow. The following table illustrates the application of Table I to herds of various sizes and is suggestive in determining the size of silo to build:

Table II—Feed for a 200-day Winter Period With Cows Fed 30 to 35 Lbs. Daily

†No. of mature cattle	Silage needed	Size of silo to build Diameter	Height*
	Tons	Feet	Feet
10	34	10	28
12	41	10	32
15	50	12	29
20	68	12	36
25	84	14	34
30	102	14	39
35	118	14	44
40	136	16	39
45	157	16	44
50	170	16	48

*These heights allow for five feet for settling of the silage; that is, 23 feet of silage in a silo 10'x28' would provide approximately 34 tons of silage.

†In summer double this number will ordinarily be required to feed down the silage fast enough to keep it from spoiling.

A high silo gives greater compression, which means that the air is more thoroughly pressed out with resulting better quality of silage. It also means the storage of more silage in a given space. The height should be from two and one-half to three times the diameter for best results, and it is well to set the minimum at 28 ft. to 30 ft.

Investigate the silo and one finds it well nigh indispensable to make milk economically. Act on this knowledge and larger success will follow. Returns come to him who does.

Silage is more compact in the bottom of the silo than in top, and the weight per cubic foot increases with the depth. In a silo containing 30 feet of silage the weight per cubic foot will vary from about 32 pounds a the top to 43 pounds at the bottom, the average approximating 40 po For the convenience of those des more complete information than en in the accompanying tables have prepared a silage meas

Eight tons of corn silage can be stored in the same space required by one ton of hay. Therefore same space stores three times much digestible nutrients in form of corn silage as in the f of alfalfa hay.

chart giving the capacities of of varying diameter and heigh also for contents when a portion has been fed out. This will be se Hoard's Dairyman upon recei five cents to cover cost of mailin

Summer Silage

Feeding silage during the su months is one of the best metho preventing the abnormal decli the yield of milk. It is usua cheaper feed than soiling crops has been found to be equal in fe value. A silo of small diameter be used so at least two inches lage will be fed daily. A diamet 10 or 12 feet is the usual size.

Types of Silos

There are many types of silos one of which will be satisfacto they meet the requirements have already been discussed. more common kinds of silos i the solid concrete wall, concrete concrete block, vitrified tile, w stave, wooden hoop, brick, stone sheet steel. Pit silos are com used in the semi-arid regions. mation can be secured from the

(Continued on page 581)

Table III—Capacities of Silos

Depth of silage	At Time Filling is Completed* Diameter of silo, feet 10'	12'	14'	16'	18'	†Depth of silage	After Settling for a Month or Mor Diameter of silo, feet 10'	12'	14'	16'
Feet	Tons	Tons	Tons	Tons	Tons	Feet	Tons	Tons	Tons	Tons
2	1.3	2	2.6	3.4	4.3	2	2.5	3.7	5.0	6.5
5	3.7	5	7.3	9.6	12.2	5	6.6	9.4	13	17
10	9	13	17	23	29	10	14	20	27	35
15	15	22	30	39	49	15	21	31	42	55
16	17	24	33	43	54	16	23	33	45	59
18	20	28	50	39	64	18	26	38	51	67
20	23	33	45	58	74	20	29	42	58	75
22	26	38	51	67	85	22	33	47	64	84
24	30	43	58	76	96	24	36	52	70	92
26	33	48	65	85	107	26	39	56	77	100
28	37	53	72	94	119	28	42	61	83	109
30	41	59	80	104	132	30	46	66	90	118
32		64	87	114	145	32	49	71	97	126
34		70	95	124	157	34	53	76	103	135
36			103	138	171	36	56	81	110	143
38			111	145	184	38	59	86	117	152
40			120	156	198	40	63	91	123	161

*If the corn is unusually dry deduct ten per cent. If the corn is dry and very little g present deduct 15 per cent. If the silo is filled rapidly and no time allowed for settling ten per cent.

‡If the corn is less mature than usual add 10 to 15 per cent to the weights given. If the is unusually heavy add 5 to 10 per cent. If the corn is past maturity and contains less than usual, deduct 10 to 15 per cent. If very little or no grain is present deduct ten per

†The height of silo should be about 5 feet greater than the depth shown, to allow settling of silage to this depth.

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olume 72 FORT ATKINSON, WIS., MAY 25, 1927 Number 10

ELECTRICITY IN THE FARMER'S FAMILY

E. A. MARTINI, ILLINOIS

HE discriminating farmer's wife has learned to distinguish between modern improvements na are worth while and those that re not. Of all the improvements na bring comfort, convenience, and ati action to a farm home, elec- icy stands at the head of the list.

I has been said that electricity, tr duced into the households of the at n, has eliminated as much as 50 er ent of routine household drudg- ry The burden of the housewife as been lifted to such a degree na she is able, without neglect- g er domestic duties, to carry n er social and club activities. Mo over, beside speeding up er work and enabling her to ni it so much sooner than er ofore, the actual work is on in a far more satisfactory wa and under more attractive ur undings than before this ro erful force was at her beck nd call.

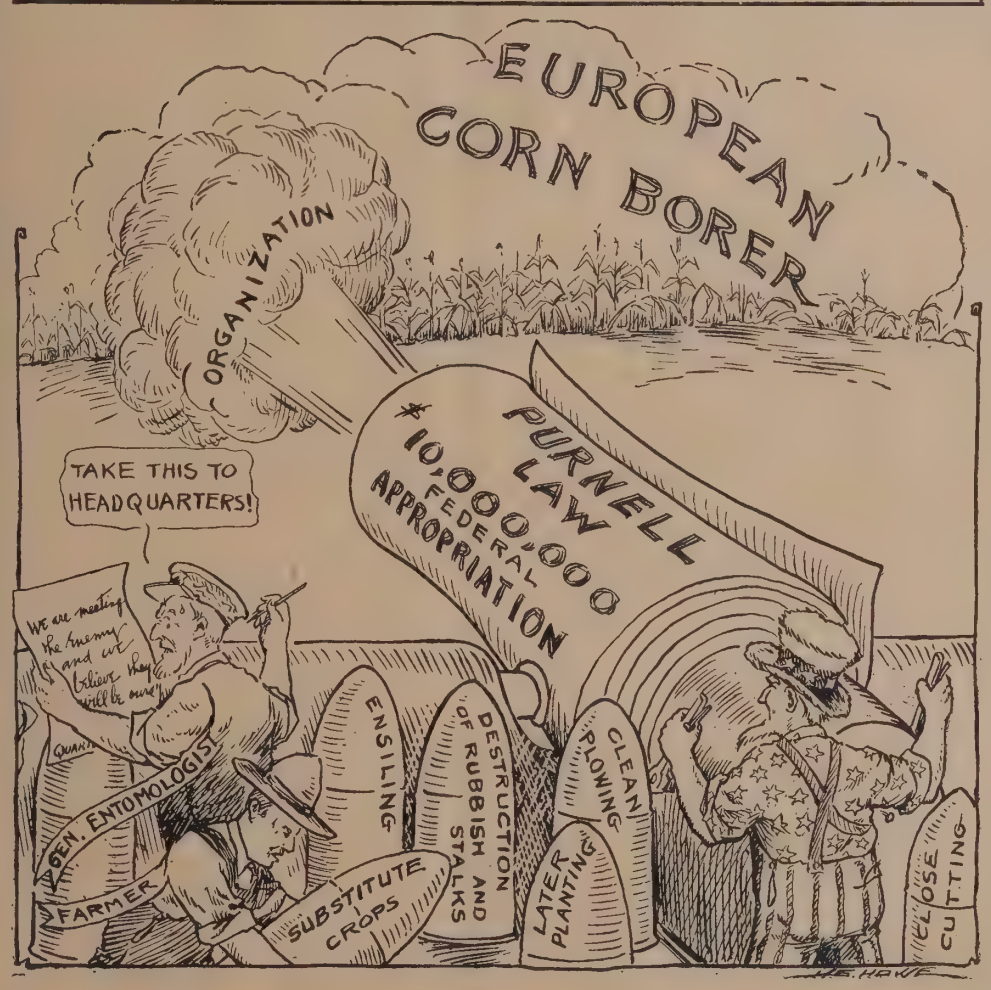
E ctricity can supply currents or ll the labor-saving devices uc as the electric sewing ma- hi , bread toaster, electric or vacuum cleaner, mangle, ra ng machine, and for pump- g ater. A first-class washing ma ine will save hours of time s ll as eliminate much strenu- us work each week. A small mot using no more current na an average sized bulb will ee the machine operating, hi the housewife goes about er ther work.

A electric flatiron on the cool, ac porch will do away with mu of the drudgery and most f e discomfort of ironing in ot weather. A small electric an will make ironing and other ro less disagreeable in hot we er. As for a hen house le ically lighted, the chickens re heated out of several hours ep and made to work over- m

E ctricity does not steal the xy n from the air, causing ill ea n. It will make home life n e farm so much more at- ac ve that farm ties will not b oken, nor boys and girls driven t city, as has happened in count- ss stances before the days of elec- ici . Farm work will seem so uc pleasanter that the problem of no ge of farm help and reduced ar production will be solved.

F electricity is now doing on the ar what it has done to simplify the sk f the home, not only as far as he usewife is concerned, but also t actual agricultural activities. he lectric light and power compan- s roughout the country, whose er ries include rural communi- es, ave been extending their net- or of wires in all directions into he rming and ranching communi- es nd are supplying the farmers nd anchers with currents.

WAR HAS BEEN DECLARED



very cold if the season was winter, and this gave him a poor foundation for the day's tasks.

But with the installation of electricity in the farm houses, all this is different. True, the farmer has to rise more or less early in the morning, but this may be because he has to ship his milk in time to make a train. However, in rising he can do this in a lighted room simply by turning a switch and is no longer obliged to grope for a match to light the oil lamp. He even lights his way downstairs and instead of carrying in a load of wood for the breakfast fire, he turns a switch and immediately the heating element of his electric range starts to glow. If he wants a cup of coffee before beginning his daily tasks, the percolator is ready. All this sounds like a fairy tale, but it is all too true. Is it any wonder that today the farmer and his family get more joy out of life and have more time for self-culture and interest in public affairs?

There are a few items to be kept in mind when considering the purchase of an electric plant. The great distances so many farms are removed from town generally prohibit electricity from being transmitted to them from city plants. For this reason it is usually necessary to supply currents through private plants and it is a serious mistake to attempt this without employing an expert for the installation. It is also false economy not to buy good equipment. Poor wiring and improper connections can often do great harm. A short circuit may easily ignite the slightest inflammable object—a cobweb, dust, a straw, etc., and a fire is caused. If all work is done in strict accordance with the National Electrical Code, the danger of fire is practically eliminated.

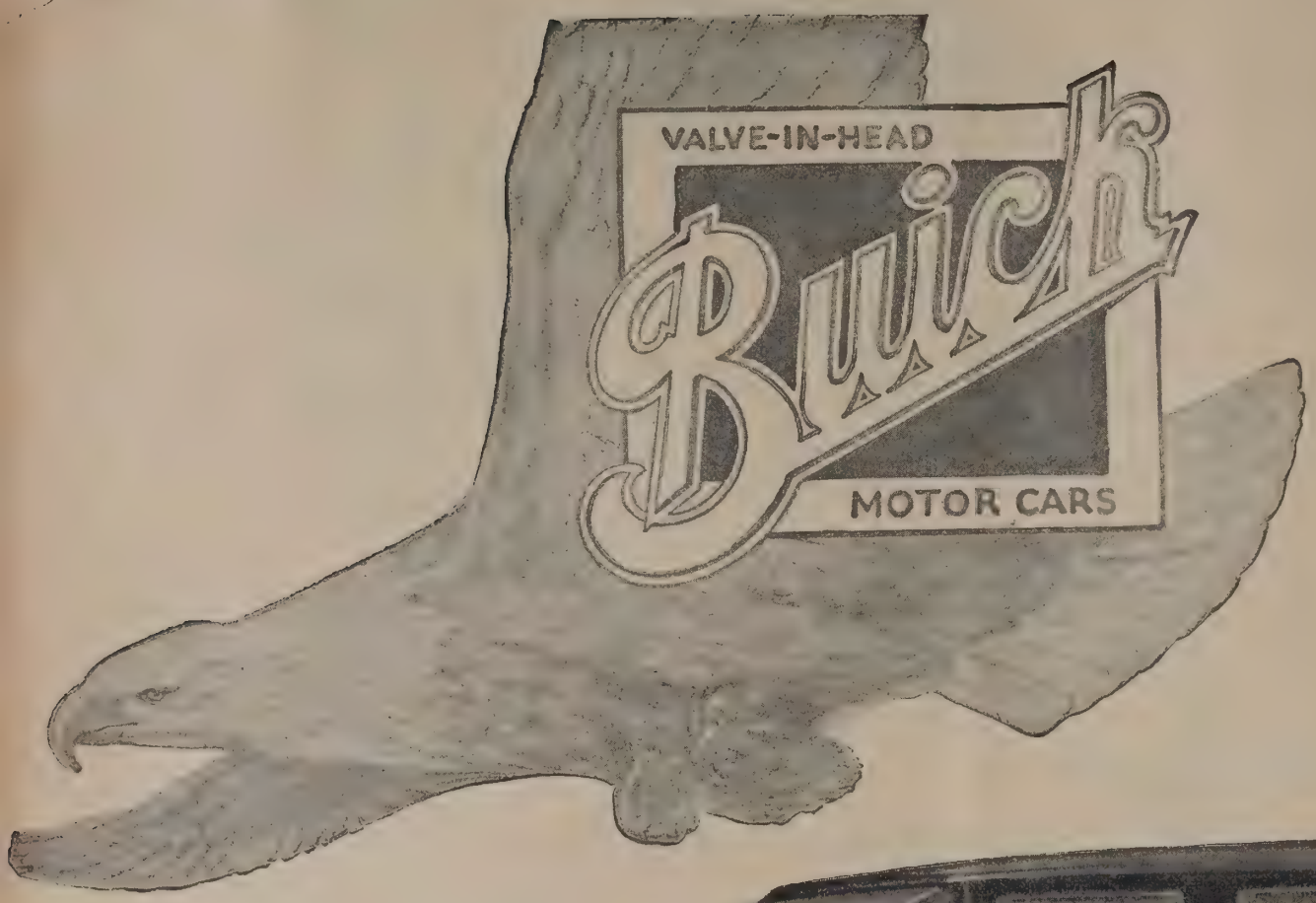
Most private plants are either 110 volts battery or non-battery, or 32 volt battery plants, the latter being more frequently used. All the attachments such as wires, motors, bulbs, batteries, etc., for a 32 volt current are slightly more expensive and the current cannot be economically conducted for a distance of more than 500 feet, nor is it advisable to use a larger motor than ¼ horse power. Moreover, it is impossible to heat the house and difficult to use an ice machine with a 32 volt battery plant. But the cost of such a plant is the lowest except, perhaps, that of a 110 volt non-battery plant and the danger of shocks is greatly reduced on account of the low voltage. The storage battery gives power as soon as the switch is closed and also insures a few days' reserve, all this not being the case with most other plants. The 110 volt non-battery plant costs about the same as the 32 volt battery and the attachments cost less, as standard equipment can be used with 110 volt, but, as the plant is automatic and consequently complicated, it occasionally gets out of order and fails to start when current is needed. When buying or ordering any fixtures, motors, or other attachments, voltage and current must always be mentioned.

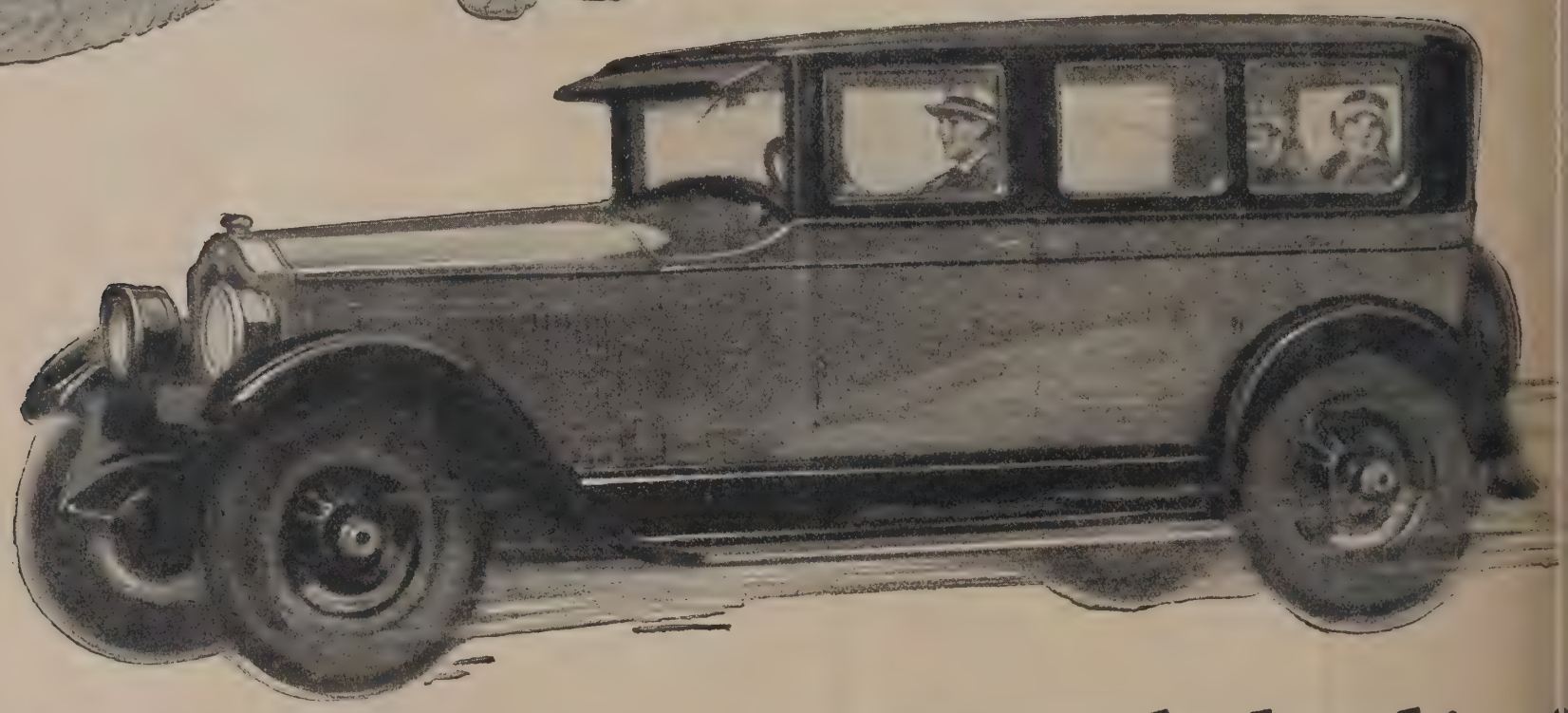
The future of our nation depends, in a far higher degree than is generally recognized, upon the farmer and his family. Anything which will in any way help these agricultural brothers indirectly helps our nation at large and should be most assiduously encouraged. That can surely be claimed for electricity.

Milk Powder in 1298

The following interesting translation from Marco Polo was recently received by Dr. Van Norman from his sister. It indicates that as early as 1298 A. D. the ancients had a pretty fair method of making powdered milk.

"When the service, that is the military service, is distant, they carry but little with them. They make a provision of milk thickened and dried to a state of paste, which is prepared in the following manner: They boil the milk and skimming off the rich or creamy part as it rises to the top, put into a separate vessel as butter for so long as that remains in, the milk will not become hard. The latter is then exposed to the sun until it dries. On going into the service, they carry with them about ten pounds for each man and of this, one-half pound is put every morning in a leathern bottle with as much water as is thought necessary. By their motion in riding, the contents are violently shaken and a thin porridge is produced, on which they make their dinner."





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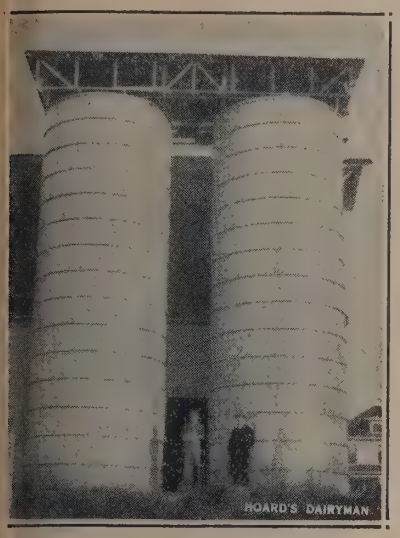
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WHEN BETTER AUTOMOBILES ARE BUILT, BUICK WILL BUILD THEM

Wooden Hoop Silos

HOARD'S DAIRYMAN:—Since the iscovery that Minnesota 13 corn will ature to produce good ensilage in e coast counties of Western Wash-gton, more and more dairymen in at section are building silos.

Will W. Henry, county agent in ing County, Washington, paved the



Twin wooden hoop silos on F. H. Thuy-er's farm of Washington that were erect-ed at a total cost of $220 each.

ay a few years ago for the erection f 25 such feed containers in his parish" when he demonstrated the se with which wooden hoop silos n be built and paid for. Henry ys that the entire cost of a 30- by 2-foot structure for lumber, hard-are, paint, and labor when labor is gured at $4 a day, need not amount more than $220.

The silo is a single wall of com-on flooring bound together every vo feet with hoops made out of four y 3-inch batting ⅜ of an inch ick. The hoops are made by bend-g the bats around a temporary or rmanent form and nailing them to-ther. The doors are continuous d made out of 1¼ inch flooring 2 foot sections. Henry says the ly necessary scaffolding are 16 eces of common 1 by 6 fence ards 18 feet long to hold the hoops place until the flooring can be iled on, and four 2x10 or 2x12 anks for the men to stand on.

Wisconsin. GUY A. PETERSON.

Try Optimism

HOARD'S DAIRYMAN:—If a pho-grapher wanted to make a picture at would give the clearest idea of e appearance of an elephant, he uld not locate his camera within o or three feet of the animal's le. In case he did, the picture uld be more like a wall, or if a fly ppened to sit unnoticed in front of e lens, the representation of the phant would be misrepresented.

The agricultural situation is re-ving about this kind of considera-n at present. It has been riding the band-wagon of publicity for a g time, and there still seems to no shortage of wind to blow the rn of distress. Agriculture is tak-g its turn as a topic of public in-est. It gets more front-page space n a dozen prize fighters, or the mpion coffee drinker, or a three-ged chicken; it gets more edi-ial comment than short skirts. hen a subject is at this stage we e at too close range to see it most arly. Let's look at it as we look things that are ten, or twenty, or ty years past.

In the past, someone will say, re has been nothing like it. There s not—exactly. Neither was the ather last year exactly like that of y other year, but the future can judged sufficiently to convince us that we are not likely to have January weather in July.

Changes in agricultural affairs have come as surely as the seasons, although not as often. There is no more reason to doubt that another change will come than that another season will come.

About 1890 there were a number of farm organizations formed for the purpose of better farm conditions. They tried the legislative way of making things right and there was some conspicuous legislation in places. Whether it helped or hindered is unknown, but the time came at the beginning of the next century when farmers again became optimistic.

However, a few years later the worry of "the high cost of living" came along and in trying to locate the cause of professional worriers nearly ran the poor "middle man" out of breath. Also about this time efforts were made to insure plentiful production of farm products. The cost of living was getting so high that surely there seemed to be no danger of a "surplus." There was alarm over abandoned farms and alarm lest some of the boys would leave the farm.

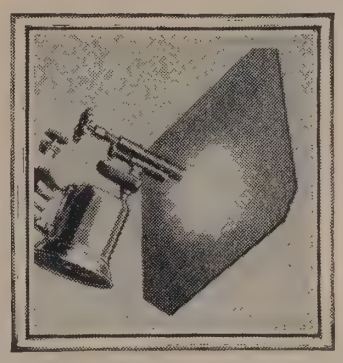
Then there was war time, when there was a "surplus" of money and credit, when farm land made good interest on a high valuation, when farmers bought freely. This also seemed it would go on indefinitely. Overdestruction of property was the big cause of high prices then.

Now we are told overproduction is the big cause of low prices. There is another cause, or it might be said that there are two causes and both of them are overproduction. The one is the overproduction of agricultural pessimism. "Surplus" has been stood up before the public so repeatedly that it has come to look like it would feed the world for a generation. Keeping this in mind discourages any tendency to hold products. The average exported surplus of corn is a smaller part of the whole crop than the reduction caused by an unproductive season. When optimism comes again the surplus will not be a problem.

Look at present prices as only another incident of farm life. If farmers in general will do this they will be well before the farm doctors can get to them.

Kansas. A. BUTTERNUT.





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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 10 Fort Atkinson, Wisconsin May 25, 1927



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HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR





HOLSTEINS

Write for "The Holstein-Friesian Cow"

For 2000 years Holsteins have been bred for ruggedness. They thrive in any climate and sections without expert care and produce profitably under varied conditions.

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN

E. Ohio St. *Association of America* **CHICAGO**

Room 601

Bull Calves

H E FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

grandson of S. P. O. M. His dam made 7 days, 550 lbs. in 305 days at 25 months. is by our proven son of "Piebe." His dam lbs. in 7 days, 764 lbs. in a year with first ese are good herd sire prospects. Your $150.

ON COLLEGE FARM, Northfield, Minn.

ost Spaulding Farm Co.

ice Bred Bulls from good record dams and **KING PEITERTJE MERCEDES ORMSBY,** ose daughters has just broken the World's the senior two-year-old class with 1,119 lbs. a year. This sire is a son of Sir Pietertje ercedes from an 1,100 lb. daughter of a cow and is one of the few sons of Sir backed by two generations of 1,000 lb. dams. rices.

ULDING, MGR., Warren, Minn.

GOOD BABY BULL

by ST. OLAF ORMSBY SENSA- No. 346641, the Show son of by Sensation. Dam of calf a won- daughter of Dean of the Orms- What more could be desired? December 21st; about half white. information write

AF COLLEGE FARMS, Northfield, Minn.

LE COUNTY HOLSTEINS

d for their size, type and production. eds or grades. One or a carload.

KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

bna Holstein Farm

tered heifers. No. 1 born Oct. 6, No. 2 26. Sire's dam's record 1016 lbs. butter in 's on yearly test. Price $85 each.

RRIS, ANOKA, MINN.

A SON OF

PRIDE OF SIR PIETS

FOR SALE

Born Jan. 12, 1927. A very typy calf, well marked and bred in the purple. If you will need a bull next winter buy this calf and save money.

His Sire:

PRIDE OF SIR PIETS, is a senior sire at Femco Farms. His dam is the highest record daughter of "37th" with 1327 pounds as a 3-year-old. His sire is a 42-lb. son of the famous sire, K. P. O. P. Eight 2-year-old daughters of Pride of Sir Piets have made from 20 to 33 lbs. His first 2-year-old to finish a year record made 908 lbs.

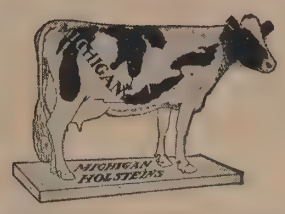
His Dam:

SOUTHSIDE CLARA ORMSBY, a splendid individual now making fine year record. Her sire is by a son of Pietertje Maid Ormsby and her dam is a 25-lb. 3-year-old daughter of a 31-lb. cow and a granddaughter of Oak De Kol Ollie Homestead, twice Grand Champion at the National Dairy Show.

Price for immediate sale.....$200.00

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

Ads too late to classify will be found on Page 533.



Highball for Michigan!

Get in ahead of the Rush—the rush of spring work and the rush of Spring Buyers. Good **PUREBREDS** plentiful and reasonable in price. Our 15 County Sales Managers are waiting for you. They quote you on what you want; they show you the purebreds free of charge whether you buy or not! What shall I tell 'em you want?

J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

SERRADELLA FARM *Offers* —

A Serviceable Bull — A. R. O. Dam

This promising youngster born April 24, 1926, is sired by Sir Dutchland Colantha Denver whose dam, Dutchland Colantha Denver (36 lbs. butter in 7 days, 1,300 lbs. in a year) is the best daughter of Colantha Johanna Lad. The dam of this young bull is a 27.2-lb. junior 3-year-old, one of our most promising young cows. The herd is accredited. Write today.

SERRADELLA FARM, OSCODA, MICHIGAN



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

A 30-Lb. Service Bull

Nicely marked, 80% white, and an excellent individual. He combines show-ring type with heavy production in a high degree. Born February 28, 1926.

His sire was a show bull, and a son of the famous 35-lb. show cow, "White Susie." She has a record of 1113 lbs. butter and 28,361 lbs. milk in 365 days at 11 years of age.

His dam is a 30-lb. cow with a 39-lb. sister and her dam made 862 lbs. butter in a year as a Sr. 2-year-old.

Production and quality are combined in this pedigree.

Send for Pedigree and Price of Tag No. 221

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

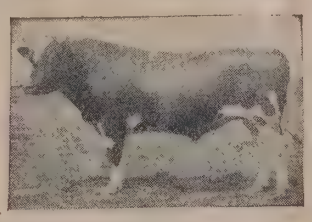
THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



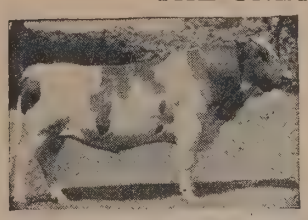
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MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN



$250 — Dean Segis Bess Ormsby — $250

BORN AUGUST 26, 1926

We offer this week, a nice straight typy bull calf, eight of whose fifteen nearest dams, average 1070 lbs. butter for their 305-day or yearly records.

SIRE—Dean Colantha Segis Ormsby, a richly bred Ormsby show bull of 1000-lb. breeding.

DAM—Lashbrook Bess Ormsby, with a junior two year old record of 552 lbs. butter in 305 days.

You will like this bull. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

HOLSTEIN BULLS

of serviceable age and younger. Good individuals out of good individual record dams.

THE NORRIS FARM *Fully Accredited* **Mukwonago, Wisconsin**

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

"GRAHAMHOLM" ONE OF AMERICA'S GREATEST HERDS

TO BE COMPLETELY DISPERSED AT AUCTION

The Grahamholm herd is the result of a quarter of a century of constructive breeding on the part of Dr. Christopher Graham, its owner. Besides having bred and developed numerous show ring winners and record-breaking producers, Dr. Graham has the distinction of being the only man to breed and develop three 30,000-lb. milk producers or to have had in service three sires that have each sired 30,000-lb cows. The herd is now at the very peak of its development and the sale offers an opportunity without parallel in breeding history.

SELLING!



GRAHAMHOLM COLANTHA SEGIS MAID
Butter 365 days 1316.58
Milk 33545.60
World's Champion 305-day producer for milk and butter over all ages and breeds. Two daughters and two full sisters selling.



PAULINE ORMSBY SEGIS MAID
(Now on year test)
A daughter of "Duke" from "Pauline," the 1426-lb. 4-year old daughter of "Dutch." Two daughters also selling.



GRAHAMHOLM S. P. COLANTHA
Butter 365 days at 3y.....925.57
Milk 23570.40
A daughter of "Pauline," the former world's champion 4-year old with 1426 lbs.



NOCKDAIR SEGIS LONGFIELD
Butter 365 days 941.31
Milk 25461.40
A Grand Champion show cow. A daughter and a son (first prize winner at Waterloo) also selling.



GRAHAMHOLM PIEBE CREAMELLE
A show bull. By Piebe Walker King (two nearest dams 1100-lb. daughters of "Piebe") and from a "Dutch" daughter. Several other young bulls like him selling.

120 Head

ORMSBYS—COLANTHAS —PIEBES

Including—

—THE HIGHEST RECORD yearly butter producer ever offered at public auction.

—THE WORLD'S CHAMPION 305-day producer for both milk and butter over all ages and breeds.

—THE GREATEST SIRE of yearly producers ever offered at auction.

—EIGHT 1000- TO 1426-LB. COWS. Three with milk records from 31,000 to 34,000 lbs.

—TWELVE DAUGHTERS of 1000 to 1426-lb. cows.

—EIGHT DAUGHTERS of 31,000 to 34,000-lb. cows.

—MANY COWS AND HEIFERS with records of 800 and 900 lbs.

—THE FAMOUS GRAHAMHOLM show herd and many other great show prospects.

—BULLS FROM 30-LB.; 1000-lb. and 30,000-lb. cows. All ages from calves to mature bulls.

Save 10 to 25 years of breeding effort by buying a few of these animals for seed stock

MAY 27-28

10 A. M. Each Day

At County Fair Grounds

ROCHESTER MINNESOTA

For Illustrated Folder or Catalog, Write

MELIN-PETERSEN CO., Sale Mgrs.
306-B Gorham Bldg., MINNEAPOLIS, MINN.



MAYOWOOD DUTCH PINKEY LAD
Junior sire at Grahamholm. A 2-year old show bull of real quality. By "Dutch" and from a great 1000-lb. show cow.

SELLING!



DUTCHLAND CREAMELLE COLANTHA LAD
(Senior Sire)
—First aged bull at National.
—Eight 1000 to 1426-lb. daughters.
—Two 33,000-lb. daughters.
Selling with nearly 100 of his daughters and granddaughters.



GRAHAMHOLM COLANTHA PAULINE SEGIS
Butter 365d at 4½y 1426.75
Milk 34291.80
(World's records when made) Highest record cow ever offered at auction. Four daughters also selling. By "Dutch."



GRAHAMHOLM INTENSITY COLANTHA
Butter 365 days at 3y.....938.86
Milk 18919.40
Made with first calf. Daughter of 1426-lb. cow above. First at Minnesota and second at Waterloo. A son and daughter also selling.



GRAHAMHOLM CHANTRESS ORMSBY
Now on test. A splendid heifer, by "Duke" and from "Segis Maid," the world's champion 305-day producer. A real prospect for a big record.



GRAHAMHOLM KAAN MARIE LAD
A splendid yearling bull by "Sir Colantha," the famous son of "Segis Maid" (1316 lbs.), and from an 1100-lb. daughter of "Dutch." A real herd sire prospect.

Dairyme

We are now in a position furnish carloads of springir and fresh dairy cows ar heifers — all breeds — fro modified accredited cou ties. Can also furnish pu bred bulls, and high quali pure bred and grade heif calves at reasonable prices.

We invite your patronag You can save *time* and *mon* by buying direct through t

CHICAGO DAIRY C EXCHANGE, Inc.
Reid Murray, · Manag
Union Stock Yards, CHICA

High Grade Holstein Sprir
If in the market for big prod these cows will please you. Tub tested. Address
RIVER MEADOW FARMS, Portlandvill
P. S. Come and make selecti

OHIO HOLSTEI
Registered **COWS, HEIFERS and** Very choice Calf Club **CALVES.** We sales agents in the field all the time take care of all orders in fine shape. quiries are referred to our entire mem
OHIO HOLSTEIN-FRIESIAN A
2029 E. 102nd St. Clevela

HEADQUARTER FOR Quality Holste
The kind we breed are the ki need. Over 40,000 to pick from. convinced come to our headq and let our fieldman show them His service is free. Whether yo grades or pure-breds, single load lots, we have them for yo
JEFFERSON COUNTY HOL BREEDERS' ASS'N.
Fort Atkinson, WI

Dicmere Holst
30-LB. SHOW BULL
We are offering a very typy Ja from a 30-lb. 3-year-old dam. His cow is Ollie Abbekirk, is a 968-lb. s grand champion, Iowana Sir Ollie. is federal accredited. Write today i a good bull at a reasonable price.
H. E. DICKINSON, Oconom

ABORTION FREE HOME
We usually have some well bred from fine blood lines for sale. orders early.
T. B. under Federal Superv
MILWAUKEE COUNTY INSTITUTI WAUWATOSA - WISCON
E. C. Thompson, Farm Ma

Milford Mead
Calves from **SIR TRIUNE PANS** and are everything we hoped for. have 12 heifers and 5 bulls and all alike, straight and evenly marked. of every calf will have a record.
Ask us about them.
W. W. KINYON, LAKE M

YOUNG BUL
sired by Governor Fobes and from goo year record dams for sale. Breeding type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYM

Purebred and Grade H
The best place to get them is at Ra Pure-breds a specialty. Get in touch
RANDOLPH HOLSTEIN ASSOCI
S. W. Pierce, Sec'y., Randolp

Our Surplus Purebred And Grade
have the size and quality you like. Ol Community in Wisconsin. More Holste similar section.
DODGE COUNTY HOLSTEIN ASSO
Frances Darcey, Sec'y. Wa

Read the other Live Stoc on page 533, so placed b they were too late to cl

Healthy Holsteins

ou in the market for grade or registered Holns fm tested herds write us today.
ILINOIS HOLSTEIN-FRIESIAN ASSN.
S. arborn, St., CHICAGO, ILL.

Onsby-Homestead Bulls

he for sale 2 very good calves born
v. ind Dec. 27, sired by Rawleigh Ormsby
ter Posch, our 41-lb. Ormsby sire. They
fr 24- and 25-lb. 4-year-old Homestead
ms ith good year records, one a state
ord cow. Priced to sell. The herd is
an. Write
T W. T. RAWLEIGH COMPANY
ners awleigh's Ideal Farm, FREEPORT, ILL.

TAKE TIME!!

ners re saving $50 to $100 by purchasing
le summer Holstein bull calves NOW.
ect better. Every cow has C. T. A.
ord Many have official records. Some
ves red by 1,138-lb. bull whose dam tested
r 4%. A card brings list.
Rock River Farms, Byron, Ill.

uffalo Creek Farm Holsteins

a offering BULL CALVES rich in
mst breeding from tested dams. These
fn six to eleven months old. Some
ceds low as $100.00. Write for pedigrees
l fther information. Herd under federal
pervion.
NGAM BROS., Arlington Heights, Ill.

BULL BORN SEPT. 23, '26

of 24-lb. two-year-old with 460 lbs. of
k. is sired by a good proven bull. He is
ut white and a real individual. Send
pegree and price.
ELLWOOD & NELSON
K/B ILLINOIS

HYDE PARK FARM

ALB PARK, - ILLINOIS
Offers BULL CALVES
ed an outstanding 35-lb. son of Mata-
fin Fully Accredited Registered Yr.
ns ith leading cow testing association
ord $100.00 up for typy individuals.
HN. CARROLL WILLIAM EDGAR
Owner Herdsman

MAYOWOOD FARMS
HOLSTEIN BULLS

he enjoyed a very keen demand for our
s is winter, but can still offer a few
se ceable age. We have, also, calves
d "White Hope," who was recently
t the Japanese government for $8,000.
te r our sales list.
C. ENSEN, Supt., Rochester, Minn.

Hothfield Holsteins

duction and type—Prices right. Regis-
ed ws, heifers and bulls, calf club calves,
of reeding, choice grade cows and heifers.
RTHFIELD HOLSTEIN CLUB
ELS PARSON, SALES SEC.,
RT IELD, MINNESOTA

HOLSTEIN BULLS

FOR SALE
Brin Brook Bess Burke 2d - Ormsby
BREEDING
WE E FOR SALE LIST—JUST OUT
d ter Federal and State supervision for
re sis—blood tested for abortion.
NT THUR FARMS, Winterthur, Del.

HOLSTEIN Bulls - Females

UR ICK OF 150 HEAD. Abortion tested
T 3. free. First prize National Dairy
w. -lb. Ollie bull, also Pietertje Ormsby
ced Della, sire of World's Champions.
BC E, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

Sheboygan County For Holsteins

o all cattle in county are Holsteins.
r fine Federal tested herds to select
n. full time field man is at buyers' ser-
ite or come if you want good Hol-
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HEBOYGAN COUNTY HOLSTEIN ASS'N
hur . Jensen, Fieldman, Plymouth, Wis.

ers County Holstein Sales Association

ass you in purchasing good, clean dairy cattle.
le pure-bred in any number you wish. Direct
orth ndence to A. F. GAFKE, secretary, JEF-
SON WIS.

BULL CALVES $50

es ed by 990-lb. grandson of Iowana Sir
ar out of daughters of a 1040-lb. Home-
d b. Accredited herd in an area tested
ity. Write.
AS. UGHES & SON, NEENAH, WIS.

8th NATIONAL Cooperative HOLSTEIN SALE

Springfield, Mass., June 2, 1927

Following the Annual Convention of the Holstein-Friesian Association of America



WISCONSIN BESS JOHANNA ORMSBY
A 1037-lb. three-year-old daughter of Sir P O M 37th, due in August by a son of a 30,000-lb. cow, sired by a son of the only 37,000-lb. cow. **Detroit Creamery Farms, Mt. Clemens, Mich.**



HIGHFIELD COLANTHA MOOIE 2d
A 25-lb. three-year-old daughter of the World's Champion in Class B.—Highfield Colantha Mooie. **John G. Ellis, Lee, Mass.**

Holstein breeders everywhere and all who are interested in the Black and White Cow, are cordially invited to come to Historic New England for the Annual Convention of the National Association and for the

8TH COOPERATIVE NATIONAL HOLSTEIN SALE

Like previous National Sales, this will be a sale of real seed stock, with offerings that appeal to the small breeder or the dairyman as well as to the breeder with a more highly developed herd.

We show here pictures of just a few representative offerings, to give you an idea of the calibre of the sale. These are females that will pay a big profit at the pale and at the same time will build your purebred herd better and better through their offspring.

Only a few bulls will be sold and these have been very carefully selected for type, records and blood lines. Every one is from a large record dam and by a nationally known sire, but the important qualification in the selection of these bulls has been TYPE.

All offerings, both male and female, have been personally selected by competent committees from the various states, mostly from accredited herds, and the leading breeders from all over the country stand back of their offerings.

For Illustrated Circular and Full Information
Address ANGUS P. THORNE, Chairman Sale Committee

New England Holstein Ass'n

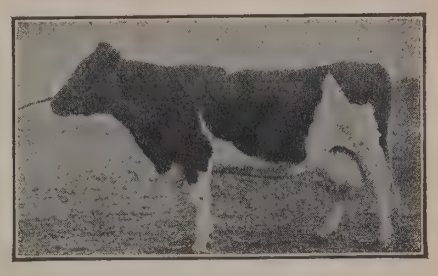
1694 Main St, Springfield, Mass.



DUTCHLAND COLANTHA CHAMPION GIRL
A yearling daughter of Dutchland Colantha the Great from a good record daughter of Dutchland Creamelle Korndyke Lad. The best breeding of **Dutchland Farms, Brockton, Mass.**



BURBANK SADIE BEETS PIETERTJE
A daughter of Sir P O M 37th from a daughter of Sir P O M 41st. She has a 669-lb. two-year-old record and will be tested again before sale. **Rewana Farms, Inc., Reno, Nev.**



GWYNETH OF GRAYFIELDS
A great 1171-lb. cow with two 1000-lb. records. She is sister to many prize winners and producers. Due in July by an 1100-lb. son of King Piebe. **A. S. Deysher, Reading, Pa.**



150 REGISTERED HOLSTEINS ALL OF ORMSBY BREEDING

TYPE — PRODUCTION — HIGH TEST

All will be descendants of *Pietertje Maid Ormsby*, the foundation cow of the present-day *Ormsby* family. Both Grand Champions at the 1926 National Dairy Show and ten of the sixteen first prize winners were descendants of this great cow. The three leading sires of 1000-lb. cows (O. K. L., Sir P. O. M. and "37th") are descendants of *Pietertje Maid Ormsby*, one being a son and the others grandsons.

BUY ORMSBY BLOOD IN THE NATIONAL ORMSBY SALE. THE LEADING ORMSBY HERDS OF WISCONSIN, MICHIGAN, IOWA AND MINNESOTA ARE REPRESENTED WITH TOP CONSIGNMENTS.

Get your name on the list to receive descriptive folder.

MELIN-PETERSEN CO., Managers
306-B GORHAM BUILDING MINNEAPOLIS, MINNESOTA

STATE and FEDERAL TESTED **HOLSTEINS**
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.
Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Sir Bess Ormsby Fobes

Head Your Herd With a "Sir Bess" Bull

We have for sale a few very good young bulls by Sir Bess or from Sir Bess daughters and by Creation. If you want breeding, type, and long time production we are sure one of them will suit you. Write us or come to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) **DOUSMAN, WIS.**
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

The Farm Home for Living

(Continued from page 494)

the development of a sturdy, self-reliant people. Such a people is sure to be, if properly educated, a strength to the nation in time of stress and well able to govern itself and help other nations not so strong.

As the farmer's work has much to do with nature and her laws, his home is usually one in which there is a sturdy loyalty to the home and to the family. The advantages of the farm home are so well recognized that many people whose work is in the large centers of population try to secure a home in the suburbs or rural section adjoining in order that some of the advantages of quiet and open space may be secured for the family.

The influence and training of the home life of young people persists through life and greatly influences their outlook and thoughts. It is therefore very important that a nation which is to maintain its enlightenment and honor must encourage the establishment and maintenance of homes that will help to develop habits of industry and thrift and will give the young people ideals of character and patriotism.

GUERNSEYS

Every Setting Sun Sees Eight New Guernsey Breeders

Every twenty-four hours we add to our files the names of eight men who have never before registered a Guernsey.

That means *business* for the man who has Guernseys to sell. It's a good market—make it yours!

Ask for "The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB

8 Grove St., PETERBORO, N. H.

BREIDABLIK FARM

Wilmington Delaware

Public Auction

50 SELECTED GUERNSEYS

JUNE 15, 1927

Included in this lot are 5 sons of Cherub's Nonpareil of the Prairie from A. R. dams. 12 daughters of Cherub's Nonpareil of the Prairie from A. R. dams. Also a number of Advanced Register cows, cows on test, and bred heifers sired by our former herd sires, Langwater Poilu 52117 and Brookmead's Taurus of Breidablik 47887.

Herd Federally Tested and Negative to Blood Test

Write for Catalog

Owner— H. J. KREBS

Manager— J. P. BROADHURST

REGISTERED GUERNSEY HERD

Offered At Private Sale !

Having decided to sell Oakwood Farms in small tracts, I am offering for sale my entire herd of Pure-bred Guernseys which was started in 1910 with three Foundation Cows purchased from W. W. Marsh of Waterloo, Iowa. My herd consists of 45 head of females and 10 males, mostly young, and in splendid condition.

My last two Herd Bulls were sons of Prince Cherub and Eminent of Sarnia. If interested in purchase of one or more Guernseys from a clean herd, it will pay you to write me for list with full description and prices.

THE HERD IS ACCREDITED

L. S. MEYER Route 8, Springfield, Missouri

50 GUERNSEYS - Mankato, Minn.

PROPERTY OF CHIEF JUSTICE WILSON OF THE MINNESOTA SUPREME COURT.

TUESDAY MAY 31 at 1 o'clock sharp,

Auctioneers— H. O. TELLIER J. A. McRELL

42 females, mostly 3 years and under; 8 bulls, from serviceable age to the 4-year-old Cherub Bred Herd Bull. Foundation cows, some imported, but mostly granddaughters and great granddaughters of Ladysmith's Cherub. Several fine heifers for Calf Clubs. Federal Accredited Herd. No abortion in 5 years.

Catalogs May 15. Write to

Dr. M. B. WOOD, Sales Manager, MANKATO, MINN.

National Citizens' Bank — Clerk of Sale

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

BUY HOLLISTON SIRES

LANGWATER HOLLISTON, our famous senior herd sire, now has 23 A. R. daughters and 7 A. R. sons. His daughters are unusually persistent milkers and have what many call the foundation type and character. Langwater Holliston is out of a superior daughter of Imp. King of the May and he is sired by Jethro's May King of Linda Vista.

NOW OFFERING FOR SALE TWO YOUNG BULL CALVES that will be ready for service next winter. Dam of one now on test will make 600 lbs. fat. Dam of other made 583 lbs. fat in GG.

D. G. TENNEY, 15 West Fourth St., NEW YORK CITY

FARMS AT SALEM, N. H., AND METHUEN, MASS.

Bargains in Bull Calves

A TWO-CENT STAMP CAN SAVE YOU

From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD

Lines—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

WAWA DAIRY FARMS, 22 So. 32nd St., Philadelphia, Pa.

PENNCREST FARMS

ACCREDITED HERD 36876

WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pronounced by authorities as the best son, individually, of Ne Plus Ultra, whose offspring, for a number of years past, have invariably topped the sales of major importance. Near descendants of this great sire are becoming harder to secure, and in the near future will be valuable acquisitions. Breeders desiring the best there is in this blood will do well to investigate, as we are offering stock at the right price. Address inquiries to

WM. P. SMEDLEY, MGR., MEDIA, PA.

BARGAIN BULLS *produce* CLASS LEADERS

Guernsey Breeders' Journal says in Feb. 1st issue—OUR NEW CLASS LEADERS—
Silverwood's Diana, 20,006 lbs. milk
Sire:—BROOKMEAD'S BANNER A. R.
Sold sight unseen as a youngster.
Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

FOUNDATION GUERNSEYS

FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

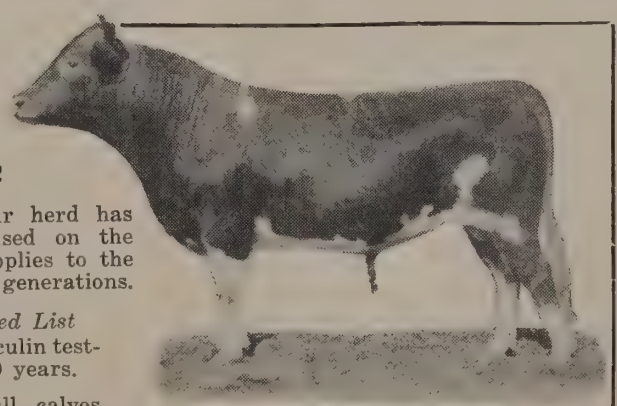
Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

Need a Sire Next Fall?



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

Every female in our herd has been bred and raised on the farm. The same applies to the females for several generations.

Herd on Accredited List
Has also been tuberculin tested for more than 20 years.

We believe our bull calves are well worth your consideration if you want a bull calf that will improve your herd.

HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production. Ifis first nineteen A. R. daughters average 8385.1 lbs. milk and 407.85 lbs. butterfat on two time milking and herd rations at the average age of three and one-nineteenth years.

A Vest Pocket Herd Book is a good investment

FOREMOST GUERNSEYS

We have for sale, bulls re for service and bull calves

Eighty-three A. R. Cows in herd average 11,643 lbs. m 601 lbs. fat.

The dams of our four herd si average 14,058 lbs. milk, 73 lbs. fat.

Just as well breed cows w high production and pro type.

Foremost Guernseys have 569 prizes in the past th years at State and Natio Shows including Premier hibitor of 1924-'25-'26.

We will cheerfully send p gree and prices on your quirements for a herd sire

EMMADINE FARM

HOPEWELL JUNCTION (Dutchess Co.)

J. C. PENNEY, Prop. JIMMY DODGE,

Guernsey Heife FOR SALE

The very best breeding. Ac ited Herd. Write for informa

OTTO W. POST, Ensenore, N

TYPE Plus PRODUCTION

OFFERING

SHOREWOOD ULTRA CHERUB. Born gust, 1926. An excellent individual, a solid fawn, well grown. Double grandso Ladysmith's Cherub 30760. SIRE—Che Royal Leader of Shorewood 74296 whose da ters are doing splendidly on test. DAM—C ub's Ultra May Rose of Shorewood 83707 G daughter of Ne Plus Ultra A. R. record lbs. milk 581 lbs. fat Class D. Here is B ing and Individuality that will suit the discriminating. Pedigree and price on re

Buy Ladysmith Cherub Blood

SHOREWOOD FARM, Crystal Bay,

RADISSON FARM GUERNS

We are offering at attractive prices young bulls sired by RADISSON'S G ROYALIST 91632, whose get was first prize at Dairy Cattle Congress He is a son of GOLDEN CORONET O DU LUTH 81283, world's champion C in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman, Care Hotel Radisson, MINNEAPOLIS,

PROVINCE LINE FAR

BULL CALVES from 2 months to year Sired by our great bull, Langwater Br and from high producing A. R. dams. grees and prices furnished on applic Federal Accredited, Certificate No. 11

J. W. MILLER, Owner, Box 73, PRINCETON,

HOLSTEINS

K. P. O. P. Bul

If you will need a new sire ing the next year get in with us. We can offer you what you want.

HARGROVE & ARNOLD, Norwalk

SERVICEABLE 30-LB. BULL and BULL

K. P. O. P. breeding. Sons of Rival Kin Mercedes, his dam world's champion in Under Federal Supervision. If you want s size and production write

L. E. FERGUSON, LAURENS

Come to St. Croix Count Buy Your Dairy Catt

DIRECT FROM THE FARMER. P and grades of all breeds. One or a Area tested.

ST. CROIX INTERCOUNTY DA EXCHANGE,

F. T. WILFORD, MGR., Hammo

SERVICEABLE BULLS—FOUNDATION

Have a number of good bulls between 9 an of age. Would sell a ½ interest in some ones to the right parties. Can spare several females, some bred to the 1926 Nation Champion Holstein bull.

BAIRD BROS., Box 177, WAUKES

Fox River Valley GUERNSEY SALE

Fond du Lac, Wis., May 25

'EN BULLS, All From A. R. Cows — 70 FEMALES

Nearly all from Federal Accredited Herds

Consigned by breeders from eleven counties in Central Eastern Wisconsin.

Included also are the 25 best females from the herd of A. M. Sisler & Son, Grand Rapids, Minn.

Twenty A. R. cows, records up to 717.66 lbs. Class AA.

Thirty of the cows and heifers have A. R. dams with records up 829.94 lb. fat Class DD.

Included in the bulls are young bulls out of A. R. cows with records up to 710.36 lbs. fat Class DD. Included is a yearling son of Allouez Queen Francis that has just gone to the head of Class FFF with record of 542.8 lbs. fat. This exceeds the former record by 29 lbs.

The A. R. bull Prince Charming of the Prairie, a son of Cherub's Prince out of Imp. Jessamine of the Ponchez 611.28 lbs. Class B is good enough for any herd of the breed.

Sons and daughters of some of the greatest Cherub, and May Rose bulls of the breed.

By far the best lot we have ever offered. Do not miss this chance.

For Catalogs Address

CHAS. L. HILL & SON, Sale Mgrs., Rosendale, Wis.

VISIT THE EAU CLAIRE SALE, MAY 26

70 GUERNSEY SALE 70

EAU CLAIRE, WIS., MAY 26

A Sale of Quality Seed Stock worthy of Foundation for Beginners and for those desirous of improving their herds. The cattle in the Sale are representative of the following nationally known Blood Lines:

Topsy of City View $1460, $1800, $2700	Golden Coronet of Jean DuLuth $10,000
Bell Buoy of Linda Vista $1775	Golden Noble of the Lakes
Edna of Mountain View $2800	Governor of the Chene
Fern's Beauty of Pine Cliff $2075	Prince of Birchwood $1000
Glenwood Boy of Haddon	Ada's Douglas

The consignments comprise cows with high A R Records, Show Bulls, Calf Club Calves.

CHIPPEWA VALLEY GUERNSEY SALES ASS'N

"THE SALE THAT ALWAYS MADE GOOD"

SALE COMMITTEE: I. E. Bates, Bloomer, Wis.—R. H. Loether, Eau Claire, Wis.—L. P. Martiny, Chippewa Falls, Wis.—John Pritchard, Eau Claire, Wis.—Carl Ritland, Chippewa Falls, Wis.—G. W. Sankey, Durand, Wis.—John Stallman, Elk Mound, Wis.

For Catalogs address R. H. Loether, Sales Manager, Eau Claire, Wis.

THE FOND DU LAC SALE—Chas. L. Hill, Sales Manager, will be held the previous day, MAY 25, 1927.

Danny Duff Picnic!

You are Cordially Invited to Attend
The Wisconsin State Guernsey Breeders' Association Picnic
Friday, June 3rd, 1927
At

FERN-DELL GUERNSEY FARMS, Green Bay, Wis.
(West on State Highway 54)

INWOOD GUERNSEY SIRES

COMBINE TYPE AND PRODUCTION

IN CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick lb. 24.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 2.15 at Class EE. Grandchampion National Dairy Show 1923. CINDER-LA FAME OF MOUND CITY 78385. Dam: Cinderella's Josephine 909

... several fine bulls by above sires, dams 600 to 744 lbs. fat; also a ... heifers either bred or open. Write for prices, photos and pedigrees.

INWOOD GUERNSEY FARM, LIVINGSTON, WIS.
Homer Rundell Federal Accredited Herd



SOLD FOR $22,000.00

A VERY GOOD YOUNG BULL

A. R. DAM — A SHOW PROSPECT

...IB'S MONARCH of Chippewa, a very typy 11-months-old bull, is for sale. He is ready ...ht service. His dam produced 632.69 lbs. fat, 13,403.6 lbs. milk in AA. His sire, ...Prince of the Prairie, is a winning son of Cherub's Prince and the sire of some very ...ng young daughters in our herd.

Write today if you need a good bull, priced to sell.

...ARTINY, CHIPPEWA FALLS, WISCONSIN

...ORIUM ... GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

...IUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

...AKLAND GUERNSEY FARMS (SINCE 1890)

...FS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR ... Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also ...ice high grade heifer calves express paid to your station for $150.

...AK...ND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

...ffer 50 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. ...rite or come and see us. Carloads furnished on short notice. Prices reasonable. Satis-...actio guaranteed. Calves a specialty.

...IVE...IEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

...uernseys For Sale

...e for sale here in Manitowoc County ...me ...ery good calf club heifers, and ser-...eral and younger bulls as well as first ...ass ...ows and heifers. Write us today or ...me ...rect to Manitowoc and make your se-...ctio...

...ANITOWOC COUNTY GUERNSEY BREEDERS' ASSOCIATION,
...eo. Gilbertson, Sec., Manitowoc, Wis.

BULL CALVES

No. 1—born 5-30-26, light fawn and white, C. T. A. dam.

No. 2—born 6-28-26, fawn and white, dam 553 lbs. fat class A.

Typy bull calves at farmers' prices F. O. B. Athens. Herd Federal Accredited and free of Abortion.

HELENDALE FARM, Athens, Wisconsin

GUERNSEYS FOR SALE

...ale and Pure-bred Springers, both cows and ...ers ...l carload lots. Also a number of yearling ...ale ...nd pure-bred bulls of serviceable age. In-...rie ...swered promptly. Visitors always welcome.

...FF...SON CO. GUERNSEY BREEDERS' ASS'N.
...C. ...iston, Sec'y., Box 266A, Fort Atkinson, Wis.

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

Luxerin Guernseys

(SHERIDAN'S)

FOND DU LAC WISCONSIN

Bull calves $100 and up. One serviceable age. Good type, color, and size. Dam's record 657.71 D. 677.13 A. A. *Also*, best bred Glenwood bull of the breed. Dam's record 744.07 A. A. Sire's dam 799.61 A. A. Grandam 825.90 A. Exceptionally fine individual, good color, well grown.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

GEO. E. LARSON, AMHERST JCT., WIS.

YOUNG BULLS $100 TO $150

I have for sale several young bulls, 3 to 9 months old, from A. R. dams at $100 to $150. Well bred. Good type. The herd is clean. Write for sale list.

J. M. HARVEY, R. 2, Waukesha, Wis.

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

Read the other Live Stock ads on page 533, so placed because they were too late to classify.

We want you to understand —

that Loma Farms has purchased the entire Bay Cliffs Herd, formerly at Bay Cliffs, Mich. We are carrying on the same breeding operations.

Standing back of the animals we sell is a fundamental policy with us.

Write us for low prices on bull calves.

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
MARQUETTE MICHIGAN

GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

Springers and Fresh Cows

HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

High Production, Low Feed Cost



In 1926 ALL JERSEYS officially tested for 365 days AVERAGED 10,209 LBS. OF MILK, 545.20 LBS. OF BUTTERFAT.

You *can* have heavy production of high quality milk in your herd without a heavy outlay. Jerseys purchased at present prices will prove to be a very profitable investment. Prices are moderate and Jerseys produce at a remarkably low feed cost.

Write today for free information on Jersey cattle. Assistance in locating stock may also be obtained without cost.

THE AMERICAN JERSEY CATTLE CLUB, Dept. B, 324 West 23d Street, NEW YORK

FIRST ANNUAL SALE OF

BELSWOOD JERSEYS

At the FARM at

CALHOUN STATION, 6 miles east of WAUKESHA WIS., TUES., MAY 24

FORTY-FIVE Registered Jersey Cows, Bred and Open Heifers of the most approved

Type, Production, Reproduction and Breeding

Every bred cow, or heifer will be in calf to a prize winning bull. You are buying two-in-one, in nearly every case.

THREE BULLS of serviceable age, including the outstanding SHOW and BREEDING bulls, *Modesty's Oxford Raleigh 259550, and Fontaine's Jolly Boy 258329,* both PRIZE WINNERS at the recent Waukesha Dairy Show. All bulls are out of REGISTER OF MERIT dams.

Two head will be consigned by P. G. Warmington.

This is not a closing out sale. It is an offering of *High Class Jerseys* that will appeal to the most discriminating breeder. *For real dairy cows attend this sale.*

Auctioneer — Walter Andrews

For Catalogs address A. F. BLOCK Waukesha, Wisconsin

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

MANY OF THE BEST

Registered Jersey Cattle

Both on the Island and in America are represented in

THE 1927

NATIONAL JERSEY SALE

to be held at noon

FRIDAY, JUNE 3

AT THE INTERSTATE FAIR GROUNDS

TRENTON, - N. J.

Every effort humanly possible is being made to make this

The Best Jersey Offering of the Year!

Space forbids a recital of the many facts regarding the outstanding individuals in this sale—however,

We guarantee every animal is a good individual and unexcelled from a breeding standpoint.

Twenty-five Nationally known breeders and importers have contributed choice individuals to this sale.

If you want outstanding Show Cattle or High Producers—by all means attend this sale.

Remember—All cows are not alike. Jerseys produce the *RICHEST MILK* and are *NATIONALLY* known as "The Profit Breed."

For illustrated catalog address

JERSEY SALES HEADQUARTERS

JOE MORRIS, Sale Manager, WESTERVILLE, OHIO

VERNON COUNTY JERSEY BREEDERS' CONSIGNMENT SALE

75 HEAD OF GRADES AND PURE BREDS

Fair Grounds

VIROQUA, WIS., SATURDAY, MAY 14

E. W. SCHELLING, Sales Manager

VIROQUA WISCONSIN

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

A Vest Pocket Herd Book is a good investment

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS

LEE BOYCE, MGR.

Brookfield Massachusetts

FOR SALE!

10 BRED HEIFERS

To Freshen in the Fall

Raleigh Breeding

SEND FOR PEDIGREES AND PRICES

RAVINE FARM

Breeders of Pure Bred Jersey Cattle

PRAIRIE VIEW, Lake County, ILLINOIS

Established 1913.

"SYBILS and MAJESTYS"

Two heifers bred to freshen in September. One out of a Majesty bred dam, and sired by double grandson of Oxford Majesty. The other out of a Majesty bred dam, and sired by a grandson of both "Sybils Gamboge" and "Oxford You'll Do." Both solid fawn, well grown and good type. Write for particulars.

CEYLON COURT FARM,

G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

Easton Farm

-- AN ACCREDITED HERD --

Of Representative Jerseys

Golden Fern's Noble and Fauvic's Prince Breeding.

MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

JERSEY HEIFERS

University Pogis Kenna, son of the gold medal cow, University Kenna Climax, heads our herd. We are offering a few heifers out of high producing dams at very reasonable prices. U. S. Accredited herd. No abortion.

AMBERG FARM, Hillsboro, Wis.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.

H. S. HAGER, PRAIRIE DU SAC, WIS.

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION

BELOIT, WISCONSIN

LEE'S HILL FARM

MORRISTOWN, N. J.

BROWN SWISS

(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

Extra Sheets

— For —

Hoard's Dairyman VEST POCKET HERD BOOKS

Keep your book up to date. Price 50 cents for fifty sheets.

HOARD'S DAIRYMAN, Ft. Atkinson, Wis.

E. BOULTINGHOUSE & SONS

AUCTIONEERS. 150 Dairy Cow Sales in 1926. Leading Dairy Cow Auctioneers in America. Write or wire for dates.

ALEDO, ILLINOIS

AYRSHIRES

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 3 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.

ALDEBARAN FARM, E. J. Nelson, Mgr., Racine, Wis.

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Center, Wis.

Spring Valley AYRSHIRES

Accredited Herd

Foundation FEMALES - BULL

For Sale At All Times!

Choicely bred Cows and Heifers sale -- mostly sired by an A. R. s of that great cow Carston La Mary Stuart. These Cows and He ers are bred to Howie's King Hearts, Dunlop Sunspot and Ca lier's Sherry Redman, all Natio show winners.

We also have for sale some excell bulls by these sires and from gc A. R. cows. Write us today.

L. S. CLOUGH, Owner

WARREN PENNSYLVA

PROFITABLE — PRACTICA

AYRSHIRE

The home of Mistress Thistle of South Farm, Champion Jr. 4 yr. old, and Boggie of Eastsid Champion and ex-World's Champion R. of 3 yr. old. Each of these famous cows has a service in our herd. If you want bull calves big, heavy producing cows with long teats, w Herd under Federal Supervision.

SYCAMORE FARMS, Douglassville, Berks

Penshurst Ayrshi

HEALTH—PRODUCTION—QUALI

Ours is the first tuberculosis accredite in the state and the sixth accredited a free. Every cow in the herd is on te A. R. records made at Penshurst 14,036 lbs. milk, 567 lbs. fat. Fou Ayrshires, guaranteed healthy, for sa

PENSHURST FARM, NARBERT

A HIGHLY BRED AYRSHI

BULL born, Jan. 16, 1927. Color: nearly a Sire: Penshurst Rising Star, 20922, A. R. 2 38 daughters having 52 records averaging 10, milk, 440.72 lbs. fat, 4.04%, winners of 3 Cups, 1 Association Cup, 1 Gold Medal and Medals. Dam: Blanche Woodhull, 2nd, 46862 ceptionally typy daughter of Leto. She has R. records averaging 11,857 lbs. milk, 462 lbs. three R. of H. records averaging 11,642 lb 450 lbs. fat. Six World's Champions in si

GLEN FOERD FARMS TORRESDA

South Farm Ayrsh

Will sell a limited number Young HEIFERS and BULL

Let us know your wants.

SOUTH FARM, Willoughby,

AYRSHIRE CO

FULLY ACCREDITED

300 Head in the H

Present offering: Fresh cows—sprin calf to our noted herd sires—yearling —heifer and bull calves.

ALTA CREST FARMS,

SPENCER, MASSACHI

A Fitting Head for Your Herd



No bull is better qualified head your herd than an Ay shire. His daughters w prove deep-milking cows th are an improvement over the dams in both type and produ tion—and Ayrshire milk brin the high dollar.

Even the calves of an Ay shire bull make market-toppi veal.

Herd Improvement Begi When the First Ayrshire Ste on Your Farm.

Write for free booklets and li of herds to visit near you.

AYRSHIRE BREEDER ASSOCIATION

10 Center St., BRANDON, V

---

20 years may be a long time, but —

74.4% of Hoard's Dairyman's live stock adver ers have been advertising regularly for fro to 20 years

solve. Then swab each sore with a er cent solution of mercurochrome. that for two days and then apply ointment composed of one part of ture of iodine and two parts of eline as often as found necessary.

Sodium Fluoride for Lice—Bloating

used sodium fluoride, which was recomded to me by the county agent here, on cows this last winter and had very good lts. The dust from the powder did not afe me in the least, that I could see.

bought some alfalfa hay this last winter had been feeding it twice a day for t six weeks without any trouble. I fed thy once a day along with the alfalfa. night after feeding alfalfa hay, one of cows bloated so badly it was necessary e to tap her with a trocar. I fed a litlfalfa hay to her after that, to be sure it the alfalfa that made her bloat. Every I fed the alfalfa hay, she would start to a little, so I would take the rest of the away from her immediately.

w I make her eat timothy for a while, h is the only other hay I have at present, give her a little alfalfa. She does not in feeding in this way. What is a good to give a cow if she starts bloating ? Is soda in warm water any good? Do think this cow will get over this trouble, e can eat alfalfa again? I have had no le with any of the rest of the cows.

e place where I tapped the cow does not to be healing very well. Matter started n from it. What would you advise puton this sore? I washed the place well lysol in water after tapping and then n some carbolated vaseline.

lton, Minn. R. A. M.

hen a cow bloats, give her two es each of pure turpentine and natic spirits of ammonia in a t or more of milk. Then tie a d stick or piece of thick rope, bit- in the mouth. Tapping should one only when the cow is in imate danger of suffocation (asiation). Before tapping, clip the from a patch of skin high up in eft flank close to the last rib and under the transverse processes of spine and apply tincture of io- or a 5 per cent solution of coalisinfectant or carbolic acid. The r and canula should have been lized by boiling before use. When gas has escaped always replace trocar in the canula and with- it very slowly to prevent pull- up feed, etc., from the stomach causing infection and an abscess. fistulous sore now present will to be opened up, cleansed, and fected daily with a fresh 2 per solution of mercurochrome.

Mastitis

ve infective udder trouble or garget in rd of Holsteins. Is there any cure for ill calves, by nursing affected cows, have trouble when they freshen?

ngfield, Mo. W. E. S.

tablished contagious or streptomastitis is incurable and an af- cow should be isolated and fitor the butcher. Then cleanse, ect, and whitewash the stable, ling the floor and gutter. se and disinfect the udder and of each cow before starting to Catch abnormal milk in a vesntaining a disinfecting solution hen throw it out in a place not d by cows. Anti-mastitis serum acterin may prove remedial if at the outset of a starting case, junction with local treatment of lder. Milk an affected cow once ur from the outset of the attack it abates. Do not let a calf an affected udder. The dis- s not inherited. Elimination of ed cows, scrupulous cleanliness, isinfection of the stable is nec- to get rid of the infection.

Umbilical Hernia

ave a heifer calf four months old that navel rupture about two inches long. ould you overcome this? Our neigh- a colt with a navel rupture and a rian tied it off; that is, he drew the ether at the rupture and tied a cord it. This cured it permanently. Would ise this?

, Minn. F. F.

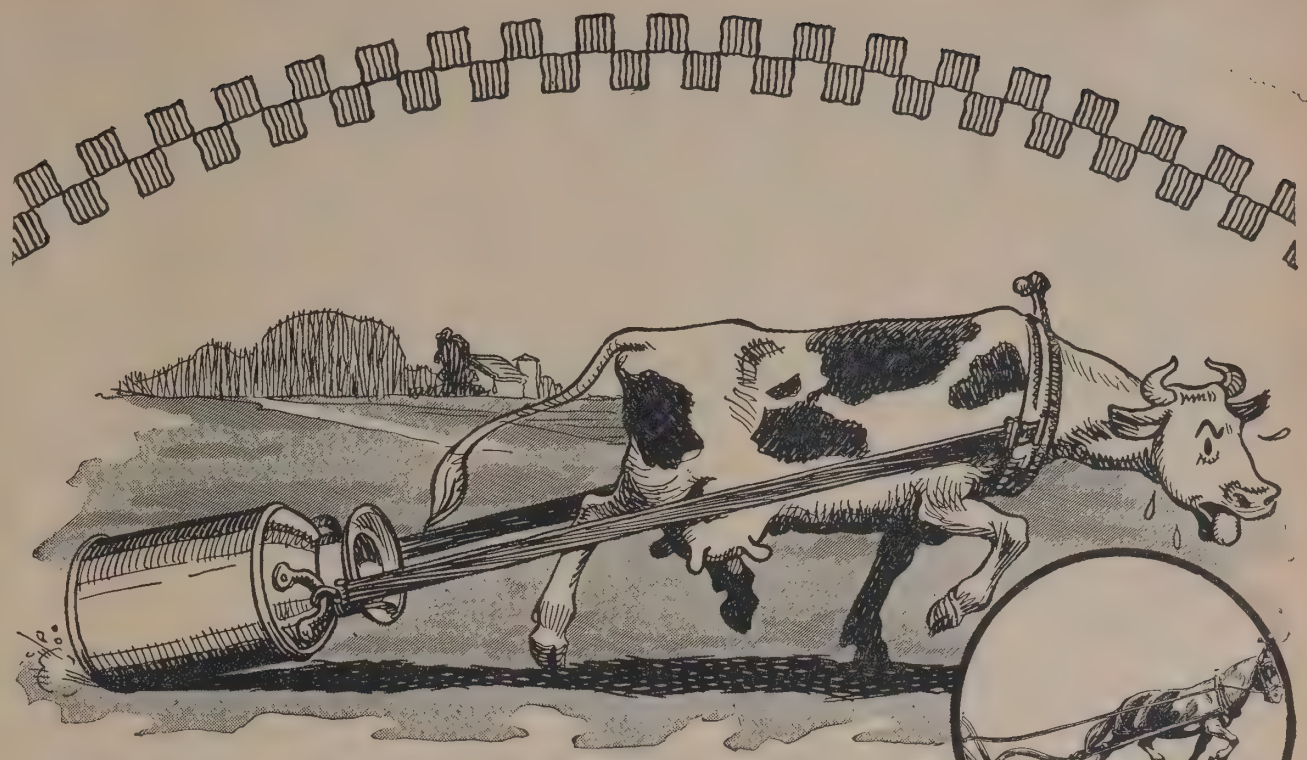
nall umbilical or navel rupture to subside by the time the ani- a year old. That may be hastened by applying tincture of iodine two or three times a week. Should the rupture continue to increase in size, however, a veterinarian should be employed to operate or apply wooden clamps or ligate by the skewer method. Merely tying a cord around the pulled-up sac and skin is not safe or certainly not effective treatment.

Garget

We have a registered Jersey cow that gets swelling in her udder occasionally (24-hr. garget) and we fear she may lose one quarter sooner or later as it is somewhat worse than the others. Would it be advisable to breed her the first heat period after calving? Can it harm the cow in any way to do this? We thought by doing this she could raise more calves. She is eight years old.

Chewelah, Wash. H. Bros.

A cow usually comes in heat about 28 days after calving and may be bred at that time. Dairymen commonly have their cows bred at the time that will have them calve in autumn or spring as desired. Delaying service in some instances results in suppression of the heat periods, especially in cows that readily lay on flesh. As the cow suffers from garget she should be quarantined and allow her to nurse her calves. She may be bred the first time she comes in heat.



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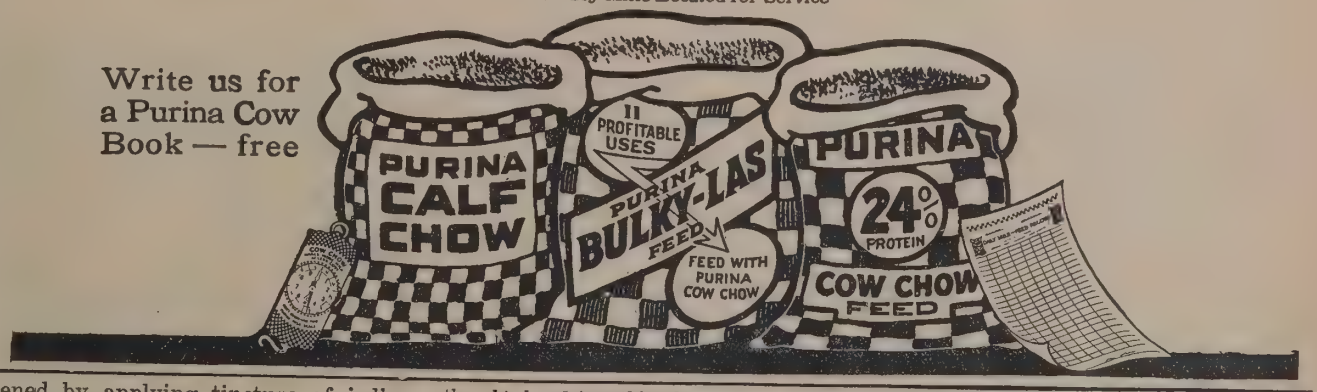
Making milk is actually a bigger drain on a cow than spring work is on a horse. The energy used in making milk and repairing body tissues calls for even more grain than the horse gets.

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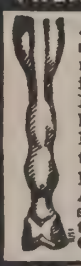
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IMPOTENT BULLS

CAUSE and TREATMENT

See March 10th Hoard's Dairyman Page 287

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Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Pasturing the Herd Bull

It is still the practice of some dairymen to let the bull run with the cows any place the cows happen to be. Often we see the bull with the cows in a pasture close to the public highway and with but a slim, weak, or imperfect fence as a protection to the passerby, including the little children that go to and from school, on the little pathway by the roadside. When you come to think of it, that weak or tattered fence is merely a "bluff" to the bull. Were he to try it he could quickly break down the insufficient barrier and attack children or adults. It is certain, too, that the bull tethered by the roadside, where he has no legal right to be, could quickly break the rope or pull out the stake to which it is attached and run amuck. And what of the "perfectly gentle," "docile," "kind as a kitten" bull that is simply tied by a rope running from his nose ring to a stake? Why, he is a terrible menace, for he might, did he try, break loose at any time.

Apart from the real danger of letting the bull run at large with the cows, it is injudicious in that he will be likely to overserve cows that are in heat, overtax his powers and eventually become partially or entirely impotent in that way. Far too many bulls have to be sent early to the butcher, and overservice, lack of exercise, and imperfect nutrition are the chief causes. The bull needs work or daily exercise to keep him muscular and vitally strong but the pasturing plan, along with the cows, is objectionable. Every bull should have a roomy paddock or yard in which to exercise, and a small grass paddock having a strong "bull-proof" fence is excellent for the purpose and may be provided in connection with a separate house for the bull. It is also a good plan to fit the yard with pens, having gates to be raised by rope and pulley so that cows may be put to the bull without any danger to the attendant. Some dairy farms are so equipped and it would be well were every herd bull handled in that way that the amount of service might be controlled and the safety of mankind insured. Under the prevailing method of management the average bull is unquestionably *the most dangerous wild beast in America!*

Pasture, alone, does not fully feed the bull. When he is doing service he should be kept muscular and, to that end, it is necessary to feed him oats, bran, and oil meal, or any well balanced concentrate ration in addition to grass or other green feed. Service is a serious drain upon the system and when the bull runs with the cows and overserves, he is practically certain to become partially impotent toward the end of the grazing season. He may serve in an apparently normal way, but his vital fluid does not contain mature and vigorous sperm cells and cows served therefore fail to conceive. A certain amount of pasturing is excellent for exercise and loosening of the bowels in a healthy and wholesome way; but the abuse of pasturing, such as we have outlined here, is highly detrimental, far too commonly practiced, and in many instances the source of danger and disaster.

Sabadilla Effective for Lice

HOARD'S DAIRYMAN:—I have used sabadilla seed the last ten or twelve years and find it the only powder that will kill the big blue cattle lice. I put it on twice about three days apart and it gets them all.

Wisconsin. J. E. GORMLEY.

HOARD'S DAIRYMAN:—I have used sodium fluoride for several years with excellent results and no bad effects whatever. A little goes a long way. A few sprinkles of the powder over the neck, and if the animal is badly infested a little shaken around base of the tail, in a very few applications will destroy all lice.

Ohio. W. W. WEISS.

HOARD'S DAIRYMAN:—I have used sabadilla seed for six or seven years and I have never known it to fail. I have used it with equal good results on cows or calves. I have used a blanket after the application and have done without the covering with the same results. I never use any kind of cover if the cow is kept in the barn, but do whenever she is in the lot or pasture to prevent her from licking the powder. I have never known or experienced any bad results from handling the powder.

We use it quite liberally shortly after the morning milking and brush the cow in the evening before milking to avoid getting any of the powder into the milk. I repeat the application in about a week or ten days. It is very seldom that a third application is necessary.

One year I made the mistake and bought five pounds. I didn't use over half of this amount. When I tried to use the remainder the next spring I found it to be worthless.

I have also used oils as a louse preventive and as a destroyer but I have never had as good results from anything else as I have had from the finely powdered sabadilla seed.

Indiana. GEO. HAINJE.

Sore Teats

At present we are having some sore teat trouble in our herd. The teat swells and becomes hard and then breaks and makes a large sore that heals slowly and hangs on like a rash for weeks.

Thompson, Ia. A. T. K.

Immerse the sore teats for five minutes night and morning in hot water containing all the boric acid it will

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First—How strong is it? How does it compare with carbolic acid?

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Have your dealer place a teaspoonful in a glass of water—and see for yourself how much better it is.

Dr. Hess Dip and Disinfectant kills hog lice, sheep ticks and scab; destroys disease germs; keeps down foul odors; makes living quarters healthful. Guaranteed.

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Pipe Smoker Fi the Right Toba for the Tropic

Happily learns that his fa tobacco smokes equally w warm climate as in cold temperate ones

Evidently, one of the proble pipe smokers who live in the is to find a tobacco that high t ature will not spoil.

Mr. R. G. Rigg of Colombia, was happy to find that he coul in South America the same t that had been his favorite sinc when he lived in Iowa.

His experience may be a tip ers who have had difficulty fin tobacco that will keep its quali flavor in warm climates.

Read his letter:

October 6,

Larus & Bro. Co.
Richmond, Va., U. S. A.
Gentlemen:

Most all well-known tobaccos s well in a cold or temperate clin but very few in a tropical clin They are mostly too heavy, don't to be blended right—at least th my opinion gained from practical perience.

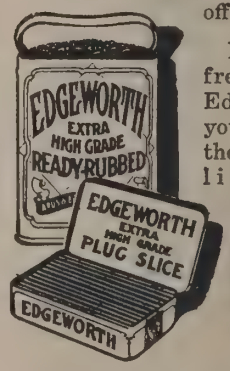
However, Edgeworth is the sam any climate. Again that is my opi gained by practical experience.

I cannot get the same pleasure of any brand of tobacco that I out of Edgeworth, and I have many—and paid fancy prices, too costs real money to smoke impo tobaccos here; the import duty is high.

Anyway, we cannot have everyt we would like in these countries we hold on to all the little plea possible. Now you know why I s Edgeworth.

Yours respectfully,
R. G. Rigg,
Cartagena, Colombia, S

To those who have never tried worth we ma offer:



Let us se free sampl Edgeworth you may put the pipe test. like the s you'll like worth wh and whe you buy it never char quality.

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On your radio—tune in on WRVA, Richmo —the Edgeworth Station. Wave length 256

is anged within an hour—but he can learn to judge it fairly well. The air ould be fresh and clean to the sme; there should be no pronounced dra s over any of the stock; there sho d be appreciable movement of air ward at the intakes and upward thr gh the outtakes. Back draft- ing r outward movement at the intak , is indicated in cold weather by the melting of any frost that may hav previously formed around the ope ng.

"ssuming the conditions within the barn to be normal, or good, as desibed above, a decrease in outside temperature will, ordinarily, cau more rapid movement of air into d out of the barn and a conse- que lowering of inside tempera- ture To correct this the area of each inta opening should be gradually redied. Should the drop in outside tem rature be accompanied by high win a greater reduction of intake area will be necessary. As soon as the eather conditions moderate, the intaes should again be opened, the idea eing to maintain as great a circu a on of air as possible with the insi temperature at the desired deg e.

"ould the inside temperature not hen remain normal it may be adv able to close partially all intake on the windward side, thus relieving pressure on the inside.

" high temperature within the barn should not be maintained at the exp se of wet walls. Should the humidity become noticeable the barn may be dried out by increasing the circulation; that is, by opening the system.

"Should a portion of a large stable be temporarily unoccupied it would be well to close the outtake flue entirely in that part. This will reduce the circulation and aid in maintaining the stable temperature. The partial closing of an outtake reduces the velocity of the air in the flue, the result being too rapid cooling and consequent condensation and dripping.

"Damp walls cannot be avoided if there is insufficient insulation. Lack of insulation is indicated by the presence of dampness when the atmosphere within the stable is above the saturation or dew point.

"The success of a ventilation system depends upon the correct application of those principles which control the condition of the air. The principles themselves can be readily understood, but their application is still so largely a matter of judgment and experience that it is not possible for every farmer to be his own ventilation engineer. Farmers will therefore save much time and money if they will submit their ventilation problems to their state agricultural college, the United States Department of Agriculture, competent agricultural engineers, or to those commercial firms which specialize in the ventilation of farm buildings and which obtain results that show them to be using the best information available. The next few years will see a rapid advance in the use of properly installed ventilation systems designed to meet local conditions."

How Corn Crop is Used

The average yield of corn silage in the United States was 7.2 tons per acre in 1926, or a total yield of 31,205,000 tons for the 4,336,000 acres devoted to corn for silage. This is a yield of nearly a ton less per acre than 1925, but is three-fourths of a ton greater than in 1924.

In 1926 nearly one hundred million acres were devoted to corn, 4.37 per cent of which was devoted to silage, 12.38 per cent to hogging down, and 83.25 to corn for grain. The average yield of corn for grain was 26.4 bushels in 1926, as compared with 28.3 bushels in 1925 and 22.5 bushels in 1924.

There were 522,451 silos in the United States on January 1, 1926, according to the estimate of A. L. Haecker. From this it would appear that the 1926 crop of corn provided 60 tons of silage per silo. As other crops than corn are ensiled it is probably safe to estimate that the average silo contained in the neighborhood of 70 tons, or a silo 14 by 30 feet.

"The Farm"

A new book has been added to the Rural Science Series edited by L. H. Bailey. It comes from the vigorous, prolific, clear thinking mind of Eugene Davenport. The name of the book, "The Farm," is so simple as to be misleading were it not for the subtitle. The book deals with the science and problems of soil productivity from a national point of view. It does not attempt to tell a farmer in detail how he may improve the fertility of his farm immediately but rather it presents a broad, long-time, philosophical viewpoint of the production of food, shelter, and raiment.

The writings of Davenport are known to many. Those who have been fascinated by his clear, effective style of expression will like "The Farm." Copies may be secured from Hoard's Dairyman Book Department on receipt of its regular price, $3.50.



Why Certified Dairies refer the Universal Milker

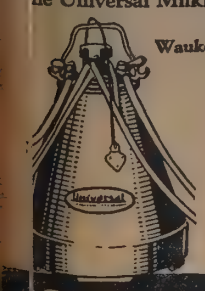
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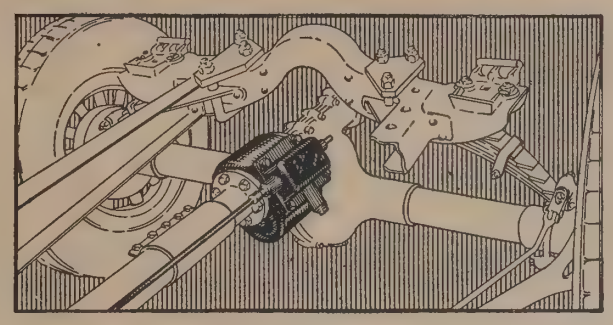


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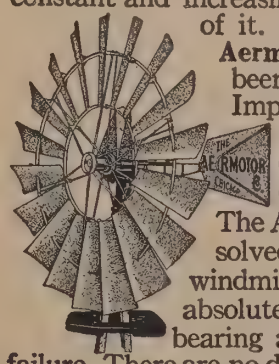
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Hoard's Dairyman Fort Atkinson, Wisconsin

The Ventilation of Dairy Barns

(Continued from page 497)

In the colder climates not much over 600 cubic feet of air space should be allowed per cow, which means that the stable height should not be more than 8 to 8½ feet. Barns such as discussed elsewhere in this issue will supply a stable suitable for good ventilation. We would emphasize here the building of a warm ceiling, with underside of joists ceiled and spaces between joists closed at either end. If the floor of the second story is not covered with hay, this part should have additional insulation. Hay chutes should be kept closed with hinged or sliding doors, else they will interfere with proper operation of the ventilation systems.

In cold climates it is desirable to have double glazed sash or storm sash, as a single glass radiates heat 2½ times as fast as a board one inch thick and several times as fast as a properly built wall with a dead air space.

Properly designed metal ventilators on top of the barn are more efficient than the old fashioned wooden cupolas and provide greater protection against snow and rain. The throat opening should be large enough to permit the free passage of air and at the same time it should be so designed as to prevent wind blowing down the flue. Not every tinsmith knows the correct dimensions and home-made ventilators are apt to be inefficient if not complete failures.

The following discussion of outtakes, intakes, and operation is taken from "Principles of Dairy Barn Ventilation," by M. A. R. Kelly of the U. S. Department of Agriculture and published as Farmers' Bulletin 1393:

"Outtakes are usually arranged in pairs. When the cows are to face inward, the outtakes are placed on the outside wall on each side of the barn and often enter the same ventilator at the ridge. The flue should be made air-tight and as straight as possible, with no abrupt turns.

"It is essential that the flues be well insulated and air-tight in order to prevent, so far as possible, the cooling of the air during its passage and the condensation which will take place regardless of the material used in the construction of the flue. If the flues are constructed of wood they should be double-boarded with matched lumber and with a good grade of building paper or roofing felt between the two layers. A single layer of matched lumber is sufficient for that part of the flue above the mow floor.

"In the better installations of ventilation systems, round metal flues are being used. A round flue is more efficient than one of square or rectangular shape and of the same cross-sectional area and for this reason a smaller flue may be used. Bare metal pipes are unsatisfactory and require insulation, as do wooden flues. Metal flues may often be erected with much less labor than wooden flues and in many localities can be installed more cheaply.

Intake Flues

"The intakes should be smaller in size than the outtakes and of greater number. They are generally placed 10 or 12 feet apart and so distributed as to insure a good circulation of air in all parts of the stable.

"Intake flues should be made air-tight. If the barn wall is not ceiled or sheathed, at least the outside wall of the intake flue should be, as cracks in a single layer of sheathing will affect the efficiency of the flue. The inside wall of the flue should be insulated, otherwise cold air passing through the duct cools the inner surface of the stable wall, causing condensation and consequent dripping. During cold weather the path of uninsulated intake flues often is indicated by the frost on the wall and ceiling.

"Automatic intake valves, which are designed to prevent back drafts, have recently been placed on the market. When these valves are used the vertical part of the flue is insulated.

"Warm-air furnace registers should never be used in the openings of outtake or intake flues. They rust, break, and collect dirt and cobwebs, and during cold weather registers on intakes collect frost to such an extent that sometimes renders the entire area ineffective. The grate or slide shutters retard the passage of air. A board, either hinged or sliding in a slot, is preferable to the furnace register as a means of regulating the area of the openings.

Operation of the System

"If the ventilating system has been installed by a commercial firm the owner should obtain a set of instructions, go over it in detail with the firm's representative, and have the construction and operation thoroughly explained, so that when he undertakes the operation himself, he will be better able to adjust the system to varying atmospheric conditions.

"The barn must be kept clean, for although ventilation will remove and displace foul air, freshness of the atmosphere cannot be maintained if manure and foul-smelling debris are left in the stable. The barn should not be filled with stock, or unoccupied portions should be filled with clean straw or cut off with a temporary partition. The heat generated by the stock is the means by which a difference between inside and outside temperatures is brought about, thus causing circuation of the barn air, but if the space is too large for the number of stock there may not be sufficient heat generated to maintain the desired temperature and at the same time produce ample air circulation.

"It will not be feasible for the average farmer to determine the amount of ventilation—that is, the number of times the air in the



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NO DOUBT about it, you can't beat Camels, regardless of how much you pay. Here are the world's choicest tobaccos combined with a skill that makes Camel the masterpiece of cigarettes. Smoke a pack or a million and each successive Camel opens a new understanding of tobacco enjoyment. Never a tired taste in a thousand packs of Camels.

For smoking pleasure supreme, get acquainted with Camels. There is or can be no better tobaccos or blending. Camels are first in popularity, and your own pleasure, as soon as you try them, will confirm the experience of millions.

In fact, you'll agree, after a trial, that this is the one sure call to smoke contentment: *"Have a Camel!"*

R. J. REYNOLDS TOBACCO COMPANY, WINSTON-SALEM, N. C.

© 1927

...w Good Dairy Barns Are Built

(Continued from page 496)

...e is an enormous heat loss in this ...

... is necessary to plan for the in... ...lation of a proper ventilating sys... ... a problem which is discussed in ...her article.

Material for the Stable Floor

...or a good stable floor, concrete ...t a covering of cork brick or wood ...

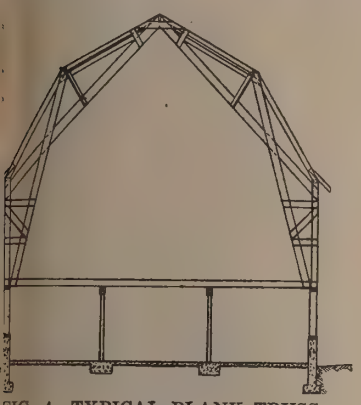
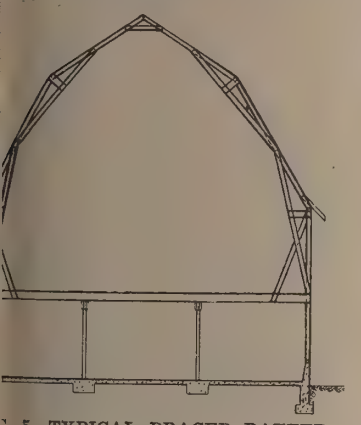


FIG. 4—TYPICAL PLANK TRUSS FRAME

...russes are spaced 10 to 14 feet apart ... support the roof. The intermediate ...ers are 2"x6" and are supported by ... purlin plate consisting of two pieces ...2"x10". The lower rafter is 14 feet ... upper rafter 12 feet.

...s where the animals lie down is ...class by itself. Concrete alone is ...deal material for this purpose ... but one exception. It is natural... ...ld, comparatively speaking. Cork ...

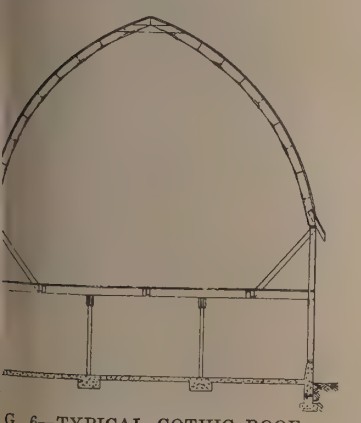


...G. 5—TYPICAL BRACED RAFTER FRAME

...udding are spaced 24 inches on center ... each rafter is braced as indicated. ...ing larger than 2"x6" are required.

... is a good insulator and almost ...vious to moisture; naturally it ...des a warm, dry surface for the ...ls to lie upon.

...od blocks are sometimes used ...



...G. 6—TYPICAL GOTHIC ROOF FRAME

... radius for the curve of the rafters ...ially three-fourths of the total width ... barn.

...d of cork brick. Ordinary wood ... have the disadvantage of ab... ...g considerable moisture which ... expansion and warping. How... ...wood blocks are now to be had ...ave been treated with a special ...nd that renders them almost ...ious to moisture. These blocks are warm and durable and by using care in laying, a good job can be secured. Wood blocks should be laid in asphalt, with joints filled to within one-fourth inch of top with asphalt and the balance of joint filled with sand. If the joint is filled to the top, the heat of the animal will cause it to become sticky. Cork brick are laid in a one-half inch bed of cement mortar mixed one part Portland cement and two parts sand. The brick should be laid together, with no perceptible joints; any cracks or crevices between bricks to be filled with a rich cement wash.

Good roofing material can be had in a variety of kinds. The pitch of a barn roof is usually steep enough so that any type of roofing can be used with success, therefore it is for the owner to decide whether he wants a cheap roof, a medium priced roof, or the best that money can buy.

A 1000-lb. Fat Producer

The latest record in excess of 1000 lbs. butterfat has recently been completed by Redfield Diana, a 7-year-old Holstein cow bred and owned by the State School and Home for Feeble Minded in South Dakota. In 365 days she produced 30,895.7 lbs. milk containing 1,039.78 lbs. fat (1,299.72 lbs. butter) which ranks her 58th among Holstein producers and the 112th cow of the breed to pass the 1000-lb. mark.

Uncle Ab says the man who can't manage to live on good terms with himself can't expect to be on good terms with his neighbors.



INFERIOR quality often hides behind a mask of mere surface goodness.

For example, a shoe has two soles. But do you ever ask, do you ever stop to think—"What is behind the outer sole? What is the second sole?"

We cut apart several shoes that *looked like* Ward's—shoes made to sell for 25 cents less. The second sole was made of leather that cost 20 cents per pair. *When the first sole is worn out, the second sole will "disappear" with a few days' wear.*

Ward's second sole is made of 45 cent leather — as sturdy and strong and long-wearing as the outer sole.

The price of the inferior shoes is *seemingly* lower than Ward's. A quarter can be saved in cash, but at a loss of two dollars in *serviceability.*

At Ward's "we never sacrifice quality to make a seemingly low price." For fifty-five years this has been the Golden Rule policy back of every article we have sold.

We do not adulterate, "skimp," or use inferior substitutes to take a few cents off the price.

Ward's prices are as low as reliable merchandise can be sold—always. And no merchandise power in the world can buy at lower prices than Ward's!

Over 60 million dollars in cash is used to buy goods in the largest quantities to secure low prices. But we never make a price a few cents lower by sacrificing *service* and *your satisfaction.*

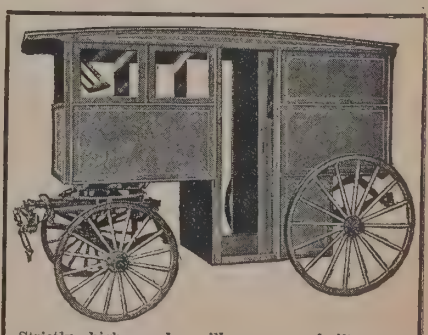
A Price too low—makes the Cost too great.

Use Your Ward Catalogue for Greater Savings

ESTABLISHED 1872

Montgomery Ward & Co.

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Strictly high grade milk wagons, built upon honor and fully guaranteed. Ask for free catalog showing styles for every requirement. Suitable terms and liberal cash discounts. Pioneers in milk wagon building with sanitary bottled milk equipment.

DEKALB WAGON COMPANY

P. O. Box E DEKALB, ILL.

When buying mention Hoard's Dairyman to your merchant or dealer—it helps us!

Exterminate Corn Borers
ROSS METAL SILO

Made of *copper-content Rossmetal galvanized.* No shrinkage or swelling. Can be increased in height. Movable. Safe against fire and wind. No freeze troubles. Send for remarkable booklet—"What Users Say."



Easy terms—buy now, pay later. Agents wanted.

Check items which interest you and write for catalog.

Ross Old Reliable Ensilage Cutter is another exterminator of the borer. Cuts ensilage into ⅛ inch pieces. All steel construction. Write for prices.

The Ross Cutter & Silo Co., (Est. 1850)
230 Warder St., Springfield, Ohio

Makers of Brooder Houses—Silos—Cribs—Bins—Cutters—Mills—Garages

Any Two-Plow Tractor Runs a No. 17 **GEHL SILO FILLER**

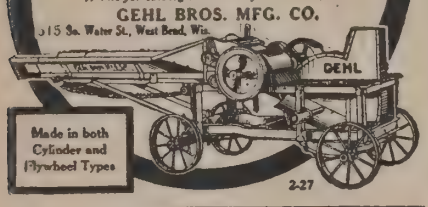
Low Speed-Big Capacity

Means less power required—less vibration—longer life. In a University test the Gehl No. 17 (shown here) cut into a 35 foot silo at 21.3 tons per hour with only 17.03 horse power and at a speed of only 501 R.P.M. It will do the same thing on your farm. Many filled 150 silos each and still run.

All steel frame—blower that cannot clog—cuts clean—requires *no man* at feed table—can be equipped with attachment that makes it the world's best *roughage mill.*

Dealers everywhere.
Write for catalog and name of nearest dealer.

GEHL BROS. MFG. CO.
915 So. Water St., West Bend, Wis.



Made in both Cylinder and Flywheel Types

2-27

ANY useful machine that pays for itself in a few years, and lasts twenty or more, is a good buy.

* * *

A Case steel thresher does this, and also protects you from loss and damage to harvested crops, at no added cost.

* * *

It pays you a profit, protects you from serious losses and lasts so long that the cost is the smallest consideration.

Mail the coupon.

J. I. Case Threshing Machine Co.
Incorporated Established 1842
Dept. E32 Racine Wisconsin

CASE

Every grain grower should read "From Flail to Freedom," a valuable book that shows you how to prevent loss and damage to harvested crops.

Fill in your name and address for a FREE copy.

Name .....
P. O. .....
State .....
E32

Common Sense in New England Dairying

(Continued from page 493)

might be overthrown. The stage was set for a first-class milk war, but both sides kept their heads. NEMPA officials thought that they could compel Turner Centre to pay their price, but they veiled their threat to go into court with an offer to reduce their October price from 8½ to 8 cents a quart if Turner Centre would pay the NEMPA scale for August and September milk.

Turner Centre went back into the NEMPA fold with October, but deferred action on the milk for August and September. A meeting of Turner Centre stockholders was held on November 12, at which the action of the board of directors was endorsed, largely by the use of proxies, but still an open declaration of war on NEMPA was avoided and an adjourned meeting was called for November 27. At this meeting more stockholders of Turner Centre were present in person and the sentiment was freely expressed that if the system was in serious financial trouble the producer-stockholders would dig down into their own pockets rather than force an open rupture with their co-operative marketing association. That meant business, for fully 75 per cent of the 3,000 odd Turner Centre producers are also members of NEMPA.

This show of hands led to the appointment of a committee of Turner Centre stockholders to go over the financial situation thoroughly and NEMPA officials were invited to sit in with the committee.

Events during recent months point to a satisfactory adjustment of the controversy in time. In spite of the poor ice cream season, 1926 was a better year for Turner Centre than 1925. Instead of having earnings of only a little over $18,000, last year showed $56,890.60, and the directors found it possible to pay a dividend of $53,913.65, leaving in the surplus fund on December 31, $98,140.27.

The annual meeting which was held this last February was attended by more than 300 farmers. It was harmonious, there was no bitter criticism, and the same board of directors was re-elected with the same officers chosen for the coming year.

The committee which was appointed to adjust the difficulties with NEMPA on the August and September milk price recommended that the matter be deferred, but that a special committee of active stockholders should be appointed to meet periodically with the directors in the effort to determine when the payment should be made. The committee felt that the new management is making progress, but they did not want to handicap the company with heavy demands until it is in a position to carry them.

In other words, Turner Centre and NEMPA are not going to make the August—September milk price a *casus belli.* So there you are. The farmers were not responsible for the situation which threatened the business stability of the company which they had been buying for five years. On the contrary, they took prompt steps to remedy matters as soon as they were in a position to do so. When they thought their new board was going too far, the stockholders urged and got conciliatory methods. Both Turner Centre (stockholders and officers) and NEMPA deserve a lot of credit for the common sense they have displayed in averting a calamity which would have lost money for many people and engendered bad feeling that would have taken many years to overcome.

Farm Statistics

The 1925 farm census indicated a decline in farm population in the United States from 31,614,269 in 1920 to 29,981,693 in 1925. In the latter year there were 6,371,640 farms, of which nearly 3 per cent were located on concrete or brick pavement, 20 per cent on macadam or gravel, 31 per cent on improved dirt roads, and 46 per cent on unimproved roads.

Farm products sold co-operatively in 1924 totaled $857,652,166, an increase of 136 million dollars in five years. Supplies purchased co-operatively amounted to $75,932,799, a decrease of nine million dollars in five years. Feed expenditures were $750,440,560, a decrease of 247 million dollars from 1919. Expenditures for fertilizer were $230,528,446, a decrease of 96 million dollars. Expenditures for labor decreased 234 million dollars in five years, totaling $864,982,384 in 1924.

Milk production is given as 79 billion pounds in 1924, an increase of 12 billion over 1919. Butter made on farms totaled 642,803,267 lbs. in 1924, a decrease of 65 million pounds in five years. Butterfat sold from farms totaled over a billion pounds in 1924, or nearly double that sold in 1919. Whole milk sold from farms was 23 billion pounds, an increase of over a billion pounds in five years. Nearly two billion dozen eggs were sold from farms in 1924, an increase of 259 million dozen in five years.

The number of farms decreased 76,703 from the 6,448,343 recorded on January 1, 1920. There were 1,128,207 farms reporting a mortgage debt of $10,790,244,351 in 1925, as compared with 1,193,047 reporting a mortgage debt of $4,003,767,192. While there was a material reduction in mortgage debt, the ratio or per cent of mortgage debt to the value of farms was 41.9 in 1925 as compared with 29.1 in 1920.

Tractors on farms increased from 246,083 in 1920 to 505,933 in 1925. Farmers reported radio outfits to the number of 284,006 on January 1, 1925. The total value of farm machinery and implements was given at $2,691,703,629 in 1925, a decrease of 903 million dollars during the past five years.

The new champion 2-year-old of the French Canadian breed is Robinette, owned by the Agricultural College at St. Anne de la Pocatiere, Quebec. This heifer has just completed a year's production of 10,442 lbs. milk, 489 lbs. fat, which exceeds the former class record by 14 lbs. fat.

ADRIEN MORIN, Sec.

Before You Build a SILO or Any Other Building

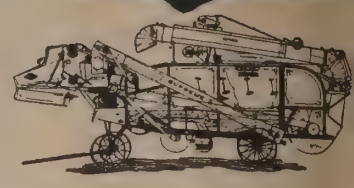
Send for our FREE Book on Modern Farm Buildings and learn how thousands of far-sighted farmers are putting up permanent, fire-safe, Kalamazoo Glazed Tile buildings at no greater first cost than good frame construction.

THE OLD RELIABLE KALAMAZOO SILO

Wood stave or glazed tile, Kalamazoo tile silos are fire-safe, frost-proof, moisture-proof, and acid-proof—the biggest profit-paying opportunity for your farm offered anywhere *today.* Pays for itself in one year. Don't wait. Prices are *low*—right now. Save money. This FREE Silo Book Tells How. Write for it.

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OWN YOUR OWN HUBER SUPREME THRESHER

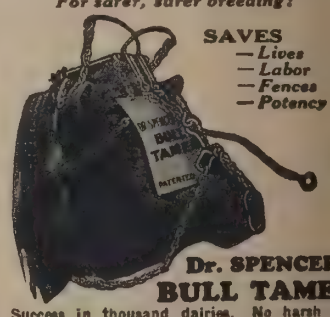


Own your own Huber Supreme Thresher and save your grain—thresh when weather conditions are just right. "Supreme" is roller-bearing equipped—runs light—great for two and three plow tractor power. Moderately priced—threshes clean—economical. Get full information today. Fully illustrated catalog FREE.

THE HUBER MANUFACTURING COMPANY
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For healthier, happier bulls! For safer, surer breeding!

SAVES
—Lives
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Dr. SPENCER'S BULL TAMER

Success in thousand dairies. No harsh restraint; eat, drink, pasture and breed just the same. First all purpose control. 30 days' approval. Let us send you all facts.

THE SPENCER BROTHERS CO., Savona, N. Y.

It Doesn't Cost Anything to Investigate

Blizzard Ensilage Cutter—but it may deprive of the wonderful satisfaction that Blizzard sures if you don't. Blizzard has the most mo ensilage cutter features; gears run in oil—mo parts are all encased—feeding of ensilage is ent automatic—the ensilage is evenly cut, packs well, keeps well, and is the finest possible quality.

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Blizzard Ensilage Cutte

Compare the Specifications

Get the catalogs of ensilage cutters you're interested in. Compare the features, power requirements, the capacity, the special features. Talk to users and compare the results. That's the way to be sure of getting satisfaction.

CATALOG See it worth

Write for Free Cata

Presents Blizzard cations and features interesting but co way. Gives you the figures, information you a careful study of Blizzar thorough comparison. Also name of nearest dealer if y know him.

The Jos. Dick Mfg Dept. 10
Canton.



NATCO HOLLOW TILE SILOS

ROT-PROOF, WIND PROOF, PRACTICALLY SAME PRICE AS WOOD—LASTS AS LONG AS THE FARM

Send for Free Booklet

NATIONAL FIRE-PROOFING COMPANY
General Offices Fulton Bldg. Pittsburgh, Pa.





eding Pregnant Sows for Fall Litters

man who makes a success with pigs is just a little better herdsthan the man who makes a succwith spring pigs. About 75 per of our annual pig production is spring farrowed litters. More 25 per cent of our farms, how-, grow some fall pigs.

he success of fall pigs depends on having them farrowed early, the of August and first three weeks September, (2) in giving them a start before cold weather sets in, in providing warm, dry, clean, ventilated sleeping quarters, (4) iving them a good growing ration ng the winter, and (5) in how mothers are handled from now the pigs are born this fall. We now concerned with the feeding care of the sows that will farrow er cent of this year's pig crop.

ith the advance of the season's there is a little tendency to let e prospective mothers shift for nselves. This is a mistake. Fall well born are certainly better pects for carrying through the er than those whose mothers have neglected. With plenty of good ure forage the needs of the pregsow are simple. Simple as these one should keep in mind that w is working most of the time n she farrows 2 litters a year. wing 226 days for the two pregy periods and 60 days each for two suckling periods leaves only ays for the sow's vacation.

he needs of a mature pregnant in reasonably good condition when was bred are feeds for maintee and for developing the unborn . On the other hand, a gilt or a ling sow not well grown needs feed for growth as well as feed maintenance and litter develop. The condition of a gilt or masow at time of breeding also ld be considered in planning the n for the pregnancy period. e good practice requires that be in reasonably good condition at this time they frequently finish off the spring litter in thin flesh. This must be regained during the summer.

Corn alone, as nearly every one knows, is a poor ration for a pregnant sow. Its exclusive use results in a tendency for the pigs to be small, weak, and underdeveloped; in a higher percentage of dead pigs; in a feverish, irritable condition of the sow at farrowing time; in greater tendency for sows to develop the pig-eating habit; and inability to secrete a normal supply of milk. All of this means a much lower percentage of pigs raised.

On the other hand, it has been shown that forage crops alone are not adequate to nourish the pregnant sow. Succulence and some bulk are good in the ration but too much bulk is not so good.

The amount of grain and supplemental feeds to give pregnant sows on pasture should be governed by their condition, age, and weight. Sows in medium to thin flesh at breeding time should be made to gain 75 to 85 lbs. during the pregnancy period. The amount of feed should be increased with the advance of the period. A good general rule to follow for mature sows is to feed concentrates at a daily rate of one per cent of the sow's weight. A sow weighing 350 lbs. would receive 3.5 lbs. concentrates daily. Gilts must be fed more liberally; one and one-half per cent of their weight being given as concentrates daily.

The nutrients needed mostly by the sow are of the carbonaceous and energy kind while those needed to develop the unborn litter of pigs must be of protein and mineral nature to build lean flesh, blood, connective tissue, bone, and such like. Corn is a good energy feed but poor in mineral and protein. The small grains are also good energy feeds but a little higher than corn in protein and mineral. Legume pastures supply bulk, succulence, calcium, phosphorus, and protein. Skimmilk supplies calcium, phosphorus, a very good quality of protein, and a little carbohydrate. Tankage is an excellent source of protein and mineral matter.

A sow weighing 300 lbs. fed corn and skimmilk on legume pasture should receive daily 3 lbs. corn and about 12 lbs. skimmilk to make the desired gain. Ground barley may be substituted for the corn. Four weeks prior to breeding, the feed allowance should be increased.



AN OHIO HOG HOUSE

his hog house was found in use on the ni County, Ohio, test farm. This size type of sash with glass complete at present time can be bought for a dol- This window is a feature that aps to many farmers at once and works ight if adequately protected. In ac- usage, however, the writer has obed that such windows are distressingly ct to breakage, both by the hogs within when excited and by larger als from without when they have acto the same field.

io. G. P. WILLIAMS.

Vitamin Deficiencies in Pig Feed

The cereal grains are low in bone building minerals and more or less low in vitamin A, which promotes growth in young animals. The exception is yellow corn which has, apparently, enough of this vitamin to promote normal growth.

Closely skimmed milk is deficient in vitamin A but it is rich in bone building minerals and it supplies a high quality protein. Skimmilk and yellow corn will make normal growth and bone formation but with other cereals and white corn there will be unthriftiness.

To correct the deficiencies it has been found that the addition of a small amount of alfalfa meal or good quality alfalfa hay will bring about normal growth and bone formation.

The above applies only to dry lot feeding as is practiced during the winter. Pasture grass corrects the deficiencies found in the cereal grains and in skimmilk.

Feeding the Open Sow

Some farmers use gilts exclusively for spring litters of pigs after which time they are fattened for market. Other farmers use some gilts, some yearlings, and older sows. Where only one litter each year is raised some of these sows must be carried through the summer. The problem of carrying these open sows through the summer is up for consideration at this time.

The nutritional needs of the sows and the element of economy in supplying these requirements are the chief factors involved.

Mature sows will have lost 60—90 lbs. during the suckling period just closed. This will have to be regained. Gilts will likewise have lost weight. This must be replaced in addition to which provision must be made for continued growth.

Mature open sows will just about maintain their weight during June and July on good bluegrass or legume pasture. In order to gain the lost weight, however, they will require some grain. If the pastures are good it will seldom be necessary to feed daily more than an amount equal to one per cent of their weight. Their need for protein is at a minimum. With good legume pasture, corn and a very little skimmilk are sufficient. Four or five weeks before breeding this fall the feed should be increased.

With yearlings and the younger sows just farrowed for the first time, the feeding should be more liberal and there is a little greater need for protein. Feeding grain daily at a rate of one and one-quarter per cent of the live weight and allowing 6—8 lbs. of skimmilk in addition to which pasture is provided, is adequate for the younger growing sows.

Little Freddy was preparing to go out calling with his mother. Suddenly he called to her in a rather startled voice:

"Mamma, is this bay rum in the brown bottle?"

"Gracious, no, dear! That's mucilage."

"Oh," said Freddy, after a pause. "Maybe that's why I can't get my hat off."—Buffalo News.

WHITE COLLIE PUPPIES

We are expecting another litter of white Collie puppies about June first. If you intend to buy a dog this summer we suggest you act promptly as our supply is limited. All dogs eligible for registration. We will furnish necessary papers for registering if required. Price F. O. B. Fort Atkinson: Females $10.00, males $15.00.

HOARD'S DAIRYMAN FARM
Fort Atkinson, Wisconsin

Annual Spring Sale of
REGISTERED **38** REGISTERED
GUERNSEYS
(From Accredited Herds)
PURCELLVILLE Loudoun County **VIRGINIA**
FRIDAY, MAY 20

6 Very High Class Young Males
Including
LANGWATER WALDORF—Born Aug. 2, 1926
SIRE—Langwater Horatius No. 63071.
DAM—Imp. Slogan's Lady Astor of Langwater No. 149219. 13,018 lbs. milk, 636.30 lbs. fat, Class A. Her son, Langwater Northerner, has just been selected by Jno. Clark for use in Caumsett Herd.
also
GOODSTONE CONQUEROR—2 years old. (Shown at seven fairs in 1926 undefeated).

32 Excellent Females
Including
4 Splendid Daughters of His Grace of Glencairne. (Sire of 7 Advanced Registered daughters that average 552 lbs. fat in Class G.)
A 2-year-old First Daughter of Virginia Class Leader in D.
7 excellent A. R. cows fresh by Sale.
A number of Good Young Females.
also
10 High Class Grade Cows and Heifers

Catalogs ready May 1st on request.
F. H. JAMES - - *Sales Manager*

Bonnie Brae Guernseys
Herd Sire—Itchen King 49803 A. R. Sire of 8 A. R. Daughters that will average 640 lbs. fat. Sons of Itchen King for sale out of A. R. Dams of popular breeding. Priced reasonable.
BONNIE BRAE FARM, Clinton, N. Y.

JOHN H. PERSON COMPLETE DISPERSAL SALE!
REGISTERED JERSEY CATTLE
HENNEPIN COUNTY FAIR GROUNDS
HOPKINS, MINN., MAY 14th, 1927
A splendid opportunity to secure a select foundation or a new herd sire. Everything tuberculin tested.

20 years may be a long time, but—
74.4% of Hoard's Dairyman's live stock advertisers have been advertising regularly for from 2 to 20 years

SALE ANNOUNCEMENTS

May 12—Guernseys. National Guernsey Sale at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
May 13—Guernseys. Coventry—Dunwalke—Florham—Rockingham, Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sales Mgrs.
May 14—Jerseys. Vernon County Jersey Breeders' Consignment Sale of 75 head, both grade and pure-breds, Fair Grounds, Viroqua, Wis. E. W. Schelling, Sale Mgr.
May 14—Jerseys. John H. Person, Hopkins, Minn. Joe Morris, Sale Mgr., Westerville, Ohio.
May 20—Guernseys. Purcellville, Loudoun County, Va. F. H. James, Sale Mgr.
May 24—Jerseys. First Annual Sale of Belswood Jerseys, Waukesha, Wis. A. F. Block, Mgr.
May 25—Guernseys—Fond du Lac County Guernsey Sale at Fond du Lac, Wis. Chas. L. Hill, Sale Manager.
May 26—Guernseys. Chippewa Valley Guernsey Sale, Eau Claire, Wis. R. H. Loether, Mgr.
May 27-28—Holstein Dispersal. Grahamholm Farms, Rochester, Minn.
May 31—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. M. B. Wood, Sale Mgr.
June 2—Holsteins. National Holstein Sale at Springfield, Mass.
June 2—Guernseys. Highlands Dispersion, W. H. Gratwick, Owner, at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 3—Jerseys. National Jersey Sale, Trenton, N. J. Joe Morris, Sale Mgr., Westerville, O.
June 9—Ayrshires. N. E. Ayrshire Breeders' Sale at Springfield, Mass., W. E. Bingham, Mgr.
June 15—Guernseys. Breidablik Guernseys at Auction. Breidablik Farm, Wilmington, Del. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 15-16—The National Ormsby Sale at the Minnesota State Fair Grounds, Minneapolis, Minn. Melin—Petersen Co., Sale Mgrs.
June 16—Guernseys. Louis Merryman's 16th Semi-annual Sale, Timonium, Md. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 23—Holsteins. W. H. Krause Dispersion at Thorp, Wis.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.

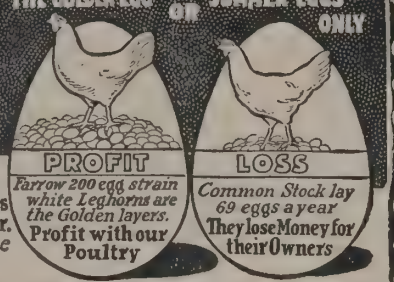
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FOR SUCCESS
REGISTERED U.S. PAT. OFFICE

GOLDEN EGGS



$4.00 Profit a Hen
from 400 Farrow White Leghorns made by Mrs. Beer in one year.
The golden eggs are layed in the Winter when eggs are high.



QUALITY MATINGS PUREBRED FARROW CHIX — Prices MAY 8 to MAY 31 Delivery

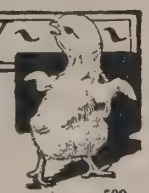
	50	100	200	500
S. C. White Leghorns. S. C. Brown Leghorns.	$5.25	$ 9.50	$18.50	$45.00
Bar. Rocks, S. C. Reds Anconas	5.75	10.50	20.50	50.00
White Rocks. R. C. Reds	6.25	11.50	22.50	55.00
Buff Orpingtons. White Wyandottes. Black Minorcas	6.75	12.50	24.50	60.00

Special Matings 3c a chick higher and Farrow Famous Star Matings Wh. Legs. 6c chick higher than Quality Matings. Prices for June 1 to July 10 del. $1.00-100 less than May prices. Prepaid, 100% alive del. Catalog free.

AMERICAN CERT-O-CULD

D. T. FARROW CHICKERIES Dept. 18 Peoria, Illinois

SILVER SPRING HATCHERY



QUALITY BABY CHIX — Every Chick a Pure Bred

AMERICAN CERT-O-CULD

from free farm range QUALITY BREEDERS. Inspected under the rules of the American Baby Chick Association. There is no State Inspection Fee added to the cost of SILVER SPRING CHIX, so we are able to save you from 2c to 4c per chick. 12 years' experience, best equipment. Bank reference. Order direct from this ad, or write for Catalog. Following prices effective at once. 100% Live Delivery Guaranteed, Prepaid to your door

	50	100	200	500
S. C. WHITE LEGHORNS, Heavy Assorted	$5.50	$10.00	$30.00	$50.00
WHITE AND BARRED ROCKS	6.00	11.00	31.50	50.00
S. C. AND R. C. REDS	6.00	11.00	31.50	50.00
BUFF ORPINGTONS, WH. WYANDOTTES	6.50	12.00	34.50	55.00

A trial order will make you another BOOSTER for SILVER SPRING CHIX.

SILVER SPRING HATCHERY, Box 115 ABINGDON, ILLINOIS

GENOA QUALITY CHICKS

Bred-To-Lay Always Pay

NOW you can get our Super-Quality chicks at the price of ordinary chicks. We are pleasing thousands with our egg producing stock; true to type and color. We GUARANTEE TO PLEASE YOU too. 10 per cent deposit books your order. For quick shipments, remit in full. 20,000 weekly. Orders filled promptly. 100 per cent live delivery.

	50	100	500	1000
W. Leg.-Anc., Min.	$6.25	$11.50	$55.00	$105.00
B. Rox, W. Rox, S. C. & R. C. Reds	6.75	13.00	62.50	120.00
B. Orps., W. Orps., W. W. S. L. W.	7.25	14.00	67 50	130.00

H. Mix, $10.00. Assorted H. & L. Mix, $8.00 per 100. GENOA QUALITY HATCHERIES, GENOA, ILL.

CHANDLER'S POULTRY IMPROVEMENT FARMS
BLOOD TESTED STOCK
WE SPECIALIZE IN BETTER CHICKS AT REASONABLE PRICES

FREE — CONVINCING PROOF of OUR BETTER BABY CHICKS accurately described in cold facts. Flocks headed by Males Direct from Holterman's Aristocrat, Mapleside Barred Rocks, John S. Martin's Regal Dorcas, Wyckoff and large Barron Leghorns, Real Quality White, Buff Rocks, Reds, carrying the blood of Chicago Coliseum Winners. All Flocks Blood Tested. Write today for Free Illustrated Catalog and reasonable prices. $2.00 reduction on May chicks. Order now.

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FLOCKS TESTED FOR WHITE DIARRHEA



ALL FLOCKS TESTED FOR BACILLARY WHITE DIARRHEA

Carefully culled for heavy egg production on free range, and properly housed, fed and cared for to insure the greatest vigor in our IDEAL CHICKS. S. C. White and R. C. Brown Leghorns, Barred and White Rocks, S. C. Reds, White Wyandots, Buff Orpingtons, Anconas. Our many years experience and labor is YOUR INSURANCE OF SUCCESS with your Poultry crop this season and at our VERY MODERATE PRICES you take no chances when you order our Hardy, Healthy, Vigorous, Pure Bred IDEAL CHICKS. Get our 1927 Literature containing full information and detailed prices now before placing any orders for Chicks.

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Michigan Accredited Chicks

Buy your chicks from heavy laying flocks that are officially accredited by inspectors supervised by Michigan State College and of prize winners at the Holland Poultry Show. White and Brown Leghorns, Anconas, Barred Rocks, S. C. R. I. Reds. 100% live delivery, postpaid. Send at once for free catalogue, full particulars and detailed prices.

HILLVIEW HATCHERY, C. BOVEN, Proprietor
R. 12, Box 10 A HOLLAND, MICHIGAN

HUNDERMAN CHICKS



Chicks that are hatched from free Farm range breeders fed on milk from the dairy on the same farm. Our flocks and hatchery inspected and passed by representative of Mich. State College. Refer you to State Com. Savings Bank. Order from this ad.

PRICES EFFECTIVE MAY 9th	25	50	100	400	1000
S. C. Wh. & Br. Leghorns	$3.00	$5.25	$10.00	$38.00	$ 90.00
Bd. Rocks	4.25	6.75	13.00	50.00	120.00
S. C. Reds	4.00	6.25	12.00	46.00	110.00

Heavy Mixed $11.00 per 100. Light Mixed $7.00. Our chicks are Michigan Accredited. 10% down books your order. Free catalog. 100% live delivery prepaid.

HUNDERMAN BROS., R. R. No. 3, Box 35, ZEELAND, MICH.

20TH CENTURY CHIX FOR 27 YEARS

WE HAVE BEEN PRODUCING AND SHIPPING CHICKS from our High Class, Heavy Laying Flocks to thousands of pleased customers all over the country and rendering Full Satisfaction. WE CAN DO THE SAME FOR YOU in 1927. Flocks AMERICAN CERT-O-CULD. Prices Effective May 9th. We can Ship C. O. D.

	50	100	500	1000
S C. White, Brown, Buff & Black Leghorns, Anconas	$6.00	$10.00	$47.00	$93.00
Barred & White Rocks, S. C. & R. C. Reds, Blk. Minorcas	6.75	13.00	63.00	120.00
Wh. Wyandottes, Buff Orpingtons, White & Buff Minorcas	7.00	13.50	65.00	125.00
Barron Wh. Leghorns, Impt. Mating, Parks Ped. Rocks (PC-33)	8.50	16.00	77.00	150.00
Extra Quality Barron White Leghorns	6.50	11.00	52.50	110.00
Mixed Chicks for Broilers	4.50	8.50	40.00	78.00

White Pekin Ducklings, 25c each. We can ship your Chicks C. O. D. You can pay the Postman when you receive them. Get our Free Catalog, or order direct from this ad and save time. Ref.—Commercial Bank.

20TH CENTURY HATCHERY, Box 27, NEW WASHINGTON, OHIO

should remove the mash from them and feed them very lightly on a scratch mixture and in addition force them to drink just as much milk as possible. If this can be best done by the total exclusion of any water for drinking, it is advisable to do so.

The California Station has found that the addition of about 40% of skimmilk powder, added to their mash, has given them the most satisfactory results. Irrespective of the source, milk seems to be the one material that a person can adopt for this purpose.

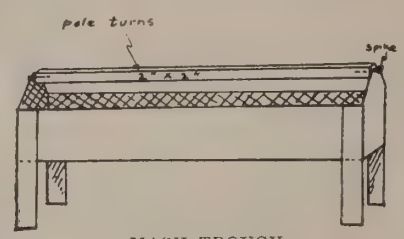
Insofar as is now known there is not any sort of treatment either medicinal or otherwise that a person can adopt that is going to be of any advantage.

An outbreak of this sort or an outbreak of worms in chicks is not ordinarily as easily controlled after it has put in its appearance as it is to prevent it by proper sanitary precautions. This means particularly raising chicks on new soil every year, absolutely away from the range that the old stock has been using. If a person would just adopt these practices they will eliminate considerable amount of loss in the young stock and will be able to show more satisfactory results.—J. B. HAYES.

Roosting on Hoppers

HOARD'S DAIRYMAN:—Pullets like to roost along the sides or ridge pole of the dry mash hopper.

The drawing shows how one poultryman prevented this. He built a turning pole along the center of the hopper as shown in the drawing. A



MASH TROUGH

quarter-inch hole was bored in each end of the trough. A spike was put through the hole and driven into the end of a 2"x2" pole. The edges of the pole were left sharp. Since the spike was a loose fit the pole turned at the slightest touch and none of the birds could roost on it. Its presence discouraged them getting into the hopper and scratching out the mash and also roosting along the sides.

Iowa. A. M. WETTACH.

Cooked Potatoes for Chicks

Please tell me if cooked potatoes could be successfully fed to baby chicks. I thought I would mix some with the starting mash. We have a lot of good, solid, small potatoes that I would like to use up if it is a success.

Bloomer, Wis. (Mrs.) A. M. K.

Cooked potatoes can undoubtedly be fed to baby chicks, but I don't believe there would be any particular value attached to them. It would be simply trying to think of some means of disposing of potatoes other than throwing them away. If you can feed them to hogs, cattle, or anything else, or can think of any other way of disposing of them, with less labor, I absolutely would not advise trying to combine them with the chicks or the laying hens as a feed for them.

When potatoes are well cooked and to those potatoes when in a crumbly condition is added some dry mash, and this is all worked up into a good, crumbly sort of a mash mixture and given to the chicks, some results will undoubtedly come from it, but the results are due to the tion of the dry mash and not to particular value which may be tached to the potatoes. This ing of potatoes is one of the old that still persist and hang on some people still persist in them as a feed. Any work that been done that I know of seen disprove this practice, rather making any attempt toward re mending it.

These, of course, could not be for extremely young chicks, bec a moist mash for them is usuall required at least for the first weeks.—J. B. HAYES.

Sambo was asked what kin chickens he preferred.

"Well, sah," he replied after a moments' consideration, "all has dere merits. De white ones easiest to find in de dark; bu black ones is de easiest to hide you gets 'em."—The Progre Grocer.

A hen does not quit scrat just because the worms are sc She scratches just that much h to get a living.—Northwestern fectioner.

It's not the spurt at the star the steady advance that wins suc —VIVIAN.

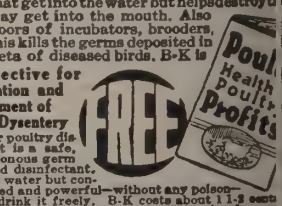
Save Your Chicks Fr

WHIT DIARRHE

"6-8-12 Chicks were Dying Every Day"
Started B-K —No more losses

writes Mrs. Fred Brandenburg, Randolph, Wis. "When I sent for B-K, m first incubator full of chicks started wit white diarrhea and I lost 6 and 12 a da until I had only one left. I had two mo incubators full coming off. The chicks w about four days old and I had lost about of those when I received the B-K. I at o fed it in their drinking water and also was the brooders out with B-K. The sick chicks beg brighten up and I never lost a single chick white diarrhea afterward. I can safely say that saved my last three incubators of chicks."

Start feeding B-K in drinking water fr the very first drink. This not only kills germs that get into the water but helps destroy t which may get into the mouth. Also spray floors of incubators, brooders, coops, this kills the germs deposited in the excreta of diseased birds. B-K is also effective for prevention and treatment of Cholera, Dysentery and other poultry diseases. It is a safe, non-poisonous germ killer and disinfectant. Clear as water but concentrated and powerful—without any poison—chicks drink it freely. B-K costs about 1 1-2 cents gallon of dilution ready to use. Get a jar from y dealer today. Money back if not satisfied.



Write for FREE Bulletin
on prevention and treatment of poultry diseases. It may save you hundreds of dollars this season.

GENERAL LABORATORIES
Dept. 101E Madison, Wis.

A Jug of B-K Bacilli-Kil K

TOP THE MARKET WI CALVES AND POULT

Feed powdered skim milk of first quality which you can now buy direct from The Twin City Milk Producers Assn., an organization of 7,000 farmers.

For calves: Skim Milk Powder is an excellent food; one pound in a gallon of water is more nourishing than 1 gal. of skim milk fresh from the separator.

For poultry: the best cure for Coccidiosis. A valuable feed for growing chicks, laying hens, breeders and for fattening.

Buy skim milk powder (roller process) direct rom our plants; mix your own feed. Send $10 for 100 lb. sack or write for information.



TWIN CITY MILK PRODUCERS ASS'N
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ST. PAUL.

100 POUNDS $10

WHITE LEGHORN HENS AND MALE now half price. Thousands of eight-week-old Also baby chicks and eggs. Trapnested, pe foundation stock, egg bred 27 years. Winners egg contests. Catalog and special price bulleti I ship C. O. D. and guarantee satisfaction.
GEORGE B. FERRIS, 965 Union, Grand Rapids,

btedly due to source, handling, and ious things of that sort. For this son the crude cod liver oil has been form that has been most exten- ely used. There have, of course, n a number of instances where peo- have used the refined but the price this is always excessive and it is stionable whether the results ich you get from it justify this ex- se, not because the oil does not rk satifactorily but it is merely a nparison with the price at which other form of it can be obtained. n using the emulsified, if it were rely a question of having this on hand and you wish to dispose of it, you could use it and it undoubtedly will work satisfactorily. However, when you come to compare this in price with some of the others, I believe you will find considerable variance and quite a large gap.

It has been used here in test work at the rate of 2 per cent of the mash, when the mash alone was fed to chicks. This, apparently, has been satisfactory.—J. B. HAYES.

Coccidiosis

There seems to be some disease among our chicks. They are about five weeks old. There is blood in the droppings. I first noticed one chick that had it and in a day or so it was dead. Soon I noticed another and that went the same way. I am feeding chick mash and prepared scratch feed consisting of cracked corn, barley, wheat, buckwheat, sunflower seed, etc. They are fed a large quantity of sour milk and some green grass. These chicks are not having the brooder now. These chicks seem to be healthy enough. There are no other symptoms to write.

Holmen, Wis. C. M. A.

From the symptoms indicated it is undoubtedly an outbreak of coccidiosis that you have noticed in your flock of birds.

The symptoms indicated are rather meager on which to base a diagnosis in that you have not posted out any of the birds. If in posting out some of the dead ones you find that the caeca or those two pouches or more commonly called "blind guts" that we find branching off the intestinal tract are found to be filled up with a bloody material, either resembling a large clot of blood or a hard, cheesy material, a person can be pretty positive that this is the trouble. It is always safer, of course, to send in one of the sick birds to the Veterinary Department of the State Agricultural College for an examination. This makes the findings more definite and removes a considerable amount of the uncertainty.

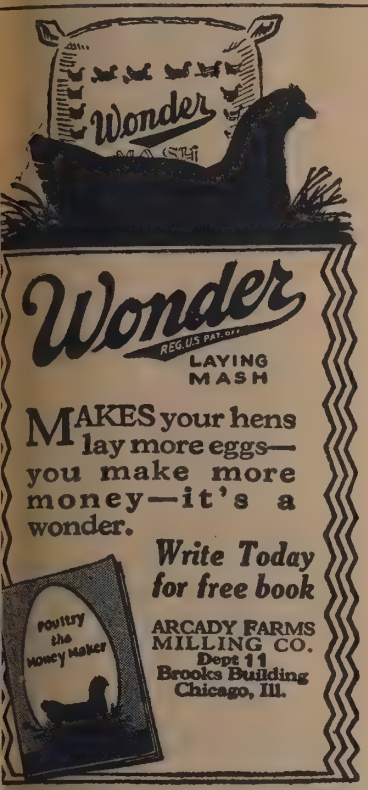
This coccidiosis is a disease becoming more prevalent in farm poultry flocks and is one reason why the absolute necessity of a portable colony house on clean range has been stressed so much. This is the one method by which it can be kept under control.

The infection is carried in the old birds. They may not die from the effects of it, but they undoubtedly still spread it. They, in this way, keep the ground infected and when young chicks are given range over the same ground that old birds have had access to, one will find that they will in turn pick up the disease and the trouble results in that way.

In those cases where the outbreak is noted, it is necessary to pick out all of the apparently healthy birds and move them in a clean house to clean range. This means removing all the litter that was in the colony house, burning it up, cleaning it out thoroughly, and then moving these chicks out on range on which no birds have been running.

Twice weekly the litter should be removed from the house and burned up and if possible it is advisable to move the colony house every four or five days for a few weeks.

In the feed for the chicks one



Wonder
REG. U.S. PAT. OFF.
LAYING MASH

MAKES your hens lay more eggs—you make more money—it's a wonder.

Write Today for free book

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De Soto Condensed BUTTERMILK

A pound of De Soto Condensed Buttermilk mixed with water makes 4 gals. of pig slop. For poultry feed, use one lb to 3 gals water. Satisfaction guaranteed
10 Pound Trial Pail For 30c In Stamps.
DeSoto Creamery & Prod Co. Minneapolis Minn

3¢ lb
500 lb
15 lbs.

EB'S GUARANTEED CHICKS
CERTIFIED HOGAN TESTED
AVY LAYING FLOCKS
AT ASTONISHING LOW PRICES.
WHY PAY MORE?
ertified chicks from high produc- g stock bred many years for lay- g and exhibition purposes. Tested and rtified for high egg production. 97% live livery. Prepaid. Catalog Free.

	25	50	100	500
Wh. & Br. Leghorns	$3.00	$5.75	$11	$52.50
Bd. Rocks, R. I. Reds	3.50	6.75	13	62.50
Wh. & Buff Rocks	3.75	7.25	14	67.50
Blk. Minor., Wh. Wyan.	3.75	7.25	14	67.50
S.L. Wyan.	4.00	7.75	15	72.50
Anconas	3.25	6.25	12	57.50
W. & B. Orp.	4.00	7.75	15	72.50
Heavy Asst'd.	3.00	5.75	11	52.50
H. & L. Asst'd.	2.75	5.25	10	47.50
Light Asst'd.	2.50	4.75	9	42.50

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Members I. B. C. A.

Genoa Quality Chicks

everal years of hatching, rigid culling nd selecting has given us chicks that erify our claims for QUALITY. Our locks are headed by Males from Ma- ood, Harrison, Bonnie Brae, J. T. hompson, Mapleside Farms, Pape, etc. locks culled the past two seasons by tate Inspector. Write for Free Cata- og and low prices. 10% deposit books our order.

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ept. D, Genoa, Illinois

ID NO MONEY for SILVER LAKE CHICKS

all your order. We ship C. O. D. and guarantee prepaid r Cent live delivery of sturdy, purebred Chicks from pred-to-lay flocks; Wh. Br. & Buff Leghorns 10c; Eng. ite 11c; Trapnested Wh. Leg. 13c; Bd. & Wh. Rocks, R. I. Anconas, Bl. Minorcas, 12c; Buff Orpingtons, Wh. Wyan., ocks, 13c; Mixed 8c; all heavies 10c. Orders for 50 chicks 1c 25 chicks 2c more.

Lake Egg Farm, Box H. D., Silver Lake, Ind.

BY CHICKS from inspected flocks. White. and Buff Leghorns $9.00; Barred Rocks, S. C. Reds $11.00 per hundred, 20% down, balance D. on delivery, 100% Alive Delivery Guaranteed. unt on large orders.

ENDINGER HATCHERIES, Rocky Ridge, Ohio.

OOCO CHIX FOR WINTER EGG PRODUCTION

QUALITY BEGETS QUALITY *Be sure the parent stock of the chix you buy are Pure-bred, vigorous egg-DON'T EXPERIMENT producers.*

Our flocks are rigidly inspected and accredited by state department. Proven producers with the ability to transmit same to their off-spring. Can furnish stock of trap-nest flocks with records of 200 to 260 eggs in 365 days. Years of experience—large capacity—extra good shipping facilities. Buy OOCO Vitality chix from COLD WEATHER HEAVY EGG PRODUCERS. Order now and get your chix when you want them. **Send for catalog and May prices.**

THE OOCO CHICKERIES OCONOMOWOC, WISCONSIN

FLOCKS BLOOD TESTED

Our Flocks of Pure Bred, High Quality, Heavy Laying Fowls are annually tested for BOTH WHITE DIARRHEA AND TUBERCULOSIS under University of Illinois supervision. 35,000 HENS UNDER TEST. LARGEST PLANT IN THE WORLD PRODUCING CHICKS FROM BLOOD TESTED FLOCKS ONLY.

Our Stock is selected especially for vigor and High Laying Qualities and Ancestry in both male and female. We will have ONE MILLION OF THESE CHICKS for our customers during 1927. We also give a SEVEN DAY GUARANTEE on our Chicks by replacing the loss at half price. We will allow BIG DISCOUNTS on Brooders.

MAY PRICES

	25	50	100	500	1000
S. C. WH. & BR. LEGHORNS, ASSORTED HEAVY	$3.75	$7.00	$13.00	$62.50	$120.00
BARRED ROCKS, S. C. & R. C. REDS	3.75	7.00	14.00	67.50	130.00
WHITE & BUFF ROCKS, S. C. ANCONAS	4.25	8.00	15.00	72.50	140.00
BLACK MINORCAS	4.75	8.50	16.00	77.50	150.00
LIGHT BRAHMAS	4.75	9.50	18.00	87.50	170.00
BF. & WH. ORPINGTONS, WH. & SIL. WYANDOTTES	5.00	8.50	16.00	77.50	150.00
ASSORTED LIGHT AND HEAVY	3.50	6.50	12.00	57.50	

White Minorcas 100, $20. GET OUR BIG, FREE, COLOR PLATE POULTRY BOOK for 1927, before ordering Chicks elsewhere. Illustrates our Blood Tested Fowls in their natural colors and contains a great amount of information of value to you. PLAY SAFE FOR 1927 by buying our GUARANTEED CHICKS from fully TESTED FLOCKS. Ref.—First National Bank of Oneida.

LING'S HATCHERY, Carl Lingwall, Prop., Box 524, Oneida, Ill.

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"CHAMPION" CHICKS from Healthy, Carefully selected, heavy Producers, Tancred, Martin, Sheppard, Holterman, Queen Bess, etc. Blood Lines. CONTEST WINNERS. Cream of Best Bred-To-Lay Flocks in the country. Extremely high records in Official Egg Laying Contests. Our Big, Free, Color Plate Poultry Book shows our "CHAMPION" FOWLS in natural colors and tells all about them. IT'S FREE. Order IT TO-DAY PRICES EFFECTIVE MAY 1st.

Postpaid, 100% Live Delivery Guaranteed

	50	100	200	500	1000
S. C. White & Brown Leghorns	$5.75	$10.50	$20.50	$50.00	$100.00
Anconas or Buff Leghorns	6.00	11.50	22.50	55.00	110.00
Barred Rocks, S. C. or R. C. Reds	6.75	12.50	24.50	60.00	115.00
White or Buff Rocks, Black Minorcas	7.25	13.50	26.50	65.00	125.00
White Wyandottes or Buff Orpingtons	7.75	14.50	28.50	70.00	135.00
Columbian & Silver L. Wyandottes	7.75	14.50	28.50	70.00	135.00
White Minorcas, White Orpingtons	8.50	15.50	30.50	75.00	145.00
Assorted Left Overs	5.00	9.00	17.50	42.50	85.00

AMERICAN CERT-O-CULD

Prices on other varieties on request. Members I. B. C. A. and A. B. C. P. A. Reference—Burnetts Bank.
CARTER'S CHICKERY, Box 29 ELDORADO, ILLINOIS

BABY CHICKS—C.O.D.

Pay for your chicks when you get them. We guarantee 100% live arrival. All chicks are pure bred from selected parent stock. They are bound to make good.

ORDER FROM THIS AD AT THESE PRICES

	25	50	100	500	1000
S. C. Wh. & Br. Leghorns, Anconas	$2.75	$4.75	$ 9.00	$42.50	$ 82.50
Bd. Rocks, R. I. Reds	3.25	5.75	11.00	52.50	102.50
Wh. & Buff Rocks; Wh. & Buff Orpingtons, Black Minorcas	3.50	6.25	12.00	57.50	112.50
White, Silver, Columbian Wyandottes	3.75	6.50	12.50	60.00	117.50
Light Brahmas, White Minorcas	4.00	7.00	14.00	65.00	127.50
Blue Andulusians, Sil. Spangled Hamburgs	4.25	7.50	14.50	70.00	137.50

Assorted, $7.50 per 100. All heavies $9.50. These prices are on chicks to be delivered after May 1st. Place your order now and be sure of getting your chicks when you want them. Write or wire your order and it will receive our prompt attention. You take no chances as you need not pay until you get the chicks. We gladly ship C. O. D. and guarantee safe arrival.

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ONE MILLION, AMERICAN-INSPECTED

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OFFICIAL Record of Performance Trapnest Pedigree Male, Quality, Exhibition and Foundation Stock Mating Chicks. 40 Popular and Rare Breeds. Jersey Black Giants, Hamburgs, Polish, Lakenfelders, Buttercups, Houdans, Campines, Sussex, Spanish, Cornish, Ducklings, Baby Turkeys, Goslings. Eggs for Hatching and Breeding Stock. Mem. International B. C. A. and American B. C. P. A. Chicks in Quality Matings as follows: Postage Paid. 100% Live Arrival Guar. NOTE THESE REDUCED PRICES EFFECTIVE MAY 15th.

	50	100	500
Wh., Buff, Br. and Bl. and R. C. Br. Leghorns	$ 6.00	$10.00	$ 48.00
Barred Rocks, S. C. and R. C. R. I. Reds, Anconas, Bl. Minorcas	7.00	12.00	60.00
Wh. and Buff Rocks, Wh. Leghorns, Wh. Wyandottes, Buff Orpingtons	7.00	13.00	65.00
S. C. and R. C. R. I. Whites, S. L. Wyandottes, Black Langshans	7.50	14.00	67.00
Go. and Col. Wyandottes, Wh. Orpingtons, White Minorcas	8.50	16.00	80.00
Part. Rocks, R. C. Anconas, Blue Andalusians, Light Brahmas	10.00	17.00	85.00
Part. and Buff Wyandottes, Bl. Orpingtons, Bl. Minorcas, S. S. Hamburgs	10.00	18.00	88.00
Silver Campines, Jersey Blk. Giants, Dark Cornish, W. C. B. Polish	12.00	21.00	100.00

Light Mixed Assorted, $8 per 100. Heavy Assorted, $11 per 100. ALL OTHER BREEDS REASONABLY PRICED. Big, Fine color-plate poultry book, FREE, stamps appreciated. Don't fail to get this Great Book and invest your money this season in Famous Nabob BK Strains. The most profitable investment you can make in the Poultry field right now. NABOB HATCHERIES, Box G-5, Shelbyville, Ill.

Bonded Chicks $500 $500 "BOUND TO MAKE GOOD"

CHICKS — Backed By Gold

Our chicks guaranteed by a $500.00 gold bond on deposit at Denhart Bank of Wash. You take no chances in buying Bonded, pure-bred, vigorous chicks—they are bound to make good.

PRICES EFFECTIVE MAY 1st.	25	50	100	500	1000
S. C. Wh. & Br. Leg., Anconas	$2.75	5.00	9.50	45.00	87.50
Barred Rocks, R. I. Reds	3.25	6.00	11.50	55.00	107.50
Wh. & Buff Rocks, Wh. & Buff Orpingtons, Blk. Minorcas	3.50	6.50	12.50	60.00	117.50
Wh., Silver, Columbian Wyandottes	3.75	6.75	13.00	62.50	122.50
Lt. Brahmas, White Minorcas	4.00	7.25	14.00	67.50	132.50
Bl. Andulusians, Sil. Sp'led H'burgs	4.25	7.75	15.00	72.50	142.50

Assorted $8.00 per 100—all heavies $10.00. Special matings at slightly higher prices. 100% live arrival postpaid guaranteed. Send for new free catalog that tells all. Order right from this ad.

BONDED HATCHERIES Box 1 Washington, Illinois

CORN BELT HATCHERIES



Here's a real value—ILLINOIS ACCREDITED CHICKS—Every breeder approved by OFFICIAL STATE INSPECTORS. Our heavy laying strains will make big profits for you.

THESE PRICES ARE EFFECTIVE ON MAY 1st.

Postpaid prices on	100	300	500	1000
S. C. White & Brown Leghorns	$10.00	$28.50	$45.00	$ 85.00
Barred Rocks	12.00	34.50	55.00	105.00
Buff & Wh. Rocks, R. I. Reds	13.00	37.50	60.00	115.00
Buff Orpingtons, S. C. Blk. Minorcas	13.00	37.50	60.00	115.00
White Wyandottes	14.00	40.50	65.00	125.00
Wh. Orpingtons & Wh. Minorcas	15.00	43.50	70.00	135.00
Light Brahmas	16.00	46.50	75.00	145.00

Assorted Chicks $8.00 per hundred. All heavies $10.00. 100% live arrival guaranteed. Reference First National Bank. Write for free catalog and price list.

CORN BELT HATCHERIES Box 35 GIBSON CITY, ILL.

Wisconsin Accredited Hatcheries Association Co-operative

AFFILIATED WITH THE INTERNATIONAL BABY CHICK ASSOCIATION. Members advertising below have had their flocks inspected and accredited by the Wisconsin Dept. of Markets. Demand Wisconsin Accredited Ass'n Chicks. Your state protects you. OFFICE OF SECRETARY, COLUMBUS, WIS.

The Old Reliable



MUELLER - CORY HATCHERY

BABY CHICKS 7 Cents Each

In Thousand Lots for Delivery on and After May 23d

	25	50	100	500	1000
ASSORTED CHICKS	$2.50	$4.75	$ 9.00	$40.00	$ 70.00
SINGLE COMB WHITE LEGHORNS	3.00	5.75	11.00	50.00	90.00
SINGLE COMB BROWN LEGHORNS	3.00	5.75	11.00	50.00	90.00
SINGLE COMB BUFF LEGHORNS	3.00	5.75	11.00	50.00	90.00
BARRED PLYMOUTH ROCKS	3.75	7.25	14.00	65.00	120.00
SINGLE COMB RHODE ISLAND REDS	3.75	7.25	14.00	65.00	120.00
ROSE COMB RHODE ISLAND REDS	3.75	7.25	14.00	65.00	120.00
SINGLE COMB BLACK MINORCAS	3.75	7.25	14.00	65.00	120.00
WHITE PLYMOUTH ROCKS	3.75	7.25	14.00	65.00	120.00
WHITE WYANDOTTES	3.75	7.25	14.00	65.00	120.00
SINGLE COMB BUFF ORPINGTONS	4.00	7.75	15.00	70.00	130.00

Shipped by Parcel Post prepaid, 100% live delivery guaranteed.

FREE! Catalog and bulletin "Are You Keeping Hens or are Your Hens Keeping You?" will be mailed free to all who ask for it.

MUELLER-CORY HATCHERY 207 Main St., **Fort Atkinson, Wis.**

Kroupa's Accredited Chicks

	Per 100
S. C. White, Buff, S. C. and R. C. Brown Leghorns and Anconas	$13.00
Black Minorcas, R. & S. C. Reds, White, Buff, Columbian, and Barred Rocks	16.00
White Wyandottes, Buff Orpingtons	18.00
Odds and Ends, heavy	12.00
Odds and Ends, light	10.00

Add 50 cents when less than 100.

KROUPA'S HATCHERY, 1635 Douglas Ave., RACINE, WISCONSIN

ROCK BOTTOM PRICES

ON WISCONSIN ACCREDITED CHICKS, from real egg production flocks, State inspected for the past five seasons for type, vitality and egg production. This Accreditation putting the Quality into the chicks we produce.

	25	50	100	500
S. C. WHITE & BROWN LEGHORNS, ANCONAS	$3.50	$6.75	$12.00	$55.00
S. C. & R. C. R. I. REDS, WHITE & BARRED ROCKS	4.25	8.00	15.00	70.00
WHITE WYANDOTTES	4.50	8.75	16.00	75.00
BUFF ORPINGTONS	4.75	9.00	17.00	80.00
Assorted	3.25	5.50	10.00	45.00

Order from this ad or drop a card for our beautiful 48 page illustrated catalog. Buy BLACKHAWK CHICKS and lay the foundation for a heavy producing flock.

BLACKHAWK HATCHERY, Box X, JANESVILLE, WIS.

CERTIFIED WHITE LEGHORNS

BABY CHICKS, 10 WEEKS OLD PULLETS, HATCHING EGGS. From Wisconsin's first officially certified hatchery, an advanced grade just established. Every egg produced on our own farm and backed by seven generations of 200 to 297 egg males. Write for mating list.

SUNNY SLOPE FARM C. HOWARD KING R. 5, MADISON, WISCONSIN

White Leghorns - Anconas - Barred Rocks — $9.00 per 100

In these three varieties ours rank among the best in the state. Our strong Jamesway hatched chicks are proving satisfactory to all our customers. We are now booking orders for May 15 to July 1 at 9 cents. Write when wanted and what variety in first letter. Catalogs free.

ALBRECHT'S HATCHERY, R. 6, Bx. B, WATERTOWN, WISCONSIN

Chicks That Make Good



Our flocks are bred for egg production. We have male birds from hens with records up to 284 eggs in our flocks. Our catalog gives valuable information on care of chicks, construction of mash feeders, letters from old customers, views of our plant, etc.

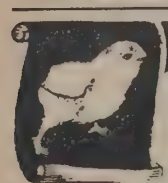
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All Popular Varieties

DURFEE'S POULTRY FARMS, R. 2, Box 165. MADISON, WIS.
First Accredited Farm in U. S.
In Business 16 Years

Big Price Reduction on May Chicks

WATERTOWN POULTRY FARM
WATERTOWN, WISCONSIN

Patronize Hoard's Dairyman Advertisers. They are reliable.



MINKLER'S Hatchery

MINKLER'S CHICKS are from good, purebred, vigorous Flocks, bred for heavy egg production, carefully selected and cared for in a manner to insure greatest vitality in the chicks. Full Live Delivery Guar.—Prepaid.

REDUCED PRICES EFFECTIVE MAY 1st.	50	100	500	1000
White and Brown Leghorns	$5.00	$ 9.00	$42.50	$ 80.00
Anconas	5.50	10.00	47.50	90.00
Barred Rocks	6.00	11.00	52.50	100.00
White & Buff Rocks, Reds	6.50	12.00	57.50	110.00
White Wyandottes, Buff Orpingtons	7.00	13.00	62.50	120.00
Heavy Assorted	5.50	10.00	45.00	85.00
Assorted Left Overs	4.75	8.50	40.00	80.00

Order from this ad. Bank Ref. Member A.B.C. P.A. & National Hatcherymen's Assn. **MINKLER'S HATCHERY, Dept. 19, Morris, Ill.**



WALDBESER CHICKS—FOR PROFITS



CHICKS AND SERVICE. We have only Flocks that are TRUE to name, Culled and Tested for diseases, which will hatch Chicks that will live, and produce large quantities of eggs. Try our Leghorns for egg production, you will be back again next season. 100 Per Cent Live Delivery.

Prepaid	50	100	500	1000
White Leghorns, Anconas	$4.00	$ 8.50	$41.00	$ 80
Barred & White Rocks, S. C. Reds,	5.00	10.00	48.00	94
Wh. & Buff Orpingtons, Wh. Wyandots,	5.00	10.00	48.00	94

White Minorcas, $8, $6; 100, $11; 500, $55. Asstd, 100, $8; 500, $40; 1000, $80. Order from these low prices. Chicks shipped on date ordered. Ref. Morton State Bank. **MORTON HATCHERY**, Chris Waldbeser, Jr., Prop., **BOX 23, MORTON, ILLINOIS**

Poultry on the Dairy Farm



Preventing Molt in Pullets

I have 600 February hatched pullets that I consider using for breeders in 1928. What steps do you advise to carry these birds through this fall and winter without a molt?

What maximum production is safe; that is, how heavy may these birds lay and still be able to produce good hatches of livable chicks? You say that hatchability consists more in filling feed requirements than in age of stock and it is on this point in particular that I desire more information. These birds are Leghorns raised on the Wisconsin mash ration and at eight weeks are well grown with excellent bone. While I want as many eggs as possible the value of these birds as future breeders is of first importance. I am after all the information I can get on this and hope this from a section remote from yours will not be considered amiss.

Vancouver, Wash. J. D. C.

Unless your conditions are entirely different from ours, and all of the advertising that we hear about the states of Washington and Oregon is nearer to truth than fiction, there isn't anything outside of an act of Providence that is going to allow you to carry February hatched pullets through the winter without a molt developing in these birds. Even on some work which Bittenbender did at Iowa, with a bunch of out of season hatched pullets that he carried through to something over 300 days, before production started, he was unable to prevent a molt in them. I believe a person stands the best chance of postponing molt on the biggest bulk of them by the use of artificial lighting during the winter, which in turn is going to make it possible for a person through heavier feeding to keep the birds up to better physical condition. This loss of weight is undoubtedly one of the predisposing causes for birds molting. In other words, the Iowa people have found that a pullet molts because she stops laying and doesn't stop laying because she molts. This merely means that there must be some reason for cessation of production, which then causes a molt rather than vice versa.

In the use of the 80—20 ration, we can, of course, postpone sexual maturity in the flock very satisfactorily, because it is well enough fortified with minerals to make it possible for growth or frame growth in the birds to continue without bringing them in to lay. In the old rations it was always a question of dropping out the meat scrap which, of course, meant dropping out most of the minerals, and this lack of minerals simply resulted in a cessation of growth, and that meant that you were getting a small pullet developing. With the ration as now designed, it is possible to drop off a part of the animal protein feed, which means either a meat and a bone meal or a meat scrap, dried milk, or liquid milk at the end of twelve or fourteen weeks, but retain the mineral level in the ration as originally designed and this will tend to give a larger pullet a longer growing period, and postpone pro tion until we wish it to stop.

I may be Bolshevik on this tion of hatching from pullets, see absolutely no reason aside the fact that you are not as ce of the breeding value of pullets to the fact that they haven't a y record on them, you don't know size egg they are laying, you ha record on their hatchability, various things of that sort, but from that I can't see any reason we can't get a good reasonable of production from pullets along ing the winter and use thos hatching at the same time next

This year, just as an examp that, one of the men in Wisc put a bunch of about 175 to 18 lets upstairs in the barn. He have housing space for them, s south end of the barn was made into a pen. The ends, the sides the top were covered over with as it was part of the hay mow. birds started their production i gust and September, some of while still on range. They moved in there early in Oc That bunch has been hitting a erage of 60 per cent production that time up until the present. the birds were given semi-solid termilk and at least 2 per cent liver oil in the mash they through the entire winter w any molt and without any indi of leg weakness or paralysis. produced a wonderful quality on the eggs, have not been bot with egg eating in the flock, a first hatch taken from those along late in March was a 69 pe hatch. Whether that thing co done each year or whether w repeat on it, remains to be see I can't see why, if a ration is fo and weight is maintained in the and the ration is such that it s why we can't get winter prod and hatchable eggs in the sprin

With the trend of market pr the present time, especially in ence to egg production, I am lutely recommending to our co cial farms that they get their hatched early, matured early, s producing along in Septemb early in October; that they them through just as strongly can, and if the birds want to a molt along in December or ary, they are still ahead of the I don't mean that the comm farms can afford to have all of but they can at least have on hatch to take a chance on and upon later hatched pullets a hens to carry through their p tion.—J. B. HAYES.

Cod Liver Oil

Please tell me whether em cod liver oil is good for baby Or what kind of cod liver oil d poultry raisers use? I have a of emulsified on hand and that I ask. How do you feed it t chicks and what amount?

Onaway, Mich. (MRS.)

The question of price has b determining factor in the use liver oil for baby chicks, and o son for it is that there is a gre of variation in the effectiveness oil for feeding purposes, which

HELP WANTED

anted—Competent herdsman to ta[ke] of small of registered Guernseys. Must be [a] worker, habits, dry hand milker. Capab[le] testing or ring. Steady job. Good residence. [Ex]perience, onality, references and wages. [OR]LLE O. NHAM, Baroda, Michigan.

anted—Four steady, reliable men [for] ng fore- for milking crews. Workers, not [a]. Must experienced dry hand milkers, the settled not afraid of work. Give full histo[ry] employ- record in first letter. THE [FA]RM BELT RY, R 2, Box 650, Buena Vista, F[la.] 9-2

anted at once—Man and wife with [chi]ldren, country residence. Man to work in [yard] as- in house. Wife for general house-w[ork]. Family three. References required. Write [MRS.] WIL- M G. HAYWARD, 224 Broadway, Youngstown,). 9-2

llege trained Creamery man, married or single, rt in all branches, to take charge of a plant lling 300 gallons of raw milk per day. RED E FARMS DAIRY, 3476 Gibson Avenue, Detroit, higan.

anted—Strictly reliable single man by large mod- dairy farm. Must be good milker. No booze or ettes. Steady work, will pay all you are worth. 90 to $80.00 per month. COLD SPRINGS FARM, roe, Wisconsin.

anted—Dairyman with family who can milk a herd 60 to 70 cows. Must be first-class milkers, ex- nced in handling milch cows. Good wages. Write . TUCKER, Route 3, Missoula, Montana. 8-2

anted for Montana Dairy, reliable single man to milk wagon and work in milk house. $65.00 nthly, room and board. State experience, age. ence. Address BOX 374, care Hoard's Dairyman.

rdsman wanted at once for Guernsey herd near delphia. Married man preferred. State reference salary expected in first letter. FRITZLYN FARM, sville, Pennsylvania.

lp Wanted—Single dry hand milkers. Good liv- onditions; chance for advancement. Can use two ied men with small families. HARTMAN STOCK M. Columbus, Ohio. 9-*

anted—Single men, good milkers and barn men. y of opportunity for sincere fellows. Apply now. SEN'S FERN-DELL FARM, Green Bay, Wis. 9-*

anted—Single man for general farm and dairy on registered Holstein farm. State wages want- BOX 6, Route 3, Stoughton, Wisconsin.

ids Wanted—Light work, pleasant quarters. In- WISCONSIN SCHOOL FOR THE BLIND, ville, Wisconsin.

emen, Brakemen, beginners $150-$250 monthly; ads everywhere (which position?). RAILWAY ICIATION, Desk M-10, Brooklyn, N. Y. 9-2

anted—Good reliable man of clean habits for gen- farm work. Good wages. C. E. SIZER, Hart- Wis.

anted Now—Single man for dairy. $60.00 per and bonus. EMERY, Greybull, Wyoming.

POSITION WANTED

rm and Estate Manager desires position. Ex- ced farm and estate. 42. Dairy herds, cattle, pigs, poultry, breeding, rearing, milk records, s. clean milk production, valuation live and stock, accounts, management staff. British and han experience, good references. E. MISSING, Y. M. C. A., Minneapolis, Minn.

ry Farm Superintendent—Lifetime experience in al dairy farming, cattle breeding, production arketing certified and high class milk products. es available in sixty days, any section, refer- Prefer Guernseys. Address BOX 334, care 's Dairyman. 6-4

ition Wanted—By single man, 30 years old. ltural college graduate. Experienced in all es of farming. Position as herdsman, farm ntendent, or any proposition that offers a real considered. Prefer Guernseys. Go anywhere. ss BOX 378, care Hoard's Dairyman.

rried man thirty-two years of age wishes posi- as herdsman. Thoroughly familiar with feeds feeding, calf raising, handling and producing milk. Wife willing to board help. State full ulars in first letter. Address BOX 380, care 's Dairyman.

ition Wanted—Employment with a large going n desiring the services of an experienced dairy buyer; also dairy advancement work. Best of nces. Address BOX 373, care of Hoard's Dairy-

ition Wanted—Married dairyman of fifteen years al experience in feeding and producing clean Best of references. Will consider place on Give full details. Can bring help. Address DAIRYMAN, 502 Emery, Longmont, Colorado.

nted—Position, showman Holsteins only. Like to from eastern breeder who desires experienced an for coming season. Know southeastern cir- Address BOX 367, care Hoard's Dairyman. 8-2

y Farm Manager and Herdsman with agricul- al college education and experience wants posi- June 1st. Young and single. $150.00. Ad- BOX 376, care Hoard's Dairyman.

ctical farmer, dairyman and hog raiser, expert rition. Can clean your herd in one year. Handle zed proposition. 50 years old. Wife will board Address BOX 379, care Hoard's Dairyman.

nted—Charge purebred herd. College training. al experience, A. R. work; 38, married. Form- ith Buttonwood Farm, Berwyn, Pa. Address DEXTER, 1204 E. 9th St., Eddystone, Pa.

tion Wanted—By experienced dairyman. Married, some help in family. Capable of taking full of first class herd. Can get results. BOX tuart, Florida.

Breeders and Dairymen—I offer my services as erienced herdsman and dairy foreman. Fifteen experience. Reference furnished. Available at W. H. ELLISON, Independence, Kansas.

le man wants job in dairy in Florida or else- in the south. Can come after the 23rd of State wages and particulars. RICHARD PEE- A. & M., Clarkesville, Georgia.

ion Wanted—Woman, experienced cook, wants arge of farm boarding house. Large experience line of work. Furnish waitress. Address BOX re Hoard's Dairyman.

ition Wanted—Working Farm Manager with son wife to board help, all milkers, on large ranch y. Competent in all branches. C. A. M., Box a Village, New York.

ted—Position as cow-tester. Experience, age, ces. Address L. L. Q., Box 325, R. F. D. 6, Ind. 8-2

Keep Track of Your Cows

Know what they are producing. Such knowledge pays big dividends in cash.

We will send samples and prices of our handy milk record sheets for five cents in stamps.

OARD'S DAIRYMAN
Fort Atkinson, Wis.

Dairying Pays in Georgia

HOARD'S DAIRYMAN:—Five years ago G. C. Alford, a Georgia farmer, decided to beat the boll weevil by going into dairying. Last year he made a clear profit of more than $3,750 from his dairying operations—and still had the five bales of cotton to sell despite the weevil.

"I started in the dairy business," says Mr. Alford, "about five years ago. The boll weevil destroyed my cotton crop, and I decided that the best way to fight the weevil would be to raise something which it could not eat. I had a few grade cows and two pure-bred Jerseys, also a pure-bred Jersey bull, so I decided I would go in for dairying.

"I traded some hay to a sawmill man for lumber and built a barn large enough to hold forty cows, with a concrete floor—also a small dairy room with a concrete floor. I already had a good pasture, consisting of Bermuda, Lespedeza, and Dallas grass, but I did not have the money to buy the cows I needed to start with, and I had just purchased some high priced land on which I had to pay interest and taxes.

"So I sold some mules that I did not need and invested the money in some high grade Jersey cows. I found more cows for sale than I could purchase, as many people were leaving because of the boll weevil and were anxious to sell, so I picked up some twenty head at a bargain. I now have 45 head and 15 yearling heifers and calves.

"I weigh each cow's milk and test it for butterfat and if a cow proves to be unprofitable I sell her to the butcher. If a cow will give enough milk each day to contain a pound of butterfat, I consider that she will pay me a profit. To produce this, she must either give about 25 pounds of four per cent milk or twenty pounds of five per cent milk. In selling cream it is not the cow that produces the most milk that counts—it is the cow producing the most butterfat.

"My cream is all sold to the Ezell—Griffin Creamery at Eatonton, Ga. I deliver the cream every other day, using a little ice in hot weather to keep it sweet, and haven't had a can to sour in over a year. In the past 364 days I have sold $6,901.50 worth of cream with a feed bill for milk cows, dry cows, and calves of only $2,698.00. I buy most of my feed in carlots—cottonseed meal, hulls, and corn—buying two cars of cottonseed meal, two of hulls, and one of corn for my hogs and mules. I bought all of the feed used during the past year except about twenty tons of oats, vetch, and Bermuda hay.

"The cost of delivering the cream by truck was about $500, as I live twelve miles from Eatonton, where the nearest creamery is located.

"I keep four brood sows to raise pigs, which utilize my skimmilk. I raised forty pigs last year, keeping them until they weighed between 150 and 175 pounds gross and then feeding them on corn to get them ready for market. I sold $810.40 worth of pigs last year and the feed bill for them was not more than $250. As for my labor costs, I have two men, whom I pay $25 a month, and my three boys help with the milking.

"I also made five bales of cotton, but cannot give you any figures on it, as I have not sold it yet and do not know what it will bring."

Well—that is what dairying has done for one farmer in Georgia. It has not taken the place of cotton, for Mr. Alford has five bales that he raised last year. But it has enabled him to make a living despite the boll weevil, and it is enabling him to hold his cotton until he can make a profit on it. He will never again have to sell his cotton below the cost of production in order to pay off a part of his debts. And the experience of Mr. Alford is echoed by farmers all over Georgia, who have successfully turned to the dairy cow as a means of beating the boll weevil.

Georgia. J. H. REED.

Tuberculin Testing in Oregon

HOARD'S DAIRYMAN:—Federal, state, and county veterinarians in Oregon during the last two years tuberculin tested 336,637 cattle, the largest number in any state west of the Mississippi, at a cost for indemnity of only $16,824, the amount being matched by counties and duplicated by the federal government. Only 3,130, or less than one per cent, reacted, and the state is declared by the live stock sanitary board to be more nearly free from bovine tuberculosis than any other dairy section in the United States.

Under a law passed in 1925, practically all dairy animals west of the Cascades in Oregon have been tested annually during the past two years, but because of a Washington County decision that its test law was unconstitutional, it became necessary to have a law state-wide in application if the work were to continue, and such doubtless will be enacted by the present legislature. It will exempt only range beef cattle not in contact with dairy herds and feeder cattle under strict supervision.

Oregon. G. N. ANGELL.

Vigor of Corn Germination

Just now when thousands of corn planters are being oiled for the season's service the following item relative to the germination of floury (starchy) and horny corn is of interest. The item is taken from some work reported in Bulletin 284 by the Illinois Experiment Station:

Floury corn has been shown in actual experience to be less vigorous in germination than horny corn. An experiment was planned to determine why this is so.

A large number of floury and horny grains were placed on a germinator and a sample of each removed every two days for chemical analysis. The longest period for any one sample on the germinator was 10 days. The analyses showed that the starch in the horny corn disappeared more rapidly during the process of germination than did the starch in the floury corn. The horny starch seemed to be more easily changed from the insoluble to the soluble form. In sugar content the two types of corn showed no consistent differences. In dextrin and soluble starch content, however, there was a marked difference, the seedlings from the horny corn having distinctly higher contents of these two substances than the floury corn.

These facts lead to the inference that the superior vigor of horny seed is directly connected with the ease with which the starch reserve is broken down and made available for the young plant.



Moore Bros. "Purpul" Medicated Wax Teat Dilators

Thousands of cows are partially or totally reduced in value by neglect of minor teat troubles. Prevent this loss

Use "Purpul" Medicated Wax Teat Dilators

When to Use "Purpul" Medicated Wax Teat Dilators

After operating a cow's teats. When teat is sore on end or inside. Spiders in teats. After removing small scabs on end of teat. Hard milking teats. Never allow a sore teat to heal or gum shut.

"PURPUL" MEDICATED WAX TEAT DILATORS are sold by druggists and dealers catering to dairy interests or mailed direct, postpaid, one dozen 25c; five dozen $1.00.

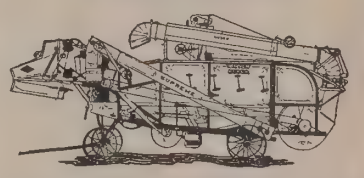
MOORE BROS., Dept. H ALBANY, NEW YORK

Unusual Farming Opportunity!

We have acquired three large adjoining plantations 50 miles west of New Orleans which we are dividing into 40 and 80 acre farms to provide corn, Soy beans and alfalfa for our new stock food factory in the South. Several of these farms will be disposed of on favorable terms to those desiring to operate them. These crops are highly profitable with an excellent market. Dairy and poultry have shown splendid results. Prices $125 to $165 per acre. Farms will be delivered with crops growing and with buildings. Crops grow entire year. Climate mild in winter and with cool gulf breezes compares favorably with central states in summer. Health reports show Louisiana now ranks higher than many northern States. District has been well settled for many years. Excellent schools, splendid people, and is located between two thriving little Cities. Main line of Southern Pacific and an important highway passes thru property. Miles away from river. Floods unknown. For complete information address

PIONEER GRAIN CORPORATION, 720 Flour Exchange, Minneapolis, Minn.

HUBER SUPREME THRESHER



FOR LIGHT TRACTOR POWER

The Huber "Supreme" roller bearing equipped —runs light—ideal for two plow tractor power. Save your grain—thresh when weather is just right. "Supreme" threshes clean—economical —moderately priced. Made in 4 larger sizes for heavier power. Complete illustrated catalog FREE. Write today.

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You need a Vest Pocket Herd Book



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

For Sale—3 great young Holstein bulls ready for service. All nicely marked and good individuals. Sired by a 32.86 lbs. son of Ormsby Korndyke Lad. Dams are No. 1—26.87 butter from 459.7 milk. No. 2—31.94 butter from 748 lbs. milk. No. 3—at less than 4 yrs. 32 butter, 604.4 lbs. milk. 30 days 128.49 butter from 2566 lbs. milk. She is a full sister to the former Michigan state champion, Blacres Sesame Korndyke at 4 yrs. 41.445 butter from 745 lbs. milk. 30 days 167 butter from 2770 lbs. milk. For pedigrees, photos and further information address J. HARRY RAKESTRAW, Montoursville, Pa.

4 Registered Holstein heifer calves, 6 months; one dam state champion 10 years; one 30 lbs. 7 days, 106 lbs. milk 1 day; one 1066 lbs. butter 1 year; yearling bull, same dam; sire 37-lb. world champion; CORNUCOPIA CATTLE CO., 1566 Kearney St., Denver.

Holsteins—Purebreds and grades. Area tested. Buy direct. We are breeders, not dealers. WAUPACA COUNTY HOLSTEIN BREEDERS ASSN., 112 E. Union, Waupaca, Wis. 5-6

For Sale—Registered Holsteins at grade prices. Cows $125, yearlings $50, calves $40. MIKE KLINKNER, St. Cloud, Minnesota.

Nine richly bred Holstein heifer calves, practically purebred. Tested and carried. $175.00. ALFAKORN FARM, Evansville, Wisconsin. 8-6

For Sale—Choice high-grade Holstein heifer calves. S. J. FRICK, New Glarus, Wisconsin. 6-4

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

Guernsey Bull Calf, six months, weight 500 lbs. Splendid type. Light fawn, well marked, clear nose. Records: dam, 589 fat; dam's dam, 627; sire's dam, 593. Sire's full sister two world's records. FRANK KLEMM, Baraboo, Wis.

Registered Guernsey bulls and heifers for sale. State your wants. See display ad page 541. LINWOOD GUERNSEY FARM, Livingston, Wis. 6-*

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

Registered Guernsey bulls, bull calves $50.00 up. Also few heifer calves. FERNHILL FARM, Wayzata, Minnesota. 8-2

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

Guernsey Bulls—Best of breeding. L. W. MILLS, Racine, Wis. 9-*

LIVE STOCK WANTED

Wanted—Carload quality bred Holstein heifers to freshen in fall. HARLEY E. HARLING, Waldo, Wis.

Wanted—Open heifers, Registered Guernsey or grade; disease free. FRANK COYLE, Penfield, Ill.

SWINE

Serviceable Yorkshire boars bacon type $30 each. Spring pigs $10.00. R. P. ULLMANN FARM, Route 1, Manchester, Michigan.

BABY CHICKS

Accredited high-egg yield White or Buff Leghorn chicks. New low prices. Guaranteed purebred. Every chick a good one. RIVERVIEW HATCHERY, Fort Atkinson, Wis.

Triple "C" Chicks—Lower prices. Big, husky, purebred, Cert-O-Culd, Smith-Hatched Chicks from farm-ranged, Hogan-Tested Flocks. Price per 100 delivered postpaid to you: Rocks, Barred, White, Buff; Reds; S. C. or R. C. Buff Orpingtons, $13. White Orpingtons, White Wyandottes, Black Minorcas, $14. Anconas, White or Brown Leghorns, $10. Jersey Black Giants, $19. Prompt shipment. Catalog free. C. C. C. HATCHERIES, Box 618, Centerville, Iowa. 9-*

Reduced Prices on Baby Chicks for May. 100% live delivery. Guaranteed purebred. Leghorns 10c; Rocks and Reds 12c; Wyandottes and Orpingtons 13c. Discount on large orders. Send for free catalogue and prices. MODEL HATCHERY, Box 7, Monroe, Indiana. 8-3

America's Heaviest Laying Strains. Sixteen breeds. Postpaid alive. Leghorns, Heavy Assorted, $10; Barred Plymouth Rocks, Rhode Island Reds, $12; Sheppards Anconas, $11. Free Secrets of Poultry Success. ILLINOIS HATCHERY, Metropolis, Illinois.

Baby Chicks from culled, inspected flocks. Satisfaction guaranteed. EVERGREEN POULTRY FARM, Kewaunee, Wis. 4-6

Quality Baby Chicks—Tancred White Leghorns, $15 per hundred. FERNHILL HATCHERY, Wayzata, Minnesota. 8-2

TURKEYS AND DUCKS

Pure Bred Mammoth Bronze Turkey Eggs—Have large healthy flock well mated. Inquiries promptly answered. $4.50 per 9 eggs prepaid. R. M. MELVIN, Mankato, Minn. 7-3

HATCHING EGGS

Eggs from strictly purebred (267 egg strain) Barred Plymouth Rocks and (272 egg strain) White Leghorns $1.60 per 15; $6.50 per 100, postpaid. MISS MABLE HARDING, St. Peter, Minnesota. 6-*

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Ann Arbor Hay Presses bale more hay at lower cost and last longer than others. Write for complete catalog and prices. ANN ARBOR MACHINE COMPANY, Shelbyville, Illinois. 8-6

For Sale—Two unit Hinman milker complete, good as new, $100.00. Address BOX 375, care Hoard's Dairyman.

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Blue Ribbon Milker. Used 6 months, excellent condition. D. W. TINSTMAN, Wooster, Ohio. 8-2

Bargain—Dana 2-bottle filler, good condition. First check $30 takes. Act quick. WARD HAYNES, Route 4, Kokomo, Indiana.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, Ohio. 7-4

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

Throttling Governors for Auto Engines when used for stationary power. CLARENCE WEGNER, Sheldon, Wisconsin. 8-2

Wanted—Used Pine Tree double unit milker cheap. HERBERT KESLER, Armstrong, Iowa.

For Sale—One 15-30 Parrett Tractor, in good condition. CHAS. CREUZIGER, Sturtevant, Wisconsin.

Complete Cheese Making Equipment used eleven months, for sale. CHEESE COMPANY, Smithton, Mo.

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer to consumer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 9-3

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

DAIRY BARN EQUIPMENT

For Sale—40 new and complete Star cow stalls unit type. ⅓ price if taken at once—all or any part. Address BOX 362, care Hoard's Dairyman. 8-2

LUMBER

Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 9098, Everett, Washington. 9-2

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

SALESMEN WANTED

Salesmen earn One Hundred Dollars a week selling lowest priced, high-grade electric signs on easy terms. Commission to start, salary, expenses in thirty days. THE McSAVANEY COMPANY, Springfield, Ohio.

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-Spl

Our New Household Device washes and dries windows, sweeps, cleans walls, scrubs, mops. Complete outfit costs less than brooms. Over half profit. HARPER BRUSH WORKS, 295 3rd St., Fairfield, Iowa. 9-2

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Hounds, collars, medicines, supplies. Free book. KASKASKENNELS, F18, Herrick, Illinois. 6-4

We are expecting another litter of White Collie puppies about June first. If you intend to buy a dog this summer we suggest you act promptly as our supply is limited. All dogs eligible for registration. We will furnish necessary papers for registering if required. Price F. O. B. Fort Atkinson. Females $10.00, males $15.00. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

COD LIVER OIL

Cod Liver Oil for poultry, tested light yellow Vitamin potency guaranteed, 5 gals. $8; 10 gals. $15 at N. Y. Sample gallon $2.25 postpaid. JACONE PRODUCT CO., 624 Kent Ave., Brooklyn, N. Y. 9-2

ROCK PHOSPHATE

Make alfalfa profitable by use of Four Leaf Powdered Rock Phosphate. It makes a thriftier stand and higher hay yield. Write for information. THOMSON PHOSPHATE COMPANY, 1027 Home Insurance Building, Chicago, Illinois. 8-3

MATTRESSES

Mattresses made any size, low factory prices. Catalog free. PEORIA BEDDING COMPANY, Peoria, Illinois. 3-10

FARMS FOR SALE

Five Hundred Acre Dairy Farm For Sale. Located near Knoxville, Tennessee, on State Highway, 300 acres of excellent blue grass sod twenty to thirty years old. Grass will carry 100 to 150 cows, depending on season, for seven months of the year. Two 16 x 50 concrete silos. Eight room residence, lights, water and bath. Six good tenant houses, four with electric lights. Barns accommodate 125 cows; De Laval milkers, six units operated by electric power. Modern equipment throughout. 24 hour current, low cost. Sales last year—milk $30,000; hogs $4,000. Profits last year 6% above all expenses including salaried manager. Will sell land only or land with herd and equipment. Attractive terms to right party. BOX 365, care Hoard's Dairyman.

State Highway Farm, 140 acres, furniture, 3 horses, 18 cows and young stock, hogs, poultry, firewood, hay, potatoes; grain, full machinery, vehicles, included; many have become independent on farms not half so good as this; lies close-in on state road, excellent soil for hay, corn, oats, potatoes; spring-watered pasture for 20 head, timberlot, fruit and berries; good 7-room house, water inside, large barn, silo, water in yard, hog house, granary, etc. Worth hurrying to get at $4000 for all, part cash, easy terms. Details page 22 big Illustrated Spring Catalog. Copy free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

We own 20 farms around Hoffman, Grant County, Minnesota. All well improved and rented. 50 good lakes within 10 miles radius. Native timber around lakes. Soil black loam, clay subsoil. This is the Park Region of Minnesota. Nature made this a play ground as well as a Bread Basket, why not enjoy both. Hoffman Creamery last year handled over one and half million pounds of cream and shipped over 200 cars of stock. Write us for a list describing land and buildings. Priced to sell. We want to clean up. We also own 480 acres 3 miles southwest of Hawkins, Wisconsin. Bargain to unload. STATE BANK OF HOFFMAN, Hoffman, Minnesota.

Montana Land in the Bitter Root Valley is cheap. Here is 4000 acres irrigated. 1500 acres hay and grain. On railroad and adjoining Forest Reserve. Near school and churches. Stocked with cattle, horses, hogs and sheep. Close to big game and fishing. The right place for big family of boys. Is a going stock or dairy ranch. $50.00 an acre takes everything. Can make terms. GEO. F. BROOKS, owner, Missoula, Montana. 8-3

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

Rich Georgia Farm Suitable for Dairying—1400 acres fine land in middle Georgia dairy belt cheap. Good markets for sweet and sour cream. Will pay 10% commission to anybody who will sell it for me. Write for information. F. P. STUBBS, Ezell-Griffin Co., Eatonton, Ga. 6-4

Western Washington dairying. 91 acres, 64 richest bottom, cleared. Six room modern house, basement; barn; silo. 15 Holstein cows, team, tractor, silage cutter, all needed tools. $250 acre. Will pay for itself every five years. JOHN MILLS, Puyallup, Washington. Request printed matter.

Valuable Farm—960 acres, Indiana corn belt, 100 miles from Chicago, 18 miles from LaFayette. Good buildings, good fences, rich soil, thoroughly tiled and ditched. Near schools, churches and stores. All or part. Address: "OWNER," care B. U. Rannells, 611 Swetland Bldg., Cleveland, Ohio.

Rich Colorado Farms suitable for dairying and general farming. 600 acres well improved $5000. 320 acres, highly improved and fully equipped, all for $17500. For information concerning these and other such bargains write WILL H. ROGERS, Craig, Moffat County, Colorado.

Dairy Farms—"Davidson Plan" 160 Acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 9-4

280 acres easily cleared Central Wisconsin land. Slightly rolling, clay loam, creek-watered, considerable timothy and clover, well located. $7 an acre, $400 cash. M. E. TAYLOR, Moravia, N. Y.

Wonderful opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Ga.

Kent County, Maryland, 160 acres, on state road, excellent location. MRS. BLANCHE GROVES, Kennedyville, Maryland.

FARMS WANTED

Wanted—Equipped farm; give price, etc. L. H. RAISLER, 6700 Wentworth Ave., Chicago, Ill. 3-*

Want 200 to 400 acres near school. WALT MILLER, Carpenter Bldg., Milwaukee.

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

WANT TO RENT

Wanted—Modernly equipped Holstein dairy on profit sharing basis. Understand the dairy business thoroughly and production of high grade milk. Have been in retail business for years. Married man, middle aged. Best references as to character and ability. Prefer southwest. Address BOX 381, care Hoard's Dairyman. 9-2

DAIRIES

For Sale—Dairy with about 400 grade and purebred cows and heifers on eighty acres of land (not cultivated). Established routes with approximately 1100 customers. Officially appraised value $140,000.00. Can be bought at a great sacrifice. It will take about $40,000.00 cash, balance on time, to put deal through and carry on business. For further information address S. ARONSTEIN, Receiver, 423 N. Mesa Ave., El Paso, Texas. 8-2

For Sale—Good dairy and ice business in a resort town. No opposition. Easy terms. GEO. FURMAN & SON, Twin Lake, Mich. 9-2

DAIRIES FOR RENT

400 acre model dairy farm equipped with every modern convenience located 19 miles from excellent Washington milk market. Capacity 200 cows. 100 acres alfalfa and clover. 7 tenant houses. Annual receipts $40,000. Will lease at low rental to responsible party. Tenant given privilege of buying personal property consisting of 75 cows, farming implements. Only $3,000 cash required. GILBERT M. HUTCHISON, Sunset Hills, Virginia. 9-2

EXCHANGE

For Sale or trade for live stock—270 acre good dairy and stock farm. 160 acres in cultivation, balance in blue grass and timber pasture. Two sets of improvements, one brand new. 4 miles from Smithton, Mo., on main highway. Loan $7500 at 5½% for 3 years. $3000 will handle. WALTER CASTLE, Smithton, Mo.

HAY

Alfalfa Hay for Sale. Write for delivered prices. ALBERT MILLER & CO., 192 No. Clark St., Chicago, Ill. 18-*

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

SEEDS AND PLANTS

Geraniums—Two dozen strong young plants delive post-paid to your door for $1.25. Any color or mix Don't be without flowers on the farm. BUCKL GERANIUM COMPANY, Springfield, Illinois.

Postpaid Strawberry Plants. Progressive Everbear 100, $1.35; 500, $5.50. ALBERT H. SCHULZ Neillsville, Wis.

Jacques Seed Corn—North Wisconsin grown fr pure, Acclimated seed, under my personal supervisi Selected before frost, dried out perfectly. Every bu tested, 95-100% germination, strong vitality. spected and Certified by Wisconsin Experiment sociation, Golden Glow, Cold Resistant Golden Gl Jacques' Northern Yellow Dent, Wisconsin 25, St King, Minnesota 13. Also Northern grown, Certi alfalfa, pedigreed oats and barley. Write for ill trated booklet and prices. Wm. H. JACQUES, H. Prescott, Wisconsin.

Alfalfa Seed—Do you know why your alfalfa wi killed? You no doubt did not use hardy gr WESODAK alfalfa seed. The seed we market grown by our members who live in Western Sc Dakota. We market from producer to consumer. grow S. D. No. 12, Registered Grimm and Coss and absolutely guarantee genuineness of variety. W for price and samples to THE WESTERN SOU DAKOTA ALFALFA SEED GROWERS EXCHAN Nick Caspers, President, Mgr., Rapid City, S. D.

Buy Your Grimm alfalfa seed direct from the troducer, and know that your foundation stock is p pedigreed seed, bred from the original Grimm str Acclimated to severe northwest temperatures since 1 A. B. LYMAN, Introducer, Excelsior, Minnesota. Home of Grimm Alfalfa.

Pure Certified Grimm's Alfalfa Seed direct f the man that grows it. Hardiest and best. S postal for samples and folder for full informat TRIANGLE RANCH, Cottonwood, S. D.

Seed Corn—Dependable, vigorous. Several eties. Experienced growers. Satisfaction guarant Write for prices. Supply limited. JOHNSON & NESON, Dassel, Meeker County, Minnesota.

Buy Hardy alfalfa seed; hulless and beardless ley; hulless oats direct from SAM BOBER, Ne South Dakota and save money.

Alfalfa Seed—95% pure, $6.50 per bushel; Scar sweet clover, 95% pure, $5.50; bags free. GEO BOWMAN, Concordia, Kansas.

Hardy Northern Montana grown alfalfa seed, d from grower. 15 cts. lb. Sample free. ED. HANS Route 1, Culbertson, Mont.

Minnesota No. 13 seed corn $2.75 up. Germin good. LEVI HAAPALA, R. 3, Dassel, Minn.

TOBACCO

Homespun Tobacco—Smoking or chewing. 4 $1.00; 12, $2.25. Send no money, pay postmaste arrival. Pipe free for ten names of tobacco us UNITED FARMERS OF KENTUCKY, Padu Kentucky.

Send us 5 names of tobacco users with order 4 lbs. of our tobacco for $1.00 and get an extra p free. Pay when received. FARMERS' ASSO TION, West Paducah, Ky.

Guaranteed Homespun Tobacco—Chewing 5 po $1.00; 10—$1.75; Smoking, 10—$1.50. Pipe Pay when received. UNITED FARMERS, Bard Kentucky.

Tobacco Users—Buy your tobacco direct from fa at factory prices. Our tobaccos are different superior. Write for Free catalog. THE PLANT TOBACCO CO., Henderson, Ky.

MISCELLANEOUS

Farmer's Wool—Made into blankets, batting yarns at fair prices. Send for circulars. MO CELLO WOOLEN MILLS, (Estab. 1866), Monti Wisconsin.

Hay Bale Ties—Tallman's bale ties are better cost less. Write today for special price list. TALLMAN COMPANY, Shelbyville, Illinois.

Buy one of our leather bound loose leaf pocket books and be able to give accurate information garding the animals you have for sale. Will commodate 160 animals, (sketches, sire, dam, da birth, records, service date, etc.). Also service re gestation table. Price $2.00, postpaid. HOA DAIRYMAN, Fort Atkinson, Wis.

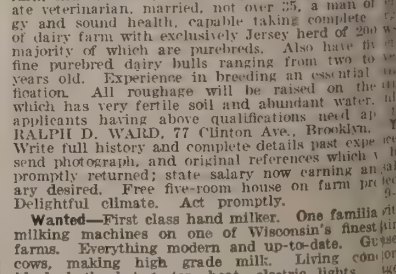
PRINTING

We print milk tickets, checks, shipping tags, for farmers all over the country. Our work please you. Write us now so you will have supply on hand. HOARD'S DAIRYMAN DEPT., Ft. Atkinson, Wis.

TESTERS WANTED

Iowa Cow Testing Associations need testers. ary $900 per year and up, plus board. Tr courses offered. Give age, experience, references letter. DAIRY EXTENSION, IOWA STATE LEGE, Ames.

Wanted—Experienced cow testers who know feeds and record keeping for association work state. DAIRY HUSBANDRY DEPARTMENT, burg, Virginia.



Advertising in this department is 8c per wo Remit in advance.

HELP WANTED

Wanted—Farm Manager for American-owned farm near Havana, Cuba. Applicant must be ate veterinarian, married, not over 35, a man of gy and sound health, capable taking complete of dairy farm with exclusively Jersey herd of 200 majority of which are purebreds. Also have fi fine purebred dairy bulls ranging from two to years old. Experience in breeding an essential fication. All roughage will be raised on the which has very fertile soil and abundant water. applicants having above qualifications need ap RALPH D. WARD, 77 Clinton Ave., Brooklyn. Write full history and complete details past expe send photograph, and original references which promptly returned; state salary now earning and ary desired. Free five-room house on farm pr Delightful climate. Act promptly.

Wanted—First class hand milker. One familia milking machines on one of Wisconsin's finest farms. Everything modern and up-to-date. G cows, making high grade milk. Living con ideal, bath, hot water, heat, electric lights. $60.00 per month, board and room. Positio now. WHITE PLAINS GUERNSEY FARM, Keeney, Owner, Kansasville, Wisconsin.

Herdsman Wanted at once, married, without dren, experienced, willing worker, to take charg large pure-bred Holstein herd, doing A. R. Only lover of Holsteins need apply who desire manent position. Wife to board help. Good ences required as we have a splendid opportun wide awake man. Address BOX 793, Springfield,

Places for two good dairy workers on up-t dairy farm. $65 per month and board. Oppo for early advancement for men capable of as responsibility. Dairy workers have no field Boozers not allowed on place and use of tobac hibited while on duty. HAPPY FARMS DAI O. Box 1345, Coral Gables, Florida.

Handy man, middle age, single, for garde team work. LEVANT COLE, Battle Creek, Mic

Our Review Co n

[A regular feature of the juni artment, viewing the contents of Hoa airyman r the previous issue. Let's tal it ver.]

For a further discussion of the fol- wing see the April 25th is

What is the Ayrshire Herd Test? is a plan for finding the produc- on of every cow in the he of the eeders who are testing under the pervision of the Ayrshire Breeders' ssociation. (See page 135.)

How does it work? Monthly re- orts are made on a one-day test. ne tester handles a maximum of 20 imals. Most of the records are ade on just twice-a-day milking.

How many herds are being tested? uring the first year some fifty herds, cluding about 1,500 animals, have en tested under this plan.

How may electricity be used in the rm home? For lighting and for erating a water heater, a sewing achine, a washing machine, a cook ove or range, an iron, a curling on, a vacuum cleaner, a fan, a ra- o, a toaster, a radiant heater, a otor for the pump. (See "Elec- icity in the Farm Home.")

How does Mr. Hoogland market s potatoes? This Dutch farmer gs his crop in early June. The po- toes are loaded into his canal boat id taken a few miles away to the rmers' co-operative potato auction. See page 438.)

Where is the most Grimm alfalfa ed grown? Idaho grows from 80 90 per cent of the nation's pedi- eed Grimm alfalfa seed. More an 340 members of the Idaho rimm Alfalfa Seed Growers' Asso- ation operate farms within a 50- ile radius of Blackfoot in Bingham ounty. (See page 439.)

What causes bloating in cattle? ny kind of feed that causes indi- stion, but it is usually caused by al- lfa or other succulent forage eaten eedily, especially when wet. (See ge 458.)

Do You Know

where, how, why, when the 4-leaf clover became the emblem of 4-H Club work? O. H. Benson tells you—

IN THE NEXT ISSUE

Junior Letters

Hoard's Dairyman Juniors:—I belong to ee other clubs besides this one. I am lead- of a 4-H club where we take cooking, sew- , and baking. All of the girls like the rk. We hope to try a calf club in a year so. I am a farm girl 18 years old. I have ee sisters who are Hoard's Dairyman Jun- s. Drop me a line if you wish. My ad- ss is Westby, Wisconsin.

Merle Alderman.

Hoard's Dairyman Juniors:—I belong to 4-H Club. I have two Guernsey calves. st year I won first prize for improvement calf, first on record kept, and second on wmanship at our club show at the county r. There were 12 Guernsey, 31 Holstein, 1 5 Brown Swiss calves. I won a pure-bred rnsey bull calf and a heifer calf and $5 in zes. I have 4 Guernsey heifers and 1 l. My address is R. 2, Lone Rock, Iowa.

Ronald Christenson.

Hoard's Dairyman Juniors:—I am presi- t of our boy's club which is listed as the lden Potato Club, but we do all kinds of k along other lines. At the Rutland Fair year we won prizes for calves, sheep, s, hens, ducks, geese, and all kinds of m stock. We won prizes on our handi- ft products, our canning, and demonstra- n. You see we are not working along one only but on all things that a farm boy girl ought to know. We are also taking the study of forestry projects and the ing of fruit trees. At the fair last year team mate and I won second prize for demonstrations. We demonstrated on the making of permanent leaf prints and are planning to demonstrate on the proper handling of cattle this year. We are also studying how to prune and graft trees. My address is R. 1, Pittsford, Vermont.

George E. Hurd.

Hoard's Dairyman Juniors:—I am 12 years old. The place where I live is mostly scattered ranches. The occupation is stock raising. I have made several trips on the range with my brothers and sisters when they salt the cattle. There are lots of wild animals in Boulder. There are two men here trapping them now. Several years ago, a large bear roamed the ranges, (the Boulder and Escalante Mountains) called old "Bruno." He ate the stockmen's cattle. Many men were trying to catch him. Finally in 1916, Mr. Rueben Jolly and Mr. Chess Riddle, from Coyote, Utah, killed him on the Escalante mountain. They had to shoot him thirty times to kill him. He was very fat and weighed 1,400 lbs. I would like to hear from other Juniors. My address is Boulder, Utah.

Christella Hansen.

Hoard's Dairyman Juniors:—I joined the 4-H calf club on the 17th of June and started keeping a record on the first of July. My calf was one year and three months old on the 26th of January, 1927. Her name is May Alcartha Piebe. When judging day came at the Washington County Stock Show, she walked proudly among the others and when she saw what she had to compete with, she switched her tail, lifted her head, and walked slowly to the head of the class. She won first in the club class and first in the open class. I live near Haddam, Kansas.

Electa Young.

Hoard's Dairyman Juniors:—My father has a 30-acre farm. We have 10 cows, 1 bull, 1 horse, 2 or 3 cats, and 1 little dog, which we call Dynamite because he is so lively. I have a little calf which I like very well. My brother, Carl, and I have great times in the summer as friends come from the city to stay awhile. If any one wants to write to me, my address is R. 1, Steveston, B. C.

Helen Nelson.

Hoard's Dairyman Juniors:—We have a cow which has had six calves and she was just six years old the twenty seventh of last February. Five of the calves have been heifers. The third time she was fresh, she had twin heifers which made us feel very proud of her. We have a herd of registered Jerseys. I am in the Freshman class at high school and am thirteen years old. I read the Junior page every week and I think it is very instructive for men and women as well as boys and girls. I would like to hear from some of the Juniors. My address is R. F. D., 1, Box 44, Chandlersville, Ohio.

Charles Brookover.

Hoard's Dairyman Juniors:—I am a boy 10 years old. I have joined the poultry club. We have White Leghorns. We get about three dozen eggs from 100 hens. We have 14 head of cattle, 4 horses, 5 pigs, and 100 hens, also 7 head of turkeys. My birthday is November 7th and I will be very glad to hear from any of the Juniors. My address is R. 2, Mansfield, Texas.

Marion Morgan.

Hoard's Dairyman Juniors:—I belong to the calf club and I like to take care of a calf. I have a Holstein calf. This is the second year I've belonged to the calf club. There are many children in our school that belong to the Hoard's Dairyman Juniors' Club. My address is R. 1, Box 13, Fort Atkinson, Wisconsin.

Gerald Hevey.

Hoard's Dairyman Juniors:—I used to live in Hillsboro, Wisconsin. I moved to Missouri November 14, 1925. Now we have bought a 240-acre farm four miles southwest of Stover. We have a lovely farm. There are a great many fruit trees here such as Delicious apple, peach, plum, mulberry and cherry trees, and tame grape vines. We have fine buildings; a large house, barn, granary, and all other buildings which are needed on a farm. Our house consists of eight rooms, and two screened and one open porch. We also have a large lawn which is well shaded and has many flower beds, also cement sidewalks all around. My address is R. 1, Box 33, Stover, Missouri.

Irene E. Miller.

Hoard's Dairyman Juniors:—I wish to thank you for the watch fob, pin and creed. One Sunday the horses were out in the field and we went to get them. We took the bridles along. We rode the horses through the woods. My little brother hit my horse with a stone, and he began to go like the wind. I could not stop him. My brother yelled to pull his head to one side. I did and he stopped. He was a wildfire that day so I led him home. If you want to write, my address is R. 3, Burton Road, Grand Rapids, Mich.

Jack Van Dyke.

Hoard's Dairyman Juniors:—Dad gave me a heifer calf when I was sixteen and I am proud of her. We want to build up a herd of twenty cows. We are milking ten now. Last year was the first year we belonged to the testing association and we led six months straight and a couple more times through the year. We are now breeding to one of K. O. P. O. P.'s grandsons. The more we read about him the better we like him. We have discovered that we can make more money raising corn and filling the silos and milking cows, than raising spuds. My address is Mabton, Washington.

Vance Paul.

Hoard's Dairyman Juniors:—We now have 108 head of goats. It is fun to name the kids. We name them alphabetically. We know each kid by its name. We had sixty head last year to name and feed. We feed them as they come alphabetically. We have one goat that is noticed by everyone. His name is Jonah. When any one comes around, he runs and puts his nose in their hand. He likes to push as hard as you can. He will push with all his might. He is about a year old and very funny. If any one wishes to write to me my address is Compton, Arkansas.

Esther Bruce.

Hoard's Dairyman Juniors:—I am 10 years old. I like club work very much. I have a grade Guernsey calf. She took first at the Fargo Fair in her class. Her name is Dora. I am getting her ready for our county fair next June. I am feeding ground corn and speltz, mixed corn fodder, and wild hay. She gets all the water and salt she wants. My address is New Rockford, North Dakota.

Kenneth Anderson.

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HOARD'S DAIRYMAN
JUNIOR EDITOR
FORT ATKINSON, WIS., U. S. A.
Dear Sir:—

I hereby apply for membership in the HOARD'S DAIRYMAN JUNIORS' CLUB. I agree to read the Junior Department of Hoard's Dairyman regularly and do all I can to make the Juniors' Club a success. Please send me the Watch Fob [ ] Necklace [ ] mark (x) after your choice, the Pin, and the Hoard's Dairyman Junior's Creed.

My name is .....
[Write distinctly or print]

My address is .....
[R. F. D.] [City] [State]

I am ..... years old. Hoard's Dairyman comes to my home addressed to .....

..... My favorite breed of dairy cattle is.....

My father's name is ..... Do you belong to a Boys' and Girls' 4-H Club? ..... If so, what kind? .....

5-10-25

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Farm Shop Tools and Their Care

YOU fellows all know that if you are going to do any building, you must have tools. You know, too, that there are countless repair jobs on the farm that cannot be done properly without the right tools.



Tools with an edge should be kept sharp. Oscar Hebbe sharpening a hand axe.

What tools should you have, and how should you take care of them?

Suppose we asked you to make a list of not less than 30 tools that are useful on the dairy farm, what would you put down? Do you know the names of all the common tools you have in mind, and can you spell these names correctly? Try it and then compare your list with the lists we are going to give you.

Do you know what a ball pein hammer is? We put this question to eighteen farm boys recently and not one answered "Yes." It is probable that most of these boys had such a tool at home. It generally comes as a part of automobile equipment. Had we called this tool by another name, doubtless all would have been familiar with it. If you don't already know, you should after you finish reading this page.

The other day we asked a group of farmers and a group of farm boys to make a list of useful tools on the farm. Fifty-one lists were handed in —24 from farmers and 27 from farm boys. No two lists were exactly alike. Altogether 110 different tools were mentioned. From this we compiled a list of the most popular tools which seems to us to give a pretty good cross section of handy tools both for the farm boy and for the farmer. Here it is:

Hand saw, claw hammer, monkey wrench, brace and bits, pipe wrench, vise, S wrenches, chisels, plane, screw drivers, square, harness punch, hack saw, axe, rip saw, pliers, pinch bar, wire stretcher, crow bar, files, level, hatchet, draw shave, set of drills, set of bolt dies, maul, punch, riveting outfit, cold chisel, splitting wedges, blacksmith hammer, open end wrenches, anvil, pipe reamer, pipe cutter, tin shears, socket wrenches, forge, soldering outfit, keyhole saw, rule, long handled shovel, hoof knife, calipers, wire cutter, miter box, set of pipe dies, hoof rasp, pick.

Your list might include some tools not mentioned here. You may live in a part of the country where a certain tool would be of great value, but others living elsewhere would have no use for it. An example of this is the soil auger. Where the character of the land is such as to make blasting necessary to clear the land for farming operations, the auger is used to insert the charges.

You very likely have a workshop of some kind on your farm. You may have a special building for that purpose, or perhaps you use the machine shed. At any rate, it is essential that you have some place to keep your tools and do your work. A shop where you can handily run in such farm machinery as may need working on is desirable.

To keep your tools looking bright, wipe them occasionally with a cloth dampened with a little machine oil.

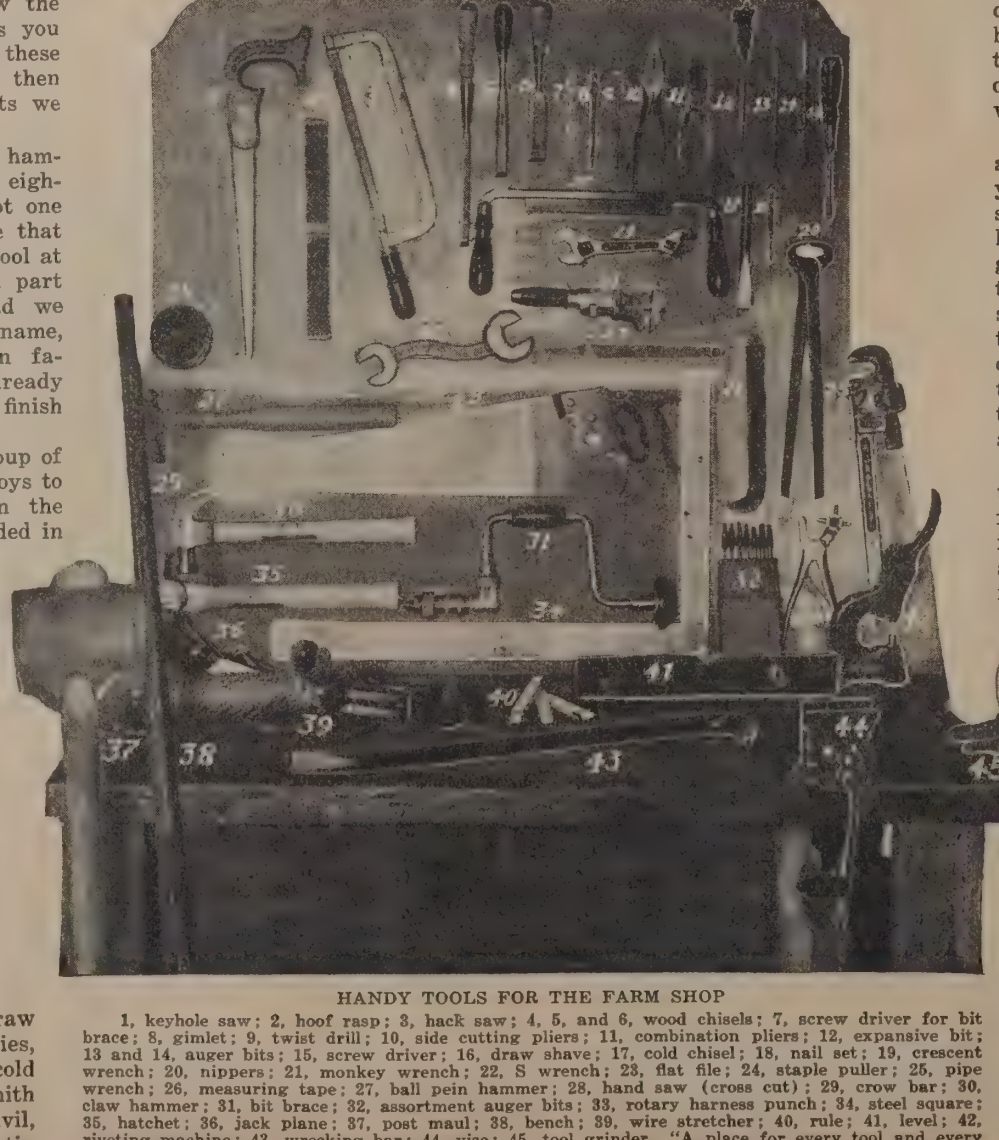
In purchasing tools, it is well to bear in mind that the best is none too good. While you can get the tools we have listed here at a considerably lower cost, remember the cheap tool is often expensive in the long run. The following list was supplied us by a hardware merchant, and gives a good idea of what tools are useful on the dairy farm and about how much they cost.

1—2-oz. curved claw hammer	$ 1.50
1—No. 8 cross cut hand saw	3.00
1—Rip saw	2.00
1—Brace	2.25
1—Assortment of bits, one each 4, 6, 8, 10, 12 and 16-16ths"	4.50
1—Expansive bit ⅞" to 3"	2.25
1—Assortment twist drill bits for metal ¼", 5-16ths", and ⅜"	.75
1—Assortment ⅜" cold chisel, ⅝" cold chisel, 2—½"x6" machine punches, 1 double end screw driver, 1-5" screw driver, ⅛"x⅝" punch	2.75
2—Wood chisels ¼" to ¾"	1.50
1—15" jack plane	3.25
1—Steel square	1.25
1—Hand axe	1.75
1—Small level	.50
1—Handy farm vise	4.50
1—Tool grinder	2.50
1—Staple puller	.25
1—Pr. heavy pliers, side cutting	1.35
1—Wire stretcher and hoist	1.85
1—Wrecking bar	.40
1—Crow bar	1.75
1—Post maul	1.50
1—Axe	2.00
1—Monkey wrench	1.50
1—Pipe wrench	1.60
2—Adjustable crescent wrenches 6" & 8"	1.70
3—Harness punches at 25 cts. each	.75
1—Hack saw with 3 or 4 blades	.75
1—Hoof rasp	.35
2—Splitting wedges at 65 cts.	1.30
1—Riveting outfit	1.25
1—Keyhole saw	.35
1—Measuring tape	.75
1—Nippers	1.50
	$55.15

A workbench, a grindstone, and an assortment of nails, nuts, bolts, rivets, washers, screws, staples, and wire should be, and is, a part of standard equipment of every shop. A pair of saw horses is mighty handy.

How should your tools be k

(1) They should be kept dry,



HANDY TOOLS FOR THE FARM SHOP

1, keyhole saw; 2, hoof rasp; 3, hack saw; 4, 5, and 6, wood chisels; 7, screw driver for bit brace; 8, gimlet; 9, twist drill; 10, side cutting pliers; 11, combination pliers; 12, expansive bit; 13 and 14, auger bits; 15, screw driver; 16, draw shave; 17, cold chisel; 18, nail set; 19, crescent wrench; 20, nippers; 21, monkey wrench; 22, S wrench; 23, flat file; 24, staple puller; 25, pipe wrench; 26, measuring tape; 27, ball pein hammer; 28, hand saw (cross cut); 29, crow bar; 30, claw hammer; 31, bit brace; 32, assortment auger bits; 33, rotary harness punch; 34, steel square; 35, hatchet; 36, jack plane; 37, post maul; 38, bench; 39, wire stretcher; 40, rule; 41, level; 42, riveting machine; 43, wrecking bar; 44, vise; 45, tool grinder. "A place for every tool and every tool in its place." Why not hang them up on the wall with a silhouette showing the exact location of each tool?



To keep your tools bright wipe them t an oily rag. Perry Kruckenberg shows

(2) Tools w an edge, such as saws, wood an chisels, planes, and hatchets, s be kept sharp, first because tools are easier to work with, an ond because sharp tools do work.

If you don't know how to sh a blade, your dad can probably you. Surely you have turned a stone many times, but you know how to hold the blade o grindstone to make the proper ting edge. If you sharpen you saws, you will need a saw set. ting the Farm Saw" is the title excellent bulletin on this subject ten by L. M. Roehl and publish the New York College of Agric at Ithaca, N. Y.

"A place for every tool, and tool in its place." There's a for you, boys. It's mighty agg ing when you want a certain t a hurry, to have to hunt all ov farm for it. A simple plan, hang your tools to make a silhou each tool in its place. Then whe put a certain tool the silhouette tel just where it be To make a silh trace with a pen outline of the too hangs up, then take the tool and paint in the outline soli black paint or stove blacking

Did you, or your broth your dad ever leave a saw the rain and have it get Would you like to know h clean the rust off? That's ea you need is a little lump p stone which you can buy for cents at the drug store, a cloth, and plenty of elbow Scrub hard and see what ha

Early Use of Lime in Old England

GUY A. PETERSON, WISCONSIN

IMING the land is a practice that has been known in England for many generations. Its is so common that provisions made in leases for its application. en no provisions are made in the e the tenant can apply lime at leisure and the landlord must him for the unused portion in the tenant is forced to give up place. The tenant who desires to rove his production by the use of is protected by law, so he is h more willing to apply it than n American tenant who has no protection.

may be of interest to record an y instance of the use of lime in country. The following account been taken from a December, , issue of "A Collection of Letfor Improvement of Husbandry Trade," one of the earliest agriural weeklies known. This old r was a collection of letters sent every week to a subscription list e up of business men and farm- It was printed before the time ural free delivery, however, so listribution was much of a task. Houghton, a member of the l Society, was its editor and he ished letters pertaining to many s of agricultural and trade prob-

view of the fact that the "Coun- Gentleman," the oldest agricul- paper in America, was estabd only 94 years ago, it is worthy ote that Editor Houghton was ading the gospel of lime in Engtwo hundred and forty years The letter was written by A. indale, who says:

think it is not impertinent to business to tell you that in my on a mighty improvement might nade of mossy-ground in counthat abound with lime, above is ordinarily known. To conwhich, I shall relate to you a which an honest gentleman of ordshire some years since told and it was thus, so far as my ory is to be relied upon.

le having accidentally set on about ten acres of mossy-ground ch burned to the very sand) in common belonging to W., sent eams six or seven miles off (to all) for lime, which he mixed the ashes, and sowed the plat ound with rye, much against the on of his husbandmen whose tions and jeers he could not wise silence, but by a peremp- command to hold their peace bserve his order. And the issue was, that though he was constrained to make a costly fence about it, that crop of rye cleared all the charges of the fence, lime, feed, and husbandry, with advantage to his purse; and besides, turned a barren piece of moss into a good close of land. I suppose, that upon a moderate account, the close may well be worth, for pasture alone (besides the benefit of plowing it sometimes) five pounds per annum, or very near, whereas I cannot think it was worth a tenth part of the money before this accident fell out of firing it; for there is enough in our county to be taken as cheap as that comes to; and I myself would be glad of that rate for land which I judge much better, during my lease, for which I hold it with other ground that I have improved. Though I am apt to think, no county about us (if any in England), charges the farmers more deeply with rent, proportionably to the probable reports to be made of the land, than this of ours. I am sure many of our farmers do not only say so, but make it to appear they speak as they think, by removing themselves with their families and stocks into other counties; of which, of late years, we have too plentiful instances. What advantages then might be made of some great mosses in Lancashire and elsewhere that lie near to coal and limestone, and therefore might well be spared, without making fuel dear, and improved at very small charge, and for the present, yield little or no profit, save some grig, or heath for sheep, and young cattle to feed poorly upon; and this oft in peril of their lives; particularly, what abundance of this sort of ground lies within a few miles of Clitherow (the great staple for lime) which is good for little or nothing in its present condition, but to make the country thin of its inhabitants"

Eastern States Exposition Judges

Judges of dairy cattle for the 1927 Eastern States Exposition, Sept. 18—24, are announced as follows: Holsteins, W. S. Moscrip, Minnesota; Jerseys, G. C. White, Connecticut; Guernseys, John Clark, New York; Ayrshires, Lewis Seitz, Wisconsin; and Brown Swiss, John C. McNutt, New Hampshire.

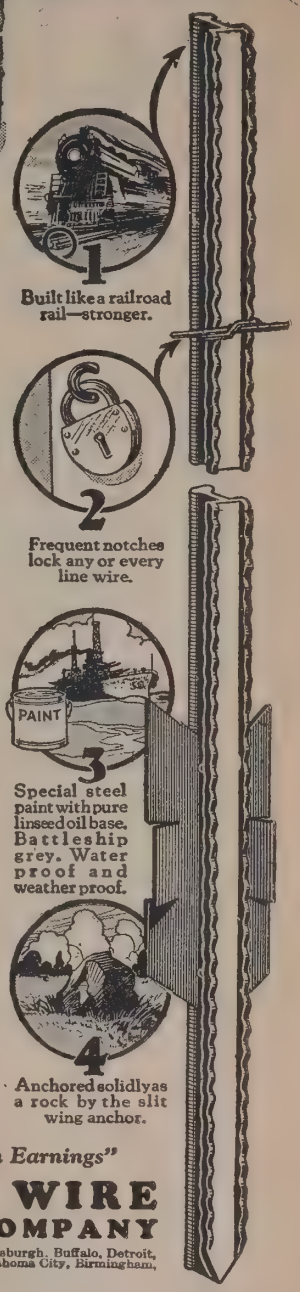
This year for the first time since 1917 there will be classes for Brown Swiss cattle.



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For the years to come

In the days that are not far distant, when those boys and girls of yours have grown up and gone out into the world to make homes for themselves—the days when Mother and Father will again be alone in the old home—

Then is the time a kodak picture of the happy days of their childhood will be priceless to you.

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This very efficient little Hawkeye No. 2, Model C Camera—made by Eastman Kodak Co.—which takes pictures 2¼x3¼ in size and uses regular Eastman roll film that can be purchased anywhere in the world—and a year's subscription to "Kodakery," a magazine which sells regularly at 60c a year—will be sent to any Hoard's Dairyman reader in the U. S. A. as a reward for sending us just three subscriptions to Hoard's Dairyman at 3 years for $1.00 each.

Hoards Dairyman Fort Atkinson, Wis.

Creosoting Fence Posts

hat is the best method of treating fence posts s to avoid rotting and decay?

ontrose, Pa. H. S. B.

ie first consideration is to properly cure the n timber. As soon as cut, see that all the is peeled off. If the bark is left on it pro- s quick decay as it offers an ideal breeding e for insects that injure the wood and it pro- s rotting. After removing the bark, pile the material on logs to keep it off the ground arrange the posts in the pile so there will be circulation around the posts until ready for

al tar creosote makes an excellent preven- The method of using it that is most practi- or farm use is to provide two barrels or vats. ne of these the coal tar creosote is heated to to 200 degrees F. or nearly the temperature oiling water, being careful to not allow the d to boil and so waste it by evaporation. The s are then put into the hot creosote and left 30 to 60 minutes, depending on the kind of l. Keep the creosote at as near 200 degrees s possible. While it may be desirable to im- e the entire post, it is ordinarily sufficient to it to only a half foot more than it is to stand ie ground.

mediately after hot treating the posts, they placed in the tank of cold creosote and al- d to remain for the same length of time as ig the hot bath. It is during the cold bath most of the absorption of creosote takes . As the hot post comes in contact with the creosote the heat is driven off and so forms tial vacuum within the cells of the wood that s in, as it were, the cold creosote to a greater n than would otherwise be the case.

hen removed from the cold bath, set the posts tank or trough that will catch the drippings ey may be used in replenishing the supply. both the hot and cold tanks filled to such s as will treat the posts to the proper depth. t for treating dry posts that have had all the removed, as otherwise the absorption of ote will be hindered. If posts 4 to 5 inches trong enough, it will be more economical to them than it will be when larger posts are In some cases it is recommended to allow osts to remain in the creosote for 6 to 12 s.

Silage Heats and Molds

ve a silo 12x32, made of concrete blocks, an air space in each block. Every year I trouble with my silage. It stays hot all the and never cools off. Molds about a foot from wall all around the silo. The silage looks n and has a queer smell. I cut my corn e it froze and it was in a good condition, t doesn't take long before it starts to heat. ou think the air space in the blocks takes the ure away from the corn and keeps it warm? e trouble lies in the construction of the silo, would you advise doing?

o Rivers, Wis. A. B.

do not know just what may cause your nt trouble with silage. If the spoilage occurs y around the outer edge, it is probably due e leakage of air, either through the cement or through the joints between the blocks. act that these blocks are hollow would have rticular effect.

he trouble is due to this cause, you can over- it by carefully going over all the joints and enenting them. Following this, we would go he entire interior of the silo with an applica- f cement mixed with water to a creamy con- cy. You can apply this with an ordinary wash brush or, possibly, a broom would an- the purpose if care is exercised to distribute of the cement wash over the entire portion e interior. Unless the blocks are very por- ne application should be sufficient, although y be necessary to repeat it in two or three This is just what we do to the interior of a n to make it water-tight and such an appli- also tends to make the silo air-tight.

ther possible cause of the silage heating and spoiling may be improper packing at the edge, either due to the fact that the silo is uly perpendicular or to the corn being too r not packing thorough enough at the outer

his trouble also appears in the interior part silage, it is possibly either due to the corn being too dry or, more likely, the fact that care is not exercised in removing the silage for each feeding. If the top of the silage is broken up and loosened below the depth at which each feeding is taken off, it permits air to enter and frequently the silage will commence to re-heat. This can be avoided by being careful to loosen up only what silage is removed each day for feeding.

Sterilizing Dairy Utensils

In our issue of January 10th we replied to an inquiry concerning the use of sodium hypochlorite for sterilization of milk utensils. Our reply to that question has been misconstrued to the effect that just before use it would be desirable to re-rinse the utensil with clear water. This was not the thought we sought to convey, but rather that it be re-rinsed with the sodium hypochlorite solution to make insurance doubly sure.

Concerning other questions raised by our correspondent, Professor H. H. Sommer, dairy chemist at the Wisconsin College of Agriculture, has given us the following reply:

"That a small amount of sodium hypochlorite does not cause a noticeable flavor in milk is correct. This is, undoubtedly, due to the fact that the available chlorine is rapidly removed by chemical combination with the organic matter of the milk. In a similar manner the statement that sodium hypochlorite is not a preservative is also correct.

"The effects of sodium hypochlorite as a germicide and antiseptic is dependent upon the available chlorine content. When added to milk the available chlorine of the sodium hypochlorite rapidly disappears so that, under such conditions, it would have little or no effect.

"Sodium hypochlorite used for sterilizing utensils will improve the keeping quality of the milk placed in these utensils—not because the trace of sodium hypochlorite acts as a preservative, but because the hypochlorite has sterilized the utensils and has thus eliminated the heavy contamination milk usually suffers on contact with unsterilized utensils.

"In using sodium hypochlorite it is preferable to rinse the utensil, invert it, and allow it to drain and dry slowly. It is not as desirable to follow this rinsing with a water rinse, nor is it as desirable to dry the utensil quickly over a stove or heater. This is true because sodium hypochlorite does not act instantaneously. If the solution is allowed to remain on the inside of the utensil—as it did in the preferred practice—the action of the sodium hypochlorite will be more prolonged.

"If the utensil is rinsed with water, there is not only the chance for re-contamination with a poor water supply, but also sodium hypochlorite may be removed too promptly, before the can is actually sterilized. If the can is promptly dried after the sodium hypochlorite rinse, the action of the sodium hypochlorite is reduced in effectiveness, because it is not effective in a dry form and, furthermore, undergoes decomposition on drying.

"It is, undoubtedly, true that sodium hypochlorite is a better solvent for the film of milk that may adhere to the utensil than is calcium hypochlorite."

Sampling and Testing Cream

In one of the issues of Hoard's Dairyman I saw an article published on the testing of cream, in which you stated that if the cream was in the can it was almost impossible for two men to get the same test of cream.

Will you please tell me how the creameries take their samples when the cream is not delivered every day? Is there any information on the variation in the test of cream by using a pipette? This method, of course, is not accurate but I would like to have some idea of the variation in the test by using this method.

Pipersville, Pa. G. E. L.

We believe our inquirer refers to an inquiry concerning the testing of very sour cream and cream that was frozen. In these cases it is frequently difficult to get a representative sample. It would be inaccurate to say that it is almost impossible for two men to get the same test from the same can of cream. With reasonable care in taking the sample the two tests should not be far apart.

To get the viewpoint of a man well informed on testing cream, this inquiry was referred to W. A. Cordes, who replies as follows:

"It is possible by complete and thorough stirring of the cream in the can to get it into a uniform condition permitting sampling for testing. A sample taken from a thoroughly stirred can will be representative. It is sometimes necessary, on account of the condition of the cream, to stir rather excessively, but in general, stirring about 15 times in a rotary motion from the top to the bottom of the can is sufficient to put the cream in satisfactory condition for sampling. With frozen cream and cream that is solid, because of hard fat, the handling of the cream is greatly facilitated without injury to the cream by holding the cans in water at 90 degrees for thawing or softening. Occasionally a can of cream containing exceptionally high melting point fat is received which must be exposed to a temperature somewhat higher for proper softening. Thorough stirring will then put such cans in satisfactory condition for sampling.

"The pipette is inaccurate in measuring the sample for fat test because of variations in the condition of the cream. In some experimental work on different methods of testing cream for butterfat, we found that in some instances where very thick cream was being tested, we would secure more than 5 per cent difference in test when measuring with a pipette as compared to weighing 9 grams. The pipette used on such cream will not deliver the correct amount into the test bottle. Also, differences in fat content mean differences in density of the cream which the pipette is unable to take care of."

Clover for Silage—Stack Silage

I have in mind putting green clover in the silo. Can you give me advice whether it is a paying proposition? Will clover in a stack put up green keep like they put up pea vines in a stack or will it heat and mold?

Bloomer, Wis. A. K.

Under normal conditions, corn is the ideal crop for silage purposes, both in yield and in the superior quality of the resulting silage. However, if corn cannot be relied upon to make a good crop, it will be found advantageous to use something else.

In some states, particularly in the dry sections, some one of the grain sorghums will be used. On the western coast, large use is made of barley, wheat, and oats. In most cases, there is seeded with the grain either vetch, peas, or some other similar legume crop that is best adapted to the locality. In the northern sections, the most usual substitute silage crops are peas and oats, or sunflowers.

Under most conditions, we would advise the curing of clover or other legumes as hay rather than attempting to make silage of them. If it is not possible to have some other practical succulent feed, such as roots, or some other silage crop, then it might prove desirable to ensile clover.

As alfalfa, clover, and other legumes contain a much higher percentage of water than does corn, it is desirable that these crops be cut when they are somewhat more mature. If cut when at the usual time for hay, it is advisable to allow the crop to lie in the swath for five or six hours in order to allow some of the water to evaporate. Just how long it is to lie in the swath will depend upon the kind of drying weather that prevails. The thought is to have not over 60 lbs. of water to 100 lbs. of green material at the time the crop goes into the silo. If the clover contains too much moisture, the resulting silage will be slimy and ill-smelling. If conditions are right, the clover silage will come out in good condition and make a fairly satisfactory substitute for corn silage, but probably will not be equal to it. Decision as between corn and clover will depend quite largely upon the relative yield of these two crops per acre in the given section.

A farmer in Langlade County, Wisconsin, finds timothy and clover will yield a higher tonnage per acre on his farm than will corn, except in certain years when corn makes an unusual crop. He secures a high grade of silage. It is probably superior to clover alone as the addition of the timothy makes the combined silage more nearly approximate the composition of the corn plant and the silage may have less odor.

Stack silage can be made of clover, corn, or almost any of the grain crops. There will be considerable spoilage just as there is when pea vines are stacked. Also, it does not make a convenient method of taking out the silage for winter feeding. It would be much better to build a trench silo if it does not seem practical to build a regular up-right silo.

Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

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Two men were walking down the main street of a country town when one of them took off his hat and bowed respectfully to an old gentleman who was passing.

"I owe more to that man than to anyone else on earth," he said.

"Did he give you your first chance in life?"

"No, he's my landlord."—London Tit Bits.

Report of Annual Guernsey Meeting

Guernsey breeders chose the Hotel Pennsylvania, New York City, for the 1927 meeting. Attendance and interest were both at a high point because it marked the passing of the fiftieth milestone and also a gathering center for those taking the trip to Guernsey.

About one-third of the total membership was present or represented by proxy. This information may stimulate breeders scattered far and wide to send their proxies to the club officers or executive committee next year.

All of the present club officials were re-elected for the ensuing year, namely, Robert Scoville, president; Wm. H. Caldwell and Gage E. Tarbell, vice-presidents; Karl B. Musser, secretary-treasurer. Four places on the executive committee were up for election and the men chosen were W. W. Marsh, Iowa; R. M. Cooper, Jr., South Carolina; A. L. Gile, Washington; and Dr. W. A. Munn, Wisconsin. The latter was the only new member elected.

The reports of Secretary and Treasurer Karl B. Musser were mighty interesting and indicated the coveted condition of increased business, strong financial status, and a prosperous future.

Wisconsin is the leading Guernsey state when number of cattle, club members, and registrations are considered. During the past year 7,376 Wisconsin Guernseys were recorded. Pennsylvania was second with 3,949 and New York third with 3,674. The Badger State also leads in the purchase of animals with Pennsylvania and New York following in order given. During the last year 3,225 more animals were registered than during the year previous.

That the breed is increasing in popular interest is seen in the list of 2,481 new breeders, which is a gain of 207 over last year. Furthermore, 202 Guernseys were exported to buyers in foreign countries. Increased interest is seen in testing Guernseys for the Advanced Register, as the present number of 2,234 cows on test has been exceeded in only two previous years, and is an increase of 4.3% over the number for last year. The average of all of the 2,038 Advanced Register records approved during the year was 10,328 pounds milk containing 517.5 pounds fat. The resultant increase in the breed average production to date is 59.7 pounds milk and 3.2 pounds fat.

President Scoville presided at the banquet held the night before the meeting. He ably pictured the growth and development of Guernseys under the fifty-year guidance of the American Guernsey Cattle Club. Speeches were made at the banquet by Dr. J. R. Mohler, Bureau of Animal Industry; Dr. C. W. Larson, Bureau of Dairy Industry; Geo. C. White, American Dairy Science Association; and C. L. Hill, M. D. Munn, L. W. Morley, C. T. Conklin, and G. E. Tarbell. Deserved praise for the Guernsey cow flowed freely and this, of course, caused all present to lend a very attentive ear to an interesting and worthwhile program.

Guernseydom is carefully watching the movement that has been discussed a good deal during recent years, namely, the passing of a federal law prohibiting the marketing of any milk except pasteurized or certified. S. M. Shoemaker addressed the assembled members on this matter and considerable interest was evidenced. Popular opinion was not in accord with the idea.

Notes on National Guernsey Meeting

There are a trifle over 1,425 members in the American Guernsey Cattle Club.

Twenty-four states sold more females during the past year than in the year previous.

Twenty-two states purchased more females this last year than during the previous year.

Two hundred fifty Guernseys were imported during the past year and 202 were exported.

Seven states have more than 100 cows on test. New York is the highest with 308.

Thirty-two per cent of the breeders are using the triple letter division.

Among the guests of honor at the 50th anniversary banquet was Miss Arvilla Boese, National Calf Club Champion.

Guernsey breeders will have cause to canvass their membership for a successor to President Scoville next year if his present intentions are carried out.



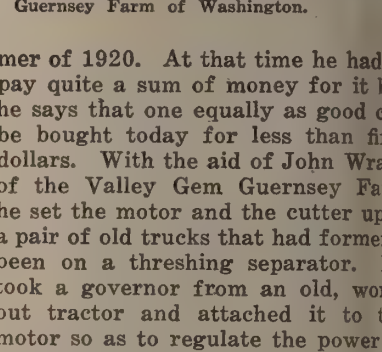
ST. AUSTELL DAFFODIL

St. Austell Daffodil is one of the good producing Guernseys owned by Ward Acres, New York. She recently completed a Class A record of 20,491.1 lbs. milk containing 935 lbs. butterfat. In addition to this record she has four other records,—479.4 lbs. fat in Class GG; 607.3 lbs. fat in Class B; 624.5 lbs. fat in Class A; and 876.5 lbs. fat in Class A.

Motor Runs Silage Cutte

HOARD'S DAIRYMAN:—R. B. Sch man of Washington solved the pr lem of lining up a silage cutter to power pulley by attaching the cut directly to the motor and doing av with both belts and pulleys. He run this outfit for six seasons in annual autumn job of filling a r of his neighbors' silos, and both and his neighbors find it very sa factory.

Schloman purchased the mo from a wrecking company in the su



R. B. Schloman's silage cutter choppin up some winter feed for the Valley Ge Guernsey Farm of Washington.

mer of 1920. At that time he had pay quite a sum of money for it he says that one equally as good c be bought today for less than fi dollars. With the aid of John Wra of the Valley Gem Guernsey Fa he set the motor and the cutter up a pair of old trucks that had forme been on a threshing separator. took a governor from an old, wo out tractor and attached it to motor so as to regulate the power the same way as a stationary eng takes care of the load whenever comes. This gives him the rig amount of power without excess use of fuel.

Schloman has a tractor but he sa it is hard to put it on the roads cause of the state regulations quiring that the lugs be removed fore the machine is driven over ma highways. Then, too, it gives tractor a lot of "no-pay" haul when one travels with it from fa to farm at silo filling time. What more, it would be difficult for a tr tor to climb some of the hills t Schloman has to climb in order reach all the farms where he cuts ensilage each year.

With his outfit, lined up a mounted on trucks as it is, howev Schloman can drive up to a silo, le the machine, put up the spouts, a be cutting silage again inside of h an hour. All he has to do when moves the cutter from farm to fa is to hitch a team of horses to trucks and drive. He says this ma chine solved the "refill" proposit because it is so easy to reset.

After watching the machine w last fall it seemed to me that it a good many points in its fav Any farmer who is mechanically clined and who knows a worth wh engine buy when he sees it, can fix an outfit such as this that will mat ially aid in keeping down tractor pair bills at the same time as it fords a cheap and reliable source power. Schloman does not use motor for any other purpose than ing silos because he has his trac but there is no reason why it co not be put to other work on the fa where stationary power is needed

Wisconsin. GUY A. PETERSON

A celebrated singer was in a mo car accident one day. A paper, a recording the accident, added, "W are happy to state that he was a to appear the following evening four pieces."—Epworth Herald.

Milk Producers Who Care

THOS. H. WITTKORN, PENNSYLVANIA

WHEN twenty thousand and a few more organized dairymen decide to improve the quality of their milk something just naturally happens. In this case it has resulted in giving Philadelphia a supply unequalled by any other city of its size and setting an example, which is pointed to all over the world, as to what can be done for one of our most valuable foods.

Ever since men have elected to live in cities they have tried all manner of means to safeguard their milk supply but never before have producers and distributors worked so much hand in hand to help them, as they are doing today in the Quaker City territory. Each of these three factors have come to realize their dependence upon one another and have put aside their old fighting spirit.

Back in 1916 to combat the warfare increases in milk production forces, dairymen for their own protection formed the Inter-state Milk Producers' Association, with a membership of about 4,000. At the end of a year this number had grown to 11:20 divided among 279 local units throughout the so-called Philadelphia milk shed which embraces an area of 150 to 250 miles radius of the city.

At the annual meeting of the association in December, 1923, drastic rules and regulations were adopted for the production and handling of the product—fluid milk. This would have meant nothing if the "Dairy Council," kind of a spoke of the main wheel, had not been given police powers, by the same meeting to enforce these self imposed laws. The membership was given full notice of the regulations and allowed until June 1 to comply with the high standards set.

Some of the most important requirements were: the cows must be clean, stabled, and bedded in light, airy, whitewashed, and regularly cleaned and drained stables; the milking must be done with clean hands or a properly sterilized mechanical milker; the milk must be promptly and properly cooled in covered milk houses and all equipment must be sterilized before using.

Upon the dealers was placed the responsibility of sterilizing and returning dry and clean all of the shippers' cans brought to them with milk. As a machine to do this work costs about $3,000 it has meant a heavy investment for the dealers. Many of them had to spend $50,000 to meet the regulations in all his receiving stations but it has resulted in a marked improvement in the quality of the milk sent to the consumers of the city.

As nearly all the dealers in the Philadelphia milk shed are members of the Dairy Council, they agreed to co-operate in adopting a set of regulations looking to the improvement of their milk handling methods. They also agreed to refuse to buy from farmers who did not meet the mark set for them by the association.

It was left to the quality control department of the Council to organize a force of fieldmen to check all the farms and receiving stations. It did not select a bunch of high-hat inspectors but picked farm bred, college trained men who know not only what should be done but had enough sense to realize what could be done in a certain time. Working in a group they covered the whole territory.

Remembering that these inspectors had no legal authority for what they were doing, one must admit a high type of co-operation when they were allowed the full freedom of private premises, even in many cases the farm kitchens, to check up standards of cleanliness. They made 25,000 inspections the first year, visiting many places more than once, and issued to farmers 16,934 temporary and 4,865 permanent permits to ship milk.

During this same time approximately 250 farmers were denied the privilege of shipping milk to co-operating dealers. In most cases the loss of a market was sufficient to bring a compliance with the regulations but some stickers for "personal liberty" could only ease their minds by selling their cows.

One of the greatest obstacles to the obtaining of a permanent permit, which means that all requirements have been met, was the lack of a satisfactory house for cooling and storing milk on the farms. The small concrete block building shown in the photograph is the kind recommended by the association and thousands of them have been built during the past two years.

Since all of the territory has been gone over at least once, it is now divided into nine districts with a resident inspector in each. It is possible in this way within a few hours to reach any point where trouble might arise. The men aim to inspect every place twice a year and some of the careless ones more often.

Fourteen automobiles, like the one shown, are used in the inspection service. Each man carries with him a card index record of all the members in his district and makes careful notation of his findings. Even after a permanent permit has been issued it may be, and in a few cases has been, taken away from the dairyman if he is not living up to the requirements.

Milk from the individual farms is tested for butterfat, sediment, and bacteria by the Council's inspectors at the shipping stations. If it is found below the standard in any of these things a warning letter is sent to the producer with suggestions for correcting the difficulty. In most cases this is all that is necessary but if it fails again the man is visited and frankly told he will lose his market if he cannot bring his milk up to the mark.

The fact that consumers appreciate all that has been done for them is shown by the increasing sales volume, more than is accountable to an increase of population. A better proof was the recent advance of one cent a quart in the retail price without a word of protest from the newspapers although it was announced that the increase was to go into the farmers' pockets.



ONE OF THE NINE INSPECTORS OF THE INTER-STATE MILK PRODUCERS' ASSOCIATION CALLING ON ONE OF THE 20,000 MEMBERS OF THE ASSOCIATION TO CHECK UP ON THE METHODS HE USES
Note the new concrete block milk house of which thousands have been built recently.

Calves Thrive on Skimmilk if Properly Supplemented

Under most conditions in Colorado the price of butterfat makes many dairymen hesitate to feed whole milk to their calves.

Whole milk is nature's food for the calf, but skimmilk, properly supplemented, will, in the light of many experiments, make a feed equally as good. Whole milk may make a better calf than skimmilk, but not necessarily a better cow. Skimmilk is the whole milk after the fat has been removed by the farm separator. It must be supplemented with feeds which are high in energy-giving nutrients called carbohydrates and fat. Such supplements are corn meal, kafir meal, ground barley, and like feeds. The following ration is one suggested in the feeding of skimmilk to calves: ground oats, 1 part; ground barley, 1 part; wheat bran, 1 part; skimmilk and hay.

Corn meal or kafir meal may be substituted for the ground barley in the above grain mixture. —Extension Bulletin 236A, Colorado Agricultural College.

This Machine and One Man Puts Up The Hay



Sandwich Easyway Loader

Farmers call this *Easyway* the "One Man Hay Loader," for they tell us one man can make a big, full load. In this *Easyway*, inventive genius has made a loader that combines the *Cylinder* and *Push Bar* actions. This is one of the many exclusive features found only in the *Sandwich Easyway Loader.*

You've never seen a machine like it. The *Easyway* cuts down labor cost and farm machinery costs too.

The Cylinder gently lifts the hay from swath or windrow without change or adjustment. Steady work—no scattering—no broken clover or alfalfa heads. You get *all* the hay, better hay, and *all* the feeding value.

The Push Bars force the hay up and push it far onto the load. Thus less help and labor are required where this combined loader—two machines in one—is used.

Ideal Loader for Alfalfa and Clover. Solid Deck. We fit the *Easyway*, when wanted, with a solid deck which prevents the alfalfa and clover heads and leaves from being wasted by falling down through a slatted deck to the ground.

These other extra features of the *Sandwich Easyway Loader* mean much to you,—Adjustable Wagon Hitch, Flexible Tongue, Light Draft, works on even or rough ground, handles swath or windrow, does not dig up the ground, durable and lasting, works fine on alfalfa. There are over seventy years of manufacturing skill behind it.

Write to us and say, "I want full information on *Easyway Hay Loaders.*" We'll send you our interesting book FREE. Or go to your dealers; see this great machine. You'll never see another like it.

Stocks carried at Milwaukee, Madison, Eau Claire, Wis., Freeport and Jacksonville, Ill., Owatonna, Minn., Cedar Rapids and Council Bluffs, Ia.

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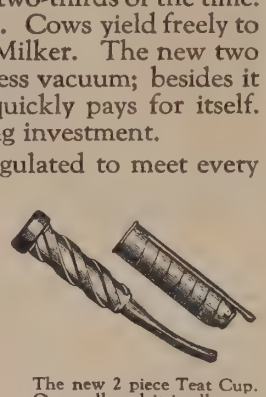
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Send 5c in stamps for samples and prices of our weekly and monthly **MILK RECORD SHEETS**

Hoard's Dairyman **Fort Atkinson, Wisconsin**



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Vt.	Lamoille Valley	Apr.	554	531	23.5	J.	4	865	42.0	W. C. Hadley
Mont.	Cascade Co.*	Mar.	527	827	29.7	H.	14	1240	40.9	C. G. McDermott
La.	Shreveport	"	804	535	26.1	J.-H.	71	611	30.0	Edgehill Farm
Ida.	Gooding-Jerome	"	391	642	27.3	H.	11	1388	47.4	F. W. Houston
Va.	Bot.-Roanoke	"	358	646	24.5	H.-J.	18	985	35.5	W. M. Garst
"	Loudoun Valley 3	"	697	572	24.4	H.-G.	19	825	36.3	M. A. Ankers
Ind.	Wayne*	"	397	645	28.3	R. J.	7	912	43.2	G. Abel
Md.	Carroll Co.	"		720	28.0	R. H.	15	893	42.1	A. D. Alexander
Mo.	Polk-St. Clair	"	268	411	20.1	J.	15	727	38.5	E. M. Preston
Minn.	St. Louis Co. 1*	Apr.	297	706	27.5	G. G.	4	1010	46.9	M. C. Francisco
Tenn.	Hamilton Co.	"	641	571	26.6	G. J.	21	812	34.0	A. A. Little
Wis.	Cicero-Black Creek*	Mar.	383	575	22.7	G.	10	994	44.0	A. G. Brusewitz & S
"	Oakdale-Tomah*	"	503	699	28.5	H.	8	1485	54.0	N. Wakefield
"	Stanley-Thorp*	"	475	666	25.1	R. H.	15	1262	40.4	L. Qualheim
"	Spring Valley*	Apr.	390	703	28.4	G. H.	12	1007	35.2	A. Amos
"	Sparta*	"	471	653	28.4	M.	9	741	33.5	C. Morgan
"	Westby*	"	361	443	19.5	J.	24	662	33.7	Sangstad Bros.
Mich.	Miss.-Falmouth*	Mar.	211	725	26.8	H.	9	1461	45.4	A. DeRuiter
"	Barry Co. 1	"	264	682	26.8	G. H.	8	1218	43.3	A. C. Clark
"	West Kent*	"	237	784	35.0	H.	12	1424	49.9	L. Bradford
"	Ott.-Allendale*	"	222	798	29.8	G. H.	8	1497	48.5	G. S. Potgeter
"	Macomb 2*	"	266	709	26.2	R. H.	5	1338	46.5	E. Burmann
"	W. Oceana*	"	200	656	31.4	R. J.	5	1043	52.3	H. Meyers
"	Lansing-Ingham*	"	266	734	31.8	H.-G.	6	1292	54.9	O. J. Becker
"	So. Wewaygo*	"	244	654	27.2	G. H.	7	1176	45.9	J. Meyer
"	Alpena-Leer	"	274	512	21.4	J.	8	766	35.0	O. Wagner
"	Iosco Co.	"						1078	40.7	A. Timreck
"	Van Buren 1*	Apr.	294	710	30.7	R. H.	5	1777	63.9	R. Sherman
"	Van Buren 2*	"	255	624	25.2	H.	19	956	30.2	C. Billsborrow
"	Kent-Alto*	"	191	657	29.9	R. J.	7	771	42.4	D. J. Dinsen
"	Ogemaw Co.*	"	275	588	24.0	R. H.	10	1093	40.2	O. A. Carroll
Penn.	White Deer Valley	"	335	786	28.2	R. H.	14	1198	43.8	O. A. Shirey
Utah	Central Cache Co.	"	561	837	29.9	G. H.	11	1447	53.9	H. Cronquist
Md.	Anne Arundel	"	332	584	23.3	H.	17	925	37.1	F. W. Stehle
Ill.	Henry Co.	"				R. B. S.	11	915	33.1	C. A. Dunbar & Son
Wis.	Fond du Lac-G. Lake	"	467	757	29.3	H.	16	1098	44.1	J. Frei
"	Algoma*	"	423			G. G.	11	827	42.4	J. Jacobosky
"	Richland*	"	582	723	25.8	H.	20	1121	38.6	S. P. Marshall & So

*Retest rules followed.

Profits Increased

HOARD'S DAIRYMAN:—Not long ago I heard someone say that cow testing is good only for making the farmer buy higher priced feed. To disprove this I offer as evidence the record for the Endeavor, Wisconsin, Association for the first and last month of its association year. In order to avoid any criticism I give in the following table the production and feed consumption for the same number of cows for both months, have credited the same price for fat, and charged the same prices for feed:

	First month	Last month	Increase	Decrease
Ave. test, %	3.42	3.68	0.16	
Total fat, lbs.	8760	9898	1138	
Value	$ 4380	$ 4949	$ 569	
Lbs. roughage consumed				
Silage	367350	281843		85513
Alfalfa	42858	48704	5846	
Clover	51181	76335	25154	
Timothy	46190	68811	22621	
Cornstalks	68510	18249		50261
Soy beans	4693	2846		1847
Marsh hay	13330	6182		7148
Total dry roughage	226762	221127		5635
Lbs. grain consumed				
Corn	32457	13675		18782
Oats	41912	23835		18077
Bran	7146	18352	11206	
Cottonseed meal	3540	11038	7498	
Linseed meal	4000	4586	586	
Dairy feed	3209	8990	5781	
Rye	2455			2455
Barley	2309	4744	2435	
Oat feed	3782	515		3267
Total grain	100810	87735		15075
Cost of roughage	$ 1918	$ 1973	$ 55	
Cost of grain	$ 1271	$ 1221		$ 50
Total feed cost	$ 3189	$ 3194	$ 5	
Profit	1191	1755	564	

During the last month better dry roughage and a better grain ration were supplied. Despite this the to cost of feed was only five doll greater, while the better feed creased production by 1,138 lbs. f This indicates that much corn a oats were wasted when the unb anced grain ration was used the fi month.

The members of the Endeavor sociation made $564 more above f cost the last month than they did first month. This increased pr was mainly due, if not entirely, better feeding. It shows there is danger of losing money by buy high protein concentrates if they needed to give the cows the feed t require for their best production.

Testing pays and is a good inv ment. W. BODECKER, Teste

Write the C. T. A. Edito Hoard's Dairyman, for our pri offer to testers for monthly a annual reports

Can You Make Money?

HOARD'S DAIRYMAN:—That depe upon the kind of cows you are f ing. There never was a cent m feeding poor cows and good cows not show a good profit without fee

The other day in making a test one of the members of the Long P rie C. T. A. we found that he feeding high priced concentr from the local mill costing 1.68 pound and alfalfa hay $24 out of car. A good many inexperienced rymen in reading this will say, " possible. No cow in the world pay for it." Maybe not, but here the facts. He was feeding 50 lbs. lage, 8 lbs. alfalfa hay, and 11.4

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	Reporting	No. of cows*	Ave. fat per cow* All cows	High ass'n.	High herd	High cow fat	No. of separators Tested	Over .05%	Cr ce
					Lbs.	Lbs.	Lbs.	Lbs.			
Wisconsin	Mar.	161	139	57,742	25.5	†38.0	†57.9	†108.2	1355	145	
Indiana	"	31	24	8,323	24.9	31.0	49.5	89.2			
Michigan	"	106	76	19,955	26.4	†35.0	†54.9	†110.5			
Virginia	"	18	18	8,711	25.3	31.7	†45.1	111.7	18	4	
So. Dakota	"	9	9	2,862	22.9	26.6	43.6	84.4			
Iowa	"	77	69	25,118		31.8	52.6				
Idaho	"	8	7	2,290	29.0	34.7	56.9		158	13	
Missouri	Apr.	24	17	5,240	22.5	34.2	44.5		75	4	

†Retest rules followed. *Includes dry cows.



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BALLOON

grain. To some it will seem like extravagant feeding, and maybe it is.

Most of the cows in this herd were fresh in October and November, one in September, and the other in July. During February these fifteen cows produced 16,499 lbs. of 3.14% milk, making 518.7 lbs. fat. At the local creamery price of 59c a pound this fat was worth $305.97. The total feed cost for the fifteen cows milking and one dry was $168.55, leaving a profit above cost of feed of $137.42. The average cost of producing a pound of fat was 32.4c, leaving an average profit of 26.6c above cost of feed on each pound of fat produced.

A chain is as strong as its weakest link. Good cows, good feed, and a good man spell success in the dairy business. One without the other spells failure. Let the C. T. A. records help you on. BERNERD J. ROSENQUIST, Tester.

Culling and Better Feeding

HOARD'S DAIRYMAN:—An illustration of what a cow testing association can do for an intelligent farmer is shown in the monthly summary of the results secured by a member of the Hammond—Baldwin Association of Wisconsin. He joined this association in November, 1925.

For February, 1926, this herd of 18 cows, 17 of which were milked, produced a total of 457 pounds fat which at 50 cents was valued at $228.65. The total cost of feed was $142.56, leaving a profit over feed of $86.09.

In February, 1927, this herd consisted of 19 cows, 17 of which were again milking. They produced 534 lbs. of fat which at 50 cents a pound was valued at $266.90. The total cost of feed was $149.27, leaving a profit over feed of $117.63 or an increase of income over feed cost for the entire herd of $31.54.

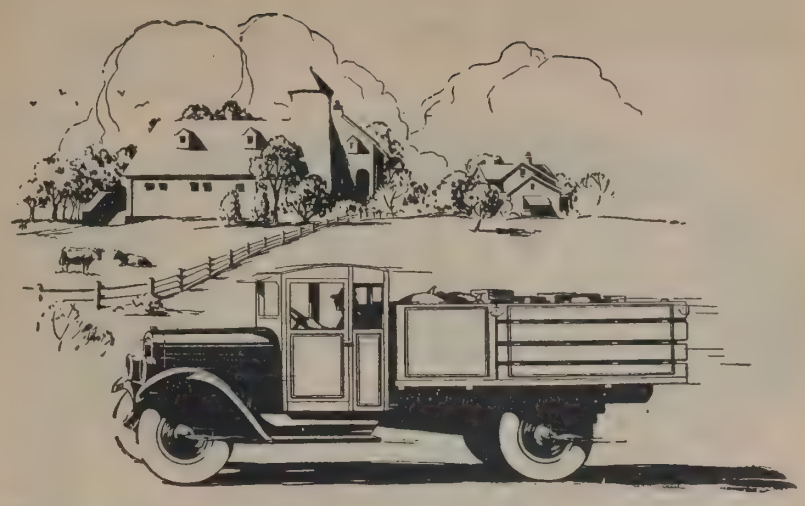
The average profit for all cows in the herd including those dry was $4.78 in February, 1926, and $6.19 in February, 1927. This increase of $1.41 more profit per cow for the shortest month in the year was due to the culling of poor producers and better feeding. During the intervening year 7 undesirable cows were sold and these replaced by 5 cows purchased and three heifers raised. The cows were fed a more liberal and better balanced grain ration consisting of oats, wheat feed, corn, oil meal and cottonseed meal. The roughage in both cases was practically the same, consisting of corn silage and mixed clover and timothy hay. The same prices were used both years in figuring the value of the butterfat and cost of feed.

I charged $12.00 a ton for hay, $4.00 for silage, oats and barley at $28.00, wheat feed at $30.00, corn at $32.00, oil meal at $48.00, and cottonseed meal at $33.00. The increased profit came in spite of the fact that there were two dry cows figured in the average for 1927 as against only one in 1926.

OSCAR BERKSETH, Tester.

Michigan Prize Winners

Michigan conducts an essay contest for testers, six prizes of from $10 to $25 being offered by the Michigan Creamery Owners' and Managers' Association, and three medals by the Blue Valley Creamery Company. The prize winners were as follows: 1st, Casper Bloomer of Macomb No. 2; 2nd, Forrest Bender of Kent County South; 3rd, Walter Kirkpatrick of Leelanau County; 4th, Glen Bedell of Ottawa—Allendale; 5th, Lyle Anderson of Osceloa—Reed City; and 6th, Clarence Prentice of Newaygo South.



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HOARD'S DAIRYMAN FORT ATKINSON, WISCONSIN

A Baby Milk Dairyman

F. C. MINNICH, OHIO

AND I'm going to stay right here till I go for good," was the final and significant remark of Elry S. Leasure, who runs a special baby milk dairy near Zanesville, Ohio. That is, he is where he wants to be. He's running a baby milk dairy in a good location, is giving hogs and chickens a chance to prove themselves profitable, and doesn't intend to make another move so long as he lives.

Time was, though, when Mr. Leasure was like some of the rest of us. He didn't know just what he wanted to be.

Twenty-eight years ago when his children were small, and school was distant, and farming was not very promising, he decided to take a course in undertaking for which he moved into town. For five years he kept up a round of getting out day or night in his business as an undertaker. Being of a sympathetic disposition by nature, he was especially popular among his customers. "But," he said, "it took all a fellow could make to keep up appearances and then I didn't like having to go dressed up all the time."

So he withdrew from the firm and started a small milk business in the basement of his city home. In this other two at a profit, after havi improved the buildings and increas the soil fertility by the use of c manure.

While her husband was expe menting with farms, Mrs. Leas went on with the basement dai and let me say there was nothing didn't manage well, from handli milk cans to keeping books. L most business women she uses head to mighty good advantage.

Finally Mr. Leasure saw that way to get what he wanted was build everything himself from ground up. And that is just ab what he has done or is doing. went four miles out of town on improved road and bought one h dred and sixty acres of well laid l with old buildings on it. He put this present modern dairy structu which is clean and sunny and pre enough for humans to live in. fact Mr. Leasure does live in corner of his big milk room at pr ent, but he doesn't expect to k that up long. He has moved his house over to a new foundation is remodeling it at the present ti It will have every convenience p sible to a city home, except which, unfortunately, is not to had there. Then he will move



THE BACK DOOR OF THE LEASURE BARN

the only appearances he had to keep up were those of his one milk wagon and his good quality milk. He started out with the idea of giving his customers the best milk he could get. Every morning farmers delivered their milk to his side door and got their cans in exchange. At that time pasteurizing milk was a new idea in Zanesville, but Mr. Leasure saw the advantage in it and soon had the words "pasteurized milk" lettered on his wagons.

Mr. Leasure manages to keep just a pace ahead of his competitors in service to his customers. He was the first producer within the reach of Zanesville to put out a special baby milk.

For fifteen years Mr. Leasure and his wife, whose help has been a very distinct factor in his ultimate goal, conducted that basement dairy which kept growing as people realized the value of milk in the diet, until three wagons were sent out every morning on delivery.

All this time the farm bee kept buzzing in his ear and he kept thinking of the time when he would be producing the milk, good clean milk, such as he wanted his customers to have, and letting other folks deliver it to the consumer.

His big difficulty lay in getting a farm of suitable size and location. His present farm is the third one he has bought. He sold each of the family out and they will all be gether once more.

A large compressed air pump nishes an abundance of water to dairy barn from a nearby spring. drain back of each row of stanchi makes daily flushing of the conc floor easy. Each cow has her i vidual drinking cup.

A cow is certainly sure of her ing there, unless she's a boarder, in that case she isn't there.

A farm plant gives all the elec light that is wanted. Riding by the early evening and seeing lights shining through the side dows, a passerby might take building for a church rather tha cow barn.

In his milk room are a cooler, c ing tank, bottle washer, bottling chine, separator, and other thi that go with an up-to-date busin The most attractive thing about milk room is the clean look and clean smell—two pretty good way telling when things are clean.

The most of his milk is bottled sold wholesale. He gets from seve eight cents above the usual price retails at twenty cents a quart.

Mr. Leasure is making a sidelin hogs and poultry and feels sati with the returns from them. He them when they are about six mo old.

He keeps strict account of the turns from his 250 White Legh

ens and found they netted him 35 in the month of February. That as the month when eggs were com- ig down in price. He feeds them ac- ording to directions from the uni- ersity. He's not skeptical about those niversity bulletins. He says farmers ught to read them and try them out.

Altogether, Mr. Leasure thinks the rmer's future looks at least a little etter than an undertaker's. He akes no claims to eminent success, ut if success can be measured by a ank account and the estimation of is friends and neighbors, then he as at least attained a measure of tisfaction.

He is past what is generally called ie middle age of life and feels that e can offer two valuable tips to ther farmers or to men in any oc- upation.

Each man should make his wife his artner. He says he never even buys cow without first consulting Mrs. easure. On the other hand, she ways consults him before making lans of any consequence. This has rought about a successful marriage s well as successful business.

The other bit of advice is found the Bible: "Beware lest thou for- et the Lord, which brought thee orth out of the land of Egypt." He aid further, "There is no success ithout faith in a Supreme Being. e all need more good, old fashioned eligion without so much sidetrack- ng."

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., May 9—At the cent meeting of the Executive Com- ittee of the American Dairy Fed- ration here, the matter of American articipation in the World Dairy ongress to be held in Great Britain June and July, 1928, was thor- ughly discussed. Sailing dates will e either May or before the middle f June, next year. The trip will ake four weeks or more.

There was a sharp upturn in the roduction of oleomargarine in the onth of March, according to the re- orts just now available from the ureau of Internal Revenue. This as to be expected, as illustrating ie result of butter prices on oleo- argarine consumption. The figures or the first three months of 1927 nd comparisons with the same peri- d in 1926, compiled by the National airy Union, are as follows:

	Colored	
	1926	1927
nuary	927,196	1,099,180
bruary	930,570	982,678
arch	1,088,016	1,193,730
	Uncolored	
	1926	1927
nuary	20,573,720	20,759,940
bruary	20,550,480	19,373,360
arch	20,179,520	26,040,196

With the end of the sessions of the arious state legislatures, most of hich have been meeting this year, ie information is reaching govern- ent officials concerned here of the ry general approval of the work tuberculosis eradication, and of neral legislative appropriations for rrying on this work in co-operation ith the Bureau of Animal Industry the U. S. Department of Agricul- re. Complete reports are not avail- le as yet, but with thirty states re- rted, appropriations of nearly sev- n million dollars are now made. The rgest appropriation reported is in ew York, where it is evident that a termined effort is to be made to lean up." Twelve of the thirty ates reported have made the me appropriation as last year; in all the others a materially larger amount is provided.

The problem of Farm Relief was forced into the deliberations of the annual convention of the United States Chamber of Commerce last week, in spite of the effort of the leaders in this big organization to hold this back until their own committee of business men studying the problems of agriculture could report. While the matter did not finally receive any vote or action, a resolution was adopted by the agricultural section of the Chamber, at their divisional luncheon meeting, reading as follows:

"Resolved, That American agriculture in common with industry and labor should be protected by the government in its domestic markets to an extent and degree comparable with the protection afforded by the government to labor and industry in other lines." This resolution was the subject of a long and, at times, somewhat heated discussion. John D. Miller of the Dairymen's League was on the program and gave strong endorsement to the co-operative marketing work of the dairy industry, without discussing the general matter of farm relief in any detail. The resolution was specifically endorsed by Louis J. Taber, Master of the National Grange; Charles A. Ewing and other representatives of midwest business organizations; and Former Assistant Secretary of Agriculture, Carl Vrooman.

Alfalfa Seed Must be Stained Orange-red

Secretary of Agriculture Jardine has lately announced his determination that alfalfa seed grown in South America is not adapted for agricultural use in New England, Middle Atlantic, and Middle Western and Western States but in certain of the Southern States it is believed that satisfactory crop yields may be expected. Accordingly, on and after July 2, 1927, alfalfa seed grown in South America will be permitted entry into the United States only if at least ten per cent of this seed is stained an orange-red color.

Uncle Ab says we are made by what we do today rather than by what we did yesterday, or intend to do tomorrow.



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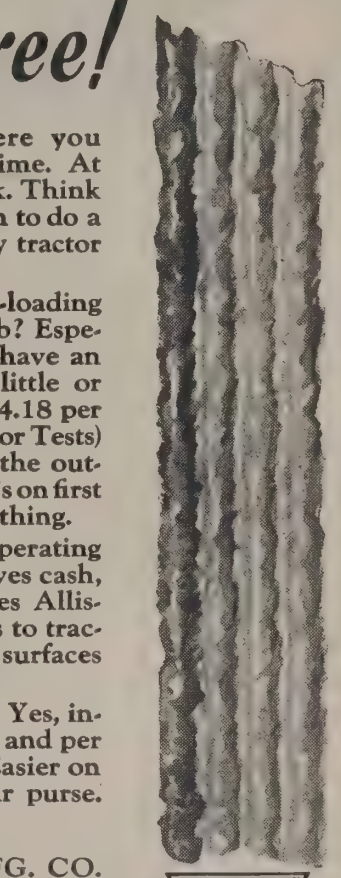
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Insures quieter, more comfortable operation with no danger of flying sparks.

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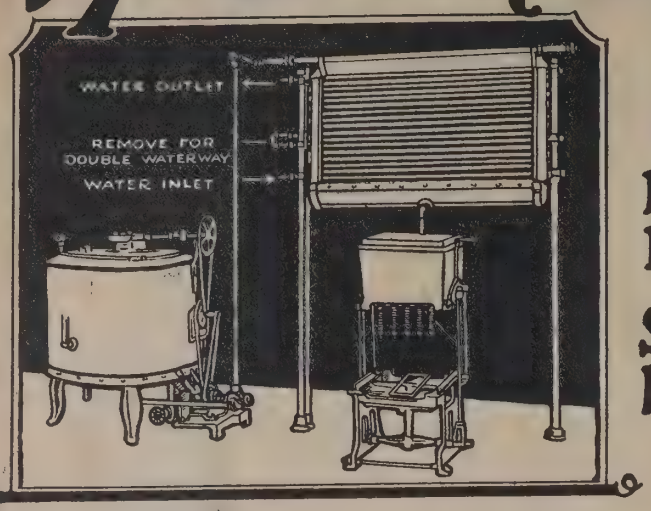
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Allen Multi-Vane Turbine Ventilator

AL-WUZ-ON EAR TAGS
With patented Rib Point and Double Bar Lock. They are superior to others. Cost no more. Attached in one operation. They are guaranteed.
WRITE FOR FREE SAMPLES.
Inter-Mtn. Machine & Stamp Works, Inc.
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A Vest Pocket Herd Book is a good investment

VICTOR DAIRY PASTEURIZER



for the FARM DAIRY *and* SMALLER PLANTS

REALIZING the need for a simple, efficient and economical milk pasteurizing outfit for smaller plants and farm dairies, *CP* offers the Victor, illustrated above.

The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

With a Victor Outfit the small dairyman can produce good, wholesome pasteurized milk just as cheaply and efficiently as the big city dealer. Pasteurization provides safe milk and will increase your business. The Victor is a business builder. Write for full information and prices.

THE CREAMERY PACKAGE MFG. COMPANY
(World's Largest Dairy Supply House)
1245 W. Washington Blvd. CHICAGO, ILLINOIS
Sales Branches in Principal Cities

Before you pay more

for a milking machine, send for FREE booklet No. 20 describing

Fords *Milker*

Electric or Gas Engine

There's no sense in paying more than Fords Milker prices to get absolute satisfaction, and every possible advantage in labor saving and easy milking.

Thousands of farmers who are saving money with Fords Milker are delighted. We have hundreds of letters saying: "My Fords Milker milks fast with practically no stripping; my cows like it; it is easy to operate and clean, and as good as any high-priced machine."

Materials are highest grade — heavy aluminum pails, New Departure ball bearings, patented valve construction, and special teat cups that suck exactly like a calf. Completely guaranteed.

Designed by men who have spent a lifetime in the business. Prices east of Rockies: Single unit, $90; Double Unit, $120. Also larger outfits. Electric models complete with motor. Gas engine outfits complete except engine.

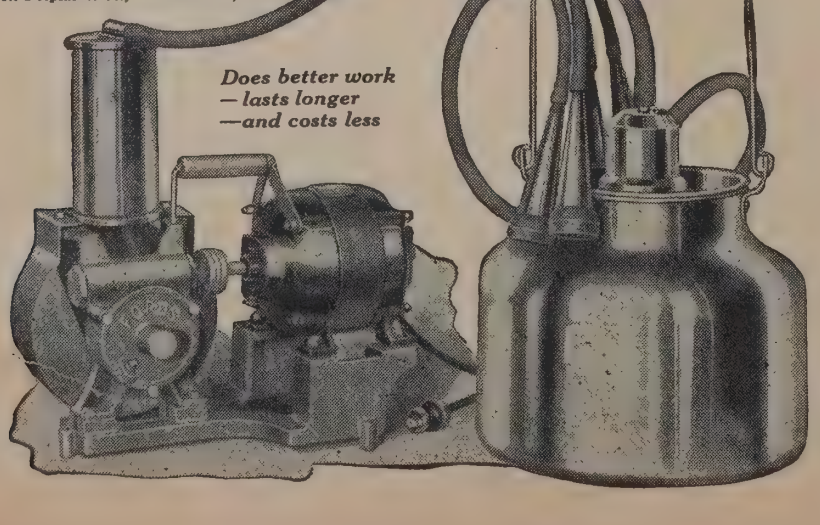
$90

Complete Ready for Milking

Distributors: Some attractive territory still open

Ask for booklet No. 20

MYERS-SHERMAN COMPANY
213-15 N. Desplaines St., CHICAGO, ILL.

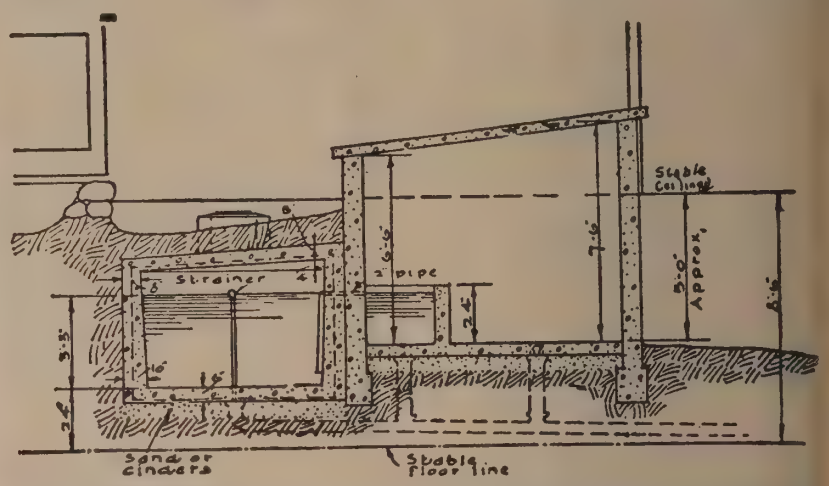


Does better work — lasts longer — and costs less

A Wisconsin Milk House

THE accompanying diagram illustrates the building of an economical milk house and stock tank to meet the needs of a Wisconsin dairy farmer. The building is a monolithic concrete construction, for which the contractor had the necessary forms.

The special problem here was the placing of the cooling tank in such position that its overflow would fill a stock tank that, in turn, would give head enough to fill water cups in the barn. This was accomplished by placing the milk house at one corner of the barn where the ground reached to the bottom of the stable windows.



This Wisconsin milk house is 10'x14' outside measure with concrete walls and shed roof. The side walls are reinforced with No. 9 wire fencing and the roof with ½" rods 12" on center crosswise and ⅜" rods 16" on center lengthwise. The cooling tank is 8' long by 2' wide with ⅜" rods for reinforcing spaced 12" on center each way. The storage tank is 6'x12'x3½' inside measure and holds 1800 gallons.

This gave a permissible depth of 3½ feet to the stock tank, the bottom of which was still slightly above the height of the water cups in the stable.

The water for the cooling tank is piped underground from the well and is so piped as to carry water into the bottom of the cooling tank. This gives a better circulation in the tank that insures cooler water throughout and that tends to aerate the water and automatically clean the tank.

The cooling tank has a plug in the bottom for cleaning out and the overflow runs direct to the 1,800-gallon stock tank. This latter tank also has an overflow and clean-out which extend to the same drain as the clean-out from the cooling tank and the drain in the milk house floor. The clean-out consists of a receptacle or pipe coupling set in the bottom of the tank and into which the two-inch overflow pipe is screwed. When desired to empty the tank, the overflow pipe is easily removed and reinserted when cleaning is completed.

The supply to the barn is taken from one end of the stock tank at a point one inch above the bottom. The stock tank also has a manhole with the usual cast iron cistern cover, so that the tank may be cleaned or repaired when necessary and still insure against danger of children falling through a defective wood cover.

As a protection against severe cold weather when the cooling tank may freeze, the water from the pump may be diverted directly to the stock tank. This is accomplished by piping the water from the pump into the barn from which it goes through the wall to separate pipe to both the cooling tank and the stock tank, either of which may be shut off with proper valves.

The bottom of the cooling tank would have been placed a foot below the milk house floor, except for the necessity of using the stock tank as a supply for the water buckets in the barn.

To provide against partially filled cans of cream tipping over in the cooling tank, pulleys are inserted in the ceiling so that a light rope with a weight at one end may be attached to the cans and keep them upright. Possibly a better system would be to have hinged rods at the top of the tank that would keep the cans submerged.

New Traffic Code

Automobile accidents in Minnesota should be materially reduced if all motorists and others using the streets and highways will carefully observe the new traffic code which went into effect when it was signed by the Governor recently. A number of safety rules which have long been observed by cautious motorists but disregarded by others, have been written into the law. Hereafter it will be unlawful to:

Stand in a roadway to solicit a ride, except from a public conveyance.

"Hitch" to motor vehicles with toboggans, sleds, or bicycles.

"Coast" cars down grade, with gears in neutral.

Jump on or into a vehicle without the owner's consent.

Board any public conveyance while in motion.

Display bathing beauties, campaign cards, or other posters on windshields or windows.

Use a muffler cut-out on any highway.

Operate a car without a wind shield wiper.

Make unnecessary noise, or operating a vehicle as to emit excessiv smoke.

Use siren, compression, or spark plug whistles on any except police o fire vehicles. Police and fire car must be equipped with a siren, bel or exhaust whistle.

Use red or green lights visibl from in front of any vehicle, excep police and fire vehicles.

Place cars with "For Sale" sign on streets or highways.

Use a bicycle at night without front light and a red or yellow re flector or light in the rear.

Like the old law, the new cod fixes no positive speed limits, bu places upon the driver the respons bility for operating his car with du regard for the safety and rights o others. It provides that he must nc operate his car at a greater spee than is reasonable and proper, wit due regard to the traffic, but make operation of a car above certai speeds prima facie evidence of reck less driving.—Minn. Highway News



Lead me to P. A. every time

I KNOW what I like in a smoke, and what I like is Prince Albert! Why, the minute breakfast is over, I reach for my pipe and the well-known tidy red tin, and we're off . . . off on one of the grandest smoke-joy-rides a man ever took. It's like that all day long.

You understand my enthusiasm the instant you open a tin of Prince Albert and drink-in that wonderful P. A. aroma. You're reminded of a trek through the woods, when the dew is on the leaves and the sun is on the up. Fragrant promise of a glorious taste to come.

Then you load up and light up. You notice that the smoke is equally fragrant . . . fragrant and refreshing. It pours over your tongue in a cooling torrent that knows no bite or sting. Mild, too, with a mildness that says: "Come and get it." I'm talking about P. A.!

I have tried to give you a snapshot of the joys that await you in a pipe packed with Prince Albert. If the picture isn't clear, blame *me*. The complete story is in the tidy red tin at the nearest tobacco-shop. The only way you'll really know P. A. is to *smoke* it.

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



PRINCE ALBERT

—no other tobacco is like it!

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

SHERWIN-WILLIAMS



There's a *joker* in the *cheap* paint can!

WHEN you are tempted by a "low price" and alluring promises to use "cheap" paint on your house—*STOP!* There's a joker in every can. It may *look* like paint. It may *smell* like paint. But before you buy remember this:

If the Sherwin-Williams Company with its years of experience—its skilled paint experts—its great laboratories—its enormous volume—cannot produce *high grade* house paint to sell at less than SWP prices—*no one in the world can do it.*

So whenever you see a "low price" on house paint you can decide that it is made of inferior or skimpy materials. And a *poor paint* is the most *costly* paint you can put on your house.

Let the "formula" prove it

There is one way to prove that a "low price" house paint is merely an inferior paint. Insist upon seeing the formula, either on the can or in the literature. Then compare it with the formula of fine old SWP which you will always find openly printed on every can. Note the big percentage of *White Lead Carbonate* and *White Lead Sulphate* used in SWP Outside Gloss White. White lead should be the *basic* ingredient of all white paint and light tints. It is to these paints exactly what flour is to bread.

See how much less of this basic ingredient is used in the average "cheap" white paint.



Zinc oxide, another costly pigment, is the next essential ingredient. A liberal percentage of zinc oxide combined with a large amount of white lead makes for a *balanced formula*—such as the formula of SWP Outside Gloss White House Paint. It assures a finish of superior wearing quality.

More than 90% of the pigment content of SWP Outside Gloss White is made up of these two important ingredients—white lead and zinc oxide.

In the majority of "cheap" white paints you

THE FINEST HOUSE PAINT THAT MONEY CAN BUY

HOUSE PAINT

will find only 50%, sometimes even *less*.

It is the liberal quantity of this expensive basic material in every can of SWP Outside Gloss White that gives this fine old paint its remarkable covering capacity.

In the darker colors like browns and greens, the "*balanced formula*" of SWP is even more important.

Naturally, these dark colors can contain little, if any, opaque white pigment such as white lead or zinc oxide.

Sherwin-Williams have the pick of the world's colors. Sherwin-Williams Dry Color Works produce practically everything except the natural earth and mineral colors.

That is why beautiful SWP colors are so rich, so permanent and so true to character.

Greater durability of the paint film on your house is assured by SWP due to the use of a specially treated, pure linseed oil—made in Sherwin-Williams' own linseed oil plant.

Why SWP *costs you less*

One evidence of quality in a house paint is the way it *hides the surface* and in the *area it covers*.

A gallon of fine old SWP will properly cover 360 square feet (two coats).

A gallon of "cheap" paint will cover *only 250 square feet* (two coats)—110 square feet (two coats) *less* than SWP House Paint.

That is one side of the joker in the "cheap" paint can.

Where only seven gallons of SWP will finish the average house, *eleven* gallons of "low price" paint are needed.

SWP costs more per gallon. But it covers *44 per cent more area*. So it costs no more than *cheap* paint by the job. Which would you rather use?



Prepared house paint—*at its best*

Being made of best quality materials, SWP dries to a tough, elastic, glossy finish.

There is no chipping, cracking or peeling. It weathers slowly. Lasts usually for five years.

When repainting *is* needed, you save paint, time and money *because the SWP surface is in proper condition.*

A "cheap" paint frequently chips, cracks, peels and fades in a year or so. It gives an inferior finish—and a much shorter life than good paint.

Repainting is more frequent and costs more for paint and labor because the old paint has to be burnt or scraped off.

That is the *other side* of the *joker* in the "cheap" paint can.



SWP *beauty!*

With fine old SWP you always get a beautiful paint job. Your house looks like new. The colors are especially rich—with a sheen like fine old pottery. And they are weather-fast—slow to fade.

Even after several years of exposure, a washing with plain soap and water will bring out their beauty almost like new.

Contrast this with cheap colors that look dull and wishy-washy almost in no time.

Which would you rather have—when SWP is guaranteed to cost less per job and much less per year?

See "Paint Headquarters" and save money

These are facts which every property owner has a right to know about house paint. They are attested by a concern whose standing we do not believe any man would question. The simplest way to prove them is to make the comparison suggested.

SWP House Paint is sold the world over. Each Sherwin-Williams dealer is "Paint Headquarters" in his vicinity. See the one near you. Before you let any low price blind your better judgment, get his advice. Compare formulas. Don't be fooled. If you want literature, color cards, help on a color scheme or the famous Household Painting Guide, write us.

SWP

Guaranty of Satisfaction

SWP House Paint, when thoroughly stirred and applied according to directions, is hereby guaranteed to cover more surface, to look better, to last longer and cost less per job and per year than any house paint on the market.

THE SHERWIN-WILLIAMS CO.
Largest Paint and Varnish Makers in the World
CLEVELAND, OHIO

COSTS LESS PER SQ. FOOT . . . LESS PER YEAR . . . LESS PER JOB

Woman's Greatest Hygienic Handicap

As Your Daughter's Doctor Views It



Because of the utter security this new way provides, it is widely urged by physicians—ABSOLUTE SECURITY, plus freedom forever from the embarrassing problem of disposal

A free test offered—mail the coupon

By ELLEN J. BUCKLAND, *Registered Nurse*

SIXTY per cent of many of the commoner ailments of women, according to some medical authorities, are due to the use of unsanitary, makeshift ways in meeting woman's most distressing hygienic problem.

For that reason, this new way is widely urged today. Especially in the important days of adolescence. On medical advice, thousands thus started first to employ it. Then found, besides, protection, security and peace-of-mind unknown before. Modern mothers thus advise their daughters—for health's sake and immaculacy.

You owe it to yourself, your daughter, to learn of this new way. A free sample will be sent you, in plain envelope, if you mail the coupon.

Mail Coupon for Free Sample

FREE Sample of KOTEX

KOTEX COMPANY, S.F.P.5-27
180 North Michigan Ave., Chicago, Ill.

You may send me sample of Kotex and book, "Personal Hygiene," in plain wrapper.

Name.....

Address.....

City.....State.....

Kotex—what it does

Unknown a few years ago, 8 in every 10 women in the better walks of life have discarded the insecure "sanitary pads" of yesterday and adopted Kotex.

Filled with Cellucotton wadding, the world's super-absorbent, Kotex absorbs 16 times its own weight in moisture. It is 5 times as absorbent as cotton.

It discards easily as tissue. No laundry—no embarrassment of disposal.

It also thoroughly deodorizes, and thus ends *all* fear of offending.

Only Kotex itself is "like" Kotex

See that you get the genuine Kotex. It is the *only* pad embodying the super-absorbent Cellucotton wadding. It is the *only* napkin made by this company. Only Kotex is "like" Kotex.

You can obtain Kotex at better drug and department stores everywhere, without hesitancy, simply by saying "Kotex." Comes in sanitary sealed packages of 12 in two sizes: the Regular and Kotex-Super.

Today mail the coupon for a full-sized sample of Kotex, *free*. Note the improvement, mental and physical, this new way brings. Important booklet on "Personal Hygiene" will be sent also, both in plain envelope. Send for *your* sample today.

"Ask for them by name"

KOTEX

PROTECTS—DEODORIZES

No laundry—discards as easily as a piece of tissue

Kotex Regular: 65c per dozen

Kotex-Super: 90c per dozen

(1) Disposed of as easily as tissue. No laundry.

Easy
Dispos
and 2 oth
important f



(2) True protection—5 ti
as absorbent as the o
nary cotton "pads."



(3) Obtain without emb
rassment, at any st
simply by saying "Kote



Shelter for Farm Machinery

H. B. WHITE, Minnesota College of Agriculture

THE need of shelter for farm machinery is greater as such equipment is made more com- on the farms and more compli- d in its construction. It takes but t abuse to ruin a watch or auto- ile while a harrow will stand con- rable misuse.

he implement shed for the aver- farm should be carefully located are at both sides so that the team can do all the moving of the implements, that is, the implements are brought in from one side and taken out of the other.

A shed for the average farm is shown in Fig. 2. It shelters the farm implements and auto as well as furnishing a farm shop which on many farms will be a good investment and

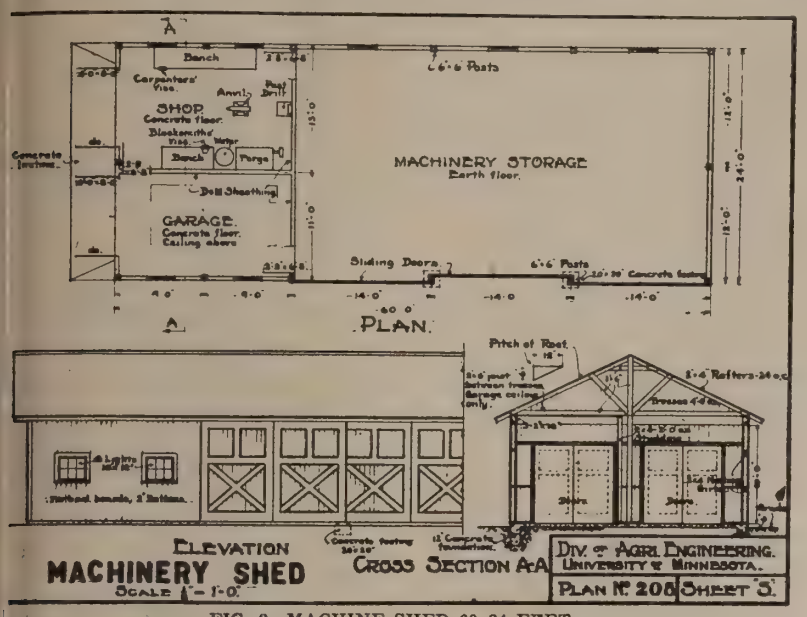


FIG. 2—MACHINE SHED 60x24 FEET

hat time will not be wasted in ng the equipment under shelter. his is not given careful thought mplements will be left exposed to action of the weather and damage stock rather than placed under er.

here are at least three types of ement sheds that may be con- ed by the average farmer and he ld make a careful study of his s to decide which will best meet methods of farming and care of ements. The first type of build- is usually nearly square and the unt of storage space is large in portion to the amount of wall e of the building. This type of ling is usually not very conveni for the removal of any particula ement.

he second type is very common he Middle West and is a long ling with stalls or bents where machine has its own particular and can be taken out and used returned with very little incon- ence. There are many variations he details of roofs, doors, etc. y are simple shed roof buildings nown in Fig. 1. Sometimes doors added later. In some cases it has most satisfactory where doors

enable the farmer to keep his boys interested in mechanical equipment and often result in the boys staying on the farm. The construction is shown on the plan. Posts and nailing girts are used and the boards

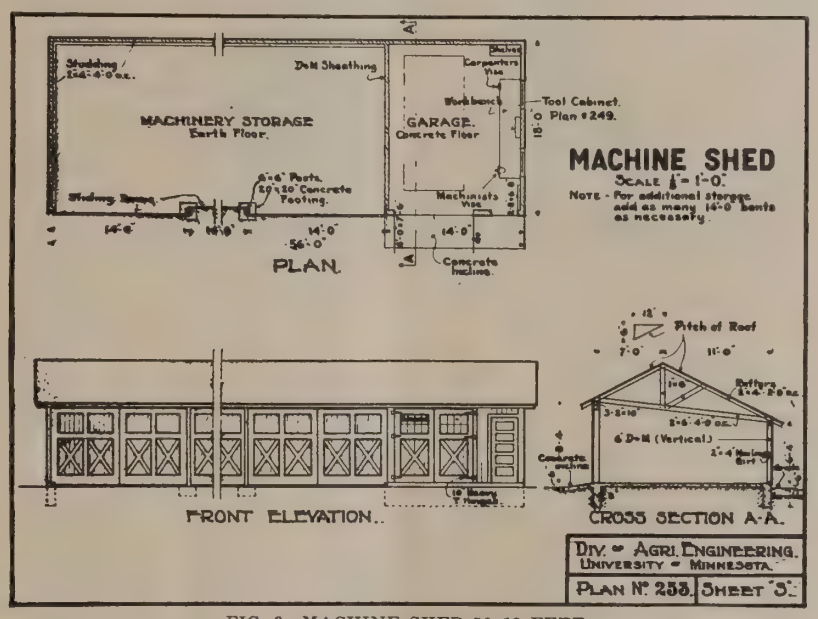


FIG. 3—MACHINE SHED 56x18 FEET

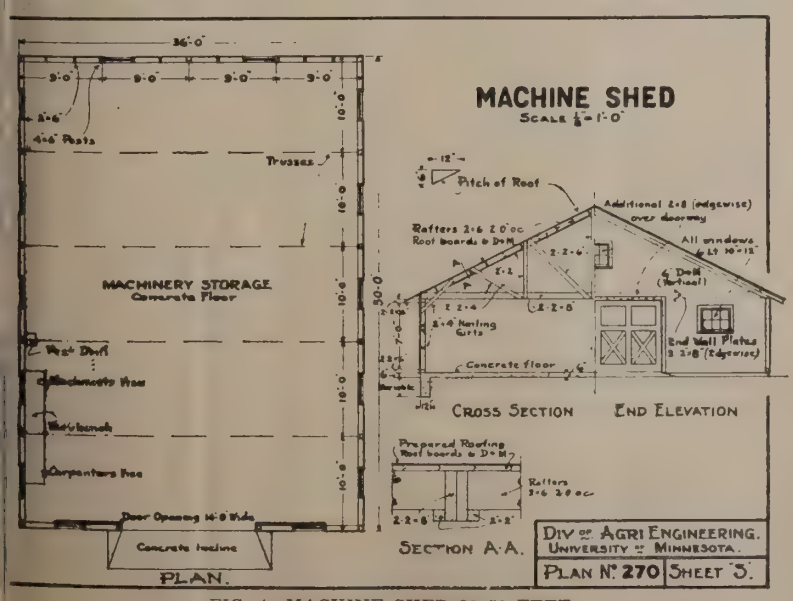


FIG. 4—MACHINE SHED 36x50 FEET



FIG. 1—SHED ROOF IMPLEMENT SHED

are vertical with battens on the cracks. The space for the auto and shop may be boarded up to protect them from dust. The space over the garage will probably be used for storage of small pieces of equipment, supplies, etc.

The building in Fig. 3 is 18x56 and although not so large or complete as the one shown in Fig. 2, it is found to be a very satisfactory addition to the buildings on the farm. The plan shows a concrete floor in the garage and shop. This will in many cases be omitted because of extra cost. It is of course desirable as much work is done in a farm shop if it is in a convenient location and equipped with the most frequently used tools for woodwork, iron work, etc. The plan shows the measurements necessary for erection of this building by the carpenter who is familiar with farm building construction.

A third type of implement shed, shown in Fig. 4, is not yet very common but if mechanical equipment is to increase in the future as in the last two decades, a building with doors at the middle of each end and a driveway lengthwise with a row of stalls for implements along each side will soon be seen on many of the larger farms. The space along the middle is very useful for vehicles, auto, etc., and is valuable for shelter in many emergencies. The concrete floor is necessary in this case so that the machine may be moved by hand.

The equipment for the farm should be considered carefully in deciding the size of implement shed. The following measurements will aid in determining the space necessary: Automobile, 7 x 14 feet of floor space; buggy, 5 x 10; binder, grain, 9 x 14; binder, corn, 6 x 12; corn cultivator, 5 x 8; corn planter, 6 x 6; disc harrow, 6 x 8; gang plow, 5 x 10; grain drill, 5 x 12; hay loader, 9 x 10; hay rake, 6 x 10; mower, 5 x 8; manure spreader 8 x 16; wagon, 7 x 12.

It is poor economy to slight the construction of implement sheds as only by a long period of use with small outlay for repairs will a building prove profitable and a source of pride and satisfaction.





Now *accuracy* replaces "makeshift measure"

The old-fashioned practice of judging values by the size of the package, bundle or measure is *costly*. Thousands of buyers and sellers have learned this: The only way to measure actual quantity is by *actual weight*. "Makeshift measure" must go.

It is only good business to weigh everything you buy and sell. Use a scale to check values given and received, the same as you count your change. Otherwise you lose in the end — often a big sum of money in a year.

Use a Fairbanks Scale — dependable for nearly a century. Due to big Fairbanks production, you can now put a Fairbanks Portable Scale on your farm at unbelievably low cost. See your dealer.

Mail coupon for special free booklet.

Fairbanks Scales

Preferred the World Over

free booklet

FAIRBANKS, MORSE & CO.,
900 S. Wabash Ave.,
Chicago.

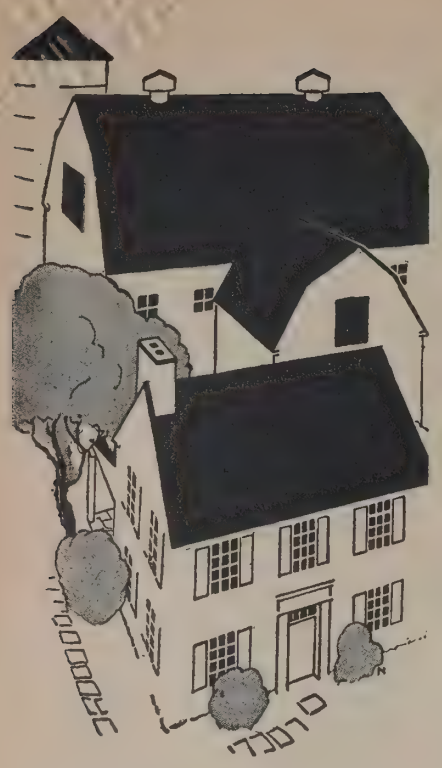
Without obligation, please send me free booklet, "Weighing for Profit."

Name .....

Address ..... R. F. D. .....

Town ..... State .....

ASA11 32



Quickly prepared for painting

—another Eagle economy

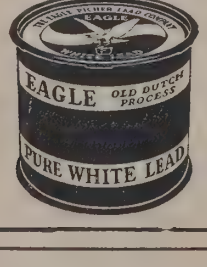
BY THIS new quick method of preparing Eagle Pure White Lead your painter can break up 100 pounds of Eagle to paint consistency in less than ten minutes — making Eagle Pure White Lead Paint the easiest paint to prepare for the brush.

Two factors make this economy possible — the unique design of the Eagle keg, and the smooth uniform consistency of Eagle White Lead.

The tough elasticity of Eagle, its great protective power, and now this new quick break-up —these advantages make Eagle Pure White Lead paint the choice of careful farmers everywhere.

Write today for free folder which describes this new Eagle time-saver. *The Eagle-Picher Lead Company, 134 North La Salle Street, Chicago.*

EAGLE
PURE
WHITE LEAD
OLD DUTCH PROCESS



We are always pleased to receive suggestions in regard to every department of Hoard's Dairyman.

DAIRY MARKET NEWS

Wisconsin April Condensery Prices

Forty-six condenseries reported to the Wisconsin Department of Markets the prices paid in April per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $2.01 to $2.50, the average being $2.15.

Nineteen factories sent delayed reports for March, the average being $2.25. This is four cents above the previously reported average of $2.21 for 47 factories.

April Cheese

Cheese prices on the Wisconsin Boards averaged 22.2 cents on single Daisies, a decline of a half cent from March but is still over three cents higher than April of last year. Production still continues nearly ten per cent under last year and total cheese stock are seven per cent less. With the exception of 1925, when the April price was a half cent higher, this is the highest April price by 1.5 to 6 cents that has occurred since 1920.

The first two weeks of May saw little change in cheese prices, there being a decline of two-tenths of a cent in the average. Prices now are at a slightly higher level than the last of April, and are nearly four cents above a year ago. Total storage of cheese on May 1 is three million pounds less than last year, but is nearly ten million greater than the five-year average.

Cheese production for the first three months of the year totaled 74,253,000 pounds, a decrease of nine million pounds from last year. Net imports were 17,148,000 pounds, an increase of nearly six million pounds. Storage stocks at the close of March were 47,807,000 pounds, a decrease of over three million pounds. This brings the total estimated trade output for these three months to 115,649,000 pounds, a decrease of 3.6 per cent in apparent consumption of cheese as compared with the same period last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during April:

	April 1927	March 1927	April 1926
	Cts.	Cts.	Cts.
Twins	21.7	22.2	17.9
Single Daisies	22.2	22.7	19.0
Longhorns	22.1	22.6	19.4
Square Prints	22.8	22.7	19.3
*Receipts since Jan. 1	56,175	40,374	56,212
*Receipts for month	15,801	14,170	14,526
*Storage end of month	9,202	10,629	15,448

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted.)

Sheffield's April Milk

The cash price for April, 1927, paid Sheffield Producers of New York for three per cent, Grade B milk in the 201—210-mile zone is $2.395 per hundred pounds, with the usual freight and butterfat differentials. This is equivalent to $2.595 for 3.5 milk.—C. W. HALLIDAY, Secretary.

Philadelphia Milk Prices

The Inter-State Milk Producers' Association announces that the May basic price for milk will be $3.29 f. o. b. Philadelphia and $2.71 per hundred at receiving stations in 51—60-mile zone.

The April surplus prices were $2.60 first surplus and $2.10 second surplus f. o. b. Philadelphia. The April surplus prices at all receiving stations on railroad were $2.03 first surplus and $1.62 second surplus.

These are based on milk testing 3 per cent butterfat with a differential of 2 cents for each half point of test up and down.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on May 1, figures being given in thousands of pounds (000 omitted):

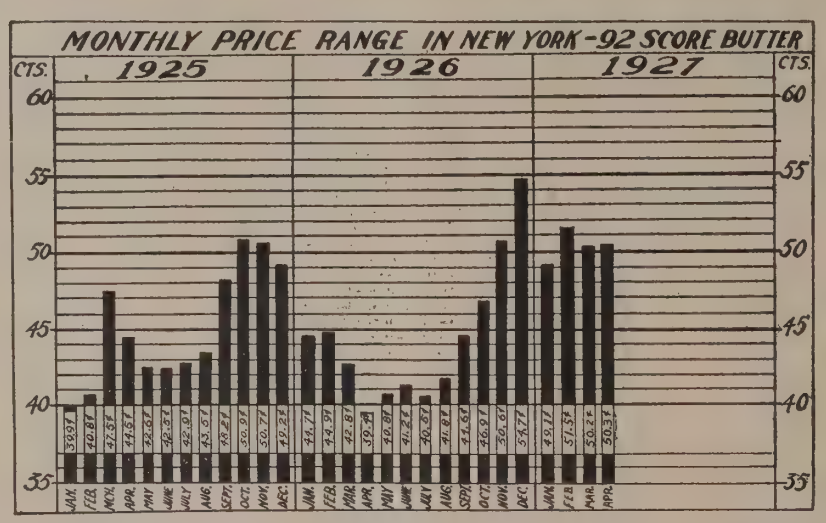
	May 1 5-yr.-av.	May 1 1926	May 1 1927
	Lbs.	Lbs.	Lbs.
Butter, Creamery	7,451	17,527	3,432
Cheese, American	22,578	35,597	32,491
Cheese, Swiss	4,388	5,310	5,577
Cheese, Brick	1,123	1,573	1,476
Cheese, Limburger	599	957	1,335
Cheese, All other	4,691	4,013	4,746

These holdings include stocks in both cold storage warehouses and packing house plants.

Wisconsin March Butter

Wisconsin co-operative creameries paid producers a net price of 55.7 cents a pound for butterfat in March according to reports from 90 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 49 cents a pound for butter, making a spread of 6.7 cents between the price received for butter and the price paid for fat.

The range in price paid for fat was from 50 to 59 cents, with the price received for butter ranging from 47.6 to 49.9 cents. The overrun ranged from 21.5 to 23.8 per cent. Receipts of butterfat averaged 28,616 pounds per creamery.



Monthly butter prices have consistently averaged several cents over the corresponding months of the preceding two years, with April at six to eleven cents above the same month the past two years.

April Butter

April butter averaged 50.3 cents in New York, the highest record since 1920. This is slightly above March and is 10.9 cents above April a year ago. The month has been characterized by a series of ups and downs, with a decided drop during the closing days that was continued into May.

Storage stocks are practically at the vanishing point, being about one-half of one day's railroad receipts. Current trading stocks are also low and production is lagging. Lighter receipts coupled with reduced stocks help to explain why the markets have been so sensitive. A slight change in the receipts of a single day has been sufficient to bear or bull the market several cents in a few hours. It is probable that the high prices prevailing have been a controlling factor in making buyers cautious in fear that consumption will decrease. Imports have also been a factor, the total for the first four months of the year will exceed 1926 by approximately two million pounds. The first two weeks in May held fairly steady at the prices prevailing the last few days in April, the average for the period being 44.2 cents at New York. This is a decline of six cents from the April average, and is ascribed to increased production over the previous periods. Some reports, particularly from the Southwest, show increased production over last year, but the Land O' Lakes reports indicate a decrease. The prices are now some four cents above the same period last year.

Total holdings of cold storage butter on May 1 were nearly three and a half million pounds, which is less than half the five-year average and one-fifth the storage last year.

Creamery butter production for the first three months of the year was 296,837,000 pounds, an increase of over three million pounds greater than a year ago. Net imports were 2,646,000 pounds, an increase of nearly two million pounds. Storage holdings w 3,033,000 pounds at the close of March, over fourteen millions pounds less than year ago. This brings the estimated total put for these three months to 436,418 pounds, a decrease of four-tenths of one cent in apparent consumption of butter f that of the same period last year.

Daily quotations from the U. S. Dep ment of Agriculture show the following a age wholesale prices on 92-score butter tras) at four of the principal markets, tog er with receipts and storages:

	April 1927	March 1927	A 19
	Cts.	Cts.	C
Chicago	48.1	49.4	
New York	50.3	50.2	
Boston	51.1	51.0	
Philadelphia	51.3	51.1	
*Receipts for month	46,777	44,108	43
*Receipts since Jan. 1	165,110	118,333	166
*Storage (end of month)	960	1,363	8

*In thousands of pounds at the four m kets (i. e.—000 omitted.)

Ninety-score butter averaged 47.0 cents April in Chicago, with centralized butter this market selling for 47.8 cents. Jobb prices on extras sold to retailers averaged cents in Chicago, a spread of 2.5 cents a wholesale.

April Foreign Butter

The following table of foreign butter pr gives the average of weekly quotations as lished by the U. S. Department of Agricult

Market	April 1927	March 1927	A 19
	Cts.	Cts.	C
New York	50.3	50.2	3
Chicago	48.1	49.4	3
Copenhagen	35.6	36.7	3
Berlin	36.4	37.2	3
London:			
Danish	38.3	39.3	3
Dutch*	37.7	38.9	3
New Zealand	33.2	33.7	3
Australian	33.0	33.0	3
Argentine*	33.5	32.2	3

*Unsalted.

April is the sixth month in which the m gin of price between Copenhagen and York has been greater than the tariff o cents. Importations into the United State high grade butter, principally from New land, have continued well into April, the cl upon rather steady importations since November coming only with the seasonal cline in domestic prices.

Feed Market Situation

(By The Grain, Hay and Feed Market N Service U. S. Department of Agriculture.

With a continued brisk demand for scanty offerings of feed of all kinds, toge with advancing prices for feed grains, qu tions for feedstuffs have averaged higher ing the past two weeks although the peal bran and linseed meal prices seems to passed. Demand in general has become smaller volume as the pasture season has tended northward but dealers' stocks been depleted and there is still an urgent mand in the Northeast for feed on hand o nearby positions. Pasturage, however, is veloping rapidly and the average condition pastures on May 1 was 87.0 per cent normal compared with 74.6 a year ago 82.6 for the average of the past ten years this date.

Bran has become slightly easier at the p ent writing (May 10) but middlings rece scored a sharp advance in the Northw Higher prices for wheat have made it ea for mills to get shipping instructions on which was contracted some time back and has helped to increase the production of w feeds slightly.

Linseed meal has turned slightly easier a slack demand for the limited output. were offering more liberally at Buffalo though quotations at that market were changed and prices declined around 50c Chicago and Minneapolis.

Alfalfa meal shared to a slight extent in firmness of other feeds and prices were vanced about 50c a ton at Kansas City the medium grades. Top grades were wa at Chicago but off grades were slow sale that market.

	Buffalo	Philadelphia	Cincinnati	Chicago	Minneapolis	
Bran*	32.00	35.75		31.25	28.00	
43% C. S. meal	41.50	42.75	37.50	39.00	38.00	3
34% L. S. meal	47.00		51.00	49.00	47.50	5
Gluten feed	35.50	35.60	33.00		33.30	
Hominy	34.50	34.50	31.50	30.50		2

*Standing spring bran. Hard winter w bran was $35 in Buffalo and $28 in Ka City, with soft winter wheat bran $34.5 Cincinnati.

First Emmadine Sale Averages $656

The first event of this year's an-ıal Guernsey week was the Emma-ne sale. Since this institution has ·en widely heralded in both farm and ty press as the first endowed breed-g institution, many were on hand ·ay 9 determined to nod or wink ·equently at Auctioneer George ain, should competition make it ·cessary. By parading the Fore-osts and other headliners the day ·evious to a considerable audience, ·anager Dodge started the ball roll-·g in an excellent manner. The ilking herd and battery of herd res, namely Langwater Foremost, horewood Resolute, Mixter May oyal, and Langwater Valor—whose ombined purchase price approxi-ates $60,000—were also studied ırefully. The stability of Emma-ne is quickly grasped by those who ıunter about the various barns ·rutinizing the integral parts of this ·eat breeding institution.

This was the first Emmadine sale—ıe curtain raiser for a long and in-·resting series of annual events. At ·actly twelve thirty, Manager Dodge ·epped to the box and made a few ·planatory remarks. He was fol-·wed by Robert Scoville, President, ıd Karl Musser, Secretary, of the merican Guernsey Cattle Club; ouis Merryman; and Auctioneer ain. Forty-three Guernseys passed ırough the ring during the next ıree and one-half hours. Their final estinations will find them in eleven ·attered states.

The animals bringing $500 and ver and their purchasers are:

. Schaaf, New York	
Cosquay Frances	$550
Beechwood Lady Isabelle	775
reidablik Farm, Delaware	
Foremost's Aurice	$1,050
. F. Herrick, Massachusetts	
Foremost's Dibby	$725
Conqueror's Golden Beauty	700
eorge White, New York	
Foremost's Adrian	$700
'm. Nelson Pelouse, Wisconsin	
Foremost's Celeste	$1,025
Ma Chere Midday	500
r. Eleanor A. Campbell, New Hampshire	
Foremost's Josephine of High Point	$575
Atamannsit Pilgrim's Adrienne	500
oward Heinz, Pennsylvania	
Foremost's E. Dora	$900
Foremost's E. Dahlia	500
Tillmere Farms, New Jersey	
Foremost's Rear Admiral	$750
. Chatham, North Carolina	
Foremost's Gay Lad	$3,300
orge Hill Farm, New York	
May Royal's Bell Buoy	$1,000
age E. Tarbell, New York	
May Royal's Holliston	$925
. W. Dayton, Minnesota	
Wedgmere Favorite	$2,100
May Royal's Dulcette	576
. F. Andrus, New York	
Maxim's Golden Bella	$675
. E. Andrus, Jr., Minnesota	
Maxim's Josephine	$575
Valor's Bertha	800
. J. Flint, Rhode Island	
Freckles of Rockingham	$550
hos. H. Munro, New York	
Elnora Vesta's Queen	$625
ohn Clark, New York	
May Royal's Dimple	$1,000
'm. B. Ward, New York	
Imp. Risbecq of Vimiera II	$650

At the Emmadine Ringside

Nine Foremosts, mostly young, rought $9,525, an average of $1,059.

Bain's one and only joke: "Nigger, hat would you do if you received a etter from the K. K. K.?"

"Boss, I'd read that theah lettah n de train."

We hope Mr. Penney will get an ven break on the weather next year. steady downpour chose sale day o help the fields of the farm do their it this year.

Top female was Wedgmere Favor-e, a daughter of Langwater Stead-fast. She brought $2,100 and went to G. W. Dayton, Minneapolis.

Five Resolutes averaged $325.

Seven Mixter May Royals averaged $665.

Two Valors averaged $550.

T. Chatham, North Carolina, bought the top price male. The price was $3,300 for Foremost's Gay Lad.

The 43 head brought $28,200, an average of $656.

Does Sour Cream Test More

Professor E. H. Farrington of the Wisconsin College of Agriculture discusses this question in a bulletin recently issued by the college.

He reports that a series of very exhaustive tests show that despite some belief to the contrary, cream will test no more when sour than when sweet. In every trial which he made the tests of cream were identical when it was sweet and when it was kept until very sour, except in those cases where the cream was kept in an open can and some of the moisture allowed to evaporate.

He explains that the difference between the tests of sour and sweet cream largely results from the difficulty of securing an accurate sample of the entire amount of sour cream. Sour cream is not only more difficult to mix so as to take a fair sample, but it is also possible that in taking some sour cream samples, small lumps of butterfat may be added to the test bottle. This, of course, would increase the test of that particular sample of cream.

The Farmer's Poultry House

(Continued from page 555)

hopper and feed bin built on the wall for each pen. Stands are made for the drinking pans and small vessels are made to hold the grit and oyster shell. The hoppers to contain the grit, shell, and dry mash are self-feeders. Dropping boards are made thirty inches from the floor. The roosts are made of two by two material and are placed ten inches above the dropping boards. Fourteen inches below the dropping boards a shelf is made. Between this shelf and the dropping boards the trap nests are placed. All equipment is made movable for ease in cleaning.

In this style of house fresh air enters by filtering through the cotton and, as it becomes warm in the house, it rises through the slatted ceiling carrying with it moisture given off by the birds. The straw in the loft acts as an absorbent for the moisture, and the air entering the loft through the doors in the gables keeps the straw dry. By this system fresh air enters the house without creating a draft. Sunlight passes through the glass and cotton, providing an abundance of light and keeping the pens cheerful.

Ventilation, But No Drafts

The construction of the house in general should be draft proof so no air can enter save through the cotton. The cotton used should not be of such heavy quality as to keep air from passing readily through it. The cotton should also be kept reasonably free from dust so the pores in the cloth will not become clogged.

While the dimensions of the house described are sixteen by thirty-two feet, the tendency at the present time is to favor the deeper house. By adding to the width it is possible to have the birds roosting farther from the cotton during the night. It is during the night the greatest trouble is encountered with frost bitten combs. At the Experimental Farm at Brandon, houses of the type described and shown in the illustrations have been used for several years with entire satisfaction. There have been few cases of frost bitten combs and pullets lay even during the coldest weather.

Bill of Material

The following is a list of material required to erect the poultry house described above:

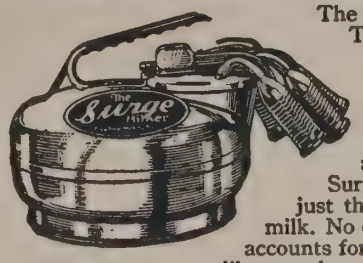
19 2x4 studs 7 feet long (rear wall)
4 2x4 plates 16 feet long
4 2x4 studs 8 feet long (end walls)
4 2x4 studs 9 feet long (end walls)
4 2x4 studs 10 feet long (end walls)
4 2x4 studs 12 feet long (end walls)
13 2x4 studs 7 feet long (front wall)
4 2x4 pieces 12 feet long (front wall)
6 2x4 pieces 16 feet long (front wall)
4 2x6 window sills 16 ft. long (front wall)
34 2x4 rafters 10 feet long
34 2x4 ceiling joists 16 feet long
4 2x4 pieces for partitions
70 pieces 1x6 drop siding 16 feet long
680 feet of roofing board
18 pieces 1x10 shiplap lining 16 feet long
18 pieces 1x10 shiplap lining 12 feet long
4 pieces 1x10 shiplap for partitions
4 pieces 1x6 shiplap lining 16 feet long
78 pieces 1x3 ceiling slats 16 feet long
6,000 shingles
2 pieces 1x5 finish 14 feet long
2 pieces 1x4 finish 14 feet long
4 pieces 1x4 finish 12 feet long
8 pieces 1x5 finish 12 feet long
4 pieces 1x5 finish 18 feet long
20 pieces 1x3 finish 12 feet long
4 pieces 1x6 finish 18 feet long
7 pieces 1x6 (T & G) 12 feet long for doors
10 windows 3 light 10x18
2 windows 12 light 10x12
10 yards cotton 36 inches wide
64 lineal feet 2x2 roosts
64 lineal feet poultry netting, one-inch mesh, 30 inches wide
30 bags cement

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2 and like the calf—TUGS harder and harder as the cow milks out—
3 and like the calf—gives EACH cow just the TUG she needs!

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Name.....

Address.....*State*.....

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Looking at Life With Wholesome Vision

"Suppose that this here vessel,"
Said the skipper with a groan,
"Should lose her bearings, run away,
And jump upon a stone.
Suppose she'd shiver and go down,
And save ourselves we couldn't."
The mate replies,
"Oh, blow me eyes,
Suppose again she shouldn't."

Are you like the skipper, one of these what-if-something-should-happen persons? If you are not, you are extremely lucky for I really believe that enough energy is spent every year worrying about things that never happen to set the world going in fine shape if we could only turn the energy into its proper form.

A letter from a friend this morning quoted something which I think is fine and inspiring. This friend (I call her that though I have never seen her) is one of our readers in Nebraska who has recently gone through a severe illness. During that time she read a book and she feels that if there had been no more in it than this one sentence she would have been repaid for the reading. The sentence is, "We cannot always help what happens to us, but we can help the way we take it." It reminds me of a relative of ours, a perfectly splendid woman but one who made herself miserable worrying for fear her husband would die; she said she could bear anything else but that one thing would kill her. It happened that her husband really did die and a month later I saw her. I expected her to be in a dreadful state and was amazed to find her calm, with a certain philosophic serenity about her that I had never seen before.

"It's terrible," she said. "I cannot tell you how lonely I am without him but I have found out one thing. Nothing, even this, is as bad as we think it is going to be when we sit and worry about it. There is always something that can be done about it and, in my case, I'm finding it in work."

The little book, Byways to Health, about which we were talking in a previous issue, contains some valuable things on the subject of worry which may help you through some problems. I shall again omit quotation marks.

Needless worry never averted a calamity, softened an adversity, nor allayed a sorrow. It encourages unhealthy thoughts, magnifies things of dread, and apprehends danger. Worry injures the nervous system and lowers resistance against infection and disease.

The cause for worry may be a just one and when this is true facing the situation often helps to soften the blow. Marching along bravely with an unpleasant truth takes courage but a calm, direct study of the reality sometimes brings the power to change it, or at least to improve the situation. If the cause for worry cannot be changed, it would seem that the quickest way to gain peace is to refuse to think about it, so far as is humanly possible. Deliberately try to keep it out of your thoughts by substituting for it wholesome thoughts and activities.

Sunshine and fresh air have a wonderful healing, soothing power. When the cause for worry comes to mind indoors and you cannot get out into the sunshine, repeat over and over a favorite poem, passage, or prayer. Make yourself smile; think of anything beautiful that will help exclude the shadow. Taking an interest in good, honest work is a wonderful help.

Sufficient sleep, adequate food, proper elimination, a fair amount of exercise in the open air, reasonably regular hours, and the desire to stop worrying help one to regain a right attitude of mind. Suppose, as is most often the case, that there is a solution to the worry. Trying to find it at the earliest possible minute will help remove it all the more quickly. Face it squarely, ask advice if there is need for it. The answer may not be found right away but you are more apt to find happiness trying to solve the problem than by sitting down bemoaning fate and doing nothing.

The habit of fretting can grow until it is almost impossible to do an efficient day's work or to find happiness anywhere. This may be so to such a degree that it is advisable to see a physician. The cure then lies in following his advice.

Making the best of things which cannot be helped is a high trait of leadership; it helps to smooth rough places and to ease little discomforts. The habit of cheerfulness can become a part of daily living. "Sit up cheerfully, look around cheerfully, and act as if cheerfulness were already there," is the advice of a famous philosopher for acquiring a cheerful state of mind. The habit of cheerfulness can be cultivated not in the attitude of a reformer, but in the wholesome spirit of one who recognizes that there are certain obligations to those with whom we associate daily.

Cheerfulness and happiness have a wholesome effect on the nerves, muscles, heart, and lungs but cheerfulness and happiness alone cannot relieve a condition due to eye strain, diseased teeth, or tonsils; these need medical care.

A wholesome sense of humor has been the salvation of many a man and woman in the daily round of tasks and even deliberately forcing oneself to smile will check the tendency to knit the brows and tighten the muscles. To be able to relax must be learned sometimes but once learned, its benefits manifest themselves in fresh force and energy, in renewed courage and cheerfulness. To lie down completely relaxed for a short time each day is a most desirable form of rest and one which averts many illnesses. If it did no more than rest the heart, it is well worth while and if sleep should come, it is the ideal rest period.

"The two great sins of our modern life," says a well known physician, "are our bad habits of eating and our increasing tendency to live on our nerves." Within certain limits any one may determine the kind of nervous system he will have. He may control worry, he may avoid fears, and he may surmount an irascible temper or moody disposition by constantly seeking for controlled expression, cheerfulness in life, and help for the needs of others. To quote the famous Mrs. Wiggs of the Cabbage Patch, "We can't none of us help what traits we start out in life with, but we can help what we end up with."—LUCY THOMPSON.

Spring Cleaning

"Yes, clean yer house, an' clean yer shed,
An' clean yer barn in ev'ry part;
But brush the cobwebs from yer head
An' sweep the snowbanks from your heart.
Yes, when spring cleanin' comes aroun'
Bring forth the duster an' the broom,
But rake yer foggy notions down,
An' sweep yer dusty soul of gloom."

It never had occurred to me until I saw that little poem that there is something soul-purifying about the spring clean-up but now I know that there is. I do feel more warmly toward my neighbors and toward the world, I believe, when, after the last bit of trash has been hauled away and the last shine has been put on floors and windows in the house, I creep wearily into a bed that has been washed and sunned and aired until it is steeped in such perfume as only sun and fresh air can give.

Practically all cities now have their annual spring cleaning and beginning in April, say, or even earlier in the warmer places the daily papers carry notices to the effect that the cleaners will begin work in a certain ward on a certain day. Then what a bustling takes place in that ward! Lawns are raked, tin cans are collected, ashes are shoveled out—all the rubbish and leavings of winter are taken out and dumped along the edge of the street where the clean-up men will see them. All this is taken away and disposed of free of charge because the city officers realize the value of the work. It increases the health of the people and it stirs their ambitions.

So it is on the farm. One day the mother decides to clean out a cupboard. It looks so fine that she decides to wash the windows and presently the infection has spread in every direction. Out fly the children with rakes to clean up the front yard. Father catches the disease and thinks he had better lop off the old dead limbs around the house. The team is hitched to the wagon and off go several loads of trash to fill in the washed-out place in the lower forty. Everything burnable is saved for a big celebration bonfire with the neighbors driving over some evening after early supper and I'll guarantee that there are a few things the children will remember longer than those glorious bonfires with their spooky shadows dancing around and their parents warning them every minute to "watch out! Keep away from the fire."

Then mother decides next day that everything looks too grand for "just the home folks" and she'll have the Ladies' Aid in. The enthusiasm spreads from that all over the community—every ladies' aider goes home determined not to be outdone in spring cleaning by the Joneses and the first thing you know the city banker drives past and says to himself, "These fellows must be pretty prosperous around here—fences all up, places clean, houses spick and span. If they ever need a loan I guess I could afford to take a chance on them." (Only of course I hope you'll never need a loan.)

Just plain cleanliness is awfully

(Continued on next page)

Miscellaneous Fashions



No. 2922—For the Smart Matron. Cuts sizes 18 years, 36, 38, 40, 42, 44, and 46 inch bust measure. Size 36 requires 3⅝ yards 40-inch material with ⅝ yard of 32-inch co trasting.

No. 2908—Youthful Model. Cuts in si 36, 38, 40, 42, 44, and 46 inches bust mea ure. Size 36 requires 3½ yards of 40-in material with ⅝ yard of 27-inch contrastir

No. 2806—Long Waisted Dress. Cuts sizes 16, 18 years, 36, 38, 40, 42, and 44 inch bust measure. Size 36 requires 3½ yards 36-inch material.

No. 3024—Youthful Interpretation. Cuts sizes 14, 16, and 18 years, 36, 38, and inches bust measure. Size 36 requires 4 yards of 40-inch material.

No. 3040—Junior Sports Dress. Cuts sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1⅝ yards of 40-inch material with yard of 32-inch contrasting.

No. 2312—Attractive Apron. Cuts in si 36, 40, 44, and 48 inches bust measure. Si 36 requires 2⅝ yards of 36-inch material.

No. 2959—Bloomer Dress. Cuts in si 2, 4, 6, and 8 years. Size 4 requires 2⅜ yar of 36-inch material with ⅜ yard of 18-in contrasting and 2 yards of binding.

How to Order Patterns

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Our patterns are made especially for us the leading fashion designers of New Yo City. No stock of patterns is carried in o office and, since all orders are forwarded the factory, kindly allow a reasonable ti for delivery of any pattern you order.

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Mrs. Hayes: "George, wake up
Hayes: "I can't."
"Why can't you?"
"I ain't asleep."—The Progressi Grocer.



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Demand the Genuine—Look for the name "Coleman" stamped on each mantle. Protected by U. S. Patent. Price only 10¢ each. Buy them by the box (1 dozen $1)—at your dealer's.

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(2534)



When buying mention Hoard's Dairyman to ur merchant or dealer—it helps us!

worth while. If you can afford to throw away a few old things and get some new ones, so much the better but if you can't, the spring clean-up will give a newer look even to the old things.—LUCY THOMPSON.

Ginghams for Summer

Don't forget ginghams when you are searching your brain for something to make your own or your daughter's bedroom pretty this summer. It launders beautifully and you can get it in such a lively variety of colors that it makes one feel gay just to go shopping around for it.

I have always preferred the checked gingham and only a few days ago I saw a lovely room done in good-sized blue and white checks with a speck of black here and there that suited me exactly. You'll want to use your own ideas, of course, but I think you'll be sure to like the gingham as window drapes, bedspread, and chair covering. If the easy chair of the room is still in good condition you can use just a gingham cushion for the seat and pad for the back; if not, a coat of paint, bright red, soft green, yellow, or blue plus the cushions will fix it nicely. Or, you could make a cover that would go completely over it, cutting the pieces to fit each part carefully and finishing it off with a little pleated skirt-like frill around the bottom. The same sort of frill around almost any kind of table or box makes an attractive dressing table when you hang a mirror over it.

It's always a temptation to put a little fixing on everything but a bright colored decoration—such as gingham is—can very quickly be overdone and it is better to select a piece with no design, or only a small one, if you intend to use much of it. Other uses of gingham that would enable you to carry out a color scheme in your room are slip covers for dresses on hangers, window seat cushions, and protectors for the ends of comforters and blankets.—LUCY THOMPSON.

Spring Fever

If modern science had done nothing else, it would almost have justified its existence by having given the death stroke to "spring remedies." Thanks to science, we know now that spring fever is nothing more than a natural call of the body for a change of scene and no disease that calls for a concoction like sassafras tea or sulphur and molasses for its cure. When the warm, langourous days come, what we want more than anything else is to get out into the air and sunshine. I'll admit that when most of us get there all we want to do is "jest set" but why not when we have been cooped indoors so long?

Most of us eat a heavy diet all winter and when Nature changes into spring and we no longer need to generate so much heat, the best spring tonic we can take is the reduction of our diet to something that includes plenty of fresh vegetables and fruits.

Just about the time the sassafras bark began to appear in the drug store windows, my mother used to take a big basket and a knife and start out scouring the sunnier slopes for dandelion greens. These mixed with what we used to call "lamb's quarter" made as fine a dish as any spinach ever did and how we throve on it! It is one justification for the dandelion pest that it does furnish such a good spring tonic.

More vegetables and fruit in the diet and a little time taken off for idling and day dreaming in the sun will nearly always put the sticky tonic bottles to flight and make spring something to remember with pleasure rather than for its disagreeable dosing.—LUCY THOMPSON.

The Single Dish Meal

Housewives who grow tired of preparing several dishes for a meal are finding that a variation, not only in kitchen but for the family, comes from preparing one-dish meals which in themselves contain a properly balanced diet, according to Miss Marjorie L. Foster, nutrition specialist of the National Dairy Council's New England unit.

"From all countries of the world come delectable combinations which experience has proven satisfactory," says Miss Foster. "For such a dish try a Norwegian salad, cool and refreshing with eggs, red cabbage, celery, a pepper for piquancy, dates stuffed with cream cheese as a garnish. The glass of milk, graham bread, and butter complete the main part of the meal. The possibilities of the sandwich are legion—for when served cold or toasted and piping hot it can so easily contain the vegetable or fruit combinations, with the glass of milk or cup of chocolate as a good accompaniment.

"During winter days, a truly delightful dish—Italian spaghetti with tomatoes and cheese and other combinations too many for detail; the scalloped and cream dishes with meat, fish, vegetables, or eggs, garnished by sprigs of parsley, watercress, or lettuce leaves, or a hot cream soup with vegetables and a bay leaf if you will, are those which will appeal to every food-educated family."

Miss Foster refers to a recent comment by Dr. E. V. McCollum, world-wide authority on nutrition, who says, "The safest guide to satisfactory nutrition, as to other matters relating to human welfare, is experience." Miss Foster adds that many women of her acquaintance, especially in the food demonstrations in Boston, from their own experience can make highly appetizing one-dish meals by not only referring to their favorite cook book, but working up their own combinations.

"So, to all with large and active families, to those who would use more time for rest, creative work, bridge, or golf, or to the tired business women who prefer to plan and prepare some of the easier meals complete in themselves, we introduce that aid to a good disposition—the satisfactory one-dish meal. Make sure that you add to every meal the three protective foods—fruits, vegetables, and milk in some form—and you will always be safe in making your simple meals nourishing and adequate, while they are prepared with a minimum of time and energy."

Nut and Cheese Relish

¼ pound cream cheese
1 teaspoon chopped parsley
2 tablespoons whipped cream
Salt and red pepper
1 cup chopped nut meats

Mix with the cream the cheese, nuts, parsley, and seasonings. Roll into balls, serve cold. Garnish with parsley and chopped nuts.—Household Nutrition.

"Don't mumble your prayers, Helen. I can't hear a word you say."

"I wasn't speaking to you, mother!"—London Punch.

Kill All Flies! THEY SPREAD DISEASE
Placed anywhere, DAISY FLY KILLER attracts and kills all flies. Neat, clean, ornamental, convenient and cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed. Insist upon



DAISY FLY KILLER
from your dealer.
HAROLD SOMERS Brooklyn N. Y.

The *Salt* you feed



means better-producing animals if the salt is right

FROM the standpoint of efficiency, if nothing else, it is well that you consider the salt you feed your cattle. For cows that are fed with the right salt yield a greater return.

Stockraisers and farmers whose livelihood depends in a large measure upon efficient, productive animals, find that Diamond Crystal Salt is ideal for feeding. It helps to assure sleek, well-conditioned cattle, horses, sheep and hogs, which in turn means better producers.

Furthermore, you will experience no difficulty feeding Diamond Crystal to your stock. They take to it naturally because of its mild, pleasant taste.

There is a Diamond Crystal Salt for every farm use—for livestock, for table and for cooking, for canning, for curing meats, for butter and cheese-making. Ask for Diamond Crystal at the store where you trade.

"The Salt that's all Salt."

Diamond Crystal Salt



Free!

We should like to send you a generous sample of Diamond Crystal Shaker Salt and the interesting booklet, "101 Uses for Diamond Crystal Salt," without cost or obligation to you.

DIAMOND CRYSTAL SALT CO.,
Dept. 1175, St. Clair, Michigan
Please send me, free, trial package and booklet, "101 Uses for Diamond Crystal Salt."
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*Town*_____
*R. F. D.*_____ *State*_____

Regulation of Rates and Railway Service

Railway rates are subject to government regulation, while prices of most commodities are fixed by supply and demand.

Persons in an increasing number of industries are disposed to ask for regulation of rates especially to help them. Some who travel much seek abolition of the passenger "surcharge" for extra service in sleeping and parlor cars. Members of the miners' union have petitioned for lower rates on union than non-union coal to offset the difference in prices caused by the higher wages paid in union mines.

The price of grapes, having been depressed by a great increase in their production, the growers, in some territories, are, for this reason, seeking reductions in grape rates. It has been claimed that reductions in rates on other farm products should be made because of low prices.

Rates should be regulated in accordance with the rights and needs of both the railways and their patrons. Rates as a whole must be sufficient to enable the railways to earn a fair return, or they will become unable to render their present good service. Rates as a whole will not be sufficient if, for many kinds of service, they are made unremunerative because of price conditions for which the railways are in no way responsible.

Average railway rates in this country are the lowest in the world. If rates on particular commodities, or for long hauls, seem high, it is because the cost and value of the service rendered for them are high. Rates fixed regardless of the cost of transportation would cause a deterioration of service that would be disastrous to all railway patrons.

WESTERN RAILWAYS' COMMITTEE ON PUBLIC RELATIONS

740 Transportation Building, Chicago, Illinois

For healthier, happier bulls!
For safer, surer breeding!

SAVES
— *Lives*
— *Labor*
— *Fences*
— *Potency*

Dr. SPENCER'S BULL TAMER

Success in thousand dairies. No harsh feature; eat, drink, pasture and breed just the same. First all purpose control. 30 days' approval. Let us send you all facts.

SPENCER BROTHERS, Inc., Savona, N.Y.

Strictly high grade milk wagons, built upon honor and fully guaranteed. Ask for free catalog showing styles for every requirement. Suitable terms and liberal cash discounts. Pioneers in milk wagon building with sanitary bottled milk equipment.

DEKALB WAGON COMPANY

P. O. Box E DEKALB, ILL.

A Vest Pocket Herd Book is a good investment

Hot Water and Steam for the Dairy

(Continued from page 553)

connected up with a barrel or tank in the same manner that the water back in a range is connected with the hot water tank and water system in the city home.

Types of Heaters

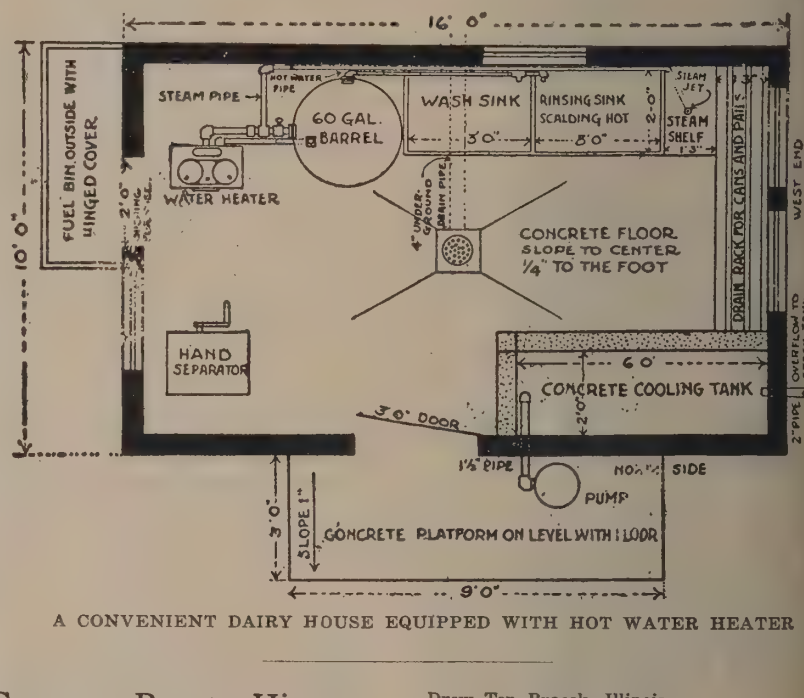
In our tests and demonstrations we have used both the coil heater and the jacketed heater. The coil heater heats a given amount of water a little more quickly than the jacketed type, but where a considerable quantity is to be heated, the latter is somewhat more economical in the use of fuel, as there is far less loss of heat through the walls of the heater.

Our tests and demonstrations show that either type of heater, when properly connected, furnishes plenty of steam for steaming the cans, pails, etc., in a small dairy, in addition to an abundance of hot water. However, if a large amount of steam is needed for sterilizing a large number of cans, bottles, etc., a steam feed cooker or a small upright boiler should installed.

The Dairy House

A convenient dairy house helps take the drudgery out of dairyin It need not be expensive or elabora but should be conveniently arrange well lighted, and sanitary. Amp provision should be made for plen of pure water, both hot and cold.

Note the arrangement the acco panying plan has for washing, rin ing, and steaming and sunning t utensils, and how they are work around in the most convenient ma ner from the wash sink to the dra rack in the successive steps in the proper cleaning. The cooling ta and drain rack are near the outsi door, making it convenient to load t cream into the wagon or truck and remove the cans and pails at milkin time. The drain rack should be on level with the steaming shelf a should be located so as to receive much direct sunlight as possible. T cooling tank should be on the nor side of the house.



A CONVENIENT DAIRY HOUSE EQUIPPED WITH HOT WATER HEATER

Sawyer—Brant—Hinman Guernsey Sale

The Guernsey sale held at Fond du Lac, Wis., April 28, under the management of Charles L. Hill & Son, included a consignment of 20 bulls from Brant Rancho, California, the complete herd of E. P. Sawyer, and consignments from the herds of A. H. Hinman, J. Heft & Son, and L. W. Mills. A total of 66 head was offered. The crowd was good but the bidding was slow and the prices but fair. The entire lot brought an average of $182; the 20 California bulls averaged $228; the 27 head owned by Sawyer brought $4,770; and those consigned by Hinman, Heft, and Mills an average of $141.

Just two animals went to $600, a cow from the Sawyer herd and one of the Brant bulls. The latter, a 16-month-old double grandson of Brookmead's White Face out of the class leader, Clarabelle of the Rancho, was purchased by W. L. Cowan & Son and N. J. Moon, Jr., of Wisconsin, for $610. Drew Ten Broeck of Illinois took the top cow, Florence of Waldwic, a typy 3-year-old granddaughter of Langwater Royal 4th for $600.

Benjamin & Pohlman did the selling.

Following is a list of the animals selling for $175 or more and buyers:

Wm. Basse, Wisconsin	
Royal of Maple Hill	$350
Geo. McKerrow & Sons Co., Wisconsin	
Pergue's Charmante	$230
Drew Ten Broeck, Illinois	
Florence of Waldwic	$60
Albert Marken, Wisconsin	
Gertie of Waldwic	$20
E. H. Fahrney, Wisconsin	
Faith of Waldwic	$20
Fancy Girl of Waldwic	30
N. J. Moon, Jr., Wisconsin	
Dimple of Waldwic	$20
Derby Oil Company, Kansas	
Ogawawa Martin 3d	$20
F. J. Rueping, Wisconsin	
Yvonne Martin of Goldenrod Meadows	$20
Richard Klemm, Wisconsin	
Corium Dreamy Eyes Catherine	$23
Anton O. Berge, Wisconsin	
Royal Leader of the Rancho	$27
W. L. Cowan & Son, N. J. Moon, Jr., Wisconsin	
Clarabelle's Royal of the Rancho	$61
Fred Burhop, Wisconsin	
Beauty's White Face of The Rancho	$18
Dr. J. M. Evans, Indiana	
Mixter Fireman of The Rancho	$22
Fred Sy, Wisconsin	
Musetta's Royal of The Rancho	$30
R. B. Webb, Minnesota	
Ula's Royal of The Rancho	22
H. H. & W. C. Bergen, Wisconsin	
Jennie of The Rancho's Admiral	$21
Armie Voigt, Wisconsin	
Melissa's Royal of The Rancho	$21
S. & E. Trevethan, Wisconsin	
Mellie Dale's Freedom of The Rancho	$17
F. F. Thielke & Son, Wisconsin	
Juanita May's Coronation	$21
R. E. Collier, Wisconsin	
King's Beauty of The Rancho	$19
Krause & Tinkham, Wisconsin	
Sunkist's Coronation of The Rancho	$18
Selsing Bros. & Martin, Selsing & J. B. Johnson, Wisconsin	
Betty 2D's Royal of The Rancho	$26
H. R. Talverson, Wisconsin	
Valentine's Royal of The Rancho	$20
O. E. Stoeffer, Illinois	
Ruby Rose King of The Rancho	$19
Albert Huss, Wisconsin	
Helen's Roseboy of The Rancho	$25
C. W. Greenfield, Illinois	
Red Rose's Stockdale of The Rancho	$22

The Signal of the Silo

(Continued from page 552)

eriment station in regard to most table type of silo for the local con- ons.

here are instances where it will be ter and cheaper for the farmer to struct his own silo, but in the l established dairy sections the e is past for cheap construction temporary buildings. The log in, the small frame house, and the type of barn all have their time their place, but the era has come, s coming, in the prosperous dairy munities when we must have e regard for asthetics and the nities of life on the farm. Make- t buildings do not satisfy. We ld provide for permanency and dings that beautify our farm- ds. This applies to the silo, as it to the farm home, the barn, and farmstead as a whole.

Cost of Filling Silos

he yield of silage per acre will be ut one ton for each five bushels. other words, it is generally esti- ed that an acre of corn that will luce 40 bushels of corn per acre yield about 8 tons of silage. A venient method of estimating the ie of silage is to compare it with on the basis of three tons of si- being equal in feeding value to ton of hay. If hay in the mow is th $15 a ton, silage in the silo ld be valued at $5.00 a ton.

vestigations recently made on 282 cal Wisconsin farms showed the of filling silos ranged from $1.02 4.50 per ton, the average cost be- $2.06 per ton. Approximately one- th of the farms had costs greater $2.50 per ton, while an equal ber averaged less than $1.75 per The factors most directly re- sible for this variation in costs the silo and machinery costs and relation to the size of the silo the length of time the machinery sed.

ie following table gives the aver- cost of filling silos on these 282 s in Southeast Wisconsin:

	Cost per ton	% of total costs
depreciation and repairs	$0.22	10.6
e, depreciation and repairs	.17	8.2
cutter, depreciation and re- rs	.18	8.8
binder	0.10	4.9
ns	.01	.5
labor, 1.83 hours at 3.17 cents	.58	28.1
labor, 2.57 hours at 13.6 cents	.35	17.0
at 12 cents per pound	.07	3.4
	.07	3.4
st on silo and equipment	.31	15.1
al cost per ton	$2.06	100.0

1 80-ton silo in this Wisconsin ey was filled at a cost of $1.54 on. A 16-inch cutter driven by a rse power steam engine was . Ten acres of corn were used, the haul averaged 90 rods. The consisted of 13 men. One man three horses cut the 10 acres of in 14 hours. Eight men and ns hauled corn for seven hours and no extra pitchers were used. men operated the engine and r and two others tramped silage. ok six hours to fill the silo. There an average per ton of 1.05 hours an labor and 1.94 hours of horse . A 150-ton silo was filled from res by a crew of eleven men at a of $1.18 per ton. Two less teams used for hauling than in the ous case, the other division of being the same. A 14-inch cut- nd a gas engine were used. The ge per ton was 1.06 hours of labor and 1.68 hours of horse

Minnesota investigation showed following costs of growing an acre of corn for silage: Sixteen hours of man labor and 35 hours of horse labor, which at costs given in the above table would total $8.83. To this may be added $5.00 for land rental, $2.20 for machinery costs, and $1.50 for sundry expense. This would make a total of $17.53 per acre prior to harvest, or $1.75 per ton if the yield is 10 tons per acre. This, added to the filling cost of $2.06 per ton, makes the total cost of silage in the silo $3.81 per ton. Silage is a cheap feed as well as an indispensable feed.

The Machinery to Use

Having decided to build and having built the silo, the next question of importance to consider is the machinery with which to fill it. We are already provided with the corn harvester, but unless there is a silo filler and engine in the neighborhood, we will have to buy one.

The present tendency is away from the larger outfit, and possibly the most economical method, for the man with 20 to 30 cows or less is to join with three or four neighbors in the purchase of the necessary equipment and in exchanging work at silo filling time.

A number of satisfactory silage cutters are on the market. The chief features to be considered in a cutter are that it is strongly made and will cut fine. The Wisconsin Agricultural Experiment Station advises against the use of sizes larger than the 16-inch fly wheel and the 18 to 20-inch cylinder types, because they are seldom operated to capacity and are wasteful of power. Ordinarily it is better to compare capacity by the total throat area when the machine is wide open and by the number of cuts per minute. The total throat area is the height of the roller lift multiplied by the width of the throat at its narrowest point. The engine should have sufficient power to operate the cutter and blower to capacity.

A new method of silo filling has recently come into use. It consists of a combined corn binder and silage cutter. The cut corn is elevated into a wagon box drawn alongside the cutter in the field. This is then hauled to the silo and pushed off into a blower which elevates it into the silo. The first cost of the machine is greater, but this is largely offset by the saving in man labor.

Write the manufacturers of these supplies who advertise, give them the number of silos to be filled and their size, ask them as to their recommendations as to the best outfit to meet your particular need, and then make a decision giving due regard to quality as well as to price.

Southwest Wisconsin Guernsey Sale

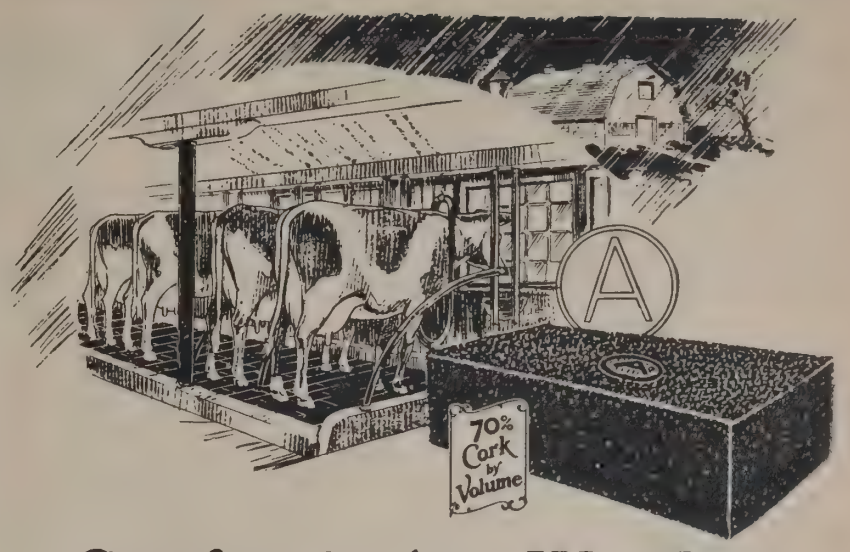
Guernsey breeders of Southwestern Wisconsin held a successful consignment sale at Livingston, Wis., May 4. The cattle were good and buyers from Illinois, Iowa, and Wisconsin were willing to pay very fair prices for them.

Forty grade cows and heifers 2 to 11 years old (2 were 11-year-old cows) brought $6,115, an average of $152.85. Four of the grades went for $200 or more; one to $207.50. Three of these tops as well as three others went to W. C. Turner, Wisconsin.

The 36 registered Guernseys averaged $183.75, 9 bulls averaged $201, and 27 females averaged $178.

Thompson and Bishop did the selling and Chas. Wilkins managed the sale.

Averages for females of the various ages are as follows: Eleven females under 2 years averaged $155; 2 two-year-olds, $134; 3 three-year-olds, $168; 11 cows 4 years or over, $211.



Comfort in Any Weather

IN Spring's uncertain weather, one of our best safeguards against the disorders that result from chill and dampness is a stall floor of Circle A Cork Brick.

Seventy percent cork (by volume) makes Circle A Cork Brick a warm, comfortable floor. Cork is an insulator and keeps out the ground chill. It is resilient and makes a floor that is easy on the feet and joints. And it is a nonslippery material that saves many a dangerous fall and strain.

In the small barn or the big one, it is good business to protect your investment in cows with warm, dry, comfortable floors of Circle A Cork Brick.

Write for a sample brick and descriptive book, "Circle A Cork Brick." ARMSTRONG CORK & INSULATION COMPANY, (*Division of Armstrong Cork Company*), 112 Twenty-fourth Street, Pittsburgh, Pa.

Circle A Cork Brick Floors

For Dairy Barns and Hog Houses

Ayrshire Breeders' Association to Meet

The fifty-second annual meeting of the Ayrshire Breeders' Association will be held June 8 at Hotel Kimball, Springfield, Mass. In addition to the election of officers and the regular business session, an automobile trip to Alta Crest Farms of Arthur H. Sagendorf, Spencer, Mass., is planned for the afternoon.

The evening session will be given over to a banquet at the Kimball Hotel in Springfield.

On the day following the annual meeting, a sale of 60 head of choice cattle will be held on the grounds of the Eastern States Exposition at Springfield under the management of the Ayrshire Cattle Breeders' Association of New England, with Walter E. Brigham in charge.—Ayrshire Breeders' Association.

Milk Consumption Increases

Continued increase in the per capita consumption of milk and cream in the United States during the past year is reported by the Bureau of Agricultural Economics of the United States Department of Agriculture, which places per capita consumption at 55.3 gallons for 1926, against 54.75 gallons in 1925, and 43 gallons in 1920.

The figures are based upon a survey of 373 cities having a total population of about 39,000,000 people, supplemented by reports from many of the large milk distributors and from co-operative milk producers associations. Each of these sources reported increased consumption, although a few firms reported a slight decrease.



Total consumption of milk and cream for last year is placed at 56,417,000,000 pounds, against 54,325,776,000 pounds in 1925. Practically all the large cities in the country show increased per capita consumption of milk and cream, the large dealers reporting an increase in sales of about 8.5 per cent over sales in 1925.

The report shows the daily per capita consumption of milk and cream on farms was 1.47 pints last year, and in cities the consumption was .967 pint per capita. Daily per capita consumption of milk and cream in cities in 1925 was .951 pint.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

The Origin, History, and Use of the 4-H Club Emblem



O. H. BENSON

WHILE principal of schools in Goldfield, Iowa, in 1904, I stopped one morning at the post office and secured my copy of the Register Leader, a daily paper published at Des Moines, Iowa. Up-



O. H. BENSON

Mr. Benson, now director of the department of rural scouting, Boy Scouts of America, was one of the founders of 4-H Club Work. While county superintendent in Wright County, Iowa, he organized clubs in the rural schools, holding annual exhibits. In 1906 he devised the clover emblem for his clubs. Later this was adopted as the national 4-H Club emblem.

on its front page I read—"Cecil Rhodes, the Diamond King, Dead." I read the article and the very interesting story of the life of this great diamond king and the report of his last will and testament, and how he had provided for a scholarship fund of $4,500 to be awarded to college students—one for each state and nation, the award to be made on a 4-point basis of educational, fellowship, physical, and moral development—every applicant to compete with other aspirants for the award on the following score card; first, pass an examination of intelligence based upon school and college requirements covering high school and regular college work; second, pass a physical examination, based upon his daily training in health and physical fitness; third, pass the tests and requirements in character building and moral fitness to represent his state; and, fourth, pass a competitive test for "good fellowship" with faculty and student body. In other words, he must have definite qualities of co-operation—"give and take"—and must show citizenship strength as a result of his educational advantage.

4-H Idea and the Diamond King

These pronouncements of educational fitness inspired me to read the Register Leader article to the high school students at our regular morning exercises with comment about as follows:

"Young people, my only regret this morning is that I can not, because of age and post graduate standing, qualify for this Cecil Rhodes scholarship and since I can not win it, I am anxious that some boy in our Goldfield high school win it and this chance to spend three years at Oxford University, England, and be a part of this great school of international good will and brotherhood."

Then I looked over the student body and noticed a boy, William Ziegler, by name, leaning forward with apparent interest in the challenge. Raising my hand and pointing in the direction of "Bill" Ziegler, I shook a finger of challenge at him and said, "Bill, why not you? I'll dare you to start now and go after this coveted prize on this 4-point basis, will you?" He nodded assent, spent three years in high school, then four years in college and was the outstanding candidate and winner of the Cecil Rhodes scholarship following his graduation. In my work in the schools ever afterwards, I endeavored to plan more definitely than ever before all my educational programs on the 4-point or 4-H basis and I believe, because of this, was able to be of far more service to youth, school, and the community than if I had confined my efforts to the 3 R's or purely academic program of education.

Educational Survey—Wright County

While County Superintendent of Schools of Wright County, Iowa, I became greatly interested in President Roosevelt's Country Life Commission and its work. I read with great interest the magazine, farm journal, and press reports of this Commission. The questions continually asked at that time were:

1. Why the decadent country life?
2. Why are farm young people so keen about leaving the farm for city jobs?
3. Why is tenant farming increasing so rapidly all over the nation?
4. What will be the inevitable outcome if present tendencies persist?



AGRICULTURAL PROJECTS IN A WRIGHT COUNTY, IOWA, RURAL SCHOOL, 1908

Mr. Benson was one of the first to develop project work in the teaching of agriculture in rural schools. This picture was taken some 19 years ago of a Wright County, Iowa, rural class in agriculture, their teacher, and exhibits of booklets, sewing, rope work, bird houses, etc.

The above questions were to m live issues, and revealed condit with which I was familiar.

I resolved to make a careful vey of conditions in Wright Co and its schools, to ascertain thro teachers and students the real f bearing upon these questions.

Investigations, made by way of dent surveys, revealed the follo startling facts:

1. Ninety-one cent of the f boys said they going to leave farm, and g many interes reasons for th decision.

2. Eighty-se per cent of the g stated they w have nothing to with the farm rural home wh they became wor

3. Eighty-six cent of all fa youth questio stated that t were more or ashamed of th farm connecti and of their f er's business a they felt that success in life me for them some city job, profession contact.

4. Nothing was being done schools, parents, or public to dign farming and to sell to farm yo the best things of rural life. On contrary, teachers, preachers, p ents, politicians, and editors seemed possessed with the idea advertising the hardships, long hou



THE BIRTHPLACE OF THE 4-H CLUB EMBLEM

During recess on a bright June morning 21 years ago, while the eleven pupils of this Iowa country school were out in a sunlit clover field hunting 4-leaf clovers, Mr. Benson, the county superintendent, drove up. At the teacher's suggestion they made a bouquet of their seven 4-leaf clovers and gave it to him. "The teacher rang the bell and the pupils took their seats," recalls Mr. Benson. "I followed, bearing with me the handful of good luck. Just before closing for the noon hour the teacher asked me if I didn't have a message for the school. Holding my bouquet up before them I told them I had been looking for an emblem for the agricultural clubs and the schools of the county and they had given it to me. So out of the hearts, hands, and needs of these farm children was born this significant 4-H emblem which bears so effectively for old and young the message of a 4-square education."

l profits, and "hayseed" ideas of
ı life.
ıe above conditions indicating a
ıite need of a better functioning
ur schools and backed by my own
ı in country life and farming led
ıe definite planning of programs
activities both in and out of
ol to remedy these conditions.
ediately, with the co-operation
whole-hearted support of teach-
and board of supervisors, I be-
the following activities:
rst: I developed a system of cor-
ion in which through booklet
, exhibits, and subject matter
nes, I showed the teacher how to
late every subject of the class-
ı with the work of farm and
. Instead of asking the chil-
to write about things in distant
s and subjects of which they
nothing, they were led to ex-
by way of adventure, contest,
and schoolroom inspiration all
interesting things of farm ani-
, crops, and soil.
cond: In order to link properly
life with school life, 4-H Clubs
organized, based upon the stu-
s interest in the farm project or
prise. Boys became members of
clubs, corn clubs, pig clubs,
ry clubs, and garden clubs, and
irls joined clubs that had to do
poultry raising, gardening, can-
bread baking, and millinery.
e organizing these clubs and
ng them up with the schools and
life, I was in quest of a suita-
membership badge and achieve-
emblem to be used in the work.
t continually thinking about the
Rhodes four-point standard of
ation and at the same time about
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ird: We introduced into every
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economics by way of classroom
extbook work and correlated the
ook work in the subjects with
agricultural club work through-
he county.
urth: We conducted rural com-
ty and township picnics, autumn
, short courses, play festivals,
n general a greater brotherhood
community spirit amongst the
e.
ese above four educational ef-
were definitely planned and exe-
l with a view to meeting the
ational needs of the county and
s all handled by the county su-
tendent and his assistants before
ay of county agent, club leader,
ome demonstration agent.

e Four-leaf Clover Bouquet

ile driving through the county
hool supervision work in June,
I came to a country school dur-
the morning recess period. I
l the school teacher and her
of eleven children out in a clo-
ield hunting for 4-leaf clovers.
I approached them both teacher
pupils started out to meet me
ng with them their good luck
ms. The teacher turned to the
en and said, "We have found
ood luck clovers. What do you
Let's give our county super-
dent a bouquet of good luck."
this invitation, they all surren-
their 4-leaf clovers and placed
into my hands—seven perfect
clovers.
e teacher rang the school bell
the pupils took their seats. I
ved into the school room bearing
me the handful of good luck.
before closing the half-day ses-
for the noon-day period, the
er asked me if I did not have a
ge for the school. With my
luck bouquet in one hand, watch
e other, I took my position in
of the children.
this little speech I outlined for the first time the 4-H emblem and its good luck story. I told them I had been looking for an emblem for the agricultural clubs and the schools of the county and that they had given it to me.

So out of the hearts, hands, and needs of these farm children was born this significant 4-H emblem which bears, so effectively, for old and young, the message of a 4-square education.

Designing the Emblems

On the following morning in the office of the county superintendent of schools, three emblems were sketched or designed. One was the three-leaf clover with an H on each leaf, symbolical of the trinity of powers in education, the equal training of the head, heart, and hand. This was to be the membership badge for every boy and girl member of the Wright County Agricultural and Homemaking Clubs.

The second design made was of the 4-leaf clover upon which were printed the 4-H's. This emblem was to be awarded to every boy and girl who finished their year's work and it was to be the emblem of good luck, the insignia of real achievement.

No one could wear this good luck emblem who had not entered the game and finished the year's club work as outlined.

The third emblem designed was the 5-point star with an H on each point. This was awarded to the club member who made the highest record of the entire school community. The 5th H stands for "hustle," the thing, of course, a member must do to win.

Those who labored with the schools of the county and some of the noted visitors will doubtless remember seeing the 4-H club emblem drawn in design on school exhibits, used on our county school letterheads and worked out in various ways on our many industrial exhibits. Club banners, pennants, and medallions also had the 4-H club imprint upon them.

[To be concluded]

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

The May 10th issue is our building number—the farm home, the dairy barn, ventilation, the dairy farmstead, tools, and their care, are some of the topics discussed.

What should be done before building? Investigate other buildings in the neighborhood and study various bulletins and circulars on the building project. Build on paper first. (See page 506.)

Where should the farm house be located? It should be given the most important part of the farmstead. It is desirable that it be high enough so that there can be drainage from the basement. The farmstead as a whole should be given careful consideration so that there will be suitable space for buildings that may be erected later.

Why should a good barn have a substantial foundation? Because if it is skimped and carelessly put in the walls will settle and crack. Usually two to two and a half feet is sufficiently deep. It should never be placed upon loose or refilled ground. (See page 496.)

What materials are used for foundations below the ground? Concrete and stone. A good mixture for concrete is 1:2½:5, meaning one part Portland cement, two and one-half parts sand, and five parts broken stone or coarse gravel.

What are the requirements for a barn wall? That it be so constructed as to be warm and durable, conserve the stable heat and keep out the cold. For best results the walls should be insulated.

How much window space should be provided? Sunlight is a powerful disinfectant. Provide not less than four square feet of glass for each full grown animal and make the windows as long as practical up and down.

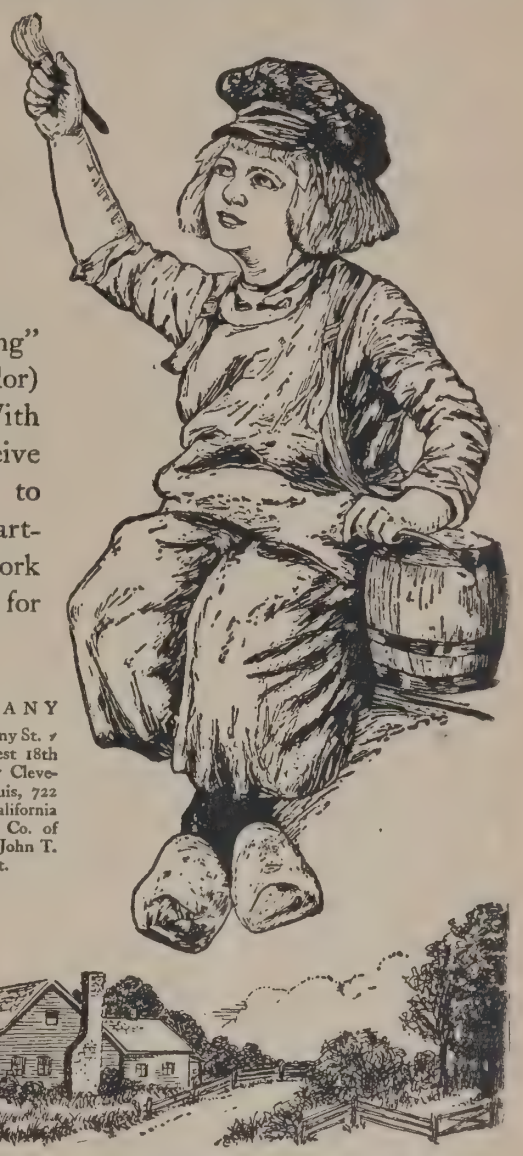
What does good ventilation do? It provides pure, fresh air which is necessary for the health and comfort of the cows; it removes foul air; it keeps the stable dry preventing rust, rot, and mold; it provides a measure of disease control. (See page 497.)

What is the King system of ventilation? The principle of ventilation as outlined by Professor King at the University of Wisconsin. The fresh air comes in at the ceiling and the foul air is removed at the floor. The modified King system retains the intakes at the ceiling and removes the foul air from the ceiling the same as does the Rutherford system used largely in Canada.

Should late winter calves be pastured? No, successful dairymen do not put them on pasture at all the first summer. They continue them on grain, hay, and skimmilk, giving them an opportunity for exercise and direct sunshine in a yard near the barn. (See page 514.)

Beauty comes to your house with paint. Beauty *stays* with lead paint made of Dutch Boy white-lead.

WHAT to do and how to do it? These questions puzzle many house-owners when the time comes to redecorate the home, either inside or out. For the answer to such questions, send for the "Handbook on Painting" and the booklet (in color) "Decorating the Home." With the booklets you will receive a decorators' data form to use if you want our Department of Decoration to work up a special color scheme for your particular house.

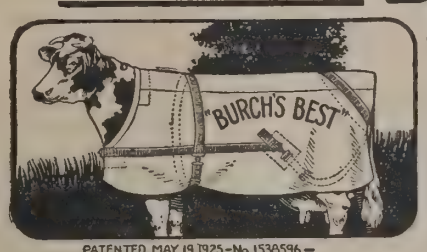


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These herds will use Burch Blankets this year: Carnation Farms and Pabst Holstein Farms, Oconomowoc, Wisc., Corium Farm, (F. J. Rueping, Pres.) Fond du Lac, Wisc., Fern-Dell Farm (A. W. Fox, Mgr.) Green Bay, Wisc., Elm Hill Farm, Brookfield, Mass., Rock County Herd, Janesville, Wisc., and many others.

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The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Holsteins—Purebreds and grades. Area tested. Buy direct. We are breeders, not dealers. WAUPACA COUNTY HOLSTEIN BREEDERS ASSN., 112 E. Union, Waupaca, Wis. 5-6

Nine richly bred Holstein heifer calves, practically purebred. Tested and carried. $175.00. ALFAKORN FARM, Evansville, Wisconsin. 8-6

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Selling Five Registered Holstein Yearlings. Sire's dam made over 37 pounds butter 7 days and over 1,127 pounds in year. Official test. ALFAKORN FARM, Evansville, Wisconsin. 10-3

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

Buy sound, profitable dairy cows according to their value as producers. Holsteins and Guernseys offered. Service to give satisfaction. Write PETER NELSON, C. T. A. Tester, Richland Center, Wisconsin.

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

High grade Guernsey and Holstein cows. Springers and fresh. Car lots or less. T. B. tested and prices right. M. GOLDSMITH, Genesee Depot, Wis. 10-2

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINELLO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

For Sale—Jerseys—40 head of two-year-old heifers to freshen this fall, well bred and priced to sell. Also some good Jersey cows, fresh and springers. BOYD BERDO, Washington, Iowa.

BABY CHICKS

Triple "C" Chicks—Lower prices. Big, husky, purebred, Cert-O-Culd, Smith-Hatched Chicks from farm-ranged, Hogan-Tested Flocks. Price per 100 delivered postpaid to you: Rocks, Barred, White, Buff; Reds; S. C. or R. C. Buff Orpingtons, $13. White Orpingtons, White Wyandottes, Black Minorcas, $14. Anconas, White or Brown Leghorns, $10. Jersey Black Giants, $19. Prompt shipment. Catalog free. C. C. C. HATCHERIES, Box 618, Centerville, Iowa. 9-*

Reduced Prices on Baby Chicks for May. 100% live delivery. Guaranteed purebred. Leghorns 10c; Rocks and Reds 12c; Wyandottes and Orpingtons 13c. Discount on large orders. Send for free catalogue and prices. MODEL HATCHERY, Box 7, Monroe, Indiana. 8-3

HATCHING EGGS

Eggs from strictly purebred (267 egg strain) Barred Plymouth Rocks and (272 egg strain) White Leghorns $1.60 per 15; $6.50 per 100, postpaid. MISS MABLE HARDING, St. Peter, Minnesota. 6-*

COD LIVER OIL

Cod Liver Oil for poultry, tested light yellow Vitamin potency guaranteed, 5 gals. $8; 10 gals. $15 at N. Y. Sample gallon $2.25 postpaid. JACONE PRODUCT CO., 624 Kent Ave., Brooklyn, N. Y. 9-2

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Police Puppies from imported sire, large boned, very intelligent beauties, fine cattle dogs. M. F. MINK, LaSalle, Illinois.

We are expecting another litter of White Collie puppies about June first. If you intend to buy a dog this summer we suggest you act promptly as our supply is limited. All dogs eligible for registration. We will furnish necessary papers for registering if required. Price F. O. B. Fort Atkinson. Females $10.00, males $15.00. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis. 9-3

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

HAY

Alfalfa Hay for Sale. Write for delivered prices. ALBERT MILLER & CO., 192 No. Clark St., Chicago, Ill. 18-*

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

MACHINERY

Machinery For Sale—One 25 H. P. Steam Engine, size 8 x 10, made by The Brownell Co., Dayton, Ohio, 1907, No. 4127. Engine is in good condition and we will consider any reasonable offer. Inquire RODDIS LUMBER & VENEER COMPANY, Marshfield, Wisconsin. 10-2

For Sale—One double unit Universal milker with No. 14 pump. Stall cocks, gauge, relief valve, pipe, and everything complete for fifteen cows. Less than two years old. $125.00. S. A. BARBER, Kanawha, Iowa.

For Sale—1½ horse Witte Engine, new. Several new wagons and farm trucks; 6 sets new harness and a large supply of mower and binder repairs. Cheap. Write your wants. BOX 452, Madison, Wisconsin.

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Ann Arbor Hay Presses bale more hay at lower cost and last longer than others. Write for complete catalog and prices. ANN ARBOR MACHINE COMPANY, Shelbyville, Illinois. 8-6

Three unit Hinman Milker for 20 cows; good condition. Cheap if bought at once. Write BOX 386, care Hoard's Dairyman.

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, Ohio. 7-4

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer to consumer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 9-3

Buy caps direct from manufacturer. $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

BUTTER TUBS

How would you like to save 25% on your next purchase of 63 lb. butter tubs? The **Re-built** butter tub will do it for you. All we ask is a trial order for 100 tubs. If you are not satisfied, you can return them to us at our expense. Prices are 35c on 63 lb. Spruce tubs and 37c on 63 lb. Ash tubs, f. o. b. Milwaukee. Send us your order today. Give us plenty of time. Do not wait until your flush season. Can furnish you names of satisfactory users of Rebuilt tubs at your request, who are now saving money. Why don't you? MILWAKEE BUTTER TUB & PAIL COMPANY, Milwaukee, Wisconsin. 10-*

DAIRY EQUIPMENT

Wanted—Dairy equipment for small dairy. HARRY PAYNE, R. 7, Boone, Iowa.

LUMBER

Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 909S, Everett, Washington. 9-2

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

SALESMEN WANTED

Read our ad about "Fly-Kil" on page 565 of this issue. Here is a wonderful product with tremendous sales possibilities. Our men are making big money selling it—earnings that would surprise you—because every farmer appreciates its need and can be convinced it does the work. For the next ninety days this is the livest selling product you can get hold of. Write at once for particulars. "FLY-KIL" DIVISION, WILLHELM OIL CO., St. Paul, Minnesota.

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-Spl

Our New Household Device washes and dries windows, sweeps, cleans walls, scrubs, mops. Complete outfit costs less than brooms. Over half profit. HARPER BRUSH WORKS, 295 3rd St., Fairfield, Iowa. 9-2

ROCK PHOSPHATE

Make alfalfa profitable by use of Four Leaf Powdered Rock Phosphate. It makes a thriftier stand and higher hay yield. Write for information. THOMSON PHOSPHATE COMPANY, 1027 Home Insurance Building, Chicago, Illinois. 8-3

MATTRESSES

Mattresses made any size, low factory prices. Catalog free. PEORIA BEDDING COMPANY, Peoria, Illinois. 3-10

TOBACCO

Guaranteed Homespun Tobacco—Chewing 5 pounds $1.00; 10—$1.75; Smoking, 10—$1.50. Pipe Free. Pay when received. UNITED FARMERS, Bardwell, Kentucky. 9-2

Better Tobacco! Fragrant, mellow! Five pounds smoking, 75c. Four pounds chewing, $1.00. FARMERS' CLUB, 250, Hazel, Kentucky. 10-8

FARMS FOR SALE

300 Acres, Stock, Tools, Crops for only $18 an acre. Big money-maker in splendid farming district with city markets; all advantages near; 125 acres fertile machine-worked fields, easy to keep 60 head stock, abundance water, large amount wood, variety choice fruit; good 13-room house, very convenient and homelike; large barns, tenant house, etc. Disability forces sale, price only $5500 including 3 horses, 11 cows and young stock, 4 hogs, hens, long list machinery, vehicles, crops; part cash. Details page 54 big illustrated Spring Catalog. Free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

Montana Land in the Bitter Root Valley is cheap. Here is 4000 acres irrigated. 1500 acres hay and grain. On railroad and adjoining Forest Reserve. Near school and churches. Stocked with cattle, horses, hogs and sheep. Close to big game and fishing. The right place for big family of boys. Is a going stock or dairy ranch. $50.00 an acre takes everything. Can make terms. GEO. F. BROOKS, owner, Missoula, Montana. 8-3

160 Acre improved dairy farm for sale in village limits. Good buildings, excellent soil. Splendid markets, school. Have carried large herds cattle and hogs so farm is in good paying condition. Owned farm over 40 years, wish to retire. Priced to sell. TARR BROS., New Auburn, Chippewa Co., Wis. 3-*

Dairy Farms—"Davidson Plan" 160 Acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 9-4

720 Acre sheep or cattle ranch, best section Wyoming. Also dairying. Price for quick sale $10,000, including equipment. Terms. BOX 105, Sheridan, Wyoming.

Wonderful opportunities for economical dairying and chicken raising. Write CHAMBER OF COMMERCE, Quitman, Ga.

FOR SALE OR LEASE

Well established dairy and sales business of the Graham Livestock Company consisting of yards, shelter sheds, modern dairy barns equipped with milking machines, milk house, trucks, etc. Plant capable of handling 150 to 200 head of cows. Sales average 1,000 head of dairy cows per year. Milk sold under good contract to distributor. 125 head of cows on hand at present. This is an unusual opportunity for anyone who understands the cow business. Present owner wishes to retire. For full information write the GRAHAM LIVESTOCK COMPANY, 2616 E. Broadway, Spokane, Washington. 10-4

FARMS WANTED

Wanted to buy—Southern Wisconsin dairy farm. Give equity in Red River Valley farm, Minnesota, as part payment. Address BOX 390, care Hoard's Dairyman.

Wanted—Equipped farm; give price, etc. L. H. RAISLER, 6700 Wentworth Ave., Chicago, Ill. 3-*

Want 80 to 160 acres close to town. WALT MILLER, Carpenter Bldg., Milwaukee

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

FOR RENT

For Rent—Fully equipped modern dairy farm on hard road half mile from prosperous town of 1500. Two silos. 15 acres alfalfa and 35 acres sweet clover pasture. For full particulars address CHESTER JOHNSON, Chenoa, Ill. 10-2



Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Dairy Farmer Wanted—For many years I exerted every effort in building a profitable dairy farm. Circumstances arose that took me away from farm and I have been operating same for past 15 years with hired labor. Buildings have gotten dilapidated and conditions are much different from what I would like. I wish to interest a man and wife who aspire to own a farm home and will make the sacrifices required to obtain this object. Not one in a thousand has the grit and determination to perserve till they climb the hills of difficulty that they will encounter; who take more delight in owning sleek calves than in a new, shiny car; or enjoy reading dairy literature more than the Sunday comics; or would rather visit the State Dairy Farm than go to a circus. After a trial on both sides, I will try to make a partnership with a suitable couple by which they could have a half interest in a 270 acre farm. (Farm now has 30 head of Jerseys, other stock and equipment.) A deal with the idea that some day it will all be theirs that will encourage better buildings, terracing, adding permanent improvements, etc. I have no rich man's play place, so do not waste your time nor mine if you are looking for easy money. S. H. PILE, Glasgow, Mo.

Wanted—Farm Manager for American-owned dairy farm near Havana, Cuba. Applicant must be graduate veterinarian, married, not over 35, a man of energy and sound health, capable taking complete charge of dairy farm with exclusively Jersey herd of 200 cows, majority of which are purebreds. Also have five very fine purebred dairy bulls ranging from two to seven years old. Experience in breeding an essential qualification. All roughage will be raised on the farm which has very fertile soil and abundant water. Only applicants having above qualifications need apply to RALPH D. WARD, 77 Clinton Ave., Brooklyn, N. Y. Write full history and complete details past experience; send photograph, and original references which will be promptly returned; state salary now earning and salary desired. Free five-room house on farm provided. Delightful climate. Act promptly. 9-2

Wanted—Showman for Southern Circuit and National, to fit and take charge of herd on this circuit. State Fair experience necessary. Test milker wanted at once—single, experienced. Milk three times a day. Dry hand milker, good feeder. Largest Guernsey herd in South, 14 miles south of Memphis. Good accommodations, fine climate. State wages wanted, send references first letter, no others considered. Address GAYOSO FARMS, care Hotel Gayoso, Memphis, Tenn.

Places for two good dairy workers on up-to-date dairy farm. $65 per month and board. Opportunity for early advancement for men capable of assuming responsibility. Dairy workers have no field work. Boozers not allowed on place and use of tobacco prohibited while on duty. HAPPY FARMS DAIRY, P. O. Box 1345, Coral Gables, Florida. 9-2

Wanted—Four steady, reliable men as working foremen for milking crews. Workers, not bosses. Must be experienced dry hand milkers, thoroughly settled and not afraid of work. Give full history and employment record in first letter. THE WHITE BELT DAIRY, R 2, Box 650, Buena Vista, Florida. 9-2

Wanted at once—Man and wife with no children for country residence. Man to work in yard and assist in house. Wife for general house-work. Family of three. References required. Write MRS. WILLIAM G. HAYWARD, 224 Broadway, Youngstown, Ohio. 9-2

Wanted at once—Single man with good habits. Farm and dairy work. De Laval milker, year around job. $50.00 per month, $10.00 bonus every 6 months. C. E. JOHNSON, Maple Hill Farm Dairy, Ironwood, Michigan.

Wanted—Steady, reliable farm hand. Must be good milker. State religion. $50.00 board and room. ELFERING BROS., R. 2, Waukegan, Ill. 10-2

Handy man, middle age, single, for garden and team work. LEVANT COLE, Battle Creek, Mich. 9-2

WANT TO RENT

Wanted—Modernly equipped Holstein dairy profit sharing basis. Understand the dairy busi thoroughly and production of high grade milk. been in retail business for years. Married man, die aged. Best references as to character and abi Prefer southwest. Address BOX 381, care Hoa Dairyman.

DAIRIES

For Sale—Good dairy and ice business in a re town. No opposition. Easy terms. GEO. FURM & SON, Twin Lake, Mich.

DAIRIES FOR RENT

400 acre model dairy farm equipped with e modern convenience located 19 miles from excel Washington milk market. Capacity 200 cows. acres alfalfa and clover. 7 tenant houses. An receipts $40,000. Will lease at low rental to sponsible party. Tenant given privilege of bu personal property consisting of 75 cows, farming plements. Only $3,000 cash required. GILBERT HUTCHISON, Sunset Hills, Virginia.

SEEDS AND PLANTS

Geraniums—Two dozen strong young plants deliv post-paid to your door for $1.25. Any color or mi Don't be without flowers on the farm. BUCK GERANIUM COMPANY, Springfield, Illinois.

Buy Your Grimm alfalfa seed direct from the troducer, and know that your foundation stock is p pedigreed seed, bred from the original Grimm str Acclimated to severe northwest temperatures since 1 A. B. LYMAN, Introducer, Excelsior, Minnesota. Home of Grimm Alfalfa.

Pure Certified Grimm's Alfalfa Seed direct the man that grows it. Hardiest and best. postal for samples and folder for full informat TRIANGLE RANCH, Cottonwood, S. D.

Buy Hardy alfalfa seed; hulless and beardless ley; hulless oats direct from SAM BOBER, New South Dakota and save money.

Alfalfa Seed—95% pure, $6.50 per bushel; Scar sweet clover, 95% pure, $5.50; bags free. GEO BOWMAN, Concordia, Kansas.

MISCELLANEOUS

Farmer's Wool—Made into blankets, batting yarns at fair prices. Send for circulars. MON CELLO WOOLEN MILLS, (Estab. 1866), Montic Wisconsin.

Hay Bale Ties—Tallman's bale ties are better cost less. Write today for special price list. TALLMAN COMPANY, Shelbyville, Illinois.

Buy one of our leather bound loose leaf pocket books and be able to give accurate information garding the animals you have for sale. Will commodate 100 animals, (sketches, sire, dam, dat birth, records, service date, etc.). Also service rec gestation table. Price $2.00, postpaid. HOAR DAIRYMAN, Fort Atkinson, Wis.

PRINTING

Letter Heads—We specialize in printing Farm L Heads. Give us a trial. HOARD'S DAIRY ART DEPT., Fort Atkinson, Wis.

TESTERS WANTED

Iowa Cow Testing Associations need testers. ary $900 per year and up, plus board. Trai courses offered. Give age, experience, references letter. DAIRY EXTENSION, IOWA STATE C LEGE, Ames.

HELP WANTED

Wanted—Single, experienced man for barn work large dairy in Illinois. Must be good milker and pendable. State age, experience, and wages. BOX 387, care Hoard's Dairyman.

Help Wanted—Single dry hand milkers. Good ing conditions; chance for advancement. Can use married men with small families. HARTMAN ST FARM, Columbus, Ohio.

Wanted—Single man on dairy farm at once. be experienced farmer and good milker. Perma job for good, reliable man. $65.00 to start. RIV VIEW DAIRY, St. Charles, Illinois.

Wanted—Single, experienced, willing worker of habits for dairy and general farm work. Mo equipment. $60.00 per month. GEO. VINCE Genoa City, Wis.

Wanted—Single man with some experience to ha milk route. $60.00 per month, room and board, $30.00 bonus at end of every six months. Add BOX 391, care Hoard's Dairyman.

Wanted—Single man on modern dairy farm. W $60 month, board, room, washing. Mile from TAYLOR FARM, R. 2, Janesville, Wis.

Wanted—Good milker to assist in milking semi- cial cows. Elderly man preferred. Address 389, care Hoard's Dairyman.

Wanted—Single men, good milkers and barn Plenty of opportunity for sincere fellows. Apply LARSEN'S FERN-DELL FARM, Green Bay, Wis.

Firemen, Brakemen, beginners $150-$250 mont railroads everywhere (which position?). RAILW ASSOCIATION, Desk M-10, Brooklyn, N. Y.

Wanted—Single man for general farm work. $ month, board and room. Address BOX 388, Hoard's Dairyman.

Wanted—Experienced reliable man for general work and dairying. State wages in first letter. H RY PIERLE, Pekin, Ind.

Wanted—Single man on small Holstein dairy f No smokers. References required. CLAUDE EWA Route 2, East Akron, Ohio.

Wanted—Experienced dairyman with good ha FRED LUEBKE, Route nine, Neenah, Wisconsin.

POSITION WANTED

Position Wanted—Farm Manager. Married, Uni sity training and practical experience in all bran of farm management. Best of references regar ability in feeding and fitting dairy cattle for pro tion and show ring, as salesman for all farm prod as mechanic for all machinery used on up-to- farm and in handling men for satisfactory res Only large proposition considered. Address BOX care Hoard's Dairyman.

Farm Manager desires change. Ten years experi covering diversified farming, orcharding, dairying, p try. Experience includes two years cow testing ciation Wisconsin, four years teaching vocational culture Virginia and Georgia. Agricultural co graduate. Offers respectfully solicited. H. W., Jefferson Avenue., S., Birmingham, Alabama.

Man 34 years of age, married, one child, w position as manager of dairy farm. Prefer a used as summer home for wealthy family. Have perience and references. Hold at present governm position. Please write JOHN KOOISTRA, Inspe in charge Immigration Service, Zapata, Texas.

Position wanted by dairyman where results co Experienced in production of certified and high milk. Good calf feeder. Can make official reco Do not use tobacco or liquor. Best of referen Married; no children. Address BOX 383, care Hoa Dairyman.

Working herdsman wants modern place where work is demanded for high wages. Single, wide perience. State particulars and wages. Prefer consin. Address BOX 385, care Hoard's Dairym

Wanted Position Superintendent modern dairy or estate. Executive and business ability. Fif years experience. Age thirty-six. Married. 314, East Liberty, Pittsburgh, Pa.

Wanted Position—Single farmer dairyman of exp ence. Good calf raiser, successful showman. Gu seys preferred. M. D. CUNNINGHAM, La Cr Wisconsin.

Young man wants position as herdsman or show herd. Experienced. References. Address 392, care Hoard's Dairyman.

Working farm manager or assistant herdsman. ried, lifetime experience. J. M. V., Box 59, land, Wis.



Comparing White and Yellow Corn for Pigs

he Illinois Experiment Station re-
ts the results of an experimental
ling trial comparing white and
ow corn for growing and fatten-
hogs and for brood sows. A sum-
y of the work follows:
; was found that sows raised on
mal rations could be carried
ugh two gestation and suckling
ods on a ration of white corn,
te corn bran, and tankage without
lent effect on the number of pigs
owed or weaned or upon the
wth of the pigs during the suck-
period. The continued feeding of
ration, however, resulted in seri-
impairment of the reproductive
ers of one sow, her third and
rth litters being farrowed dead.
h the addition of 1 per cent of cod
r oil to the ration during the fifth
ation, this sow farrowed a litter
ormal pigs.
ormal weanling pigs which were
owed by sows carried through
r gestation periods on white corn
ons were continued on a ration of
te corn and tankage. They failed
thrive and ultimately developed
ological symptoms and died. Pigs
owed by sows not on experiment
raised on normal rations to 60 or
pounds were eventually handi-
ped by white corn feeding al-
igh they made normal gains for
ral weeks. At weights of 175 to
pounds they developed character-
: symptoms of white corn feeding
finished poorly.
mall amounts of alfalfa meal (a
e more than an ounce a head
y) proved entirely effective in
ecting the deficiencies of a ration
white corn and tankage fed pigs
le growing and fattening from
ghts of 60 to 227 pounds.
pparently it was a lack of vita-
A that caused the unfortunate
ults when sows and pigs were con-
ed on the white corn ration for
long a time, for when that factor
supplied by adding small
unts of alfalfa meal or cod liver
the pigs developed normally and
sows farrowed normal litters.
ile white corn may be deficient in
min D as well as vitamin A, it is
sidered improbable that such a de-
ncy could have affected the re-
s, since sunshine apparently re-
es the necessity for that vitamin
he feed, and all the pigs in these
eriments were confined to open
lots, allowing as great exposure
direct sunlight as the weather
ld permit.

n Litters in United States

ccording to a report from the U.
Department of Agriculture, swine
lucers in 29 states succeeded in
ging 808 litters of pigs up to or
ve the required 2,000 lbs. in 180
s to qualify for ton litters in 1926.
total number of litters entered
2,636, more than two-thirds of which failed to qualify for various reasons.

Tennessee qualified 121 litters with an average weight of 2,472 lbs., the heaviest of which was 3,672 lbs. Pennsylvania producers brought 114 litters up to an average weight of 2,300 lbs., with the heaviest litter tipping the scales at 3,158 lbs. Illinois came in third with 90 litters averaging 2,366 lbs., the heaviest one weighing 5,117 lbs. This was the heaviest litter produced. It consisted of 17 pigs that weighed 301 lbs. each at the end of 180 days. The second heaviest litter also consisted of 17 pigs, but weighed only 4,925 lbs. It came from Indiana where 80 litters qualified at an average weight of 2,319 lbs. Kentucky was in fifth place with 64 litters weighing 2,351 lbs. each.

The average number of pigs in ton litters was 10.4; in the heaviest litters from the several states it was 12.3 pigs. The average weight of the heaviest litters was 3,117 lbs. Only two litters reached or exceeded the two-ton mark. The average weight of 666 ton litters for which complete data are given was 2,345 lbs.

The ton litter project, having demonstrated the possibilities of good management in swine production, has caused producers and swine husbandrymen to apply similar methods to all the sows in the herd in an effort to increase the amount of live pork produced per sow bred.

Trucking Hogs to Market

What per cent of all hogs marketed at the ten principal midwest markets are transported to market by motor trucks? This question was the basis of a survey made recently by Armour's Live Stock Bureau.

Of the total hogs received at Indianapolis, Omaha, St. Joseph, St. Paul, Chicago, Kansas City, Sioux City, Louisville, Cincinnati, and Milwaukee in 1916, less than 5 per cent were carried to market by trucks. Of these markets, only two, Indianapolis and Louisville, received more than 5 per cent by trucks.

In 1926 only one market, Chicago, received less than 5 per cent of its hogs by trucks. Indianapolis received 42 per cent and Louisville nearly 45 per cent. At Sioux City where roads are not as well developed as at some of the markets farther east, nearly 35 per cent of the hogs received came in by trucks. In 1926 almost a million cattle, hogs, sheep, and calves came to the Omaha market in a similar manner.

Although the distance for trucking in hogs is increasing, the average distance from which a market gets most of its hogs in this way is a 50-mile radius.

The average number of 200-lb. hogs hauled in trucks of varying capacity was found to be 12 for one-ton trucks; 18 for the one-and-one-half-ton trucks, 25 for the two-ton trucks, 35 for the three-ton, and 40 to 50 for the three-ton, double-decked loads.

A close study of the prices received at the Indianapolis market during 1926 for hogs shipped by rail and those trucked in, shows an average advantage of 12½ cents a hundred in favor of the latter. This is thought to be explained on the basis that producers within trucking distance can follow the market more closely with quick deliveries.

Favors the McNary—Haugen Bill

HOARD'S DAIRYMAN:—In the March 25 issue of Hoard's Dairyman the editor invites those who favored the McNary—Haugen bill to show wherein the President's reasons for vetoing the bill are faulty. The editor's invitation is practically a challenge as he goes on in the editorial to discuss the subject in an attempt to prove that the President's reasons are sound.

The main trouble lies in the fact that any plan to be effective in getting results in a large way involves the point of control in marketing. It is this idea of control in marketing of which so many of the agricultural economists and farm paper editors seem to be so much afraid. And why this should be so is certainly beyond my comprehension. They seem to fail to realize that, for many years, there has been much control of the marketing of farm products, but the control has been on the buying side, or, at least, by the private concerns that handle farm products for the profit in handling. They also seem to fail to realize that the reason California citrus fruit growers have gotten better results in marketing than the producers of some other crops is because they have a larger control. The Land O' Lakes Creameries, Inc., is getting results because it has a large control. The New York dairymen appreciate the need of more unity in order to get a large control. The producers of wheat, corn, hogs, and some other crops have been worse off than producers of many other crops because they have less control. Of course, the larger the surplus over home consumption the harder it is to get control.

As I see it, the main purpose of the McNary—Haugen bill was to provide means of getting a larger control from the selling side. Legislation and a government agency is needed because farmers have failed to organize so as to handle the matter themselves.

To answer all of President Coolidge's arguments would require a long article; and, as the editor is strongly in favor of the President's stand, an article in opposition would require arguments radically opposed to the editor's views and he might consider them too radical to publish.

Both the President and the editor of Hoard's Dairyman stress the point that control of marketing can not give satisfactory results so long as there is no control of production. Many of us farmers have been convinced for a long time that regulation of production is one of the factors involved in the marketing problem. And the sooner the farmers' advisors and the farmers themselves are convinced that there will never be really effective regulation of production until there is control of marketing from the selling side, the better it will be for agriculture. Some few farmers may be influenced in their planting by statistical reports and advice of agricultural experts, but the majority of farmers have to be awakened to the requirements by more emphatic means. The way to stabilize prices is to keep the surplus off the American market. Then, if good prices tend to increase the surplus, the central sales agencies and the local organizations should be strong enough to work out ways and means of effective regulation of production.

Our whole agricultural educational policy, both in theory and practice, has been and, to some extent, is yet entirely opposed to the doctrine of controlled marketing and regulation of production. Up to six or seven years ago increased production was the whole slogan. And, even now, farmers are told over and over again that they can not organize to control marketing or to regulate production. It is our system of education that makes it so hard to get the farmers of this country together on their most important problems. In Denmark they teach co-operative marketing in the schools. In this country we do not teach it because it is a "controversial subject."

Now when a large number of farm leaders got together on a plan which they believed would be an effective step in the solution of the marketing problem, the President answers by a negative; but neither the President nor his advisors have suggested any positive step. This may not discourage progressive farmers and leaders, but it will tend to increase the number of farmers who say, "Oh, what's the use, we can't do anything."

As to the dairy farmers, it is easier to send a cow to the stockyards and cut down the number of heifers grown than to cut down the acres of land in crops. So long as dairy products are not among the export crops dairymen will sit pretty comparatively. But it may be well for the dairymen who opposed the McNary—Haugen bill to stop to consider what may happen to them when Arkansas, Missouri, the whole South, Southwestern Minnesota, Iowa, Nebraska, Kansas, North and South Dakota, etc., get to going strong on the dairy cow. Every influence and much of our educational effort is brought to bear to bring that about. Some of our large daily papers keep men in the field continually to induce farmers to go into dairying. The year 1924 showed us that it will not take so very much to put dairy products in the surplus group, also. It might be a good deal better for the dairy farmers if wheat growing and corn and hogs would be fairly remunerative so that farmers engaged in those lines would not switch to dairying altogether too fast.

I was exceedingly glad to see that President Glen Frank believes that "the solution of the farmer's problem will come just as soon as he takes into his own hands the distribution as well as the production of his products." Taking it into his own hands evidently means getting control. But when President Frank says: "Farmers will never succeed with any marketing scheme they aren't big enough to think out themselves," does he realize it has taken forty or fifty years of persistent and intensive educational work to bring about the modern improvements in farming such as the use of silos, the growing of alfalfa, and improvement of dairy herds? The general run of farmers just work. They do not think out anything. Practically all advancement comes through the work of progressive farm leaders, agricultural experts, educators, scientists, inventors, and experimenters.

The President should have said that farmers will not succeed with any marketing scheme that they have not agreed upon after making a thorough study of it. When marketing is taught as thoroughly and persistently as production is taught now, farmers will doubtless learn to handle that part of their business, also.

Minnesota. J. F. LARSON.

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BARRED PLYMOUTH ROCKS	3.75	7.25	14.00	65.00	120.00
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ROSE COMB RHODE ISLAND REDS	3.75	7.25	14.00	65.00	120.00
SINGLE COMB BLACK MINORCAS	3.75	7.25	14.00	65.00	120.00
WHITE PLYMOUTH ROCKS	3.75	7.25	14.00	65.00	120.00
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Our chicks guaranteed by a $500.00 gold bond on deposit at Denhart Bank of Wash. You take no chances in buying Bonded, pure-bred, vigorous chicks—they are bound to make good.

PRICES EFFECTIVE MAY 1st.	25	50	100	500	1000
S. C. Wh. & Br. Leg., Anconas	$2.75	5.00	9.50	45.00	87.50
Barred Rocks, R. I. Reds	3.25	6.00	11.50	55.00	107.50
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Wh., Silver, Columbian Wyandottes	3.75	6.75	13.00	62.50	122.50
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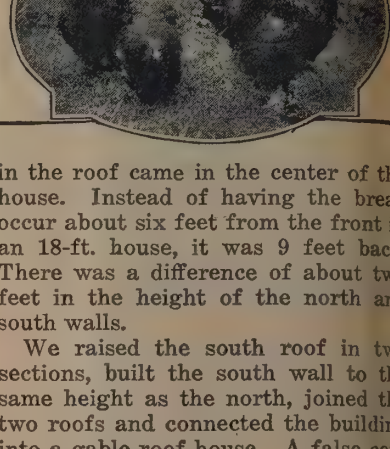
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Poultry on the Dairy Farm



Rebuilding

Most of our effort is directed towards plans for a new poultry house with a total disregard for the building that may now be in use. A great many of the houses are properly situated, well constructed, and have sufficient insulation but do not seem to work properly. They may be warm enough but lack sufficient ventilation.

The first principle to consider in housing is the size of the house in respect to the number of fowls carried. About 4 square feet of floor space per bird is allowed with the heavier fowls and 3 square feet with the smaller ones. This rule is usually broken in that a flock owner has had better hatching results than was anticipated, has too many birds, and carries about 3 or 4 per square foot and wonders why the results are poor. Possibly a number larger than this can be carried but if this ratio is exceeded, it will be found that more time must be given to the management, cleaning and removal of litter will be required at shorter intervals, and a better caretaker is required.

A second problem that is usually encountered in an old house is due to previous misinformation. Many of the older houses are too narrow. A house 10, 12, or even 14 feet wide will need remodeling.

Width and Height

In most instances the error was carried as far as possible and the height of the house was also excessive. Most of the poultry houses were built for some future generation of giants. The six or seven feet height to a house is for our own convenience and not because the hens require that space. We are in fact putting a handicap on them in that an extreme height increases the cubic air capacity of the house and forces the flock to heat up that addition.

When a seven- or eight-foot front elevation has given to a twelve-foot shed roof house, it is possible to convert this over to a combination roof to advantage. A four-foot addition to the south side would give a 16-foot depth and about a 5½-foot south elevation. This would be about the minimum height and still obtain light at the rear of the house. With this roof construction one could either carry a straw pack or seal and pack with dry sawdust or planer shavings.

We all have our aversions and my pet one is the semi-monitor house for Wisconsin conditions. Its use may be advisable in some sections but it surely doesn't work here.

This question of housing is pretty much of a district or state problem that must be worked out within that area to best advantage. Stepping over the line too liberally is very apt to mean trouble. That is one reason why a house designed for southern conditions does not work in the northern states.

What Others Have Done

One man had a poultry house that had been designed in the early days for a small flock. As the size of the flock was increased he also tried to increase the size of the house. After three changes it finally became a semi-monitor, but did not work.

He was fortunate in that the break in the roof came in the center of th house. Instead of having the brea occur about six feet from the front an 18-ft. house, it was 9 feet bac There was a difference of about tw feet in the height of the north an south walls.

We raised the south roof in tw sections, built the south wall to th same height as the north, joined th two roofs and connected the buildin into a gable roof house. A false ce ing was then installed, doors cut each end of the gable, and a stra pack was made. The house as reju enated has been working satisfacto ily.

In another instance the chick coop and hog house were joined. fact the hog house formed an L the end and around the rear of th chicken coop. It was all under o gable roof.

This man wanted to increase h poultry interest and decrease t hogs. With a depth of 22 feet it w impossible to convert this buildi with anything other than a semi-mo itor. The roof was removed and n built with that idea in mind. The n sults in this house have not been ide in that frost collection is a proble even with the roof sealed, but is t best that can be done.

If the location of this house h been different it might have been po sible to leave the gable roof and i stall additional end windows. Con tions, location, and ease of changi must be considered in deciding wh is best to do.

A Wood Shed Used

One of the men in Rusk County h an old building with a gable roof th had been used as a wood shed. T construction was wonderful becau it was built back in the days wh lumber was lumber. This house w hauled around to a new location, n modeled, and made into a very sati factory coop.

Sometimes poor results come fro only partly doing the job. One ma had a remodeled house in which straw pack was installed. He crabb about it not working until we fou that he had only put a door in o end of the gable.

Another change that can often successfully made is in respect to t window space. Usually glass is i stalled at about the rate of 1 squa foot of glass to 10 square feet of flo space. Muslin or bafflers are allow at the rate of 1 square foot to 25 30 square feet of floor space.

Glass, Muslin, Ventilation

In many instances the amount glass either exceeds or falls below t correct amount. Too much gla means decided fluctuation in temper ture since glass both absorbs an gives off heat rapidly. This mea high temperature when the sun shin and low temperature at night.

Windows should be arranged height from about 2 feet from t sill to as close to the plate as po sible. This design distributes light the rear of the building. Windo must also be removable or hinged t and bottom or open door wise to pe mit direct sunlight.

Muslin or bafflers are advised b cause the pipe outlet will not ope

e under all conditions. The poultry use being low, is affected by cross rrents from the higher buildings. a pipe outlet system as now in-lled is operating it should not be anged. If, however, it acts like an ake rather than an outlet a change y be advisable.

In some instances insulating the e has been advised. It may be apped with some insulating ma-ial to maintain warmth and allow an air movement due to the dif-ence in temperature.

It is only the difference in temper-re that causes an exchange of air occur. If the temperature within d outside the house is the same re will be no air movement.

When the pipe outlet does not work e must depend on muslin or baffiers h windows opened for ventilation. ring the day one must depend up- adjusting the windows while the er openings act as a check at night ing a slower air diffusion.

Insulation Important

A double wall construction in the thern section is necessary. With able boards and paper between on outside and paper with shiplap eting on the inside, it is possible to the loss through the walls down 22%. This is just about as low as is feasible to go.

Talking building material is tread- on thin ice. There may be some ultry houses constructed of materi-other than wood that work cor-tly. It may be that I have just n unfortunate enough never to e seen one.

f one does happen to have a house lt of stone and stuck in a side hill, first thing to do is think of some other than a poultry house to ch it can be put. When a house lt of other materials must be used robably is possible to leave about " or 4" air space and then seal it inside with shiplap. This will bably help to some extent.

When a sun room is properly con-ered, it may be advisable. So much rt has been required in overcom-the old idea that hens require one n for laying, another for roosting, another for eating that we are a little afraid of back sliding.

The sun room has been advised e the value of direct sunlight has n realized. This shed is just a e covered shed with a tight roof three tight sides. A shed of this e is advised since the litter can kept dry and the hens are kept the cold ground. Considered in way, we can probably advise this addition to a small farm flock house. It is just a means of getting the hens into direct sunlight without the disadvantages formerly encountered.—J. B. HAYES.



e Summer Book is out! Shows the cks the smartly dressed women of New k will wear. How they will dress their r. What hats they will wear and what es. It's a book that will help you look ir best during summer days. For your y send 10 cents today to Fashion De-tment, Hoard's Dairyman, Fort Atkin-, Wis.

Coccidiosis

Coccidiosis is one of the most destructive diseases of young chickens, for practically all established poultry farms are infected. The heaviest losses occur in chicks from four to eight weeks old. A large number of chicks partially recovered from the disease remain as "culls" and often cause greater loss than the mortality. Older birds may become affected with a chronic type, which is slowly fatal.

The disease is caused by the presence in the intestines of chicks of a microscopic parasite which develops and multiplies in the cells of the intestines. Usually the first indication of the presence of coccidiosis in a flock of chicks is droopiness of a few. The droppings of affected chicks frequently contain blood but this indication is not always present. The heaviest mortality usually occurs during the first week or ten days after the first droopiness appears.

How the Disease is Transmitted

The soil of yards in which infected chickens have been kept is the most common source of the infection. Brooder houses, feeding and watering vessels, hovers, and other accessories previously used for infected birds, when not properly cleaned, may be the source of infection. The infection may be carried from one yard to another or into brooder houses by attendants or by wild birds, dust laden wind, and so on.

Contrary to common belief, lack of suitable food for care, and improper housing conditions are not the cause of the disease, but they render the chickens more susceptible by lowering their natural resistance.

Control With Skimmilk

Careful experiments at the California Experiment Station show that the feeding of sufficient milk is of great value in controlling outbreaks of coccidiosis. This benefit appears to depend on two factors: Its property of producing acidity in the ceca and its ability to stimulate rapid growth. The production of acidity is due to milk sugar, and in order to maintain this acidity continuously a more or less continuous flow of milk sugar through the intestinal tract is necessary. This requires the feeding of a high percentage of skimmilk solids; 40 per cent dry skimmilk was used in the successful mash at California, and *less than this amount will not give satisfactory results.*

The ability of skimmilk to stimulate rapid growth of chicks gives increased resistance to diseases in general, including coccidiosis. So, while controlling coccidiosis, the control ration builds healthy, vigorous chicks with a rapid rate of growth.

The composition of the mash is not of great importance providing it contains a suitable mixture for feeding to young chickens and has at least 40 per cent of dry skimmilk. The mash used in the California experiment and with success on a number of poultry farms contains the following: Dry skimmilk, 40 pounds; wheat bran, 10 pounds; yellow cornmeal, 30 pounds; ground barley, 20 pounds.

Rules for Feeding

The following rules for feeding are indicated as the result of the California experiments:

1. Start feeding the mash as soon as the presence of the disease is determined.

2. Keep the mash constantly be-

FLOCKS BLOOD TESTED

Our Flocks of Pure 3red, High Quality, Heavy Laying Fowls are annually tested for BOTH WHITE DIARRHEA AND TUBERCULOSIS under University of Illinois supervision. 35,000 HENS UNDER TEST. LARGEST PLANT IN THE WORLD PRODUCING CHICKS FROM BLOOD TESTED FLOCKS ONLY.

Our Stock is selected especially for vigor and High Laying Qualities and Ancestry in both male and female. We will have ONE MILLION OF THESE CHICKS for our customers during 1927. We also give a SEVEN DAY GUARANTEE on our Chicks by replacing the loss at half price. We will allow BIG DISCOUNTS on Brooders.

MAY PRICES

	25	50	100	500	1000
S. C. WH. & BR. LEGHORNS, ASSORTED HEAVY	$3.75	$7.00	$13.00	$62.50	$120.00
BARRED ROCKS, S. C. & R. C. REDS	3.75	7.00	14.00	67.50	130.00
WHITE & BUFF ROCKS, S. C. ANCONAS	4.25	8.00	15.00	72.50	140.00
BLACK MINORCAS	4.75	8.50	16.00	77.50	150.00
LIGHT BRAHMAS	4.75	9.50	18.00	87.50	170.00
BF. & WH. ORPINGTONS, WH. & SIL. WYANDOTTES	5.00	8.50	16.00	77.50	150.00
ASSORTED LIGHT AND HEAVY	3.50	6.50	12.00	57.50	

White Minorcas 100, $20. GET OUR BIG, FREE, COLOR PLATE POULTRY BOOK for 1927, before ordering Chicks elsewhere. Illustrates our Blood Tested Fowls in their natural colors and contains a great amount of information of value to you. PLAY SAFE FOR 1927 by buying our GUARANTEED CHICKS from fully TESTED FLOCKS. Ref.—First National Bank of Oneida.

LING'S HATCHERY, Carl Lingwall, Prop., Box 524, Oneida, Ill.

CARTER'S CHAMPION CHICKS

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"CHAMPION" CHICKS from Healthy, Carefully selected, heavy Producers, Tancred, Martin, Sheppard, Holterman, Queen Bess, etc. Blood Lines. CONTEST WINNERS. Cream of Best Bred-To-Lay Flocks in the country. Extremely high records in Official Egg Laying Contests. Our Big, Free, Color Plate Poultry Book shows our "CHAMPION" FOWLS in natural colors and tells all about them. IT'S FREE. Order IT TO-DAY PRICES EFFECTIVE MAY 1st.

Postpaid, 100% Live Delivery Guaranteed	50	100	200	500	1000
S. C. White & Brown Leghorns	$5.75	$10.50	$20.50	$50.00	$100.00
Anconas or Buff Leghorns	6.00	11.50	22.50	55.00	110.00
Barred Rocks, S. C. or R. C. Reds	6.75	12.50	24.50	60.00	115.00
White or Buff Rocks, Black Minorcas	7.25	13.50	26.50	65.00	125.00
White Wyandottes or Buff Orpingtons	7.75	14.50	28.50	70.00	135.00
Columbian & Silver L. Wyandottes	7.75	14.50	28.50	70.00	135.00
White Minorcas, White Orpingtons	8.50	15.50	30.50	75.00	145.00
Assorted Left Overs	5.00	9.00	17.50	42.50	85.00

Prices on other varieties on request. Members I. B. C. A. and A. B. C. P. A. Reference—Burnetts Bank.

AMERICAN CERT'D CULLED

CARTER'S CHICKERY, Box 29 ELDORADO, ILLINOIS

BABY CHICKS—C. O. D.

Pay for your chicks when you get them. We guarantee 100% live arrival. All chicks are pure bred from selected parent stock. They are bound to make good.

ORDER FROM THIS AD AT THESE PRICES

	25	50	100	500	1000
S. C. Wh. & Br. Leghorns, Anconas	$2.75	$4.75	$ 9.00	$42.50	$ 82.50
Bd. Rocks, R. I. Reds	3.25	5.75	11.00	52.50	102.50
Wh. & Buff Rocks; Wh. & Buff Orpingtons, Black Minorcas	3.50	6.25	12.00	57.50	112.50
White, Silver, Columbian Wyandottes	3.75	6.50	12.50	60.00	117.50
Light Brahmas, White Minorcas	4.00	7.00	14.00	65.00	127.50
Blue Andulusians, Sil. Spangled Hamburgs	4.25	7.50	14.50	70.00	137.50

Assorted, $7.50 per 100. All heavies $9.50. These prices are on chicks to be delivered after May 1st. Place your order now and be sure of getting your chicks when you want them. Write or wire your order and it will receive our prompt attention. You take no chances as you need not pay until you get the chicks. We gladly ship C. O. D. and guarantee safe arrival.

WASHINGTON HATCHERY Box 1 WASHINGTON, ILL.

CORN BELT HATCHERIES



Here's a real value—ILLINOIS ACCREDITED CHICKS—Every breeder approved by OFFICIAL STATE INSPECTORS. Our heavy laying strains will make big profits for you.

THESE PRICES ARE EFFECTIVE ON MAY 1st.

Postpaid prices on	100	300	500	1000
S. C. White & Brown Leghorns	$10.00	$28.50	$45.00	$ 85.00
Barred Rocks	12.00	34.50	55.00	105.00
Buff & Wh. Rocks, R. I. Reds	13.00	37.50	60.00	115.00
Buff Orpingtons, S. C. Blk. Minorcas	13.00	37.50	60.00	115.00
White Wyandottes	14.00	40.50	65.00	125.00
Wh. Orpingtons & Wh. Minorcas	15.00	43.50	70.00	135.00
Light Brahmas	16.00	46.50	75.00	145.00

Assorted Chicks $8.00 per hundred. All heavies $10.00. 100% live arrival guaranteed. Reference First National Bank. Write for free catalog and price list.

CORN BELT HATCHERIES Box 35 GIBSON CITY, ILL.

GENOA QUALITY CHICKS

Bred-To-Lay Always Pay

NOW you can get our Super-Quality chicks at the price of ordinary chicks. We are pleasing thousands with our egg producing stock; true to type and color. We GUARANTEE TO PLEASE YOU too. 10 per cent deposit books your order. For quick shipments, remit in full. 20,000 weekly. Orders filled promptly. 100 per cent live delivery.

	50	100	500	1000
W. Leg.-Anc., Min.	$6.25	$11.50	$55.00	$105.00
B. Rox, W. Rox, S. C. & R. C. Reds	6.75	13.00	62.50	120.00
B. Orps., W. Orps., W. W. S. L. W.	7.25	14.00	67.50	130.00

H. Mix, $10.00. Assorted H. & L. Mix, $8.00 per 100. GENOA QUALITY HATCHERIES, GENOA, ILL.

HUNDERMAN CHICKS

Chicks that are hatched from free Farm range breeders fed on milk from the dairy on the same farm. Our flocks and hatchery inspected and passed by representative of Mich. State College. Refer you to State Com. Savings Bank. Order from this ad.

Prices Effective May 30th and Thereafter	25	50	100	400	1000
S. C. WHITE & BROWN LEGHORNS	$2.75	$4.75	$ 9.00	$34.00	$ 80.00
BARRED ROCKS	3.75	6.75	12.00	46.00	110.00
S. C. REDS	3.75	6.75	12.00	46.00	110.00

Heavy Mixed, $10.00, Light Mixed $7.00 per 100. Our chicks are Michigan Accredited. 10% down books your order. Free catalog. 100% live delivery prepaid.

HUNDERMAN BROS., R. R. No. 3, Box 35, ZEELAND, MICH.

WALDBESER CHICKS—FOR PROFITS

BRED TO LIVE LAY TO PAY

CHICKS AND SERVICE. We have only Flocks that are TRUE to name, Culled and Tested for diseases, which will hatch Chicks that will live, and produce large quantities of eggs. Try our Leghorns for egg production, you will be back again next season. 100 Per Cent Live Delivery.

Prepaid	50	100	500	1000
White Leghorns, Anconas	$4.00	$ 8.50	$41.00	$ 80
Barred & White Rocks, S. C. Reds	5.00	10.00	48.00	94
Wh. & Buff Orpingtons, Wh. Wyandots	5.00	10.00	48.00	94

White Minorcas, 50, $6; 100, $11; 500, $55. Asstd. 100, $8; 500, $40; 1000, $80. Order from these low prices. Chicks shipped on date ordered. Ref. Morton State Bank. MORTON HATCHERY, Chris Waldbeser, Jr., Prop., BOX 23, MORTON, ILLINOIS

FLOCKS TESTED FOR WHITE DIARRHEA

ILLINOIS ACCREDITED

ALL FLOCKS TESTED FOR BACILLARY WHITE DIARRHEA

Carefully culled for heavy egg production on free range, and properly housed, fed and cared for to insure the greatest vigor in our IDEAL CHICKS. S. C. White and R. C. Brown Leghorns, Barred and White Rocks, S. C. Reds, White Wyandots, Buff Orpingtons, Anconas. Our many years experience and labor is YOUR INSURANCE OF SUCCESS with your Poultry crop this season and at our VERY MODERATE PRICES you take no chances when you order our Hardy, Healthy, Vigorous, Pure Bred IDEAL CHICKS. Get our 1927 Literature containing full information and detailed prices now before placing any orders for Chicks.

LAFAYETTE HATCHERY, INC., Dept. 34 (Formerly LaFayette, Ill.) GALVA, ILLINOIS

FARROW CHIX
FOR SUCCESS
REGISTERED U.S. PAT. OFFICE



NOW IS THE BEST TIME TO ORDER AND RAISE FARROW CHIX
IT'S NATURES TIME



Let Uncle Sam bring you 50 Farrow Chix for each setting hen.
They can care for that many easily.



Let each Hen have 50 Farrow Chix and watch the results.

QUALITY MATINGS PUREBRED FARROW CHIX--Prices JUNE 1st to JULY 10th Deliv.

	50	100	200	500
S. C. WHITE LEGHORNS. S. C. BROWN LEGHORNS	$4.50	$ 8.00	$15.50	$37.50
BAR. ROCKS, S. C. REDS, ANCONAS	5.00	9.00	17.50	42.50
WHITE ROCKS. R. C. REDS	5.50	10.00	19.50	47.50
BUFF ORPINGTONS. WHITE WYANDOTTES. BLACK MINORCAS	6.00	11.00	21.50	52.50

Heavy Asstd. $7.50-100; Light Asstd. $6.50-100. Special Matings 2c chick higher and Farrow Famous Star Matings Wh. Leghorns 4c chick higher than Quality Matings. Prepaid, 100% alive del. Catalog free. 10 weeks, 16 weeks, 20 weeks old pullets and cockerels for sale at reasonable prices. Write for price list.

AMERICAN CERT-O-CULD

D. T. FARROW CHICKERIES Dept. 18 Peoria, Illinois

CARTER'S
CHAMPION CHICKS REG. U.S. PAT. OFF.

The Big Money is in Winter Eggs
"Champion" Chicks Lay Winter Eggs

Copyrighted 1927

When prices range from 25c to 60c a dozen during the year, the hen that lays 200 eggs lays 50 60c eggs more than the hen that lays 150—the 50 **extra** eggs are **winter** eggs, when eggs are highest. "Champion" Chicks mean **winter** layers. **Winter** layers mean **big profits.** It would pay to buy "Champion" Chicks at double our prices. In the veins of "Champion" Chicks flows the blood of the **MOST NOTED** and **HEAVIEST LAYING** Strains in the Country, such as **TANCRED, MARTIN, HOLTERMAN, SHEPPARD, QUEEN BESS,** etc. That's not all. Continued breeding, care and culling are also just as essential. "Champion" Flocks are carefully culled, selected, inspected and mated by experts to get both stylish Standard Type and **INCREASED** Egg Production. The Cream of the Best Bred-to-Lay flocks in the land, selected fowls, showing high records in many of the Official Egg-Laying Contests, are being constantly introduced into our breeding pens and flocks. We spare no expense to improve Laying Qualities.

The Finest Catalog Ever Issued

by a hatchery, tells about them. Many illustrations of "Champion" Fowls in natural colors, full page size, as well as many fine half-tones. Contains complete information about our twenty varieties of "Champion" Fowls, detailed prices and our Big **PRIZE OFFERING.** Order it today. It's Free.

"Champion" Chicks Now at June Prices

We have built up an enormous business in producing **high quality** "Champion" Chicks. Our costs of brooding, feeding, operating and hatching are low for this exceptional quality. The even, moderate climate of this ection is ideal for producing fine chickens at low cost. That's why we can offer such top quality at such remarkable prices. There will positively be no further reduction in price. **"CHAMPION" QUALITY** will be remembered long after the price is forgotten. 25% deposit, balance 10 days before shipment. Order right from this ad and insure eggs next winter.

Pure-bred Quality "Champion" Chicks

are good, honest, vigorous, healthy, pure-bred chicks from selected, inspected flocks. Better than ordinary chicks.

Prepaid, 100% Live Delivery	50	100	200	500
White and Brown Leghorns	$5.00	$ 9.00	$17.50	$42.50
Anconas and Buff Leghorns	5.25	9.50	18.50	45.00
Barred & White Rocks, R. I. Reds	5.50	10.00	19.50	47.50
Buff Rocks, Black Minorcas	6.00	11.00	21.50	52.50
White Wyandottes, Buff Orpingtons	6.00	11.50	22.50	55.00
Columbian and Silver Laced Wyandottes	6.25	12.00	23.50	57.50
White Minorcas, Lt. Brahmas, White Orpingtons	6.50	12.50	24.50	60.00
Heavy Assorted	4.75	8.50	16.50	40.00
Light Assorted	4.00	7.50	14.50	35.00

Member both International and American B. C. A. Reference: Burnett's Bank. ORDER FROM THIS AD.

CARTER'S CHICKERY, Box 29, ELDORADO, ILLINOIS

Michigan Accredited Chicks

Buy your chicks from heavy laying flocks that are officially accredited by inspectors supervised by Michigan State College and of prize winners at the Holland Poultry Show. White and Brown Leghorns, Anconas, Barred Rocks, S. C. R. I. Reds. 100% live delivery, postpaid. Send at once for free catalogue, full particulars and detailed prices.

HILLVIEW HATCHERY, C. BOVEN, Proprietor
R. 12, Box 10 A HOLLAND, MICHIGAN

20TH CENTURY CHIX FOR 27 YEARS

WE HAVE BEEN PRODUCING AND SHIPPING CHICKS from our high class Heavy Laying Flocks to Thousands of pleased customers and rendering Full Satisfaction. We can do the same for you in 1927. Flocks AMERICAN CERT-O-CULD. We ship C. O. D.

	50	100	500	1000
S. C. White, Brown, Buff & Black Leghorns, Anconas	$4.50	$ 8.00	$38.00	$ 72.00
Barred & White Rocks, S. C. & R. C. Reds, Blk. Minorcas	5.50	10.00	48.00	95.00
Wh. Wyandottes, Buff Orpingtons, White & Buff Minorcas	6.25	12.00	57.00	110.00
Barron Wh. Leghorns, Impt. Mating, Parks Ped. Rocks (PC-33)	6.75	13.00	60.00	110.00
Extra Quality Barron White Leghorns, Heavy Mixed	4.75	9.00	43.00	80.00

Light Mixed, 50, $3.75; 100, $7; 500, $33; 1000, $62. White Pekin Ducklings, 20c each. We can ship your chicks C. O. D. You can pay the postman when you receive them plus the postage. Get our Free Catalog or order direct from this ad and save time. Reference—Commercial Bank.

20TH CENTURY HATCHERY, Box 27, NEW WASHINGTON, OHIO

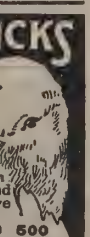
BABY CHICKS from inspected flocks. White, Brown and Buff Leghorns $9.00; Barred Rocks, S. C. R. I. Reds $11.00 per hundred, 20% down, balance C. O. D. on delivery, 100% Alive Delivery Guaranteed. Discount on large orders.
ALMENDINGER HATCHERIES, Rocky Ridge, Ohio.

WHITE LEGHORN HENS AND MALES
now half price. Thousands of eight-week-old pullets. Also baby chicks and eggs. Trapnested, pedigreed foundation stock, egg bred 27 years. Winners at 20 egg contests. Catalog and special price bulletin free. I ship C. O. D. and guarantee satisfaction.
GEORGE B. FERRIS, 965 Union, Grand Rapids, Mich.

SEND NO MONEY for SILVER LAKE CHICKS
Just mail your order. We ship C. O. D. and guarantee prepaid 100 Per Cent Live delivery of sturdy, purebred Chicks from healthy bred-to-lay flocks: Wh. Br. & Buff Leghorns 8c; Bd. and Wh. Rocks, R. I. Reds, Anconas, Blk. Minorcas 10c; Buff Orpingtons, Wh. Wyandottes, Buff Rocks 11c; Mixed 8c; all heavies 10c. Orders for 50 chicks 1c more, 2c chicks 2c more.
Silver Lake Egg Farm, Box H. D., Silver Lake, Ind.

Buy a Vest Pocket Herd Book

SIEB'S GUARANTEED CHICKS
from CERTIFIED HOGAN TESTED HEAVY LAYING FLOCKS



AT ASTONISHING LOW PRICES. WHY PAY MORE?
Certified chicks from high producing stock bred many years for laying and exhibition purposes. Tested and certified for high egg production. 97% live delivery. Prepaid. Catalog Free.

Prices Effective	25	50	100	500
Wh. & Br. Leghorns	$2.50	$4.75	$ 8.50	$41.50
Bd. Rocks, Reds, Ancon	2.75	5.25	9.50	46.50
Wh. & Buff Rocks	3.00	5.75	10.50	51.50
Blk. Minor. Buff Orp.	3.25	6.00	11.00	53.50
S.L. Wyan.	3.50	6.50	12.00	56.50
Wh. Orp.	3.50	6.50	12.00	56.50
Wh. Wyan.	3.00	5.75	10.50	51.50
Heavy Ass'td	2.50	4.75	8.50	41.50
H.&L. Ass'td	2.50	4.50	8.00	38.50
Light Ass'td.	2.25	4.00	7.00	33.50

SIEB'S HATCHERY Box 718 LINCOLN, ILL.
Members I. B. C. A.

fore the chicks in hoppers or troughs constructed so as to prevent waste.

3. Provide sufficient hoppers so that all chicks can eat freely.

4. Feed grain once or twice daily but restrict the amount to from one-third to one-half the weight of mash consumed.

5. Continue this system of mash and grain feeding as long as there is any indication of the disease. This usually requires from one to two weeks; the amount of skimmilk in the mash for the more vigorous birds can then be very gradually reduced and the ration changed until in from two to three weeks it is the same as the one in use before coccidiosis started. The change should not be made abruptly.

6. Feed greens as usual.

7. Provide sufficient watering vessels so that the chicks can drink freely. Keep the drinking vessels at least five feet from the mash hoppers.

8. Do not neglect sanitation.

Precautions

The 40 per cent dry skimmilk mash may result in unusually rapid growth. It is desirable to avoid the possibility of a setback when the ration is changed to the usual grain mixture. Therefore, the 40 per cent dry skimmilk mash is not recommended for continuous feeding longer than three or four weeks. The dry skimmilk should be reduced gradually and the permanent ration may to advantage contain 10 to 20 per cent dry skimmilk.

When chicks are fed liberally with skimmilk, either dry or liquid, the droppings become watery, causing the litter and floor to become wet. This makes frequent cleaning of the houses necessary to check development of the parasite. *When the floor does not become wet it indicates that the chicks are not consuming sufficient milk.*—Dry Milk Institute.

Hen Injured

Can you please give me some idea as to what was the matter with one of my Barred Rock hens? When I first noticed her I thought that she was "broken down" for she went about with her tail down, her abdomen bulged with fat. After being removed from the flock she became very inactive and developed a slight limp. One leg seemed swollen, otherwise she seemed bright and moved her head alertly.

After killing her, I examined the leg and found that there was a layer of fat under the skin; between this and the flesh was a layer of yellow, paper-like substance which seemed to be in folds, and a hard lump of the same substance directly over the first leg joint. It was very odorous. The flesh under this substance seemed blood shot. The rest of her body was normal except the liver which was a bright orange streaked with red. She has been one of my best layers. Do you think this condition could have been caused by an accident? Would the overfat condition have anything to do with it?

This is my first experience with chickens and I am afraid I have been rather lax in sticking to my feeding problem. I have been feeding the following ration (omitting the oats) per 25 hens: Wheat 3 lbs., oats 1 lb., sour milk 10 lbs., mash 1 lb., kale—all they will eat; plenty of grit and oyster shell. My chickens are too fat. How shall I go about dieting them? I will appreciate any suggestions which you can give me.

Banks, Ore. (Mrs.) E. L.

The condition noticed in this hen is undoubtedly not any sort of disease, in fact a person can be rather positive in their statements in this respect. The trouble is undoubted due to some sort of mechanical i jury, very likely something simil to a spur wound, which will cause i fection and a condition such as th to occur.

The condition which you have n ticed underneath the skin and t bunch which has collected is pus i fection or similar to pus infectio which would lead a person to come this sort of a conclusion.

The odor associated with that also a fact which would also lead the same conclusion. In fact t broken down condition which w noted at the beginning of this tro ble would also come in the same ge eral list of symptoms.

The fact that the rest of the bo was normal except the color that w noted in the liver is secondary to since the liver is sort of a strain for the entire digestive process, a is very apt to indicate an abnorm condition some place which it is e deavoring to take care of by th color which was noted.

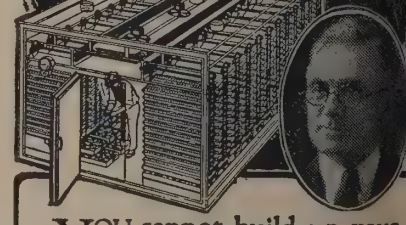
A person would suspect that spur wound was the cause of it, b any sort of mechanical injury cou be responsible for it.

If the birds are out of conditio being too fat, and are hens, t thing to do is to cut down on t amount of grain feed which is giv to them, and cutting down on t grain will automatically increase t amount of mash consumption. flock is never going to become exce tionally fat on mash feed. I am a suming that these are hens that a over a year old which you are han ling, since with pullets we wish have them gain in weight to almo the first year. There is usually n much danger of an overly fat co dition in them during this time. Wi hens it is a different problem thou in decreasing the amount of gra given to them especially in the mor ing will improve the mash consum tion and automatically lower t weight of a bird by increasing e production.—J. B. HAYES.

"I always find that hen roosting the mail-box."

"Sure. It was hatched from a pa cel post egg."

A Good Foundation



YOU cannot build up your flock of poultry from a better foundation than on that of the quality, health and vigor of

Smith Hatched Chicks

The Smith 47,000 furnishes more fresh air and oxygen to every egg through its forced draft principle of incubation than any other type of incubator. That's why Smith Hatched Chicks are better, that's why so many hatcherymen have built their success on Smith performance.

If you don't know of a Smith equipped hatchery in your vicinity, write us.

The Smith Incubator Company
2028 W. 74th St. Cleveland, Ohio

ational Guernsey Sale Averages $1,110

average of $1109.86 was re- for the 76 head sold at the Na- Guernsey Sale, May 12, at n, N. J. A 19-month-old bull, vater Peter Pan, a son of Lang- Steadfast from a daughter of vater Horatius, consigned by vater Farm, topped the sale at .

highest price for females, , was paid for the three-year- ierar Fanny 2d, consigned by McL. Merryman. She has a G record of 610 lbs. fat, and show winner in 1925 and 1926. re will be a complete report of ıle in the next issue of Hoard's nan.

A Colorado Farm

RD'S DAIRYMAN:—I see in 's Dairyman of April 10 a re- of farm income from John S. s of Wisconsin, so thought I send in a report of my place as account of everything. While not primarily a dairyman, I n a few years to have cows to a major part of my income. ve 240 acres of irrigated land ich 80 acres is still in chico I came into possession of this vater rights, and buildings with- last 5 years and think that the ıgs are in as good or better than they were then. Also three ago 160 acres were raw brush not even producing pasture. acres have been cleared, l, and worked into crops, main- ain with sweet clover, in the ree years.

Inventory	Mar. 1, 1926	Mar. 1, 1927
uildings, and water	$10,600	$10,600
ent	700	700
ock	815	1,055
	500	500
	$12,615	$12,855
Receipts		
roducts		$ 622.90
nd chickens		91.45
		1815.00
		740.20
		468.80
		73.65
		193.85
truck		13.85
		180.60
		$4200.30
on inventory		240.00
gain for year		$4440.30
Paid Out		
		$ 680.10
		81.03
		33.50
		190.00
		119.09
ssessment (upkeep)		54.50
seed		48.10
		200.57
sundries, etc.		106.08
twine and threshing		101.65
		64.73
ce		16.00
for owner and wife		1200.00
at 6% on inventory		756.90
expense		$3652.25
rofit		$ 788.05
		$4440.30

his statement I have taken inventory at what things actually cost me. I have not allowed for depreciation on machinery as my machinery is second hand and the labor I have put on it has more than offset wear for this year. Also I have not credited the place with rent of house, milk, butter, eggs, potatoes, vegetables, and meat used, as this would be only guesswork. I have not made any credit for land cleared and leveled and fence built, nor have I charged the board of our one hand who lives with us. I think this shows a respectable profit for the year, owing mainly to the good price for potatoes. Also I can further verify my gains in that I paid last November a note for $1,000 on water rights and have met all interest and expenses on time without going behind any elsewhere. The salary credit for myself and wife is rather generous as I am a "lunger."

Colorado. J. E. CROW.

Bulletins of Interest

Clean Milk—Its Relation to Profitable Dairying, by R. C. Fisher. Bulletin 92, Connecticut Experiment Station, New Haven, Conn.

Marketing Wisconsin Foreign Cheese by Federation, by H. H. Bakken. Bulletin 380, Wisconsin Experiment Station, Madison, Wis.

Effect on the Viscosity, Bacterial Flora, and Quality of the Resulting Ice Cream When the Ice Cream Mixture is Re-emulsified, Reviscolized, or Re-homogenized, by W. H. E. Reid and S. F. Scism. Research Bulletin 82, Missouri Experiment Station, Columbia, Mo.

Net Energy Values of Alfalfa Hay and Alfalfa Meal, by E. B. Forbes, J. A. Fries, and W. W. Braman. Reprint from Journal of Agricultural Research, Washington, D. C.

Drainage on the Farm, by W. W. Weir. Circular 304, California Experiment Station, Berkeley, Calif.

The Tattoo Method of Marking Hogs and Its Use, by F. E. Murray. Miscellaneous Circular 57, U. S. Dept. of Agr., Washington, D. C.

The Draft of Farm Wagons as Affected by Height of Wheel and Width of Tire, by J. C. Wooley and M. M. Jones. Bulletin 237, Missouri Experiment Station, Columbia, Mo.

The Hitch Booklet for 3, 4, 5, and 6 Horses. Leaflet 160, Horse Association of America, Union Stock Yards, Chicago, Ill.

Rogers' Grade Guernsey Sale

The grade Guernsey herd owned by Luther Rogers of Hinsdale, Ill., was dispersed at the Chicago Dairy Cow Exchange, April 21. Sixty-three head, 2 registered bulls and 61 grade cows and heifers, sold for an average of $147 to buyers from Ohio, Indiana, and Illinois. One bull went to $360; the top cow brought $212.50 and the top 10 cows averaged $193. The lowest 10 head averaged $97.50.

Mack and Weiland did the selling and Reid Murray, manager of the "Exchange," had charge of the sale.

SALE ANNOUNCEMENTS

5—Guernseys—Fond du Lac County Guernsey Sale at Fond du Lac, Wis. Chas. L. Hill, Sale Manager.
6—Guernseys. Chippewa Valley Guernsey Sale, Eau Claire, Wis. R. H. Loether, Mgr.
7-28—Holstein Dispersal. Grahamholm Farms, Rochester, Minn.
1—Guernseys. Fifty Guernseys at Mankato, Minn. Property of S. B. Wilson. Dr. M. B. Wood, Sale Mgr.
2—Holsteins. National Holstein Sale at Springfield, Mass.
2—Guernseys. Highlands Dispersion, W. H. Gratwick, Owner, at Trenton, N. J. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
—Jerseys. National Jersey Sale, Trenton, N. J. Joe Morris, Sale Mgr., Westerville, O.
—Ayrshires. N. E. Ayrshire Breeders' Sale at Springfield, Mass., W. E. Brigham, Mgr.
15—Guernseys. Breidablik Guernseys at Auction. Breidablik Farm, Wilmington, Del. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
15-16—The National Ormsby Sale at the Minnesota State Fair Grounds, Minneapolis, Minn. Melin—Petersen Co., Sale Mgrs.
16—Guernseys. Louis Merryman's 16th Semi-annual Sale, Timonium, Md. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
21—Holsteins. W. H. Krause Dispersion at Thorp, Wis.
2—Edward Yager, Holstein Dispersal, Rice Lake, Wis. W. H. Krause, Thorp, Wis., Mgr.
—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.

FEMCO FARMS Consigns to THE NATIONAL ORMSBY SALE

JUNE 15-16 — Minnesota State Fair Grounds

A 1050-POUND COW—A granddaughter of Sir P O M 37th. Her sire is a full brother to Della 4th (37.55) and Della 3d (35-lb. 3-year-old). A very typy cow.

A YEARLING SON of the cow above, by our junior sire whose two nearest dams are 1,000-lb. 2-year-old. He combines the blood of the world's greatest sires of 1,000-lb. cow, Sir P O M, O K L and "37th."

A TOPPY 5-YEAR-OLD COW due soon after the sale to Pride of Sir Piets who is from the highest record daughter of "37th." She is from a 30-lb. cow and by a 1,227-lb. son of Sir Ormsby Hengerveld Korndyke.

PAULINE ORMSBY PRIDE, a splendid young cow by Ormsby Mercedes Pride, son of "37th" and full brother to Pride 2d, 1,327-lb. 3-year-old. Bred to Pride of Sir Piets.

A 5-YEAR-OLD granddaughter of "41st" due sale time to Pride of Sir Piets. Her sire is from a 34-lb. 1,000-lb. cow and is a maternal brother to the National Champion, Tritomia Pietertje Ormsby.

A YOUNG SON OF PRIDE of Sir Piets. His four nearest dams average 1,038 lbs. Dam is 783-lb. 2-year-old daughter of a 30-lb. cow and a 1,012-lb. son of Sir Ormsby Hengerveld Korndyke, the youngest son of Pietertje Maid Ormsby.

Look Them Over At The Sale

FEMCO FARMS (Box 336-B) **Breckenridge, Minn.**

Last Reminder!

GRAHAMHOLM DISPERSAL

MAY 27-28
ROCHESTER, MINN.

120 SUPER-HOLSTEINS

(See Ad in May 10th Issue)

A SALE YOU CAN'T AFFORD TO MISS!

OUR CONSIGNMENT
To the NATIONAL HOLSTEIN SALE

INCLUDES 2 GRANDSONS OF K. P. O. P., both outstanding individuals sired by grand champion sons of K. P. O. P. The dams of both these bulls have excellent yearly records.

WE ARE ALSO CONSIGNING 2 BRED HEIFERS of our own breeding, one by a 1000-lb. bull, the other by an 1124-lb. bull. These heifers are outstanding show animals, one was first at our 1926 state fair. One is from a 1004-lb. 4-year-old dam, the other from an 873-lb. junior 3-year-old. Bred to a year record grandson of K. P. O. P.

Look for them at Springfield, Mass., June 2

OSBORNDALE FARM, W. S. Kellogg **DERBY, CONN.**

PRODUCTION AND SHOW TYPE
Yearling Guernsey Bulls

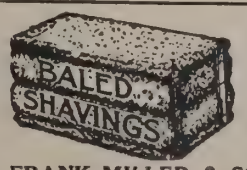
Show type dams with records of 657 and 767 lbs. fat. By A. R. sire, whose dam has 700 lbs. also, his daughter has 534.5 lbs. of fat at four years. May Rose breeding. Right color, right size, right price. Write for pictures and particulars.

GEO. SCHMIT, Greenville, Wis.

SERVICEABLE BULLS
GRAND CHAMPION BREEDING

Two serviceable bulls for sale. Very typy. From 23-lb. Jr. 3-yr.-old and 24-lb. 4-yr.-old dams. One is by the All-American Johanna Rag Apple Pabst. The other by Walcowis Sir Ollie from a daughter of Johanna Rag Apple Pabst. Have also a few bull calves of the same breeding. Federal accredited herd. Write

JOS. E. PIEK, R. 5, HARTFORD, WIS.



Now is the Time

All wise Dairymen get their orders placed for Baled Shavings. They are plentiful now and can be bought at a reasonable price. Don't wait until they are scarce and high and be left without them. Write us today and reserve a shipping date and it will save you money.

FRANK MILLER & SONS (*The Sawdust Millers*) **3613 Auburn Ave., Chicago, Ill.**





How to Know Blood Diseases in Your Herd

Barrenness or Sterility, Slinking of Calves, Retained Afterbirth, Goiters in Calves, Scours in Calves, Infected Sire, Shortage of Milk.

If your herd is afflicted with any of these ailments you will know they are not doing their best. You can stop these losses at small expense.

Ask for FREE copy of "The Cattle Specialist" and learn how to increase your profits. Write Dr. David Roberts for free Veterinary Advice.

Dr. David Roberts Veterinary Co., Inc., 195 Grand Avenue, Waukesha, Wis.



REICHERT'S
Anti-Suk Weaner
Double-hinged, the Reichert Weaner permits grazing, eating and drinking. Sharp-pronged, it discourages all contact with the udder. Strongly made, heavily tinned and easily applied. Made in two sizes—for calves and cows. Calf size, 45c; cow size, 50c. If your dealer can't supply you, we'll send direct.
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FOR UNLOADING HAY WITH GAS ENGINE. HAS QUICK RETURN DRUM AND BAND BRAKE. BOTH DRUMS OPERATED FROM LOAD BY ONE ROPE. SEND FOR CIRCULARS.
JOHN FARRELL & SON
NEWTON, SUSSEX CO., N.J.

Buy a Vest Pocket Herd Book

Dairy Farm Corn Crib and Granary

(Continued from page 553)

working space until spring when grain is being cleaned for seed. The size of the bins may be varied, depending on the crops to be stored. In case a portable elevator is available for filling, scuttles may be provided in the roof. Usually the filling will be done from the driveway. This driveway also serves as a work space and as a shelter for a wagon, buggy, or auto.

The construction should be strong, as a building for grain storage will surely be filled to its utmost capacity at some time. The plan in Fig. 2 shows the details of construction quite clearly. At first glance the joist and studding may seem to be stronger than actually necessary, but when it is remembered that the building must stand plumb and firm after many years, if it is to prove an economical investment, the dimension of lumber shown is entirely justified. The proper spacing is also shown for the joists, studdings, and ties. It is 2 feet on center (O. C.). The roof is one-third pitch so that shingles may be used if desired.

Beveled corn crib boards one inch apart are used on the outside of the crib and a good grade of drop siding is used on the granary. Damage from mice may be reduced in the crib by putting hardware wire cloth next to the studding before nailing on the corn crib boards. This should extend up about 2½ feet and at this height a strip of sheet metal is placed around the crib to prevent the mice from climbing higher than the wire cloth. Strips of tin will need to be placed the doors to prevent entrance of m at these places. Concrete may be u for floors to good advantage in ma localities and will reduce the risk f waste from mice and rats.

The doors for filling corn cribs usually not hinged but slipped place when the corn is high enou to press against them and hold th in position.

Besides the hinged doors openi into the crib, these same openi should have removable boards wh may be removed when corn is to taken from the crib. If these movable boards are put in on a sl so that the lower may be remo first it may prove a great convenien These boards when in place resem the slats of a cupola or wooden ve lator.

In some locations a door open into one end of the crib may be c venient.

The ventilating trough for the c is good insurance against loss fr molding of the corn in unfavora seasons. It extends along the mid

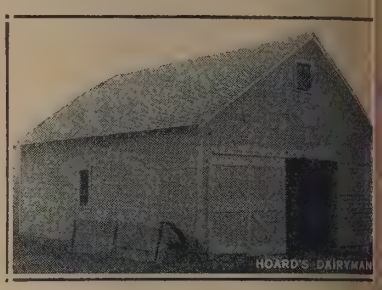


FIG. 3—CORN CRIB AND GRANARY

of the crib on the floor and the that can pass through it will in m cases prevent the corn from mold when placed in the crib before be completely dried.

A small granary suitable for a fa where it is desirable to store not o seed but the supply that is to ground for feed is shown in Fig. This building has four bins of ab five hundred bushels capacity ea In case of a large crop the alley work space may be filled at thresh time. The platforms and filling do may be omitted if a portable eleva is available for filling. The windo will serve in this case for an open for running the spout to the bins.

A building of this type is m very strong so that it will not se or spring out of shape. It is sho very clearly on the plan just w lumber is used and the spacing of dimension pieces.

Finds Trench Silo Valuable

HOARD'S DAIRYMAN:—The seve articles that have appeared Hoard's Dairyman have been of s cial use to me as I had tried to m silage in a trench without first ting it and had a good deal of sp age. Last year I got a 16-inch f chopper, put it on one side of trench silo, and put the Overland on the other side. I belted the t together and with the assistance my two young boys we filled our at the rate of a good load per ho and it cost us about 18 cents load.

We covered our silage with ab two feet of fine flax straw, and t put on 8 or 10 tanks of water. then tramped it down with hor The silage has kept very well and a forkful has spoiled. Despite heavy snow of the past winter have had no real trouble to ge out as not a particle of it has fro

I wish to thank you for the in mation you furnished and to that the trench silo will furn cheap feed and get results.

Oklee, Minn. W. H. W



H A V E A C A M E L

A lighted Camel leads straight to contentment

A NEW kind of smoking pleasure came into the world with Camel. For Camel presents your taste with choice Turkish and Domestic tobaccos at their best. What a mellow mildness each lighted Camel brings! And you can go all the way with Camels—smoke them as liberally as you choose—they will never tire the taste.

Smokers of the world have placed Camel ahead of all other cigarettes in popularity. Demanding the taste and fragrance that only choice tobaccos can bring, and finding it here, they have placed Camel first.

Introduce yourself to contentment with a pack of Camels. Never-ending smoke enjoyment is in store for you once you meet the cigarette that's all quality. As contented smokers say throughout the land, inviting you to smoking pleasure: *"Have a Camel!"*

R. J. REYNOLDS TOBACCO COMPANY, WINSTON-SALEM, N. C.

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Easy — Quick — Safe
No Mess — No Stain

r after year thousands more dairymen farmers come back for Fly-Cide. The on is plain. It is consistently the best repellent on the market. It kills flies kly, safely and harmlessly—without in- . Fly-Cide has proven the best, and is strictly on its own merits. Users tell story. "It does the work better and ker." "Nothing like Fly-Cide on the ket. Rids cows of flies and pests." "Does burn or gum the hair." Just try Fly- once. It's fully guaranteed.

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want to acquaint those who are not al- y using Fly-Cide, so have arranged to ay the freight on your initial order. Fly-Cide at our risk. Order any amount, test it in every way. If not delighted results just send the unused portion , and your money will be refunded. s, freight prepaid on the first order are: llon can $1.75. 5 gallon can $6.00. 10 n can $11.50. 20 gallon drum $22.00. 50 n drum $50.00. Household Fly-Cide for home. $1.00 brings trial size prepaid. e today.

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4065, Sta. A, KANSAS CITY, MO.

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KRESO DIP No. 1
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TO AID IN KEEPING
l Livestock and Poultry Healthy

Kills Lice, Mites and Fleas. For Scratches, Wounds and common skin troubles.

RITE FOR THESE FREE BOOKLETS:

151—**FARM SANITATION.** Describes and tells ow to prevent diseases common to livestock.
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185—**HOG WALLOWS.** Gives complete direc- ons for the construction of a concrete hog wallow.
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163—**POULTRY.** How to get rid of lice and ites, and to prevent disease.

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PERIAL DOG MEDICINES

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Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.
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hen writing an advertiser tell you saw his ad in Hoard's ryman. He will appreciate wing it.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Letting Young Calves Run

A dairyman once said to the writer that he believed in letting his heifer calves "run," by which he meant that they should be pastured as soon as they cared to eat grass and then be kept outdoors as much as possible. His idea was that such outdoor life would insure hardiness of constitution which, he thought, was of supreme importance. We thoroughly agree with him that constitution is of vital importance, but there are two sides to the pasturing practice as concerns dairy-type heifer calves, and they should be kept in mind by the practical man.

Never shall we forget the woeful appearance presented by a lot of fine young Holstein heifer calves that had been on grass from the time they were a few weeks old. It was in the hot, dry weather of August that we were asked to examine these heifers. Some of them had died; the ones we saw were pot-bellied, scrawny, thin, harsh-coated, and weak. When they were made to run they immediately began coughing. The cough was of croupy character, painful, and was continued until the animal evidently raised phlegm. No wonder they coughed in that way, for they were infested with lung worms. We opened a calf that had died an hour or two before our arrival and found the windpipe literally packed with threadlike worms (Strongylus micrurus). Asked if he had suspected the presence of these worms, the owner said he had never heard of such a thing and that, perhaps, was the reason he had not feared to let the calves "run." Had he suspected worms he might have found the eggs or even some of the worms, by examining the discharged mucus from the nostrils or mouth with a low power microscope. It is well to make such an examination whenever pastured calves have such a discharge and especially when they cough.

It is almost absolutely certain that young calves allowed to graze old grass, in a permanent pasture or one long used by cows, will contract lung worms and that, inevitably, means stunting and, perhaps, some deaths. It is, therefore, advisable to keep growing calves off permanent pasture, not to let any calf that is less than two to four months old graze grass of any kind and always to supplement pasture by feeding skimmilk and providing a concentrate ration. It is the thriftless calf that is surest to become infested with worms and most quickly suffer ill effects or succumb to the ravages of the parasites.

Knowing the danger of worm infestation on old pastures, the wise dairyman keeps his calves off grass during the first year of life, lets them live in a clean, airy, roomy pen, and feeds them a complete ration that insures maximum growth and development during the first year. That is good practice, but it is unwise to prevent calves from receiving the beneficial effects of direct sunlight; outdoors, on all fine days. They need the good effect of the ultra-violet or "tanning" ray of direct sunlight and that ray cannot penetrate window glass. Its effect is to cause lime to deposit in the bones and phosphorus to form in the blood. It is, therefore, a preventive of rickets and, to a certain degree, is a remedy for that disease. Exercise and sunlight are necessary and should be allowed; but injudicious pasturing may do harm.

Sabadilla Safe

HOARD'S DAIRYMAN: — In your March 25 issue the question is raised whether or not sabadilla powder was safe to use as a louse destroyer. I wish to state that I have used it for a number of years without any ill effect on myself or on the cattle, but death on lice. I always used it pure but lately I take equal parts of sabadilla powder and sulphur, mix thoroughly and apply to cattle.

I used to apply it with a shaker can but I found it too slow. I take the paper bag containing the mixture and walk along and scatter a small handful over each critter affected and repeat in 8 or 10 days. That settles the lice. I never experienced any ill effect on myself only if I feel like having a good sneeze I take the curry comb and give the cattle a good rubbing just before applying the second dose. This should be done anyway, whether you need to sneeze or not.

Wisconsin. N. P. BECKER.

Worms of Sheep

What is a good stomach worm treatment for sheep? Last summer we gave the sheep a dose of one per cent bluestone solution once a month. This seemed to work but it is very difficult to drench them all because they fight so and they sometimes get some in their lungs. Is worm powder effective when mixed with salt as directed? What kinds would you recommend?

Sparta, Wis. A. J.

For destruction or explusion of stomach worms of sheep it is best to give the new Lugol's solution treatment. For lambs mix ½ an ounce of Lugol's solution with 1 quart of water, dose 2 to 4 ounces; for sheep and large, strong lambs mix 1 ounce of Lugol's solution with 1 quart of water, dose 4 ounces. For badly infested adult sheep mix 2 ounces of Lugol's solution with 1 quart of water, dose 4 to 6 ounces according to strength of sheep. Fast animal for 12 to 18 hours before drenching and withhold feed and water for 4 hours after treatment. An ounce dose of Epsom salt given in water 10 hours after treatment improves the effect of the treatment. Stand the animal on all fours when giving the medicine. Lambs should be drenched once a month when on contaminated pasture. Tobacco in salt, or proprietary worm powder for sheep is well worth giving a trial.

Signs of Pregnancy

Please advise what are the positive, sure signs of a cow's pregnancy, prior to any appreciable enlargement of the udder, etc.

Sharps, Va. E. S.

There are no certain signs of pregnancy in its early stages. When a cow or heifer has been coming in heat at regular intervals of 21 days and the periods of heat cease after service, conception usually has occurred and these facts are most suggestive of pregnancy. Increase in size of the udder and abdomen come later. The bred cow also becomes quiet and tends to increase in weight.

Loss of Hair

I have a registered Holstein bull calf a month old. I noticed the hair is coming off on the hind leg and underneath. I know he has no lice. Can you please tell me the cause and a remedy.

Iowa, Minn. J. K.

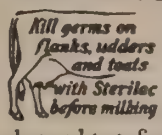
Bathe the affected part with warm water containing two teaspoonfuls of coal-tar dip per pint. When dry apply a mixture of 2 ounces of flowers of sulphur, one-half ounce of coal-tar dip, and one pint of sweet oil or cottonseed oil. Repeat the application when needed. Keep the stall pen clean and well bedded, as wet and filth often cause such loss of hair and a sore condition of the skin.

STERILAC
REG. U. S. PAT. OFF.
An Ideal Disinfectant



Clean Barns

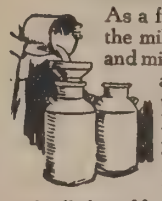
Dirt and manure teem with bacteria and mold. Remove the dirt and keep the floors, stalls, walls and ceiling clean. Apply STERILAC to all parts of the interior to destroy germs and to provide a suitable place to produce milk of low bacterial count.



Clean Cows

Wash the flanks, udders and teats first with water and then apply a solution of STERILAC to kill all bacteria. This practice is very important in the production of milk having a low bacterial count. It is a reliable procedure in the production of wholesome milk.

Clean Utensils



As a further precaution keep the milk cans, strainer, pails and milking machine and separator clean. Rinse these utensils with STERILAC solution before putting milk into them. After milking scrub thoroughly all utensils with alkali and hot water and then rinse with STERILAC solution.

Clean Milking Machines

In case the milking machine is used the metal parts should be thoroughly cleaned in alkali and hot water and then cleansed in a solution of STERILAC. The rubber tubing, rubber cups and other parts of the milking machine which are difficult to clean should soak in the STERILAC solution until ready to use. It is an easy way of keeping the machine clean.



Clean Bottling Machine and Bottles

STERILAC solution is ideal for use in bottling machines. After the bottling machine is cleaned with alkali and hot water let a solution of STERILAC run through outlets to destroy germs which may be present in the corners and other interior parts of the machine. STERILAC solution will also destroy germs inside bottles.



Sterilac for Dairy Factories

Dairymen, butter, cheese and ice cream makers will find STERILAC a most satisfactory disinfectant. It destroys the germs which produce off flavors and other forms of spoilage. Use STERILAC solution in milk vats, separators and anywhere in the factory where dairy products are produced. STERILAC destroys all kinds of bacteria which spoil milk and produce disease. STERILAC kills germs—*it does* not spoil milk which comes in contact with it. That is a very good reason why STERILAC is safe to use to produce milk that is safe to serve as human food.

Ideal to Handle

STERILAC comes in powder form—will keep its strength. Sunlight does not affect it. Special introductory offer of enough STERILAC to make 60 gallons of the strength used for ordinary sanitation $1.00 Complete directions enclosed

Send a dollar bill today. A trial will convince you.

The Sterilac Company
North Chicago, Illinois

Ayrshire Sire for Government Demonstration Farm

The purchase from the American Woolen Company, Massachusetts, of the thirteen-year-old proven Ayrshire sire, Yellow Kate's Exchange of Penshurst, has been announced by Manager Luther F. Sutton of the Reymann Memorial Farms, West Virginia. This famous bull will be used to continue a carefully planned breeding experiment with a herd of pure-bred Ayrshires presented to the state of West Virginia by the late Lawrence A. Reymann and now managed under the supervision of the United States Department of Agriculture and the West Virginia College of Agriculture.

After a careful survey of practically all available bulls that have proven by authenticated records of their daughters that they are able to consistently transmit high production, Yellow Kate's Exchange of Penshurst was selected for service in the Reymann Memorial herd. An official average of 11,062 pounds milk, 476 pounds fat has been made by 22 of his daughters, nearly all of which were tested as immature heifers. Furthermore, these heifers show an increase of 576 pounds milk and 68 pounds fat over the production of their dams, as mature cows.

Prior to coming into prominence in the American Woolen Company herd, Yellow Kate's Exchange of Penshurst was used by two different breeders in Maine and also at the Bellefonte Farm, New York. Although he was used only in small herds, Manager C. LeRoy Ambye felt convinced that Yellow Kate's Exchange of Penshurst was destined to become a great sire and used him freely at the American Woolen Company herd with the result that 46 sons and 144 daughters have been registered by him, and a great many cows will yet calve to his service.

Yellow Kate's Exchange of Penshurst was bred by David Wallace, Auchenbrain, Mauchline, Scotland, and imported to America in his dam, Auchenbrain Yellow Kate 3rd, one of the greatest cows of the breed. In the herd of Percival Roberts, Jr., Pennsylvania, this great sire was born and here his dam made the excellent record of 21,123 pounds of 4 per cent milk, 888 pounds fat. At one time her sister, the famous Auchenbrain Brown Kate 4th, also owned at Penshurst Farm, held the world's record with 23,022 pounds milk, 918 pounds fat.—Ayrshire Breeders' Association.

You need a Vest Pocket Herd Book

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM
MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

WHITE COLLIE PUPPIES

We are expecting another litter of white Collie puppies about June first. If you intend to buy a dog this summer we suggest you act promptly as our supply is limited. All dogs eligible for registration. We will furnish necessary papers for registering if required. Price F. O. B. Fort Atkinson: Females $10.00, males $15.00.

HOARD'S DAIRYMAN FARM
Fort Atkinson, Wisconsin

AYRSHIRES

Spring Valley AYRSHIRES

Accredited Herd

Foundation FEMALES - BULLS

For Sale At All Times !

Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL
AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us. Herd under Federal Supervision.

SYCAMORE FARMS, Douglassville, Berks Co., Pa.

Penshurst Ayrshires

HEALTH—PRODUCTION—QUALITY

Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.

PENSHURST FARM, NARBERTH, PA.

A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.

GLEN FOERD FARMS TORRESDALE, PA.

South Farm Ayrshires

Will sell a limited number of Young HEIFERS and BULLS.

Let us know your wants.

SOUTH FARM, Willoughby, Ohio

AYRSHIRE COWS

FULLY ACCREDITED

300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

Registered Ayrshire Cows

We are offering for sale a number of choice young cows bred for fall freshening. Several are bred to Aldebaran Victor, he a son of that great cow, Highland Polly. Others are daughters of "Victor" bred to a son of Bargenoch Gay Cavalier. Priced from $175 up. Herd under federal supervision.

ALDEBARAN FARM, E. J. Nelson, Mgr., RACINE, WIS.

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Center, Wis.

LAST CALL!

Annual Sale of the

Ayrshire Cattle Breeders' Ass'n of New England

60 QUALITY AYRSHIRES

Eastern States Exposition Grounds

Springfield, Mass., June 9th

The day following the Annual Meeting of the Ayrshire Breeders' Association of America

The consignment contains animals to fill every requirement —

FRESH COWS, COWS and HEIFERS bred right for the FALL SHOWS, a few SENIOR CALVES and THREE BULLS of herd heading quality.

Send for Catalog — mailed only upon request

W. E. BRIGHAM, Sale Manager, Hope, R. I.

E. M. GRANGER, Jr., Thompsonville, Conn. — Auctioneer

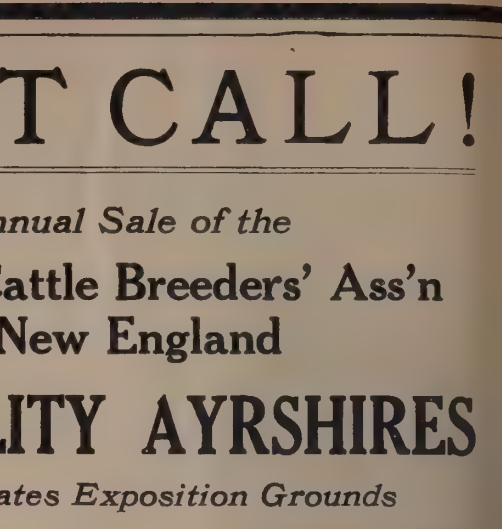
Like Peas in a Pod

Are the Ayrshires in a Herd

All just alike from one end of the row to the other. . . . . .

And the records of dozens of herds with every cow on test prove that Ayrshires are uniformly high producers . . . . . .

There are bigger profits in breeding cattle that are even in type and production . . . . . .



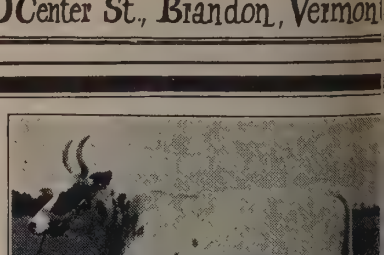
Write for new booklet or let us help you get a start with Ayrshire

Ayrshire Breeders' Assn., 10 Center St., Brandon, Vermont

Ayrshires

—are a plain business proposition. "Profit" is always the biggest possible return from the least possible outlay. That is "AYRSHIRES" in a nut shell.

Let us give you the official figures covering Pinehurst Farm Ayrshires. They are of value to every one who farms to make money. Address



PINEHURST FARMS, Mr. J. S. Dunlop, Pinehurst, N. C

AYRSHIRE CATTLE AND BERKSHIRE HOG BREEDERS

KEEP TAB ON YOUR COWS

Send 5c in stamps for samples and prices our weekly and monthly Milk Record Sheet
Hoard's Dairyman, Fort Atkinson, Wis

Housing the Hog

(Continued from page 554)

doing for later, worms and the ious forms of the disease caused the filth borne germ *bacillus nephorus* took a heavy toll. The ner called in a specialist in swine eases to diagnose the difficulty l prescribe a remedy. The reme- ? There was no remedy for that rticular bunch of pigs—the dam- had already been done. The iedy was to prevent infection in future. The pigs could be far- ed in the central hog house but en they were old enough to be ned outside they must go on new d, not infected with worm eggs disease germs. The old yard was be plowed, and cultivated several es during the summer to get the eficial effects of sunshine.

Thus this farmer found that his central hog house could not be d to serve every need of his herd er his conditions. Thousands of ners have had similar experiences.

The old way of feeding hogs was take all the feed excepting blue- ss pasture to the hogs. It is now mmon practice among successful ne producers to let the hogs go to onsiderable portion of their feed n hogging down corn and grazing ge crops and to self-feeders. This not always be successfully done if sleeping quarters are confined to central hog house.

The need for disease and parasite rol, coupled with the economy of ing the pigs go to a portion of r feed, necessitates the use of col- or movable hog houses to a great- r less extent in connection with central house.

common practice is to clean central house thoroughly, scald- the floor and pen sides with boil- water to which lye has been add- n the proportion of one pound of to 30 gallons of water. As each is put into her pen for farrow- her sides and belly are washed warm water and soap. The bed- is clean and uncontaminated. n the pigs are old enough to go they are hauled to clean fields lly where good forage awaits n if they have not been farrowed early. Here they are housed in colony houses. The pigs are kept y from the infected yards until are 4 months old. Some men the colony houses the year round for farrowing and housing.

dvantages and Disadvantages

ere are some disadvantages of colony house. It takes more la- to look after a given number of . Getting water to hogs thus ed is frequently a difficult prob- With the use of self-feeders in ection with forage crops, getting to the hogs is not a difficult lem; however, it takes more time where the central house is used.

he chief advantages of the colony house are that parasites and dis- s may be effectively controlled, tter and better use of forage s may be had, manure is cast on ields, better gains are made be- e of the control of parasites and ses.

veral good bulletins are availa- n hog house construction. Of we mention the following ones ore complete and detailed infor- n. Bulletins 152 and 194, Iowa riment Station, Ames, Iowa; ers' Bulletin 438, U. S. Depart- of Agriculture, Washington, D. Extension Bulletin 76, Purdue ersity, La Fayette, Indiana; Cir- 14, Nebraska Experiment Sta- Lincoln, Nebraska.

E. BOULTINGHOUSE & SONS
AUCTIONEERS. 150 Dairy Cow Sales in 1926. Leading Dairy Cow Auctioneers in America. Write or wire for dates.
ALEDO, ILLINOIS

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

GUERNSEYS

Every New Moon Sees a Thousand New Guernsey Bulls!

What chance has the scrub bull against odds like these? Every month our breeders sell over 1000 pure bred Guernsey bulls.

If you're not interested, tell your neighbor about it. He may need one of these good bulls to help increase his profits.

Ask for "The Story of the Guernsey"

The AMERICAN GUERNSEY CATTLE CLUB
8 Grove Street PETERBORO, N. H.

We want you to understand—
that Loma Farms has purchased the entire Bay Cliffs Herd, formerly at Bay Cliffs, Mich. We are carrying on the same breeding operations.
Standing back of the animals we sell is a fundamental policy with us.
Write us for low prices on bull calves.
LOMA FARMS
W. W. Blake Arkcoll, Mgr.
MARQUETTE MICHIGAN

Luxerin Guernseys
(SHERIDAN'S)
FOND DU LAC WISCONSIN
Bull calves $100 and up. One serviceable age. Good type, color, and size. Dam's record 657.71 D. 677.13 A. A. *Also*, best bred Glenwood bull of the breed. Dam's record 744.07 A. A. Sire's dam 799.61 A. A. Grandam 825.90 A. Exceptionally fine individual, good color, well grown.

GUERNSEYS
Registered and High Grades of Any Age For Sale
In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.
WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

BULLS 6 to 10 Mos. Old From A. R. Cows
Prices to Suit the Present Times
They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.
A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

Danny Duff Picnic!
You are Cordially Invited to Attend
The Wisconsin State Guernsey Breeders' Association Picnic
Friday, June 3rd, 1927
At
FERN-DELL GUERNSEY FARMS, Green Bay, Wis.
(West on State Highway 54)

CORIUM . . GUERNSEYS
Health, vigor, production and reproduction control the profit of the producing dairy herd.
A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.
Write for price list of our offerings.
CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

ANOTHER GOOD BULL
A. R. DAM—PRICED TO SELL
CHERUB'S SPLENDOR OF CHIPPEWA, born Aug. 15, 1926, is a growthy young bull priced for immediate sale. His sire, Proud Prince of the Prairie, is a prize winning son of Cherub's Prince and a proven sire of daughters that have both type and the ability to produce profitably. His dam, a Glenwood cow, has an A. R. record of 415 lbs. fat in F. F. Write today for further information.
L. P. MARTINY, CHIPPEWA FALLS, WISCONSIN

LINWOOD GUERNSEY SIRES
COMBINE TYPE AND PRODUCTION
PRINCE CHARMING OF SHUTTLEWICK, No. 88751. Dam Shuttlewick Levity 804.44 lbs. fat at 2 yrs. sold for $22,000. Her dam Langwater Levity 662.15 Fat Class EE. Grandchampion National Dairy Show 1923. CINDERELLA'S FAME OF MOUND CITY 78385. Dam: Cinderella's Josephine 909 lbs. fat.
We offer several fine bulls by above sires, dams 600 to 744 lbs. fat; also a few young heifers either bred or open. Write for prices, photos and pedigrees.
LINWOOD GUERNSEY FARM, LIVINGSTON, WIS.
Homer Rundell Federal Accredited Herd

SOLD FOR $22,000:00

OAKLAND GUERNSEY FARMS (SINCE 1890)
OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.
OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS
Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.
RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

BULL CALVES
No. 1—born 5-30-26, light fawn and white, C. T. A. dam.
No. 2—born 6-28-26, fawn and white, dam 553 lbs. fat class A.
Typy bull calves at farmers' prices F. O. B. Athens. Herd Federal Accredited and free of Abortion.
HELENDALE FARM, Athens, Wisconsin

BULLS
A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.
GEO. E. LARSON,
Amherst Jct., Wisconsin.

FOR SALE — Yearling Purebred GUERNSEY BULL
Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address
EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

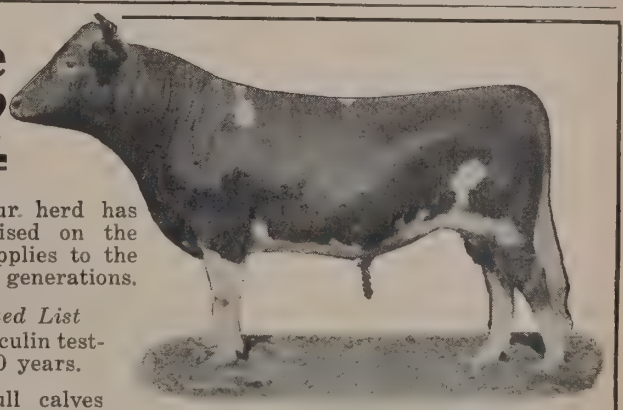
GUERNSEYS! GUERNSEYS!
Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.
LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

FOND DU LAC GUERNSEYS
Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to
FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

A SHOW BULL FOR $125
This 7-month-old calf is a fine show prospect. His dam produced 421.7 lbs. fat as senior yearling. The herd is clean. Write today for further information.
J. M. HARVEY, R. 2, Waukesha, Wis.

GUERNSEYS FOR SALE
High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

HOMESTEAD FARM GUERNSEYS
Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.
JAMISON BROS. APPLETON, WISCONSIN

Need a Sire Next Fall?
Every female in our herd has been bred and raised on the farm. The same applies to the females for several generations.
Herd on Accredited List
Has also been tuberculin tested for more than 20 years.
We believe our bull calves are well worth your consideration if you want a bull calf that will improve your herd.
HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN

ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.
SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.32 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production. His first nineteen A. R. daughters average 8739.4 lbs. milk and 422.8 lbs. butterfat on two time milking and herd rations at the average age of three and one-nineteenth years.

Important Guernsey Cattle Sales
for Buyers of Good Breeding Stock

BREIDABLIK FARMS
WILMINGTON - DELAWARE

With additional consignments from SUNNY RIDGE FARM, at Breidablik

WILMINGTON, DEL., Wed., JUNE 15

12 daughters and 5 sons of Cherub's Nonpariel of the Prairie; 8 daughters and ten granddaughters of Langwater Poilu; 7 daughters of Brooklandwood Reckless and 4 daughters of Langwater Hero.

Females of outstanding merit, with uniformly good udders. Among them, Breidablik Primula, Valor's Lelah, Cowslip's Chantilly of Breidablik, and Corium Proud Dame's Celia.

These animals are from Federal Accredited Herds, and are negative to the blood test for contagious abortion.

LOUIS MERRYMAN'S
16th Semi-Annual Guernsey Sale

TIMONIUM, MD., Thurs., JUNE 16

CONSISTING OF

100 HEAD

42 Cows; 43 Heifers; and 15 Bulls.

This sale is noted as a practical buyers' sale, where good foundation stock can be obtained at prices that assure a profit on the investment. The animals in this year's offering are above the average, and the bulls are especially attractive, being high class in every respect. Buyers will have opportunity to attend both these sales and buy a car load of good useful breeding animals.

BORDER RAIDER GUERNSEY SALE
We will also hold a sale of the noted Border Raider family of Guernseys, established by the late Earl Oglebay, for the Border Raider Guernsey Breeders' Association, at WADDINGTON FARM, WHEELING, W. VA., JUNE 28TH.

Sales Under the Management of **THE HERRICK-MERRYMAN SALES CO., Sparks, Maryland**

50 GUERNSEYS - Mankato, Minn.
PROPERTY OF CHIEF JUSTICE WILSON OF THE MINNESOTA SUPREME COURT.

TUESDAY MAY 31 at 1 o'clock sharp,

Auctioneers—
H. O. TELLIER
J. A. McRELL

42 females, mostly 3 years and under; 8 bulls, from serviceable age to the 4-year-old Cherub Bred Herd Bull. Foundation cows, some imported, but mostly granddaughters and great granddaughters of Ladysmith's Cherub. Several fine heifers for Calf Clubs. Federal Accredited Herd. No abortion in 5 years.

Catalogs May 15. Write to

Dr. M. B. WOOD, Sales Manager, MANKATO, MINN.

National Citizens' Bank — Clerk of Sale

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

BUY HOLLISTON SIRES
LANGWATER HOLLISTON, our famous senior herd sire, now has 23 A. R. daughters and 7 A. R. sons. His daughters are unusually persistent milkers and have what many call the foundation type and character. Langwater Holliston is out of a superior daughter of Imp. King of the May and he is sired by Jethro's May King of Linda Vista.

NOW OFFERING FOR SALE TWO YOUNG BULL CALVES
that will be ready for service next winter. Dam of one now on test will make 600 lbs. fat. Dam of other made 583 lbs. fat in GG.

D. G. TENNEY, 15 West Fourth St., NEW YORK CITY
FARMS AT SALEM, N. H., AND METHUEN, MASS.

Dairymen!

We are now in a position to furnish carloads of springing and fresh dairy cows and heifers — all breeds — from modified accredited counties. Can also furnish pure bred bulls, and high quality pure bred and grade heifer calves at reasonable prices.

We invite your patronage. You can save *time* and *money* by buying direct through the

CHICAGO DAIRY COW EXCHANGE, Inc.
Reid Murray, - Manager
Union Stock Yards, CHICAGO, ILL.

FOUNDATION GUERNSEYS
FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

Read the other Live Stock ads on page 589, so placed because they were too late to classify.

Buy a Vest Pocket Herd Book

FOREMOST GUERNSEYS

We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Heifers
FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

Bonnie Brae Guernseys

Herd Sire—Itchen King 49803 A. R. Sire of 8 A. R. Daughters that will average 640 lbs. fat. Sons of Itchen King for sale out of A. R. Dams of popular breeding. Priced reasonable.

BONNIE BRAE FARM, Clinton, N. Y.

GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

TYPE Plus PRODUCTION
OFFERING

SHOREWOOD ULTRA CHERUB. Born August, 1926. An excellent individual, almost solid fawn, well grown. Double grandson of Ladysmith's Cherub 30760. SIRE—Cherub's Royal Leader of Shorewood 74296 whose daughters are doing splendidly on test. DAM—Cherub's Ultra May Rose of Shorewood 83707 Granddaughter of Ne Plus Ultra A. R. record 11314 lbs. milk 581 lbs. fat Class D. Here is Breeding and Individuality that will suit the most discriminating. Pedigree and price on request.

Buy Ladysmith Cherub Blood

SHOREWOOD FARM, Crystal Bay, Minn.

RADISSON FARM GUERNSEYS
We are offering at attractive prices a young bulls sired by RADISSON'S GOLD ROYALIST 91632. whose get was awa first prize at Dairy Cattle Congress in 1 He is a son of GOLDEN CORONET OF JE DU LUTH 81283, world's champion Guer in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MI

MAYOWOOD FARM
GUERNSEY BULLS

Only one left of serviceable age. We offering several calves of Cherub and Rose breeding at very conservative pr Buy your next sire young and save mo Price lists and descriptions sent on req

O. C. JENSEN, Supt., Rochester, M

PROVINCE LINE FARM
BULL CALVES from 2 months to year old Sired by our great bull, Langwater Braver and from high producing A. R. dams. Pedi grees and prices furnished on application Federal Accredited, Certificate No. 115032

J. W. MILLER, Owner, Box 73, PRINCETON, N. J

BARGAIN BULLS *produ*
CLASS LEADERS

Guernsey Breeders' Journal says in Feb. issue—OUR NEW CLASS LEADERS— Silverwood's Diana, 20,006 lbs. milk Sire:—BROOKMEAD'S BANNER A. R *Sold sight unseen as a youngster.*

Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., PHILADEL

Bargains in Bull Calv
A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BL

Lines—May Rose through King of the Golden Secret, Langwater Cavalier; founder, France, Glenwoods. Greatest g of herd sires in any herd. A. R. record to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia,

PENNCREST FARM
ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER

Senior Herd Sire, Lancastrian No. 37057, pronou by authorities as the best son, individually, of Ne Ultra, whose offspring, for a number of years have invariably topped the sales of major import Near descendants of this great sire are beco harder to secure, and in the near future will be uable acquisitions. Breeders desiring the best the in this blood will do well to investigate, as we offering stock at the right price. Address inquiri

WM. P. SMEDLEY, MGR., MEDIA,

BREIDABLIK
Wilmington FARM Delawa
Public Auction

50 SELECTED GUERNSEY
JUNE 15, 1927

Included in this lot are 5 sons of Cherub's Nonpareil of the Prairie from A. R. dams. 12 daughters of Cherub's Nonpareil of the Prairie from A. R dams. Also a number of Advanced Register cows, cows or test, and bred heifers sired by our former herd sires, Langwater Poilu 52117 and Brookmead's Taurus of Breidablik 47887.

Herd Federally Tested and Negative to Blood Test

Write for Catalog

Owner— H. J. KREBS *Manager*— J. P. BROADHUR

High Production, Low Feed Cost



In 1926 **ALL JERSEYS** officially tested for 365 days **AVERAGED 10,209 LBS. OF MILK, 545.20 LBS. OF BUTTERFAT.**

You *can* have heavy production of high quality milk in your herd without a heavy outlay. Jerseys purchased at present prices will prove to be a very profitable investment. Prices are moderate and Jerseys produce at a remarkably low feed cost.

Write today for free information on Jersey cattle. Assistance in locating stock may also be obtained without cost.

E AMERICAN JERSEY CATTLE CLUB, Dept. B, 324 West 23d Street, NEW YORK

Jersey Bull Calves

offering at reasonable prices a few bull calves sired by Vive La France's Darling Son of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of France, the first cow to make over 1000 lbs. fat and the cew whose average of 890 lbs. for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, Jersey cow to make 1000 lbs. butterfat.

OLDEN GLOW JERSEY FARM KENSINGTON, MD.

ed Heifers and Young Bulls

Xenia's Sultan and You'll Volunteer. Breed up lity, type, and production our herd with an Elm Hill . Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
kfield Massachusetts

OR SALE

R 2-YEAR-OLD JERSEY BULL

I'S FOXY PENNITHORPE, 253566, Tattoo M88
December 24, 1925. Broken color, white d switch. The dam of this bull is Cowslip's ymouth 421380 in R. of M. with 588.4 lbs. a two-year-old. Both grandams of this bull producing R. of M. cows, one of which 23 lbs. of milk in May, 1922, an average of lbs. per day.
PRICE $200 F. O. B. our Station
Herd accredited and free of abortion.
Send for pedigree.
FARM Estab. 1918 Prairie View, Ill.
eeders of Purebred Jersey Cattle

BILS and MAJESTYS"

ifers bred to freshen in September. of a Majesty bred dam, and sired le grandson of Oxford Majesty. The it of a Majesty bred dam, and sired randson of both "Sybils Gamboge" ford You'll Do." Both solid fawn, well nd good type. Write for particulars.
CEYLON COURT FARM,
ilbert, Mgr., Lake Geneva, Wisconsin

ston Farm

AN ACCREDITED HERD --
Representative Jerseys
Fern's Noble and Fauvic's Prince Breeding.
F. EASTON, Owner, LA CROSSE, WIS.

JERSEY HEIFERS

Pogis Kenna, son of the gold medal cow, Kenna Climax, heads our herd. We are few heifers out of high producing dams at onable prices. U. S. Accredited herd. No
FARM, Hillsboro, Wis.

elswood Jerseys

F. Block, Waukesha, Wis.

RSEYS FOR SALE

BULLS and BRED HEIFERS sired ge's Owl, grandson of Vive La France. ederal Accredited.
AGER, PRAIRIE DU SAC, WIS.

lden Sunset Jersey Bulls

ulls and bull calves very reasonably priced. le, Golden Rosebay, Eminent, Flying Fox, and Hood Farm breeding. Herd established ree circular.
IS STOCK AND DAIRY FARM, Festus, Missouri

years may be a long ne, but—
4% of Hoard's Dairyman's stock advertisers have advertising regularly for 2 to 20 years

HOLSTEINS

High Grade Holstein Springers
If in the market for big production these cows will please you. Tuberculin tested. Address
RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

OHIO HOLSTEINS
Registered **COWS, HEIFERS and BULLS.** Very choice Calf Club **CALVES.** We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.
OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.
HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write
L. E. FERGUSON, LAURENS, IOWA.

Typy Ormsby Bulls

$75 to $175

I have 5 typy young bulls 2 to 7 months old sired by Pietertje Ormsby Mooie Lad Della, whose dam has 3 records averaging over 30 lbs. and 1,092 lbs. with a 4% test in a year. He has 2 world record sisters. Dams of these calves are good producers, 2 were winners in milking contest last fall. Bulls are straight, well marked. Guaranteed right. Write or wire at my expense.

TILLSDALE STOCK FARM
H. C. Tills, MANITOWOC, WIS.

Springers and Fresh Cows

HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

ABORTION FREE HOMESTEADS

We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.

T. B. under Federal Supervision.

MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager.

SERVICEABLE BULLS — FOUNDATION HEIFERS
Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.
BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins
have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.
DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write
SUMMIT FARM, John. Zoberlin, PLYMOUTH, WIS.

8th NATIONAL CO-OPERATIVE HOLSTEIN SALE

Springfield, Mass., June 2nd, 1927

70 HEAD

America's BEST Holsteins

This great sale, held in connection with the Annual Convention of the Holstein-Friesian Association of America, will bring together choice representatives of some of the leading herds of the country.

Among them will be some five or six cows with records from 1000 to 1171 lbs. butter, and others with short time records up to 39.98 lbs.

The bulls include a son of the 39.98-lb. cow; a son of a 37-lb. three-year-old; a son of a 35-lb daughter of a 1000-lb. and 30-lb. cow; and son of a 1000-lb. and twice 33-lb. cow; a son of a 1096-lb. cow; a son of a 34-lb. heifer; several sons of 800-lb. cows. All these bulls are sired by well known and widely advertised sires and come from herds that are recognized as leaders of the breed.

It is Not Too Late to Get Your Name On the List For An Illustrated Sale Circular.

Address
ANGUS P. THORNE, Chairman Sale Committee
NEW ENGLAND HOLSTEIN ASSOCIATION
1694 Main St. -:- SPRINGFIELD, MASS.

You Never Before Had A Chance Like This To Buy Heifers



You know just what animals in your herd are most desirable, and nobody else can know this as you do. Nobody knows the animals in any herd as well as the man who works with them all the time.

There are two factors you keep in mind when you buy a heifer:

(1)—The heifer herself.

(2)—The potential value of that heifer as a producer and for the calf she carries.

Our Mr. Merton Moore (who has worked with Carnation Holsteins for seven years) has selected from the Carnation herd the 21 females that he would buy (price considered) if he were starting a herd of his own tomorrow. These are on sale at Oconomowoc, Wisconsin, and if you will write to Mr. Moore at the Oconomowoc office of Carnation Milk Farms, he will tell you what cows and heifers he selected, the price he put on these heifers, and why he selected these.

Address all correspondence to

511-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR

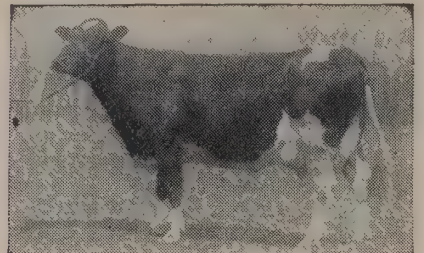


A Vest Pocket Herd Book is a good investment

NATIONAL ORMSBY SALE

150 HEAD

Every One a Descendent of



PIETERTJE MAID ORMSBY 78051
Butter 7 days 35.56
Butter 30 days 145.66
(World's Record, 1911)

More great producers, more great sires and more great show animals trace to Pietertje Maid Ormsby than to any other cow of her time.

THE THREE GREATEST SIRES of 1000-lb. producers are descendants of Pietertje Maid Ormsby. The leading sire is Ormsby Korndyke Lad, 21 over 1000 lbs.; second is Sir P O M, 16 over 1000; and third, Sir P O M 37th, 13 over 1000. One is a son and the others are grandsons of Pietertje Maid Ormsby.

BOTH GRAND CHAMPIONS and 10 of the 16 first prize winners at the last National Dairy Show were descendants of Pietertje Maid Ormsby, as were also 15 of the 19 first prize winners at the Dairy Cattle Congress and 8 of the 15 All-American selections.

MANY WORLD'S RECORDS for both milk and butter, in the short and long time divisions, have been broken by descendants of Pietertje Maid Ormsby.

ORMSBYS *for*
Type — Production — High Test

Greatest Array of Holsteins of Ormsby Blood Ever Offered at Public Auctio

The animals in this sale have been carefully selected from the leading ORMSBY herds in Iowa, Wiscor Michigan and Minnesota. All the famous strains of this great family are represented, including the "K P's", the "Sir P O M's", the "37th's", the "Triunes", "Pride's", "Sir Bess", "Creator's", "Tritomia's", "Duke "Sensation's", and others. If you want foundation stock, show animals or a herd sire, this sale offers a w derful opportunity.

125 FEMALES — *including:*

1000-LB. COWS, daughters of 1000-lb. cows, fresh cows, springers, bred heifers, calves, show ring winners and prospects for the fall shows.

HOLLYHOCK WELLINGTON FOBES—A sister to the Grand Champion at the 1926 National. By Sir Bess Ormsby Fobes and from a 1239-lb. cow.

M. B. B. FOBES MARATHON—A 4-year-old daughter of Wisconsin Fobes 5th, largest dairy cow in the world and 1079-lb. daughter of "37th." By Marathon Bess Burke, making her a full sister to the Detroit Creamery Farm bull.

CANARY HOMESTEAD MERCEDES ALICE—A 1055-lb. sister to "Queen Bessie." Sire is a son of Sir P O M from an 1155-lb. daughter of a 1078-lb. cow. Dam is a 30-lb. cow. Due sale time to 1100-lb. son of Creator.

MAMSELL JOHANNA BESS—A yearling daughter of Mamsell Johanna, world's champion milk producer with 31,515 lbs. milk and 1317 lbs. butter as a jr. four. Sire is an 1140-lb. son of Creator, full brother to "37th."

HOLLYHOCK JACQUELINE PIETERTJE—A daughter of Sir P O M 41st from a 1027-lb. cow. Bred to Sir Bess Ormsby Fobes.

DUCHESS MERCEDES HOMESTEAD—Grand Champion cow at the Minnesota State Fair, 1925. By the same sire as the 1369-lb. 4-year-old, "Queen Bessie," and from a 1035-lb. cow. Due show time to 1140-lb. son of Creator.

BELLE HAZELTINE ORMSBY 2D—A 4-year-old from the famous show cow, Belle Hazeltine Ormsby, Grand Champion at Waterloo and Canadian National. She has 809 lbs. as a yearling, is by Sir P O M and from a 1000-lb. 3-year-old. The heifer is by a 1080-lb. son of Sir P O M 41st.

A YEARLING DAUGHTER of Ambassador Fobes from a 41-lb. daughter of 37th. A double granddaughter of Sir P O M 37th.

AND OTHERS BY Forum Patriarch, Creator, "37th," Tritomia Pietertje Ormsby, King Piebe, Duke Pietertje Korndyke Ormsby, Ormsby Sensation and others.

25 MALES — *including:*

A SENSATIONAL YEARLING from a 1200-lb. old daughter of a 1300-lb. cow. By a 1300-lb. so K P O P, a 1389-lb. sire. Four dams close up with ords over 1300 lbs.

A 1043-LB. YEARLING SON of Pride of Sir (ten daughters from 20 to 33 lbs. as 2-year-olds) wi from the highest record daughter of Sir P O M 37t 1327-lb. 3-year-old.

A SPLENDID YEARLING from a 1008-lb. 4-yea daughter of Sir P O M 37th. By Bess Burke Sensatio son of "41st" from a daughter of a 1235-lb. Sir P O

A FULL BROTHER TO the All-American he Triune Papoose Piebe. Dam is an 1119-lb. 3-yea daughter of an 1100-lb. daughter of a 1281-lb. cow. Triune Ormsby Piebe. 7 nearest dams average 1205

A PROVED SIRE FROM A 1024-LB. 2-yr.-old. D grandson of Duke Pietertje Ormsby Korndyke, 11 son of Sir P O M. Siring show type and great produc

A SON OF SIR P O M 37TH from a 20-lb. 2-yr daughter of King of the Pontiacs. His three nearest together have 34 1,000-lb. daughters, 6 40-lb. daug and 71 over 30.

A YEARLING FROM A 1050-LB granddaughter o P O M 37th. Dam by full brother to Princess Della (37.55) and Della 3d (35-lb. 3-yr.-old). His sire's 2 r est dams are 1000-lb. 2-yr.-olds. O K L and Sir P

A 3-YEAR-OLD SHOW BULL whose nine nea dams average 1153 lbs. with an average test of 3 Dam is an 1100-lb. 4-year daughter of K P O P. Triune Ormsby Piebe, 1313-lb. son of K P O P.

THE FAMOUS "RUBY" BULL—Mankato Ruby athon Ormsby. Twice first at the State Fair and si great producers and show ring winners. From a 3 4-year-old show daughter of "14th." By Marathon Burke, 42-lb. son of K P O P.

SIR JOHANNA GLEN ORMSBY PIEBE—From 1126-lb. daughter of a 1308-lb. cow. By a 1323-lb. so a 1235-lb. bull. Sir P O M and Piebe breeding.

T. B. Tested and Selling With Retest Privilege

JUNE 15-16 MINNESOTA STATE FAIR GROUNDS MINNEAPOLIS-ST. PAUL

Write Today for Catalog Showing Pedigrees of Every Animal

MELIN-PETERSEN COMPANY, Managers, 306-B Gorham Bldg., MINNEAPOLIS, MI

Sir Bess Ormsby Fobes

Head Your Herd With a "Sir Bess" Bull

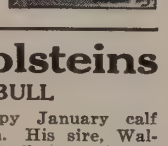
We have for sale a few very good young bulls by Sir Bess or from Sir Bess daughters and by Creation. If you want breeding, type, and long time production we are sure one of them will suit you. Write us or come to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) **DOUSMAN, WIS.**
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

GRAMLING FARMS HOLSTEINS King Pontiac Inka Lunde Korndyke, our senior sire is a son of King of the Pontiacs, a double grandson of Pontiac Korndyke. Bell Farm Chancellor, junior, sire, is a grandson of Bessie Fobes Oak Homestead from a 34 lb. 4-year-old daughter of Carnation King Sylvia. These bulls are being bred to our herd of Homestead females. We have sons and daughters of our senior sire for sale. The herd is clean.
GRAMLING BROS. DOUSMAN, WISCONSIN

HOLSTEIN BULLS of serviceable age and younger. Good individuals out of good individual record dams.
THE NORRIS FARM *Fully Accredited* **Mukwonago, Wisconsin**

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

Milford Meadows

Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.
Ask us about them.
W. W. KINYON, LAKE MILLS, WIS.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

Read the other Live Stock ads on page 589, so placed because they were too late to classify.

Dicmere Holsteins

30-LB. SHOW BULL

We are offering a very typy January calf from a 30-lb. 3-year-old dam. His sire, Walcowis Ollie Abbekirk, is a 968-lb. son of that grand champion, Iowana Sir Ollie. The herd is federal accredited. Write today if you want a good bull at a reasonable price.
H. E. DICKINSON, Oconomowoc, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

BULL CALVES $50.

Calves sired by 990-lb. grandson of Iowana Sir Ollie and out of daughters of a 1040-lb. Homestead bull. Accredited herd in an area tested county. Write.
CHAS. HUGHES & SON, NEENAH, WIS.

A Vest Pocket Herd Book is a good investment

STATE and FEDERAL TESTED HOLSTEINS

BUY FROM AN AREA TESTED COUNTY

The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.

Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

JEFFERSON COUNTY HOLSTEINS

Registered Heifers at Farmers' Prices

We have some very good bargains in heifers 9 to 18 months old. We also have registered and grade cows for sale. Area tested county. A full time fieldman at your service. All inquiries answered promptly.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
C. W. Clingan, Field Sec., Ft. Atkinson, Wis.

HOLSTEIN Bulls - Females

YOUR PICK OF 150 HEAD. Abortion tested and T. B. free. First prize National Dairy Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.
F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

Sheboygan County For Holsteins

85% of all cattle in county are Holsteins. Over 200 fine Federal tested herds to select from. Full time field man is at buyers' service. Write or come if you want good Holsteins.
SHEBOYGAN COUNTY HOLSTEIN ASS'N
Arthur V. Jensen, Fieldman, Plymouth, Wis.

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Healthy Holstei

If you are in the market for grade or registe steins from tested herds write us today.
ILLINOIS HOLSTEIN-FRIESIAN ASS
608 S. Dearborn, St., CHICA

Ormsby-Homestead Bu

We have for sale 2 very good calv Nov. 1 and Dec. 27, sired by Rawleigh Pietertje Posch, our 41-lb. Ormsby sir are from 24- and 25-lb. 4-year-old Ho dams with good year records, one record cow. Priced to sell. The clean. Write
THE W. T. RAWLEIGH COMPA
Owners Rawleigh's Ideal Farm, FREEPO

TAKE TIME!!

Others are saving $50 to $100 by pur our last summer Holstein bull calves Selection better. Every cow has C. record. Many have official records calves sired by 1,138-lb. bull whose da over 4.2%. A card brings list.

Rock River Farms, Byro

Buffalo Creek Farm Hols

We are offering BULL CALVES Ormsby breeding from tested dams. are from six to eleven months old. priced as low as $100.00. Write for p and further information. Herd under supervision.
BINGHAM BROS., Arlington Heigh

BULL BORN SEPT.

out of a 24-lb. two-year-old with 460 milk. He is sired by a good proven bul about ¾ white and a real individual. for pedigree and price.
ELLWOOD & NELSON
DE KALB IL

HYDE PARK FA

PALOS PARK, - ILL
Offers BULL CALVES
Sired by an outstanding 35-lb. son of dor from Fully Accredited Register dams with leading cow testing ass records. $100.00 up for typy individual
JOHN A. CARROLL WILLIAM
Owner Herdsm



HOLSTEINS

The Money-making Dairy Cows On American Farms

IN the fifty years that the Black-and-White cow has been producing in numbers in the United States she has surpassed all other dairy breeds in the production of both milk and butterfat and has established herself as the money-making dairy cow on American farms. She now represents sixty per cent of the pure-bred dairy cattle in the United States and holds all records but one for the production of milk and butterfat. She is the logical farm cow because she produces at a profit on the average farm.

The Forty-second Annual Convention —

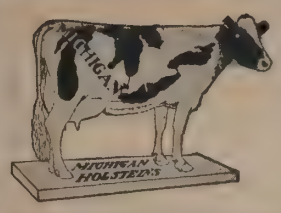
For the forty-second time in as many years the Holstein-Friesian Association of America will meet in annual convention in Springfield, Massachusetts, May 30—June 2 to honor the Holstein cow. All Holstein breeders are welcome. An open forum for the discussion of Selective Registration, Herd Test Plan, and other subjects will be a part of the convention. A national sale and a wonderful program of instruction and entertainment will await convention delegates and guests.

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN

o E. Ohio St. *Association of America* **CHICAGO**

Room 601



Highball for Michigan!

Get in ahead of the Rush—the rush of spring work and the rush of Spring Buyers. Good **PUREBREDS** plentiful and reasonable in price. Our 15 County Sales Managers are waiting for you. They quote you on what you want; they show you the purebreds free of charge whether you buy or not! What shall I tell 'em you want?

J. G. HAYS, Secretary

MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION

P. O. Box 1018, EAST LANSING, MICH.

SERRADELLA FARM *Offers* — A Serviceable Bull — A. R. O. Dam

This promising youngster born April 24, 1926, is sired by Sir Dutchland Colantha Denver whose dam, Dutchland Colantha Denver (36 lbs. butter in 7 days, 1,300 lbs. in a year) is the best daughter of Colantha Johanna Lad. The dam of this young bull is a 27.2-lb. junior 3-year-old, one of our most promising young cows. The herd is accredited. Write today.

SERRADELLA FARM, OSCODA, MICHIGAN



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

COLANTHA - HOMESTEAD

This young bull, born August 16, 1926, represents a wonderful combination of Colantha and Homestead blood lines.

His sire is a grandson of Dutchland Creamelle Colantha Lad and out of a 36.5-lb. Homestead cow with a 365-day record of 1231.75 lbs. butter and 26,054 lbs. milk.

His dam is a granddaughter of Dutchland Creamelle Colantha Lad and out of a 32.5-lb. Homestead cow with a 365-day record of 1147.9 lbs. butter and 26,075 lbs. milk.

The best guarantee of production is a sire bred by Michigan State Herds.

Send for pedigree and price of Tag No. 198

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

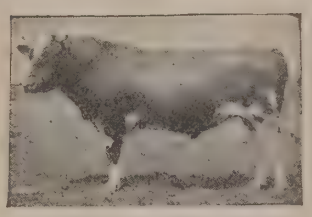
THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



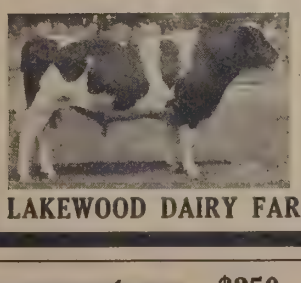
SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. **We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.**

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Bull Calves

VE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

a grandson of S. P. O. M. His dam made in 7 days, 550 lbs. in 305 days at 25 months. er is by our proven son of "Piebe." His dam lbs. in 7 days, 764 lbs. in a year with first These are good herd sire prospects. Your t $150.

TON COLLEGE FARM, Northfield, Minn.

rost Spaulding Farm Co.

oice Bred Bulls from good record dams and **KING PEITERTJE MERCEDES ORMSBY,** whose daughters has just broken the World's n the senior two-year-old class with 1,119 lbs. a year. This sire is a son of Sir Pietertje Mercedes from an 1,100 lb. daughter of a cow and is one of the few sons of Sir backed by two generations of 1,000 lb. dams. prices.

PAULDING, MGR., Warren, Minn.

A GOOD BABY BULL

ed by **ST. OLAF ORMSBY SENSATION** No. 346641, the Show son of nsby Sensation. Dam of calf a wonful daughter of Dean of the Orms-. What more could be desired? n December 21st; about half white. information write

OLAF COLLEGE FARMS, Northfield, Minn.

ELE COUNTY HOLSTEINS

ed for their size, type and production. reds or grades. One or a carload.

KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

ED STATES SOLDIERS HOME DAIRY

WASHINGTON, D. C.

FOR SALE at reasonable prices from the first herd in the United States, **PURE BRED EIN-FRIESIAN MALE CALVES** from one o seven months old, from yearly tested dams of General Piebe 323266 H. B. One of the red sons of the well known K. P. O. P. whose nts have in the past eight seasons won no 553 first prizes. His five nearest dams, all 00 lbs. butter in 365 days. **Also sons of olm Colantha Pauline Lad 297377 H. B.**

A SON OF PRIDE OF SIR PIETS FOR SALE

Born Jan. 12, 1927. A very typy calf, well marked and bred in the purple. If you will need a bull next winter buy this calf and save money.

His Sire:

PRIDE OF SIR PIETS, is a senior sire at Femco Farms. His dam is the highest record daughter of "37th" with 1327 pounds as a 3-year-old. His sire is a 42-lb. son of the famous sire, K. P. O. P. Eight 2-year-old daughters of Pride of Sir Piets have made from 20 to 33 lbs. His first 2-year-old to finish a year record made 908 lbs.

His Dam:

SOUTHSIDE CLARA ORMSBY, a splendid individual now making fine year record. Her sire is by a son of Pietertje Maid Ormsby and her dam is a 25-lb. 3-year-old daughter of a 31-lb. cow and a granddaughter of Oak De Kol Ollie Homestead, twice Grand Champion at the National Dairy Show.

Price for immediate sale.....$200.00

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

Akona Holstein Farm

Two registered heifers, No. 1 born Oct. 6, No. 2 Nov. 5, 1926. Sire's dam's record 1016 lbs. butter in year. Dam's on yearly test. Price $85 each.

B. A. NORRIS, ANOKA, MINN.

Ads too late to classify will be found on Page 589.



$250 — Dean Segis Bess Ormsby — $250

BORN AUGUST 26, 1926

We offer this week, a nice straight typy bull calf, eight of whose fifteen nearest dams, average 1070 lbs. butter for their 305-day or yearly records.

SIRE—Dean Colantha Segis Ormsby, a richly bred Ormsby show bull of 1000-lb. breeding.

DAM—Lashbrook Bess Ormsby, with a junior two year old record of 552 lbs. butter in 305 days.

You will like this bull. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

HOLSTEIN BULLS

FOR SALE

Spring Brook Bess Burke 2d - Ormsby

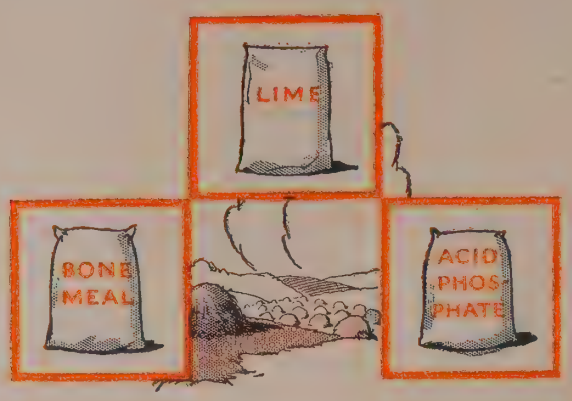
BREEDING

WRITE FOR SALE LIST—JUST OUT

Herd under Federal and State supervision for tuberculosis—blood tested for abortion.

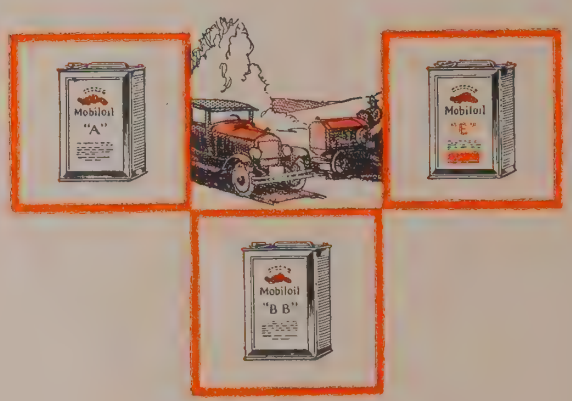
WINTERTHUR FARMS, Winterthur, Del.

How one farmer got clover started—



A Cole County, Missouri, farmer has a 10-acre field which would not grow clover. Acid phosphate, bone meal and other fertilizers were tried without success. The county agent was consulted about the troublesome field. A test revealed the fact that the land was sour and needed 3 tons of crushed limestone per acre. The limestone was applied. During the following spring, clover was again sown and, for the first time, an excellent crop resulted.

What fertilizers tell you about buying oil



Bone meal or acid phosphate may be sufficient treatment on one field but not on another. Soil conditions vary widely. Engines vary widely, too. They vary in design, in lubricating systems and in other important factors affecting lubrication. Don't grope in the dark after the correct grade of oil. Take advantage of the recommendations of the 42 Mobiloil engineers, just as you take advantage of the advice of your county agent. By following the Mobiloil Chart you obtain an engineering margin of safety in lubrication.

2 drops of oil . . . *versus* . . . 3 drops

THE correct grades of Gargoyle Mobiloil for engine lubrication of prominent passenger cars are specified below.

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc"), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

Follow winter recommendations when temperatures from 32° F (freezing) to 0° F (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford Cars, use Gargoyle Mobiloil "E").

If your car is not listed below see any Mobiloil dealer for the comp.ete Chart. It recommends the correct grades for all cars, trucks and tractors.

NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac	BB	Arc	BB	Arc	A	Arc	A	Arc
Chandler Sp. 6	A	A						
" *other mods.*	A	Arc	A	Arc	A	Arc	A	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chrysler 4	A	Arc	A	Arc	A	Arc		
" *other mods.*	A	A	A	A	A	A	A	A
Dodge Brothers	A	Arc	A	Arc	A	Arc	A	Arc
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc
Jewett	A	Arc	A	Arc	A	Arc	A	Arc
Jordan 6					Arc	Arc	Arc	Arc
" 8	A	Arc	A	Arc	A	Arc		
Lincoln	A	A	A	A	A	A	A	A
Moon	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Nash	A	Arc	A	Arc	A	Arc	Arc	Arc
Oakland	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile	A	Arc	A	Arc	A	Arc	A	Arc
Overland	A	Arc	A	Arc	A	Arc	A	Arc
Packard 6	A	Arc	A	Arc	A	Arc	A	A
" 8	A	Arc	A	Arc	A	Arc	A	Arc
Paige	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Pierce-Arrow	A	A	A	A	A	A	A	A
Star	A	Arc	A	Arc	A	Arc	Arc	Arc
Willys-Knight 4			B	Arc	B	Arc	B	Arc
" " 6	A	Arc	A	Arc	A	Arc		

GARGOYLE
Mobiloil
Make the chart your guide

2 drops of Gargoyle Mobiloil cost less than 3 drops of ordinary oil. And 2 drops of Mobiloil frequently lubricate longer than 3 drops of ordinary oil. This brings the bill of Mobiloil well below the bill for oils selling for less per gallon.

And other savings usually follow the use of Mobiloil—marked reductions in carbon deposits, in overheating, in break-downs, and in repairs. Mobiloil has an extra margin of safety to meet every engine need. By supplying the most economical lubrication, Mobiloil has become the most popular oil on farms today.

If you are interested in the most economical and efficient lubrication, you will be interested in talking with the Mobiloil dealer. He has the complete Mobiloil Chart. And he can supply you with the correct grade of Mobiloil for your car, your truck and your tractor. You will find Mobiloil well worth a special trip to town, if necessary. Take advantage of the substantial saving on barrel and half-barrel orders of Mobiloil.

VACUUM OIL COMPANY

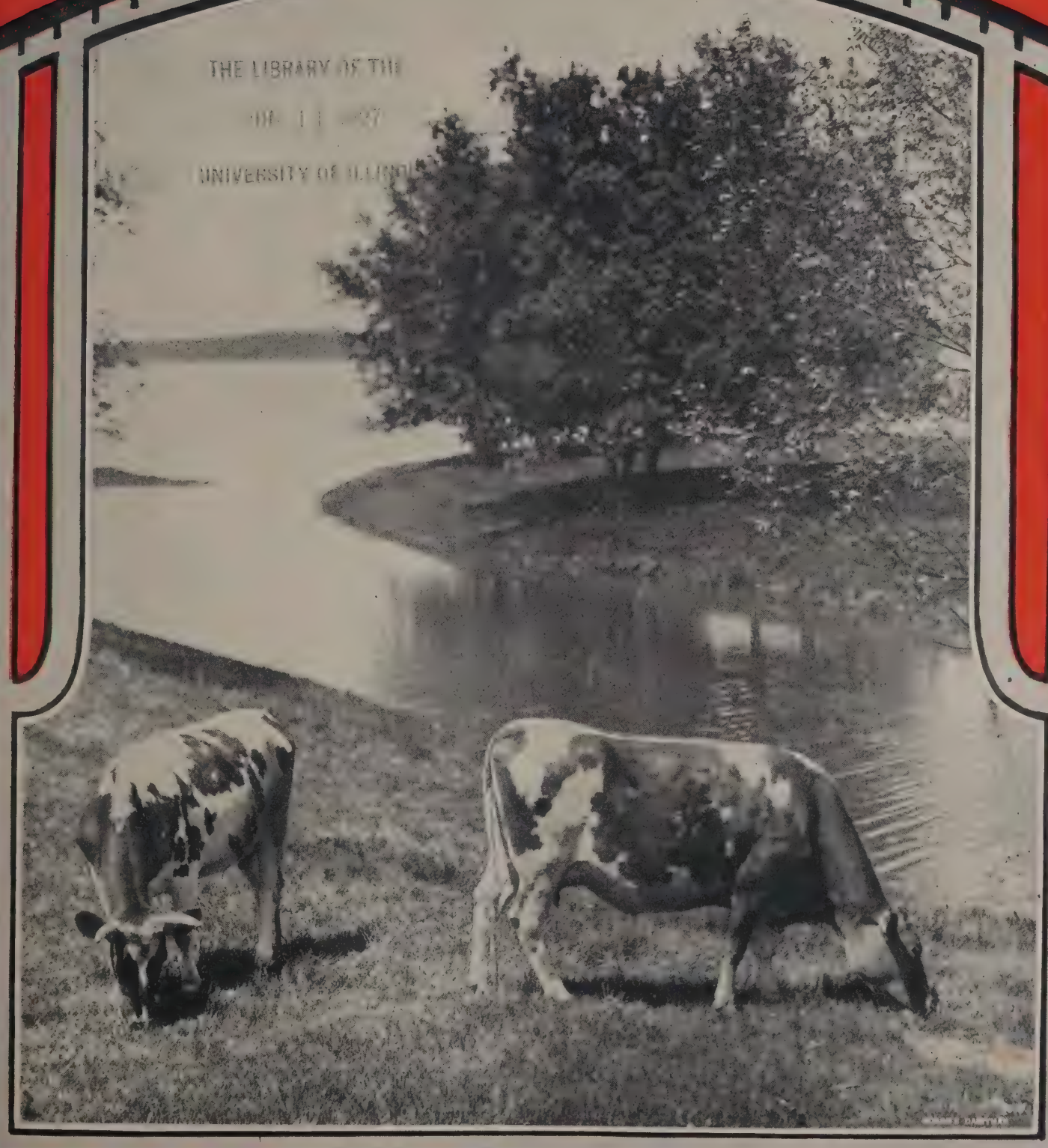
MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buf*
Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, D

Other branches and distributing warehouses throughout the country

AGRICULTURAL LIBRARY

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING


THE LIBRARY OF THE
UNIVERSITY OF ILLINOIS

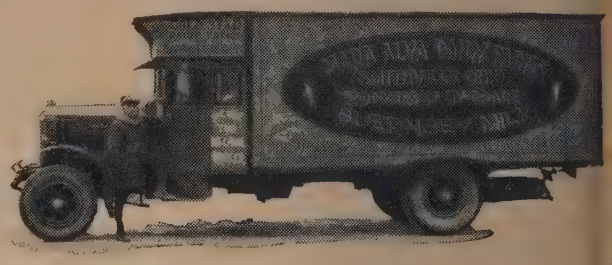


Some of the noted purebred Jerseys kept at Biltmore Farms, estate of the late George Vanderbilt at Biltmore, N. C. The management writes, "We consider the De Laval essential wherever the purest and best milk is produced and we take particular pride in having standardized on De Laval Milkers."



Left: These five cows are typical of the high-producing Holsteins at the famous Serradella Farm, Oscoda, Mich., where the De Laval Milker has proven highly successful. Each has produced 30 lbs. or more of butter in seven days; their records running from 30.23 lbs. to 41 lbs., made three times by Eco Sylv Belle Pietje, on the extreme left.

Right: This truck delivers the milk produced by the De Laval milked purebred Guernseys at Mara Alva Dairy Farms, Smithville, Ohio. The Mara Alva Guernsey herd is one of the finest in the Central West.



Why So Many Owners of Purebred Cows and Producers of Clean Milk Use the De Laval Milker

ON hundreds of farms where valuable herds of purebred cows are kept, the De Laval Milker is used exclusively to insure better milking. Experience has proven to the owners and managers of these herds that the De Laval helps keep teats and udders in better condition and milks with far greater regularity and gentleness than the average hand milker is capable of. A few of these prominent herds are illustrated.

The De Laval Milker is also acclaimed by users as a great aid in the production of more and cleaner milk. Hundreds of dairymen making Grade A and Certified milk regard it as an assurance of regular premium money. Its combination of sanitary features, found in no other method of milking, makes for greatly lowered bacteria counts and cleaner milk in every way.

For detailed information on the De Laval Milker write to the office listed below which is nearest to you. A post card will bring a De Laval representative, who will be glad to go over your milking problems with you. No obligation, of course.

THE DE LAVAL SEPARATOR COMPANY

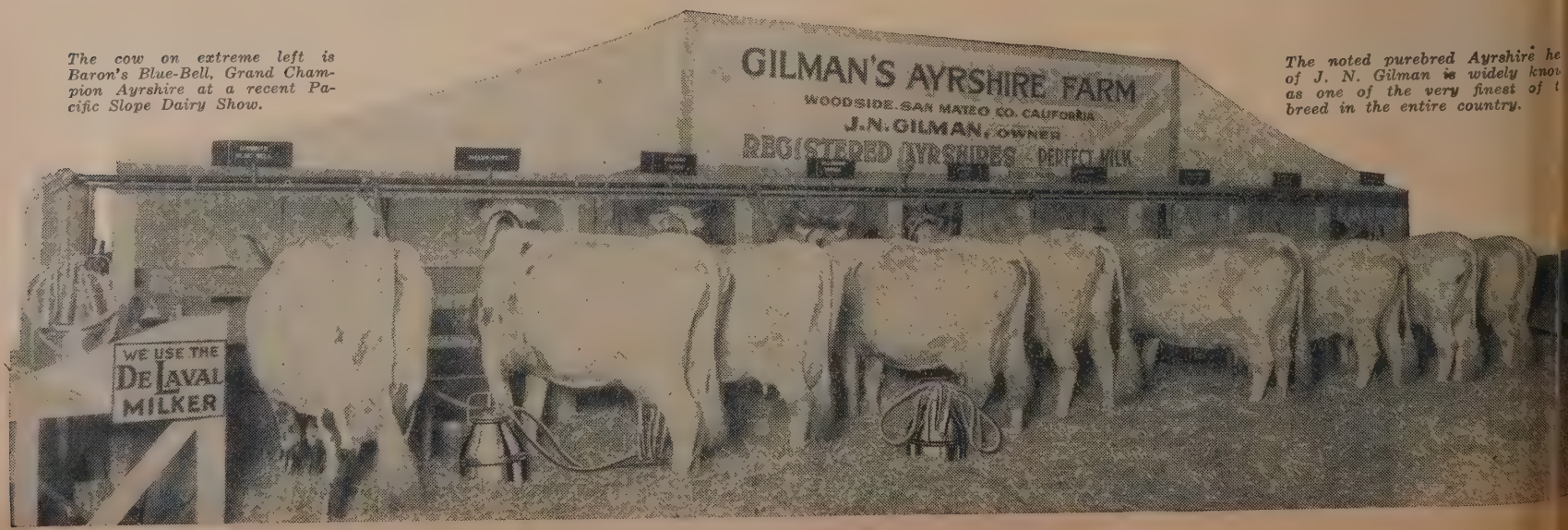
NEW YORK
165 Broadway

CHICAGO
600 Jackson Blvd.

SAN FRANCISCO
61 Beale Street

The cow on extreme left is Baron's Blue-Bell, Grand Champion Ayrshire at a recent Pacific Slope Dairy Show.

The noted purebred Ayrshire he of J. N. Gilman is widely know as one of the very finest of t breed in the entire country.



HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ered at Fort Atkinson, , as second class matter.

Semi-monthly

Three Years $1.00

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Volume 72 FORT ATKINSON, WIS., JUNE 10, 1927 Number 11

INFLUENCES AFFECTING TEST OF MILK

G. C. HUMPHREY, Wisconsin College of Agriculture

UESTIONS and controversies not infrequently arise relative to variations and the possibili- of producing variations in the cent of fat in milk. The facts ing to this subject are not new are quite generally understood. ever, on the basis of the axiom, need to be reminded more than eed to be educated," it appears h while in the interests of dairy and milk production to re- the results of observations studies which have been

e milk production ability of dairy cows of all breeds nat- responds to improved ds of feeding, care, and gement, with results, how- that are largely apparent quantity rather than qual- milk flow. The per cent of fat in milk from given in- al cows varies more mark- rom one milking to another one ordinarily appreciates. all number of the cows of a herd may vary from 3 per r even less to over 6 per n the fat content of their A somewhat greater num- ay vary less than 1 per while the large part of the ill vary only 1 to 2 per In making such observa- sampling the milk for but- tests is an important fac- r the reason that the first rawn from the udder at g time is very low in fat , while the last milk from the udder is very d may approach a test of cent. Despite all of these variations, the average milk from given cows over or less extended period of ill be very uniform. In and under normal condi- fair sample of the entire roduction of a given cow or two days will give a eristic and reliable test given season or stage of n and enable one to arrive ir calculation of the but- production.

season of the year is a in the variation of tests monly understood. Ap- the results of tempera- d humidity of the weath- se a variation that results relatively low test begin- rly in the summer and con- until the fall and winter when a gradual increase in cent of fat takes place. It is that the seasonal variation est of milk from individual more marked in southern northern states. This sea- ariation in the per cent of ilk is especially noticeable in of test cows and undoubted- ore responsible for the low tests often reported in early summer when cows have been turned to pasture than is any other one factor.

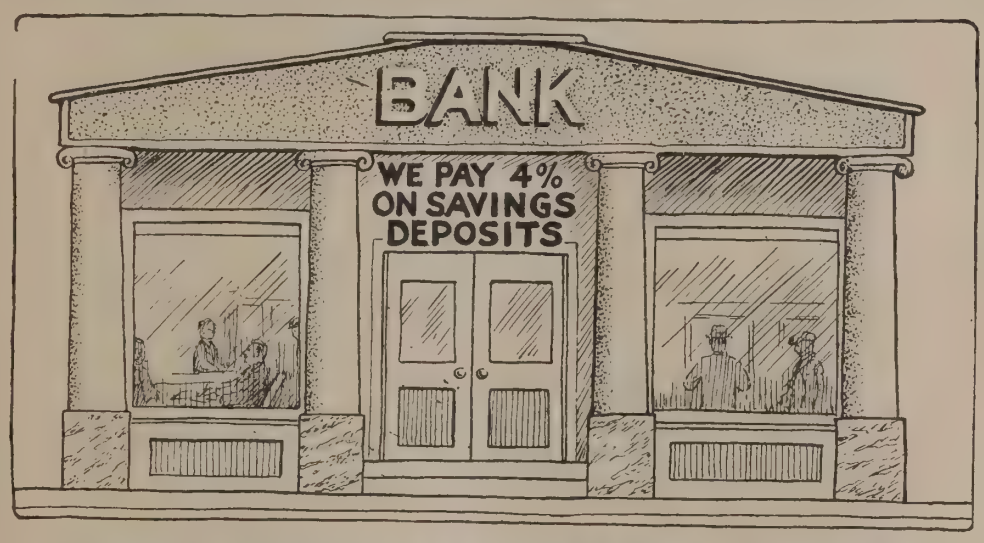
The stage of lactation has some influence on the test of cows but tends to vary with cows of different breeds and with the manner in which cows are managed. In general the test of milk declines during the first and second months after cows have freshened and then gradually increases to the highest point at close of the lactation period. Data relating to cows on test collected by C. H. Eckles, one of the best dairy authorities, indicate that Holstein and Ayrshire cattle show a decline from the first to the third month and a marked rise after the eighth month, while Guernseys and Jerseys, which produce milk of higher fat content, do not show such variations, at least in such marked manner.

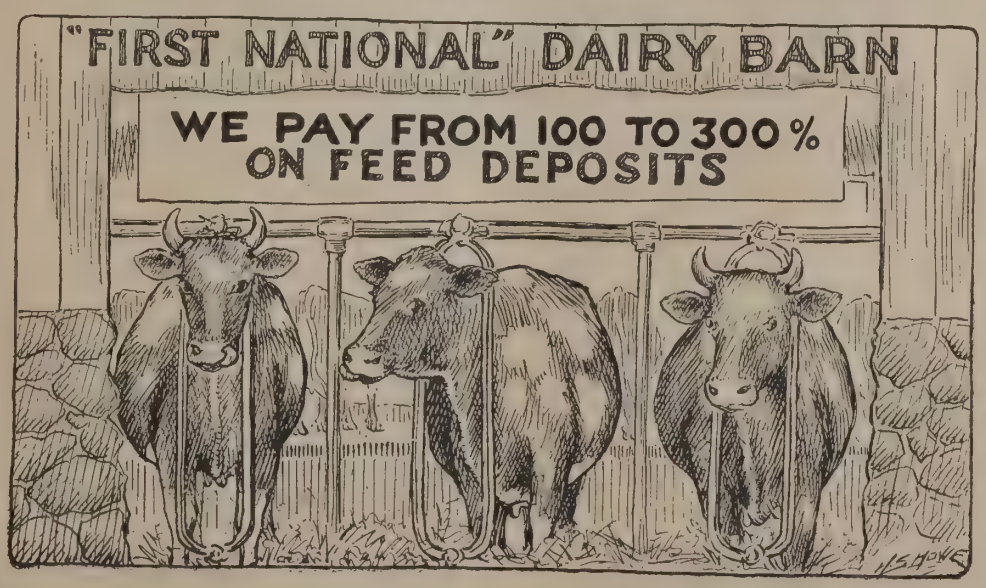
Feed as a factor in influencing the per cent of fat in milk is most often the subject of controversy. Cows maintained on poor rations may test relatively low in per cent of butterfat, due to a natural characteristic or some other unexplainable cause, but improved rations for such cows tend to improve their condition and to increase the amount of milk flow without appreciable or marked influence on the per cent of butterfat. Feeding and fitting cows in a manner to produce extreme fatness during the dry period and prior to freshening time, combined with a system of careful feeding and management in the following lactation period, result in a large milk flow and a per cent of butterfat in the milk that may be unusually high for a period of twenty to thirty days or even longer, depending on the individuality of the cow or other factors not understood. Apparently under these conditions the cow has the ability to transfer the surplus of fat stored in her body to the milk flow and in a manner to make an appreciable increase in the per cent of fat in the milk. Under any other system of feeding it has been impossible to demonstrate in a clear manner how feeds and feeding may make any appreciable or marked change in the per cent of fat in milk.

Age is another factor often mentioned in relation to the butterfat test of cows. Studies which have been made indicate that within the age cows are tested for official and Advanced Registry records, no variation in test may be attributed to this factor. After cows have passed the prime of life and commence to decline in strength and vigor, the per cent of fat in their milk tends to decrease. Again, questions arise relative to the influences of excitement, ill health, drugs, and other unusual conditions, on the per cent of fat in milk. The results of such influences tend to produce variations that cannot be predicted and which in most instances are uncertain and disappointing.

In conclusion, the per cent of fat in milk is a breed and individual characteristic which tends to vary more or less in a manner and for reasons that cannot always be explained. Systems of management and feeding that approach most ideal conditions for normal health and condition on the part of the cow tend to give most uniform results in quantity and quality of milk flow, and in providing such a system of management and feeding, dairymen have the opportunity to best improve their herds and to secure most satisfactory and profitable results.

SPEAKING OF INTEREST RATES





Computing Farm Prices

The collection of statistics on farm prices and methods of computing index numbers are described in a new publication by the Department of Agriculture, entitled "Reliability and Adequacy of Farm Price Data." The publication, Department Bulletin 1480—D, is designed to meet the needs of those students and research workers in the field of agricultural economics who may have occasion to work with the farm-price data which are collected and published by the department. It is intended primarily for those students who are familiar with technical statistical terms.

Copies of the publication may be obtained, as long as the supply lasts, from the Department of Agriculture, Washington, D. C.

Aunt Ada's Axioms: The sun always shines brighter on those who are willing to reflect a little of it.

Beautifying the Country Roadside

GUY A. PETERSON, WISCONSIN



INDIGENOUS TREES, BIRCHES, PINES, AND OAKS MAKE THIS CURVE IN LANGLADE COUNTY A BEAUTIFUL ONE BOTH IN WINTER AND IN SUMMER

THE farmers' first duty toward making the countryside more beautiful is to plan and plant their home grounds. If every farm home along our highways were properly set in an artistic frame of trees, shrubs, and flowers, the problem of roadside planting would in a large measure be solved, for then every farmer would appreciate the value of beauty and would aid in making the roadway to his residence more pleasing.

What is Being Done

The public sense is gradually being awakened to the value of roadside beautification and many types of organizations are pushing this work along. A few examples of what has been done may serve as a precedent for what can be accomplished in the future. Kane County, Illinois, is planting the full distance of the famous Fox River Trail. The Jefferson Davis Memorial Highway Association adopted the plan of planting pecan trees as mile posts along its highways from Richmond to Vicksburg. Some states have appointed landscape gardeners to direct the location, selection, and care of new plantings as well as to guard against the destruction of the old.

N. M. Isabella of the Wisconsin Highway Department has instructed the patrol men in his state to give every possible care for the natural beauty along the roadsides. Wm. T. Cox, forest engineer for Minnesota, says, "If we are to satisfy ourselves and captivate the visitors who travel through the state we must have attractive highways as well as good roads." So efficiently is this program being pushed that Minnesota now styles herself "the state with the tree lined highways."

L. H. Taylor of Lodi, California, advocates the reduction of taxes at the same time as country roads are beautified through the planting of government owned walnut trees on each side of the highway at intervals of 100 feet. Some counties are trying his scheme. Moreover, the California Highway Commission started a state nursery for tree propagation in 1922, from which very satisfactory results have been obtained. Los Angeles County spends $7,000 a year for taking care of roses along her highways. Roads locating engineers in Pennsylvania are instructed that "there is no excuse whatever for any trees being unnecessarily destroyed or injured during the progress of the work."

There are no doubt communities in every state that are striving to make surroundings more livable. It is well that this is so, for as John S. Donald of the Wisconsin College of Agriculture has said, "Surroundings have always struck deeply into the lives of people. Patriotism is founded on the satisfaction of one's surroundings and this influence exerted on youth is never lost or forgotten." The farm boy who is reared in a home where attention is given to beauty is not so apt to go to the city to live as is the boy who grows up in a family where no thought is given to trees and flowers.

There is little use in setting out trees along a highway unless they are taken care of at least until they get a start. Thousands of memorial trees have been planted in recent years under the excitements of oratorical speeches, but in many cases they have not survived the drouth of the first summer because there was no one appointed to care for them.



NATURE HERSELF PLANTED THESE TREES AND GENERATIONS OF BEAUTY LOVING FARMERS HAVE SPARED THEM FOR THE ENJOYMENT OF ALL WHO PASS



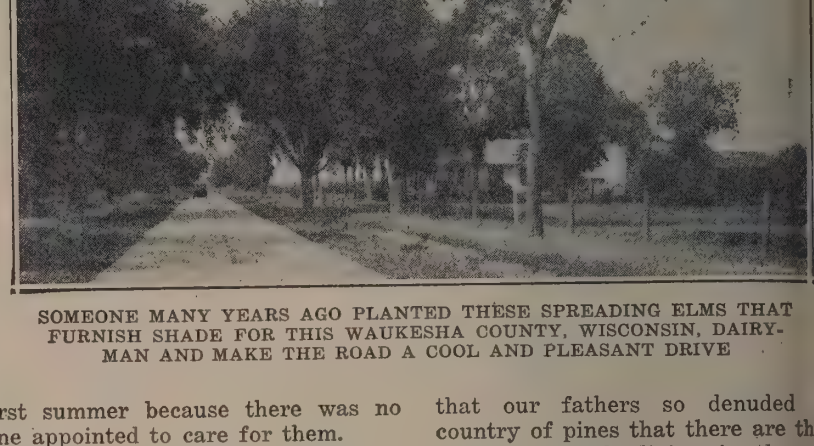
WHO WOULD NOT THRILL AT SEEING A BEAUTIFUL HERD OF WISCONSIN HOLSTEINS THROUGH A VISTA OF TREES SUCH AS THIS

How Can the Farmer Help

In addition to the beautification and planting of the farmstead, the farmer can help in this program in many ways. He can prohibit the posting of ugly advertisements upon his land. We do not wish to discourage outdoor posters entirely, because some roadside signs hide even uglier views and there is a legitimate place for such advertising, but we do object to the nondescript type of signs that obstruct one's vision along many roads today. In Massachusetts these outdoor advertisements may not be placed even on a farmer's land unless the advertiser first secures permission from the road commission. In most states, however, no such provision is made so the advertiser places his signs almost at will, as few farmers realize the value of their location and fail to charge an adequate rental.

In many states the property owner can prevent telephone and service companies from needlessly butchering the trees along his land. Since he owns the trees no one has a right to cut or injure them without his permission, except for road building purposes, so when a service company or individual does so the owner can collect damages.

Another way in which the farmer can help keep the roadside beauti is to refrain from cutting the tr that still remain. In spite of the f



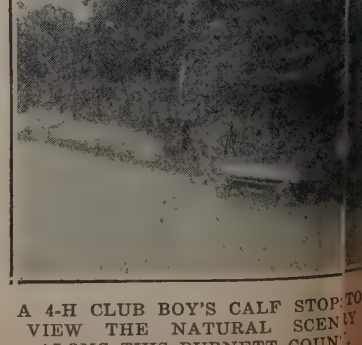
SOMEONE MANY YEARS AGO PLANTED THESE SPREADING ELMS THAT FURNISH SHADE FOR THIS WAUKESHA COUNTY, WISCONSIN, DAIRYMAN AND MAKE THE ROAD A COOL AND PLEASANT DRIVE

that our fathers so denuded country of pines that there are th sands of people living in the v heart of the old white pine sect who have never seen one of th beautiful trees, we owe it to th who come after us to leave the co try as beautiful as it was when took over the land. In a section t was originally wooded, trees will ten come up of their own accor we only give them a chance. S trees, planted by nature, will be se more pleasing order than any we propagate. As is too often the c however, a land owner does not preciate the value of a tree excep terms of cords of wood or feet lumber. When the roots of s sturdy oak sap the strength from oat field he sees only the loss in y and lays low the giant of the fo that may be centuries old. Usu however, such a tree is not cut man who has grown to love it, b is cut by a new owner before the has had a chance to influence the duct of the man.

There are dozens of other th that a good farmer can do to r his roadway a source of pride and He can cut the weeds, trim objec able brush, and preserve that whi desirable. He can build good fe along the road, thereby not only proving the looks of his farm bu creasing its value and betterin credit at the bank. He can put neat looking mail box and stop editors from describing country boxes as "drunken, staggering licts that appear to be unworth government patronage." It is necessary to enumerate other t that the farmer himself can do, his sense of beauty has been a ened he will see enough to kee busy all the year through. over, it will be work in which h find happiness, as it will give hi ideal to strive for.

It may not increase his mon come but it will increase a

(Continued on page 629)



A 4-H CLUB BOY'S CALF STOP TO VIEW THE NATURAL SCEN ALONG THIS BURNETT COUN WISCONSIN ROAD

Beating the Labor Problem in Silo Filling

FRANK M. BYERS, ILLINOIS



Showing wagon bed nearly on the level of cutter. Cutter wheels buried to lower cutter and strengthen against belt pull.

YES, I have a silo on my farm, but I did not fill it last year; it takes too much labor and costs much," said a farmer to me. We ve all seen a good many silos that ve not been filled. Sometimes a ar or two of moldy silage has ped to discourage the owner. Every farmer knows that filling the o is the big job of the year. When consider the large amount of feed it can be put into the silo and red there for winter use, the labor s not seem so great. see farmers digging corn fodder of the snow, feeding the fodder the barn, or even throwing it in barnyard. It makes a very poor d, the cornstalk is wasted, and the use cannot be returned to the soil ough a manure spreader, at least that year.

Trading Help

have several silos to fill and our always takes longer than our ghbors. The years that I filled with big custom outfit, my neighbors ped me more than I helped them, I found myself owing them a lot ime that had to be paid back some er way. Another outfit started in neighborhood, which complicated ters. he big outfit has its drawbacks. apid filling there is always a big le, and the outfit leaves so no re- ng can be done. n getting a big crew together, it necessary for some of the neigh-



One man watches the cutter and trac- sharpens knives and keeps a lookout anything that might get into cutter. dern cutter does not require a "feed- Wagon driver stands on ground to oad.

to come considerable distance. would be late getting on the job, have to leave early to get home. made a short day.

ling Without Tramping (1925)

ter considering all of these gs, I started two years ago to find s and means of getting my silos with a smaller crew. That year not save a great deal of labor, but I found out something that is going to save a lot of labor in the future. Two of the silos filled are the same size and of brick construction. I decided to fill one of these by our old "trot around" method of tramping, and one without tramping. The distributor pipe was used in both silos. In the one silo filled without tramping one man was inside working the distributor pipe. In the one filled by tramping, one man worked the distributor pipe and two to four men were busy tramping.



TRACTOR AND CUTTER USED

After this tractor was started it needed no further attention. Photo shows third silo filled.

In past years it was the custom to tramp the silage. Yet it happened that some years the silage was of good quality and other years there would be moldy spots. This fact would indicate that the silage did not spoil because of any lack of tramping.

The corn in 1925 was rather mature. About one ear out of twenty-five was in the milk. Most of the ears were dry and hard. Immediately after filling the silos the remaining corn was cut and shocked for fodder. This corn was not frosted. The silage was not cut very fine. Some water was added.

I was a bit uneasy as to the outcome of our silage from the silo that was not tramped. Especially so, since some of my neighbors said that it was a mistake not to tramp. However, there was no cause for worry. There was no spoiled silage in either of these silos, proving quite conclusively, at least for that year, that tramping was a waste of labor. So far as it was possible to observe by ordinary farm methods, there was no difference in the quality of the silage from these two silos.

Taking courage from my experience of 1925, I decided to go it one better in 1926 and take off the distributor pipe. This was done. The outside blower pipe was set up to discharge the silage in the center of the silo, or as near it as possible. The top section of the distributor pipe was hooked to the goose neck and this could be moved to a position which would discharge in the center of the silo. This position was changed a few times as the silo filled up. The water hose was placed in this top section of the distributor pipe where the stream of silage would pick up the stream of water.

There was some tendency for the light and heavy parts of the silage to fall in spots as influenced by weight and fan blast. This fact was the chief reason for the use of the distributor pipe in the 1925 filling. It is proof of the average farmer's timidity in breaking away from established custom.

Observations were made on these spots as the silage was fed out and no mold was found. The fact that the light and heavy parts were not mixed in some spots was of no consequence, since sufficient mixing occurs as the silage is thrown down and fed.

Several doors were then put in, and all joints around the doors plastered up with clay. The silage piled up in the center and the only time anyone was inside was when more doors were put in, until the top was reached where it was necessary for two men to go up and keep the silage level.

The year 1926 was a bad year for the man who had silos to fill or any other outside work to do that could not be done in a boat. If the farmer could only regulate the weather, what a happy man he would be! His work is a continual gamble with the elements.



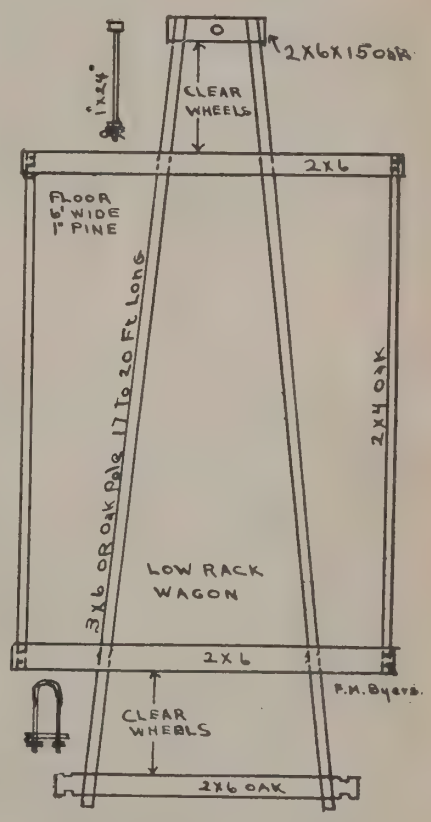
LOW DOWN WAGON USED

Note height of floor from ground.

Silo filling was started in 1926 on September 18. The fields were badly blown down by a tornado in August. The condition of the corn was a little too green for proper filling, but there were four silos to fill. To get rid of the disadvantages of the big outfit, I purchased a new outfit consisting of a 16-inch cutter and a 15—27 kerosene burning tractor.

Let me say that we found this new cutter much more efficient and economical from the power standpoint than our old cutters. The knives on our new cutter, which were on the fan, could be changed in fifteen minutes and without injury to the operator's hands. Any man who has changed knives on some of the old cutters knows that it cannot be done in less than an hour, and with danger to the operator's hands, since he must work over the knife edge.

We also found that our kerosene-burning tractor was operated at a much lower fuel cost than our old gasoline tractors and gas engines. We used the one-fourth-inch adjustment for length of cut. The fine cut takes a little more power but the cows will not have any coarse silage to waste as is the case with the one-half- or three-fourth-inch cut.



THE LOW RACK WE BUILT

The two white oak poles are 18' long x 6" diameter. These make frame which is suspended under gears with long kingbolt and stirrup rods. Floor is nailed to these.

The first silo was almost full when a frost came. It was not a hard frost, but the corn began to die and dry up. No water was added to the first silo because the corn was green and contained sufficient moisture.

After the frost came and the corn began to dry up, the dryer the corn got the more water was added. A five-eighth-inch hose was running all the time and at night a lawn sprinkler was put on the hose and the water

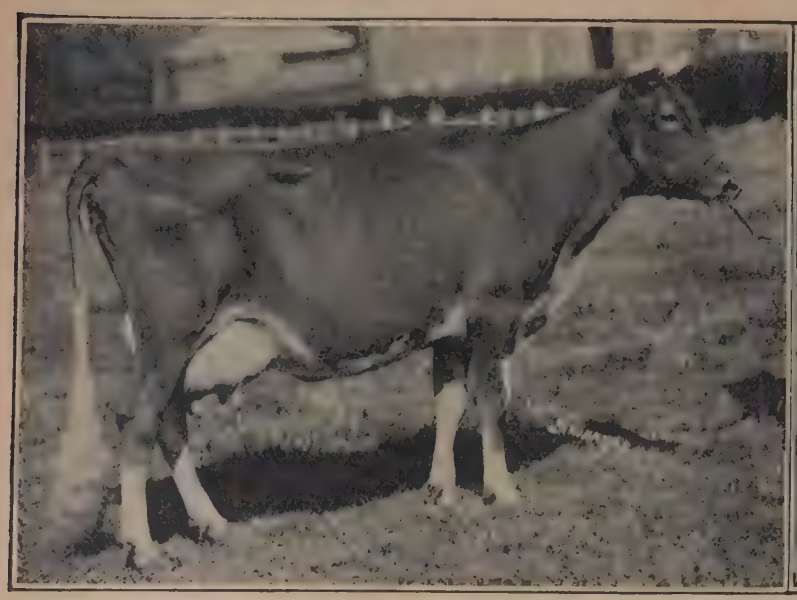
(Continued on page 628)



THE TWO BRICK SILOS ON MIDVALE FARM, ILLINOIS

The cut corn was not tramped in either silo in 1926, yet the silage came out in good condition.

SNAPSHOTS AT RECENT GUERNSEY SALES



May Princess, consigned by J. L. Hope and bought by Howard Heinz for $5,000, the top price, at the Coventry—Dunwalke—Florham—Rockingham Sale.



A group of well known individuals: Fitzpatrick, South Carolina, southern fieldman for A. G. C. C. Horneman, Illinois; Wadley, New Jersey; Cooper, South Carolina; Gould and Bailey, New York.



Mr. Pyron and T. Chatham, North Carolina, purchaser high animal at Emmadine; W. W. Marsh, Iowa.



Mr. and Mrs. Richard Woolworth, frequent bidders at the National and Combination Guernsey Sales.



J. E. Dodge, Manager Emmadine Farm, New York, and D. O. Brant, Brant Rancho, California.



Ralph Flinn, owner Beechwood Farm; John J. Costoff, Manager Beechwood Farm; Howard Heinz, owner Rosemount Farm; L. R. Harris, Manager Rosemount Farm. Both Mr. Flinn and Mr. Heinz were frequent bidders during Guernsey week when the leaders were in the ring.



John Ames, owner of Langwater Farms; R. L. Benson, Coventry Farm; D. G. Tenney, Rockingham Farm; and J. L. Hope, Florham Farm. Mr. Ames consigned the high priced male to the National Guernsey Sale and the other three were consignors to the Combination Sale the day after the National Sale.

The Coventry—Dunwalke—Florham—Rockingham Sale Enjoys $1,038 Average

While the National Guernsey Sale was being held many breeders examined the cattle consigned to this combination sale which was held the day following. That these breeders found the flesh and blood equally as desirable as the advertisements and pedigrees indicated is now well inscribed in 1927 Guernsey history. Sixty-six animals from the four herds owned by Messrs. Benson, Dillon, Hope, and Tenney brought a total of $68,475. Brisk bidding characterized the sale and only at very rare intervals did Manager Merryman and Auctioneer Bain lean forward and pour forth their very best to secure a reasonable figure for the consignor.

The high cow was consigned by J. L. Hope. She was May Princess, a granddaughter on her sire's side of Imp. Itchen Red Raider and on her dam's side, a granddaughter of Beda's May King. Imp. May Rose King sired both May Princess' grandams. Howard Heinz, Pittsburgh, purchased this cow for $5,000.

The high male carried much of the same breeding and also came from Mr. Hope's Florham Farm. He was Florham Challenger, a son of Florham Majestic and out of Marjorie of Linda Vista, now on A. R. test. R. F. Loree, New Jersey, purchased this calf for $3,000.

Coventry Farm had 22 head in the sale, all of which averaged $981. Their top priced individual was Coventry La France Rose that went to G. N. Dayton, Minnesota, for $2,100.

The Rockingham Farm consignment topped all others, thirteen head bringing an average of $1,588. All but two of these were bred by the consignor. Rockingham Dairymaid, a daughter of Langwater Halliston, was the high Rockingham individual. She went to Noyes Avery, Michigan, for $2,900.

The Dunwalke group of twenty, many a bit young, averaged $513. After this herd has been in existenc a while longer better averages wi undoubtedly be noticed.

The Florham cattle, numberin eleven head, brought $15,975 or a average of $1,452.

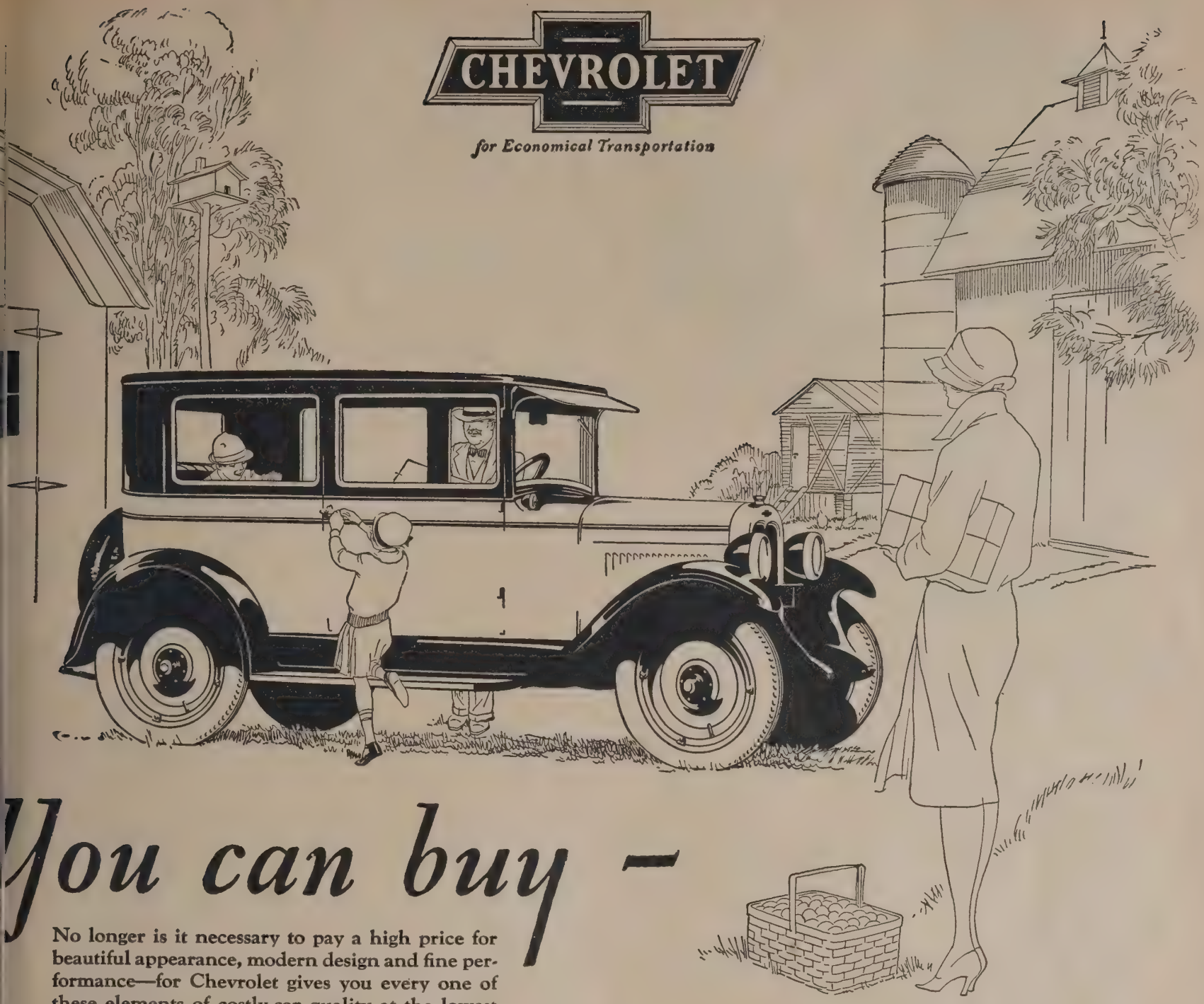
The following is a list of the ani mals bringing more than $700 an their new owners:

Coventry Consignment	
G. N. Dayton, Minnesota	
Coventry Spray	$1,90
Coventry La France Rose	2,10
Coventry Richesse Beauty	2,00
N. L. Avery, Michigan	
Coventry Dena	$87
Imp. Valentine of Clarimont	72
Mixter Royal Marion	70
Wm. A. George, Michigan	
Coventry Valentine Dena	$ 95

(Continued on page 630)

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No car, regardless of cost, is more modern in design and equipment. The powerful Chevrolet valve-in-head motor, with three-speed transmission and sturdy single-plate disc-clutch, has been made even better by such pronounced improvements as AC air cleaner and AC oil filter. A coincidental ignition and steering lock; a sturdy, handsome tire carrier and a full-size 17-inch steering wheel are further quality features that typify complete modern equipment.

And Chevrolet performance will delight you wherever you go. Velvety smoothness at every speed up to wide open throttle. Flashing acceleration that denotes a tremendous reserve of power! Cradled riding ease over the roughest roads!

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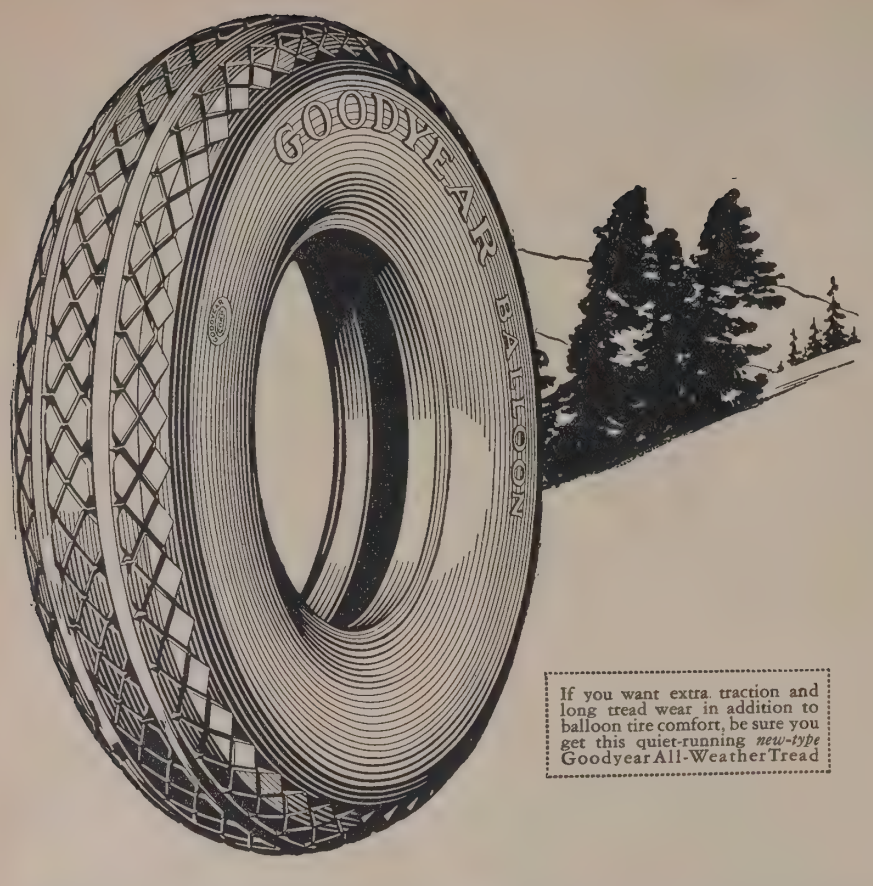
The Touring or Roadster	$525
The Coupe	625
The 4-Door Sedan	695
The Sport Cabriolet	715
The Landau	745
The Imperial Landau	780
½-Ton Truck (*Chassis only*)	395
1-Ton Truck (*Chassis only*)	495

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Goodyear makes a tire to suit *you*—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced Goodyear standard quality Pathfinder

Goodyear Means Good Wear

GOODYEAR

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MILK STOOL PHILOSOPH

J. J. SPRENGER, MINNESOTA

IF I should stop to give credit to all the factors which have contributed to my well-being, as well as to the foundation of my character, I would have time to do nothing else, and even when I try to enumerate some of them in a general way I seem to be certain to overlook many because they are so near to me that I take them for granted. For instance, it came almost as a surprise to me to think that these developing agencies are by no means confined to humans but that the very animals with which I am working from day to day also help to make me what I am.

It has been well said that man is the only one of God's creatures who can blush and needs to. Man seems to be alone, also, in that he can smile but that does not mean that animals cannot be glad to see us and show it.

One of my friends has a dog which is no good as a watch dog, neither will he drive cattle, and the owner has often been asked why he did not kill that dog as long as he was no good. But all have been answered the same, "I could not think of such a thing because every time I came weary and discouraged and it just as if there was no one who that dog comes running to meet long way down the road and a way back he curls himself in kinds of shapes for joy, and th wags his tail and grins his teet in every way tries to show m glad he is to see me back. In he seems to be about as near joyed as a certain young darke was very agreeably surprised b one of his friends introduced h a group of young ladies whom h been very anxious to meet. this good fortune upset him s he began standing first on on and then on the other, and he said, 'Ladies, it's—it's just cating foo pleasure.' "

Farming is hard work, but v fine greeting we do get every ing; first the rooster, then th then the sheep, mules, colts, and even the pigs are glad to Humans may have all else, b nobody greet us and we can happy.

Milk and the Housewife

HOARD'S DAIRYMAN:—After a thorough investigation the Rockford, Ill., Department of Public Health has issued a bulletin, "Care of Milk at the Door Step." Dr. N. O. Gunderson, health commissioner, believes that much of the consumer's dissatisfaction concerning milk comes from careless treatment of the milk after it is delivered to the home. He cites three dangers:

1. Exposure to improper temperatures. In summer the milk is delivered from one to four o'clock in the morning. This means that it is often exposed to the warm summer air for several hours. Of course, under such conditions it cannot be expected to remain as pure as when delivered. The health commissioner suggests that ice boxes be arranged to open from the outside so that the milkman may easily slip the milk into them.

2. Exposure to dirt and chemicals. Under this head is classed street dust, coal dust, plain dirt, and rain water from porch roofs. Or trouble may come from leaving milk in rooms or garages where it is exposed to foul air, oils, greases, gasoline, or paints. Milk, it is sad to relate, is the one food product that has a special affinity for taking up odors and chemicals quicker than any other known food.

3. Exposure to domestic animals. Dr. Gunderson declares that more than twenty per cent of Rockford milk bottles are directly exposed to cats or dogs.

"So, Mr. and Mrs. Householder," concludes the health commissioner, "let us give just a little thought to the milk bottle tomorrow morning. Let's investigate the place where we ask the milkman to leave the bottle and see if we are fair to ourselves and the children, and even the milk dealer.

"Look into the feasibility of having the bottle placed directly in the ice box, or provide a simple, cheap thermos box that takes up neither heat nor cold."

The Rockford campaign for better care of milk in the home is to be commended. It means that the housekeepers are going to be better satisfied with their dairy products, and it will promote a clearer understanding between the consumer and dealer and dairy farmer.

Why would not the systemat tribution of such information uable in other cities? If the department does not seem wil promote it, the project wo worthy of the support of the or dairymen.

Illinois. MELVIN C. SM

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My Experiences as a Cow Tester

HOARD'S DAIRYMAN:—I have spent er two years as tester in the Nel-n, Minn., Cow Testing Association d shall, in this article, give some of y experiences which may be of help dairymen not situated so they can come members of a testing associa-n. I have found that regularity in eding, milking, and caring for cows one of the requisites of successful irying. I have also found that it is practice very commonly misused. ow easy it is to sleep for an hour ger on Sunday morning or to stay town an hour later on Saturday af-noon, but this little break in the gular routine of the dairyman will on put the dairy herd on the decline production.

Cows are creatures of habit and ll become nervous and restless if t fed or milked at regular times ery day. They will not produce lk to good advantage when in this stless condition. Some of the best rds in my association were best nply because of very regular feed-g and care. There is no doubt in y mind that if all the herds were ven as regular care in feeding, milk-g, and care as was possible to give, at the average production of the as-ciation would have been at least 15 unds of butterfat higher without y additional cost.

I have found that varieties of dif-rent grain feeds mixed together will ve much better returns even though e cost is somewhat higher. It seems at cows will have a better appetite d be less liable to go "off feed" nen they are fed a variety. A mix-re of 300 lbs. oats, 100 lbs. barley, d 100 lbs. bran with alfalfa hay d corn silage has been fed with od success in this association.

Members who practice individual eding according to production get e best returns for each dollar's rth of feed fed. I have found a few embers who take a sack of feed of st any kind and empty out a por-n for each cow. Some days a cow ay get ten pounds of feed and the xt day eight, when fed in this man-r. Common sense should show the ults of this method of feeding. Sev-al of my members use a small hand oop to measure out the feed for each w. A scoopful of feed can be eighed at intervals and the cows fed cordingly. A small scoop for this rpose can be very easily made from piece of tin, a piece of board, and a ece of an old fork handle.

I have found that the poor care and eding of the calves and dairy heif-s is also a cause of poor production some herds. Young cattle kept in ld sheds or out of doors and fed oughages only, cannot grow and de-lop properly to make the best of ws. Anyone should know that it is sier for a large cow to produce a rge amount of milk and butterfat an for a small one to produce the me amount.

Heifers bred to freshen at too ung an age is also a cause of poor oduction in some herds.

I have found that it pays to feed ain to high producing cows during e summer months as well as winter, en though the pastures are abun-nt. Cows fed some grain during the mmer months produce better dur-g flytime and the season of short, y pastures and the cows will also in better condition for fall freshen-g. Cows in good condition at time freshening will produce more and ep it up better than cows that are in in flesh.

The keeping of too many cows ems to be a common fault with any dairymen. A small herd, well d and cared for, will invariably pro-duce better returns and net profits than large herds cared for and fed in a haphazard way. The ten highest herds in the association for 1924 av-eraged only twelve cows.

Drinking cups for the cows have proved to be a very good investment in this association. Dairymen are quick to realize that large producing cows must have plenty of drinking water and have it often, which they do not have when watered in a tank outside. The saving of labor alone would soon pay for the cups.

During the first few months of test-ing, about 35% of the cream separa-tors were skimming poorly, several of them losing as high as $25 per month for their owners. This is another way that good profits may be lost if not checked regularly.

A summary of my experiences would be:

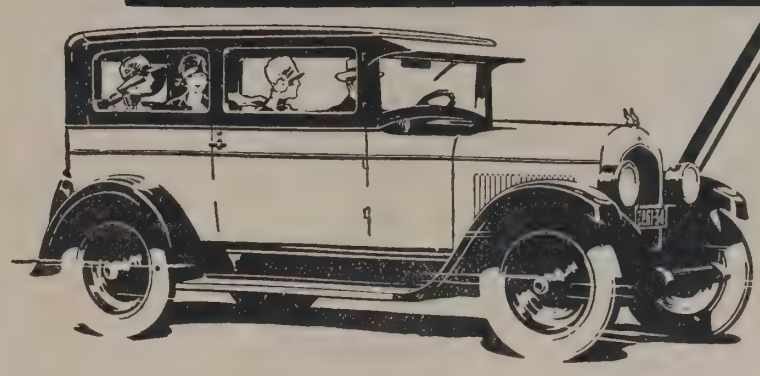
1. Cows should have regular feed-ing and care.
2. A variety of grains should be used in the ration.
3. Cows shoud be fed according to their requirements and producing ability.
4. Calves and young heifers should be well fed and cared for.
5. High producing cows should be fed some grain while on pasture.
6. Herds should be small enough to be fed and cared for properly to pro-duce the greatest profits.
7. Drinking cups are a very neces-sary equipment on a good dairy farm.
8. Cream separators are oftentimes the cause of poor profits from the dairy herd and therefore should be tested regularly.

Minnesota. MARION JOHNSON.

Another 1,000-lb. Producer

There are now 113 Holstein cows that have produced 1,000 lbs. butter-fat or more in a year. The latest ad-dition to this group, according to the Holstein-Friesian Association of America, is Linden Clara Pasma that produced 28,541.1 lbs. milk, 1,072.31 lbs. fat (1,340.38 lbs. butter) in 365 days as an 11-year-old cow. She was bred by H. W. A. Tramm and is owned by Henry Bouchard, both of Washington.

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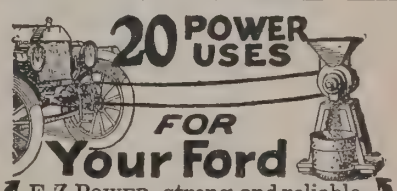
* * *

Coupe $750; Coach $780; Roadster (with rumble seat) $795; Sedan $830; f. o. b. Detroit, subject to current Federal excise tax. Chrysler dealers are in a position to extend the convenience of time payments. Ask about Chrysler's attractive plan. All Chrysler cars have the additional protection against theft of the Fedco System of numbering.

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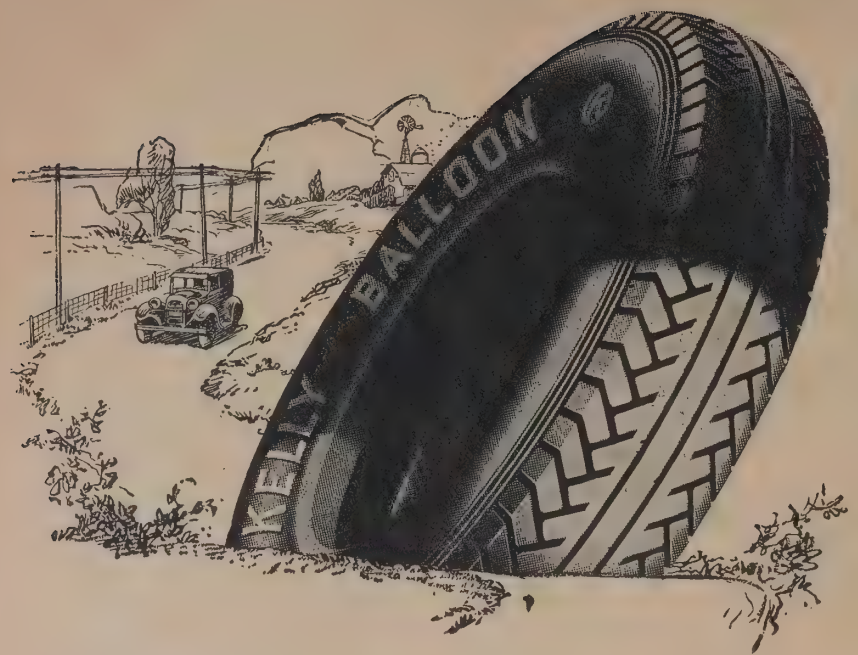
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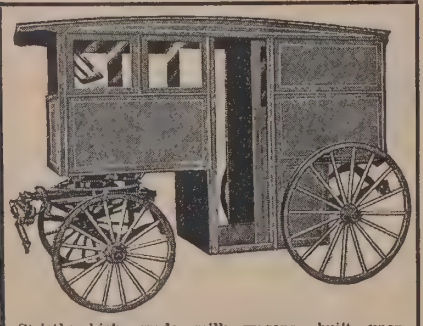
Since they now cost no more than any of the well known makes and are even tougher, sturdier, longer lived and easier riding than their predecessors, their purchase is an even greater economy.

Try one the next time you need a tire, and see for yourself if it's not so.

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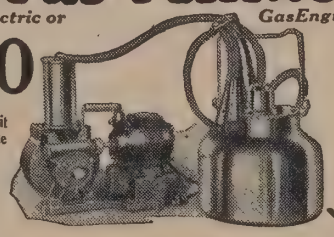
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These columns are open to the readers of Hoard's Dairyman for the expression their opinion on any subject, whether radical or conservative, destructive or constructiv wise or foolish. It may be cows or crops, religion or politics, or what at the time mo interests you. It may be critical or commendatory, but it should be your opinion. It your own editorial page but your editorial must not exceed 250 words. Hoard's Dairym assumes no responsibility for opinions expressed.

In Case of Drowning

HOARD'S DAIRYMAN:—The season for accidental drownings is at hand. Many precious lives are lost every summer through carelessness on the part of someone. It is not only the duty of everyone to observe caution in swimming and boating, but it is the mark of ignorance to fail so to do. Only the idiot rocks the boat or tries to see how close he can come to the current and not be carried away. Trying to do swimming stunts without adequate provision for safety in case the swimmer fails of execution is worse than foolish, and all too often results fatally.

The drowning one in his fright is prone to grab his rescuer about the neck and hang on, defeating both his own chance for life and that of his rescuer. His part is to be passive in the hands of the swimmer.

The first step in resuscitation is to restore breathing. Not a moment is to be lost. Dr. Gulick gives the following authentic advice: Lay the unconscious one on his stomach in a level place. Turn the head to the left so that nose and mouth are away from the ground. Kneel by his side or astride his hips. Place both your hands over the small of his back, with your thumbs nearly touching and fingers spread out over his lowest ribs. Swing yourself forward, counting three slowly in the forward movement. Quickly swing back, relieving pressure but keep your hands in position. In three more counts, repeat. Do it ten or twelve times without pausing.

New Richmond, Wis. J. E. T.

Disfranchise Farmers

HOARD'S DAIRYMAN:—You perhaps do not have opportunity to read the Long Prairie Leader, a local paper published in my state. This paper has taken a deep interest in agricultural problems and its editor, Mr. Rudolph Lee, shows clearly that much of the agricultural discussion can be attributed to politicians looking for recognition.

He recommends the farmer be disfranchised. It is his opinion that if this were done, politicians would not be bothering themselves about agricultural problems and people engaged in farming could then devote themselves without interference or distraction to solving their own problems. Farmers who read his paper and know how substantially he has supported every legitimate undertaking to benefit the rural communities, rather feel that his suggestion is a good one and I am inclined to think they feel it would be well to give his suggestion a trial.

Minnesota. JAMES BRADLEY.

Hoard's Doctrine Sound

HOARD'S DAIRYMAN:—Please send Hoard's Dairyman to the enclosed names, all of whom have recently bought registered Guernseys from us and have never read your paper.

We feel that they will not appreciate what we have sold them or know how to get the best results from them unless they can tap the stores of information that reading your paper will open up to them. In over twenty years among cows we have never met a good dairyman or cow man who was not a living advertisement for Hoard's doctrine and we never met one who had made a mess of the dairy business who had not failed carry out the good old Governor' vice. There may be something Mary McHaugenism but we that it could not have solved problems like the dairy cow has it. We needed a regular check month and manure to restore the tility to our worn-out acres. may be a political substitute for work but nothing beats the dairy for improving land and bringing steady income.

Virginia. A. G. INGHA

For Rural Police

HOARD'S DAIRYMAN:—In repl R. Mackintosh and J. G. Hunt wish to say I'm not paid by a to uphold rural police. But some will have to be done. I agree Mr. Mackintosh that laxity of la forcement is due to politics. sheriffs and mayors are too bought off and are afraid to some for fear of losing their Then why not have rural pol stranger who has no one to plea

I believe in the constitution U. S. A. and let's not lower the ards of our forefathers. Some are trying to serve God and the This can't be done. Sunday ballg pool playing, dancing, and gam are the devil's work and no ma go to these places and serve God a sword can't change a man's l let alone the constitution. The of our forefathers coming here to get away from high taxes serve God. Is it not too true again we are taxed high and w hardly allowed to serve God please? History has to repeat.

Ohio. PAUL GARTR

Sunday School Teacher: " was the Tower of Babel?"

Tommie: "Wasn't that the where Solomon kept his 500 wi

More Customer

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So have CERTIF CAPS for Milk Bo

CUSTOMERS follow better serv They want bottle caps that easy to lift off. You can give them that, at trifling cost, if you use Ce fied Caps.

Certified Caps for milk bottles tough red fiber flaps, stapled on. T are easy to see, easy to grasp. T do not tear. They lift the cap whole, every time. Perfect for capp machines or for hand capping.

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Minnesota Farm Account

OARD'S DAIRYMAN:—In response your editorial request for farm ness statements for year 1926, we nit the following copy of our ly summary:

e own 140 acres in the sandy soil rict north of Minneapolis, 110 of h are under cultivation. We in- ory this at $85 per acre for land buildings, which is more than ent cash value. In fact, at the ent state of the market for farm s here, there is no definite cash e and any valuation is only a s. Other inventory values are ervative. We usually sell our lus cattle, for instance, for more previous inventory value. We lly have close to thirty head of e of all ages. Thirteen cows were ing in 1926. Our herd is com- d entirely of pure-bred Holsteins. e farm account for 1926 is as ws:

Inventory	Jan. 1 1926	Jan. 1 1927
and buildings	$11,900	$11,900
	5,371	5,765
s	350	217
nery and equipment	791	841
nd seeds	1,329	1,795
al	$19,741	$20,518

Receipts	
	$3,766
es	648
	78
y	62
al cash	$4,554
tory gain	777
credits*	500
al	$5,831

r milk, meat, vegetables, eggs, y, rent, fuel, etc.

Expenditures	
expense (feed, etc.)	$1,026
and insurance	264
help	317
nery repairs, etc.	60
truck and car	254
expense	49
ng repairs	179
	139
y	280
l cash expense	$2,568
st at 5% on inventory	987
l expense	$3,555
r income	2,276
	$5,831

r labor income of $2,276 was ap- mately the same in 1925.

we keep a separate account for farm department, the summary he cattle account for 1926 may interest. It is as follows:

Cattle Receipts	
	$2,402
	180
sold	1,184
l cash	$3,766
or home use	30
or home use	52
ory increase	394
l cattle receipts	$4,242

Cattle Expense	
	$ 536
ising	78
rations, etc.	39
g	42
nary	24
r	307
l cash	$1,026
	237
	636
	348
e	103
	120
t on herd value	250
truck	130
	395
l expenditures	$3,245
profit	997
	$4,242

e total net profit on the herd was $997 after allowing the r credits and deducting all costs, ing cost of farm grown feed, la- etc. The herd returned a cash of $2,740 when cash receipts xpenditures only are considered. illustrates the value of keeping ete accounts if one wants to know where farm profits and losses occur.

Minnesota. B. A. NORRIS.

New Engine!

GRAHAM BROTHERS TRUCKS

This is the finest engine ever used in Graham Brothers Trucks and Commercial Cars . . . Every advanced engineering feature that is proven.

See this new engine! . . . See it today! . . . Compare it with *any* engine *ever* built into *any* truck!

$670 ¼-TON
$885 1-TON
$1245 1½-TON
$1445 2-TON
Chassis prices, f. o. b. Detroit

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EVANSVILLE – DETROIT – STOCKTON
A DIVISION OF DODGE BROTHERS, INC
GRAHAM BROTHERS (CANADA) LIMITED, TORONTO, ONTARIO

MORE POWER—MORE SPEED
FASTER ACCELERATION
MORE ECONOMY—MORE VALUE

Handling Sweet Clover for Seed

HOARD'S DAIRYMAN:—When Wm. Darnbrough of Saskatchewan desires to grow sweet clover seed, he sows it at the rate of 10 to 12 lbs. per acre and it is not pastured or cut back at any time.

A definite time to cut the seed crop is recognized, that time being when the pods are about 50 per cent black in color. The ordinary grain binder is used and the plants are cut as high as possible. It is then shocked up in the same manner as a small grain crop.

Mr. Darnbrough finds that sweet clover threshes very easily if it is at all dry. He prefers to use a screen in the shoe of the separator of a size that will just permit the threshed grain to go through. This means that the threshed grain will come out under the machine. Any that goes through the elevator is put through the machine again.

Since he finds that sweet clover is valuable for the feeding of live stock, Mr. Darnbrough has been investigating the methods of handling hay. He says that the most satisfactory way is to cut the crop when the sweet clover plants are just beginning to bloom. Then he goes in with a binder and binds the crop, putting the bundles in small shocks, only about eight bundles in a shock. The sweet clover hay is thus handled in bundles which facilitates feeding it to stock.

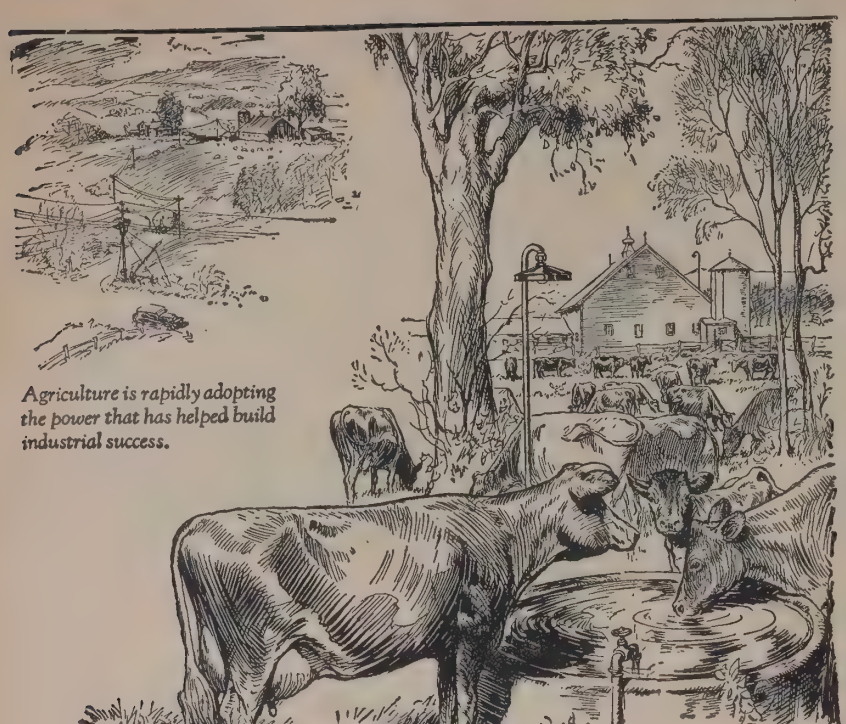
Nebraska. H. H. BIGGAR.



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Double-hinged, the Reichert Weaner permits grazing, eating and drinking. Sharp-pronged, it discourages all contact with the udder. Strongly made, heavily tinned and easily applied. Made in two sizes—for calves and cows. Calf size, 45c; cow size, 50c. If your dealer can't supply you, we'll send direct.
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NEW IMPROVED JENSEN ADJUSTABLE
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No loose Bulls or horses. A Universal snap no animal can open or break. Chain stakeout, lead chain with snap, extra quality bull rings, snaps, calf trainer. For more information write. Chain halters, fits all size bulls. On 15 days trial, money back if not satisfied, PRICE $6.50. Shipped prepaid U. S. A. where no dealer.
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Agriculture is rapidly adopting the power that has helped build industrial success.

The electrical industry brings forty years' experience to the farm

NO LONGER is rural electrification only "a possibility." The building of rural lines is in active progress; and the policy of electric light and power companies is to extend rural service as fast as circumstances will permit.

The electrical industry is applying the experience of forty years of service to cities and industry to the problem of delivering electric service to farms. Where the demand is sufficient to justify the building of lines on a business basis, farmers are having no trouble getting service. For, to derive the full benefit of rural electrification, the varied use of power as well as light must be applied. Only through cooperation between the producers and the consumers—light and power companies and the farmers—can rural electrification be brought about. The farmer should take advantage of the great variety of things electricity can do. The industry, meanwhile, is working with representatives of farmers in twenty states to devise new equipment and improve that now in use.

The benefits of electricity which are now enjoyed on 260,000 farms will be extended to hundreds of thousands of progressive farms within the next few years. Ask your power company for information and cooperation.

The Committee on Relation of Electricity to Agriculture is composed of economists and engineers representing the U. S. Departments of Agriculture, Commerce and the Interior, American Farm Bureau Federation, National Grange, American Society of Agricultural Engineers, Individual Plant Manufacturers, General Federation of Women's Clubs, American Home Economics Association, National Association of Farm Equipment Manufacturers, and the National Electric Light Association.

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SPECIAL PROCESS GLAZED STONEWARE WATER-BOWLS, and SALT and MINERAL FEEDERS. This sanitary equipment is guaranteed against breakage by cows, and is very practical and efficient. Highly ornamental. No expense has been spared to make these goods the best that human skill can produce, regardless of price. We fit any make equipment, and sell direct where no dealer. Pamphlet and information free. SALESMEN WANTED. Inquire

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Made with hinge joint—swings out of way when calf eats or drinks. Calf size 45¢; Yearling 55¢; Cow 65¢, post paid.

Buy from your dealer. Write for leaflets.

Reg. U. S. Pat. Office



Reg. U. S. Pat. Office

WAGNER SPECIALTY COMPANY — Burlington, Wis.

Work of Chester Hazen Honored

THE life and work of Chester Hazen, pioneer Wisconsin dairyman, were honored at the sixth annual field day of the State Live Stock Breeders' Association held June 8 in Fond du Lac County when a bronze tablet was placed on the site of the cheese factory which he built at Ladoga, near Rosendale in 1864, and said to be the first cheese factory erected in the Badger State.

Charles L. Hill, noted Guernsey breeder, presented the tablet which was accepted by J. L. Sammis of the Dairy Department of the University of Wisconsin. F. G. Swoboda, manager of the Wisconsin Cheese Producers' Federation, spoke on "The Cheese Industry's Place in Wisconsin's Agriculture." Other speakers on the program were: W. A. Duffy, State Commissioner of Agriculture, and Charles Everett, Editor Wisconsin Agriculturist.

Chester Hazen was born January 31, 1824, on a farm in Lewis County, New York. At fifteen he entered the molder's trade. In March, 1845, he came to Milwaukee seeking employment, and a year later he preempted 80 acres in Fond du Lac County, adding 160 acres in the town of Springvale, Fond du Lac County, the next year. During his first year on the Springvale farm he cleared 30 acres and fenced about 12 acres. In 1850 he built a house on his land and in 1854 married Jane A. Atwood of Vermont.

In 1864, Mr. Hazen built his cheese factory, patterned after those back in New York State. At one time this factory received the milk from 1,000 cows. Mr. Hazen bred Ayrshire cattle and raised fine horses.

In 1872 he was chosen the first president of the Wisconsin Dairymen's Association. He helped organize the first dairy board in Fond du Lac County in 1869, was its first president, serving three years and was also president of the Fond du Lac Agricultural Society for many years. In 1885 he was elected to the assembly where he served the agricultural interests of the state well. He helped establish the state veterinary department. Chester Haze died in 1900 having lived a most use ful life.

While Mr. Hazen is credited wit having built the first cheese factor



CHESTER HAZEN

in Wisconsin, there is record cheese having been made on a f tory scale in Wisconsin at a so what earlier date by J. G. Picketts Jefferson County. At one of early meetings of the Wisconsin D rymen's Association, Mr. Picke said, "On the first day of June, 18 my mother and myself, as assista made from the milk of thirty co owned by six patrons, the first che



CHESTER HAZEN'S CHEESE FACTORY, RESIDENCE, AND FARM BUILDINGS, FOND DU LAC COUNTY, WISCONSIN, AS THEY APPEARED IN AN EARLY DAY

manufactured in Jefferson Cou and I verily believe the first ma factured under the co-operative tem in Wisconsin, and exactly years before Jesse Williams, in 1 earned the historical notoriety of ganizing the American Co-opera System of dairying. The little ki en factory in the log house was erated on precisely the same pri ples as are the mammoth cheese tories of Jefferson County having patronage of a thousand cows."

Blessed be the memory of Che Hazen, J. G. Picketts, and all o great leaders of the dairy indus

Ground Kafir for Dairy Cows

In parts of Kansas and other southwestern states the drought-resistant qualities of kafir has caused it to be more generally grown as a forage and grain crop than corn. The feeding value of ground kafir grain for dairy cows has been compared with corn meal by the Kansas Station.

A basal roughage of alfalfa hay and sorgo silage was fed in the proportion of 1 of alfalfa hay to 3.16 of silage. The grain mixture in one case was composed of 4 parts of corn meal, 2 parts of wheat bran, and 1 part of linseed meal; in the other case 4 parts of ground kafir, 2 of b and 1 of linseed meal were use the mixture. The cows were fed cording to body weight and pro tion requirements.

Kafir proved to be 97.6 per cen efficient for milk production and per cent as efficient for fat pro tion as ground corn.

Another experiment by this s station found ground Kansas or sorgo seed practically equal to in the grain portion of a ration dairy cows.

Silage made from kafir or drought resisting canes has found nearly equal to corn silage dairy cows.

ington Dairy Associa-n Growing Rapidly

by the Whatcom County Dai- Association, Bellingham, amounted to $2,588,434 for The principal items making total were: butter, $1,506,- eese, $120,660; milk powder, 0; condensed milk, $3,404; feeds, $103,546; milk and $201,004; ice cream and mix- 1,589; storage, ice, and mis- us, $66,392. The output of nt included the following: 3,368,668 lbs.; cheese, 323,020 ilk powder, 3,777,842 lbs.; feeds, 1,827,956 lbs.; ice nd mixes, 92,428 gallons; con- milk, 7,283 lbs.; cream and zed milk, 327,051 gallons. net worth of the association ember 31, was $500,307, in- $263,916 as an undistributed invested in plants. This en- serves about 1,800 produc- gricultural Co-operation.

een Millet for Milk Production

's DAIRYMAN:—Japanese l millet, a soiling crop par- adapted to the Oregon Counties as a supplemental t feed to diminishing pas- ave excellent results in four County demonstrations last

was the first time that Jap- rnyard millet had been tried County and on four different produced from 14 to 22 tons , according to the report of s county agent who arranged onstrations.

e farm of C. E. Schroeder a 22 tons of green feed was ob- In the other demonstrations ere as follows: on the J. D. farm 20 tons, A. H. Aasen tons, and on the George n farm 14 tons. So satisfac- re the results of these first rations that H. S. Hale, re- ppointed Coos county agent ed C. R. Richards, is arrang- nese barnyard millet demon- in many communities. ractically every community e coast, county agents have these millet demonstrations. y, as a result, the crop is be- ted by dairymen as a means using dairy profits by feeding n forage during the dry sum- nths. In Clatsop, Tillamook, coln Counties the acreage of crop has been increased con- luring the past three or four

nethod of seeding generally nded and that followed by ria Experiment Station is to millet at the rate of 25 to 30 n acre on well manured land.



se barnyard millet that yielded of green feed per acre on farm Elliott of Clatsop Co., Oregon.

The seed should be broadcasted on a rather firm seed bed and harrowed in very shallow. Seeding can be done any time, providing the moisture supply is adequate from April to June. Of course, time of seeding will be determined somewhat by the date that the green feed is desired. In some instances this millet on fertile bottom land has yielded eight tons per acre with each cutting and as many as three cuttings have been obtained in a single year. Japanese barnyard millet has rather a low value as a hay crop and its principal use is for green feed purposes.

Oregon. W. L. TEUTSCH.

More Butter Needed

A call for 30 more creameries to join its ranks has been issued by the Land O' Lakes Creameries, Inc., Minneapolis. More butter has been sold for standing weekly orders and storage requirements than the member creameries are able to produce and deliver. The association needs another 10,000,000 lbs. of butter to hold the trade and supply its customers.

About 20 of the association creameries are now making sweet buttermilk powder and driers have been ordered by several more factories. There are also 23 creameries delivering their buttermilk at the concentration point at Litchfield to be dried. The buttermilk powder is in good demand for poultry and calf feed.

Sweet cream is shipped to eastern cities in carlots from Watertown, and will soon be shipped also from Glencoe. A set of requirements, based upon the rules and regulations established by the health departments of certain eastern cities, has been formulated by the association for the guidance of creameries and farmers, whether they ship cream or make butter.—Agricultural Co-operation.

The doctor entered the grocery store: "How's the cheese today?"

"Well, it's a bit stronger, doctor," replied the grocer.

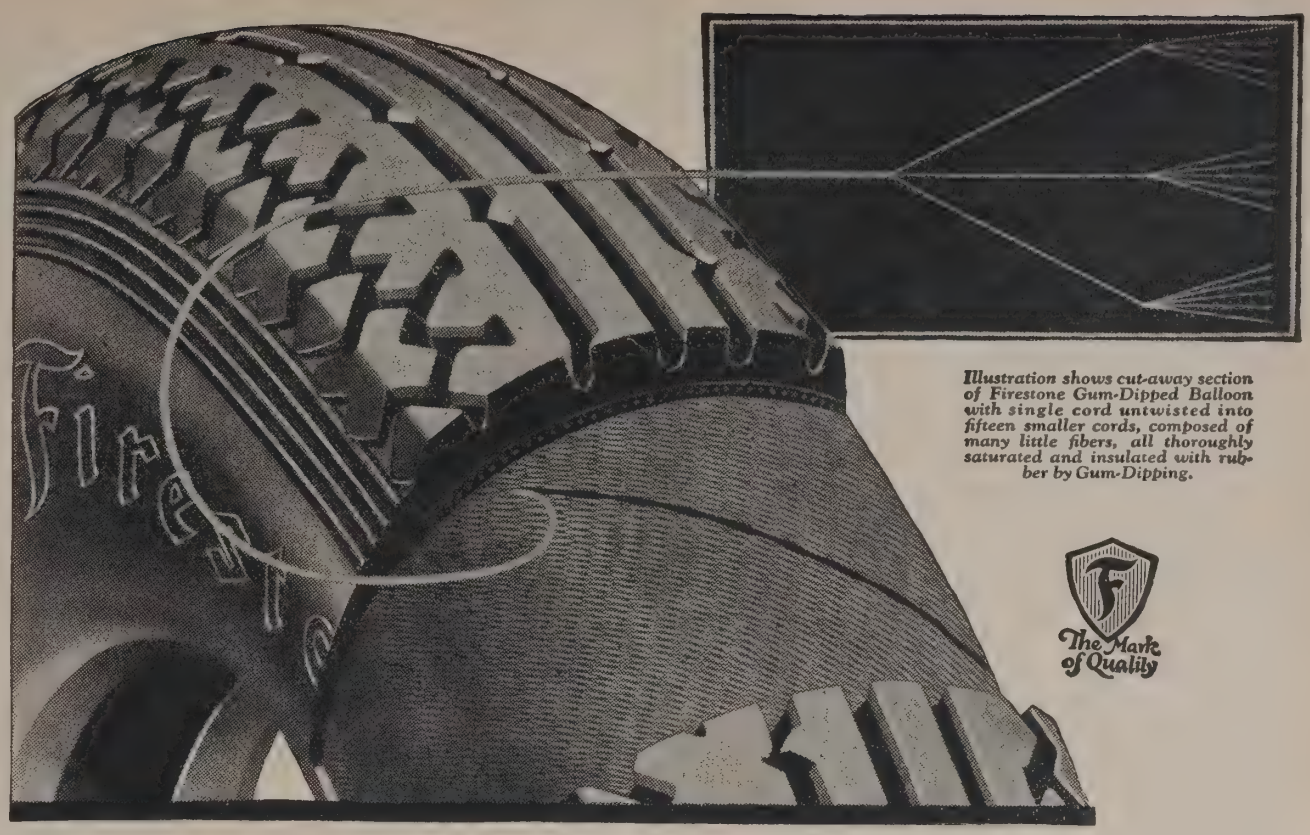


Illustration shows cut-away section of Firestone Gum-Dipped Balloon with single cord untwisted into fifteen smaller cords, composed of many little fibers, all thoroughly saturated and insulated with rubber by Gum-Dipping.

The Mark of Quality

Why **Firestone**

Dips the Cords of the Carcass in a Rubber Solution

In the old Fabric Tire, internal friction was excessive, and mileage low, the square-woven construction of the fabric being impossible to insulate with rubber.

Then came the Cord Tire, with cords in each ply laid parallel—no interwoven cross-threads—permitting much greater insulation of the cords, one from another. This materially reduced friction and more than doubled tire mileage. But the small cords were not insulated with rubber and destructive friction within the cord was not overcome. After much research Firestone chemists found a method of insulating every fiber of every cord with rubber—and called it "Gum-Dipping." By this process the cords of the carcass are dipped in a rubber solution which penetrates to the innermost fibers. Gum-Dipping made the Balloon Tire practical and established a new standard of tire mileage.

Call on the Firestone Dealer today. Let him save you money and serve you better.

MOST MILES PER DOLLAR

AMERICANS SHOULD PRODUCE THEIR OWN RUBBER Harvey S. Firestone

"JAY BEE" HUMDINGER

Crusher - Grinder - Pulverizer

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"The Humdinger is the last word in efficient, economical grinding of all farm products," says Mr. Hunt of Mo. "It is an unusual grinder. Can't be excelled as feed saver and money maker. In a year we have had no trouble or repair expense."

The Only All Steel Hammer Mill

Made of boiler plate and manganese steel. Steel has four times the strength of cast iron. Practically unbreakable. Lifetime service. No heat or friction. Feed not heated in grinding.

"First Cost Is Only Cost"

Says W. A. Schultze, Stanton, Neb. "Have used my mill a year without one penny's worth of repairs. The quality and variety of feed ground on the "Jay Bee" cannot be duplicated by any mill in America."

"Always Dependable"

Say Ziegler Bros., Oakley, Kansas. "It has never failed us in any particular. Its capacity is far greater than is claimed. It delivers a quality of product never equalled by any other mill."



3 sizes for engines 7-30 HP

Easy Payment Plan

Write for free feeding booklet and descriptive literature. Stock carried in principal cities.

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EDITORIAL COMMENT



THE strength and effectiveness of co-operation is well illustrated in one of Aesop's Fables entitled "The Father and His Sons:" "A father had a family of sons who were perpetually quarrelling among themselves. When he failed to heal their disputes by his exhortations he determined to give them a practical illustration of the evils of disunion; and for this purpose he one day told them to bring him a bundle of sticks. When they had done so he placed the faggot into the hands of each of them in succession and ordered them to break it into pieces. They each tried with all their strength and were not able to do it. He next unclosed the faggot and took the sticks separately, one by one, and again put them into their hands, on which they broke them easily. He then addressed them in these words: 'My sons, if you are of one mind and unite to assist each other, you will be as this faggot, uninjured by all the attempts of your enemies; but if you are divided among yourselves you will be broken as easily as these sticks.'"

Successful co-operative institutions have followed the teachings of this fable and it is well for all engaged in co-operative effort to heed its teachings.

CHANGING OCCUPATION

According to the United States Department of Agriculture, the farm population of the United States decreased 649,000 persons last year. It is estimated that 2,155,000 persons moved from farms to cities, towns, and villages last year, and that 1,135,000 persons moved to farms, making a net movement of 1,020,000 persons away from the farm. Births on the farms during 1926 are estimated at 658,000 and deaths at 287,000.

Since the depression in agriculture in 1920, there has been a faster movement from farms to cities and towns than in years previous. This does not concern us as much as it does some for we appreciate it is being brought about largely because of improved machinery, making it possible for fewer people to produce the food and the material for clothing that this nation needs. It is one way to balance up industries and get them on a comparable basis.

Changed conditions constantly cause human beings to readjust themselves and many have to go through severe hardships. No one likes it, but as long as we continue to develop and improve methods of production, distribution, and transportation, there will be this constant adjustment to keep the various prices in proper relationship.

To us the chief trouble with agriculture is due to overproduction and one way to solve it is to have fewer people producing agricultural products.

HOW TO BUY CHEAP

It is just as important to know how to buy well as to know how to sell well. The farmer who is always on the alert to buy advantageously and at lower prices is usually the one who makes money.

There are many ways of securing commodities needed on the farm at lower prices than are charged by merchants when the products are taken through the usual channels. Some years ago we pointed out the advantages to dairy farmers of buying feeds, fertilizers, coal, and other things collectively through local dealers and in car lots. When these products are bought in carload lots, it takes just a little planning to get a sufficient number to take a full carload and be ready to unload the car promptly when it arrives.

So few people figure that it costs a merchant money to unload a car of any commodity and store it that they neglect to go to their merchant or to their co-operative and find out just what saving could be affected if they would pay cash and take the product home direct from the car. Many communities have made arrangements to carry on this kind of merchandising and farmers find they can save enough to warrant them to pay cash and haul their products direct from the car to their own storage places. Some dealers deliver from the car to the farm. They can give the farmer a better price when he buys this way than when the merchant stores the product.

It is not difficult to figure out the number of tons of coal you will have to buy for next winter, or how much feed or how much of anything else. Then make arrangements with your neighbors to obtain a sufficient quantity of any product to make up a carload.

ORGANIZATION ESSENTIAL

The real purpose of a co-operative organization is to determine what the market demands and how much it can use at a fair price, to provide methods of handling surplus, to grade and advertise its wares, and to get producers to act and work together.

Mr. A. D. Allebach, President of the Interstate Milk Producers' Association, Philadelphia, enumerated before a meeting of the Pure Milk Association of Chicago a few things which his association has done and its accomplishments have been most satisfactory. He, in part, said:

"Our greatest accomplishment was to reduce the surplus milk on the Philadelphia market from 35 to 10% and so adjust production to meet demands. Back in 1919 we learned that we had to produce more milk in winter and less in summer if we expected to get a fair year around price. We decided to penalize the fellow who didn't maintain a level production throughout the year. We went out and held ninety meetings in thirty days among the dairymen to explain why they must equalize production."

It should be noted here that they went out in the territory supplying milk to Philadelphia and held ninety meetings. They didn't simply hold conferences in Philadelphia, appoint committees, and then adjourn.

Mr. Allebach also said, "We joined the National Dairy Council, started a two-cent per hundred pound checkoff paid jointly by the producers and dealers, and raised $100,000 to advertise milk and other dairy products in Philadelphia. The association sought to gain the confidence of the dealers. It succeeded. At the same time it realized that if the price for milk is set too high, milk from remote territory will flow in and the market will be demoralized. We also established a quality control department, wrote its own rules and regulations, and hired thirteen men to go out and enforce them. All this required money, but it paid."

The Interstate Milk Producers' Association of Philadelphia is successful and renders its members a splendid service. It has taught the producers market requirements and what must be done to meet them. Producers with such understanding will not continue to produce more than the market will consume at a fair price, or will they turn over their products for the speculator to play with. Through organization they have become masters of their own business and by following sound business practices have raised the price of their product.

PRICE FIXING STOPPED

Some time ago the co-operative creameries of New Zealand formed an organization for marketing their butter. The Control Board fixed prices and the results have been rather disappointing. The United States Department of Agriculture in its market report for April 28 gives the following information which should be of value to those who think the solution of the agricultural problem lies in the farmers becoming organized so they can fix the prices of their products.

"A development of outstanding importance in the foreign situation as affecting United States markets is the abandonment of price fixing by the New Zealand Dairy Produce Export Control Board. This step was taken on March 14 after a combination of unfortunate developments forced upon the Board at least a temp change of policy.

"The difficulties met by the Control Boa back to the strike of British seamen durin fall and winter of 1925-26 which did mu break up the shipping schedule of the Boa most at its inception. The result was a s accumulation of stocks at the peak of las son's production. Scarcely had the depressi fluence of these accumulations been ove when the general strike in Great Britain in 1926, followed by the prolonged coal m strike, depressed the English butter and markets. It is not surprising, therefore, tha understanding of the effects of control s have arisen, with the accumulation of su and depression in prices being attributed l to the policy of the Board.

"Since the middle of March the new pr has involved the releasing weekly of a porti the accumulated and available stocks for s competitive prices. The quantity proposed released weekly up to the end of June is 9 boxes or some 5,000,000 pounds. It is state cially that the stocks in London on Mar amounted to 23,327,000 lbs. of butter an 120,000 lbs. of cheese. The published progr the Board for the allocation of present su together with those produced through th mainder of the season provides for the dispo all accumulations in London of butter by th dle of June and of cheese somewhat earlie

MORE COWS FROM GOOD SI

It is not enough for dairymen to feed, and protect the health of their cattle in th approved manner. It is of considerable i tance to know whether the average prod from year to year is going up or down. might, by the right feeding, increase the p tion of his herd 15 to 20 per cent and at the time daughters of these cows by the use poor bull may be reduced as much or more.

The value of a grade dairy cow is almost e ly measured by her milk production; the va a pure-bred is measured by production, typ the known production performance o ancestors.

How good a bull must a dairyman have daughters are to produce more than their The answer to this question depends on t erage level of production of the dams.

To partially answer this question the Bur Dairy Industry has compiled some records o and daughters from cow testing associati ports. The records include grade and pur cows, a total of 4,364 yearly records. The r of grade cows and their daughters are co separately from those of pure-bred cow daughters.

From these figures it is shown that when t erage production of grade dams reached 3 of butterfat, the average bull mated with cows failed to get daughters whose prod exceeded their dams.

The records for pure-bred dams show that their average production reached 394 lbs. o terfat, the pure-bred bulls mated with such failed to get daughters capable of producing than their dams.

The owners of grade and pure-bred dair tle with such records are forced to sear proven sires if the production of their herd be maintained or increased.

Thus cow testing association records are able not only as a means of eliminating cows, but also as a basis for selecting good

When dairymen more generally recogni importance of this, methods of finding the k sires needed and of using them more intelli will become a permanent part of our progr improvement.

Killing Morning-glory

t possible to kill wild morning-glory?
aredge, Colo. A. W.

eriments in Monterey County, California, ed the use of carbon bisulphide in eradi- morning-glory. A farm adviser used three of infested land for these tests. In the first the holes for containing the carbon bisul- penetrated to a depth of six inches; in the plot, the holes were twelve inches deep; and third plot, the holes attained a depth of en inches. The holes were spaced at dis- of two, four, six, and eight feet. The ts of carbon bisulphide used in each hole ne, two, three, four, and five ounces. The satisfactory results were obtained in the eighteen inches deep and three feet apart, our ounces of carbon bisulphide in each hole.

Brown or Green Alfalfa Hay

e time ago an article in Hoard's Dairyman that alfalfa hay that has browned in the s just as good for dairy cows as the pea- hay. Would this be equally true of alfalfa or feeding hogs? What advantage does al- neal have over the hay for feeding cows and

le Cedar, Iowa. L. W. W.

y of our readers claim they get just as good better results from feeding the browned al- nay to cows as from the pea-green hay. In- ly they report that the browned hay is more ble. This assumes, of course, that the com- n is made between hays of equal quality as ness of stems and proportions of leaves and ne only difference is in the color of the hay uenced by the method of curing and storing. lfa hay is valued particularly for its protein, l, and vitamin content. The method of cur- d storing has little influence on the protein ineral content of the hay. It may have con- le influence on the vitamin content of hay.

n the standpoint of protein, carbohydrates, nd minerals, there is no evidence to indicate ne pea-green hay or meal is better for hogs he browned hay of equal quality. From the oint of vitamin content there is some evi- that the method of curing hay influences its value. Not enough work has been done on oblem, however, to support a positive state- Such work as has been done indicates that ch direct sunshine and weathering tends to vitamin A, the one that promotes growth ng animals and effects a certain measure of protection in mature animals. On the other considerable direct sunshine seems to pro- he retention of vitamin D, the one that pro- mineral (calcium and phosphorus) assimila- his vitamin seems to have a greater relation irect sunshine than with the factor of color , although it is generally thought that the en hay is richer in this vitamin than the d hay. This is not necessarily true because ssible to have pea-green hay without much sunshine, in which case the hay would be vitamin D and good in vitamin A.

h of these two vitamins one should strive erve depends somewhat on the other feeds ration. If one feeds liberally of yellow corn lage made from yellow corn, it is thought e requirements for vitamin A are adequate- . Generally there is a greater probability leficiency of vitamin D in the ration than of which case it is probably more advisable to ay with a maximum of vitamin D in it. As indicated, pea-green hay does not neces- mean an abundance of vitamin D but rather uirement is for plenty of direct sunshine in the hay. There is no evidence to indicate e method of storage has any marked influ- these two vitamins.

ther one should feed alfalfa meal instead of depends on the price of hay compared with eeds, on the quality of the hay particularly ards coarseness and such other factors as use cows to waste hay, and on the cost of g.

n hay of equal quality, there is little evi- o indicate that it pays to grind the hay for nd aside from convenience in feeding, this is true for hogs, particularly with hay low , fine in stems, and with a goodly portion of ves retained. On the other hand, coarse d hay offers some inducement for grinding y the waste is greatly reduced. Coarse stemmed hay that has lost a considerable portion of its leaves should not be fed to hogs. There is a greater need for grinding hay for hogs than for cattle because of their limited capacity to include roughage in the ration and because of their preference for the finer parts.

Tuberculin Does Not Cause Tuberculosis

Can a cow contract tuberculosis from the tuberculin which is used to test her? I have been informed that cattle which are tested every year get infected from the same.

Fort Atkinson, Ia. A. K.

As tuberculin contains no live tubercular germs, it cannot cause a cow to contract tuberculosis.

Tuberculin is a product prepared by sterilizing, filtering, and concentrating the liquid upon which the live tubercle bacilli have been allowed to vegetate. It contains the cooked product of the growth of the bacilli, but not the bacilli themselves. It is impossible for tuberculin to contain any living tubercle bacilli since it has been heated to 212° and then is run through a filter. It is merely a clear, tea-colored liquid containing the by-products of the tubercle bacilli, and a portion of the content of the cells.

The process of manufacture of tuberculin shows very clearly that it cannot cause tuberculosis. There is further reinforcement of this from the fact that many herds have been tested annually for tuberculosis and no reactors discovered. The Hoard's Dairyman Farm herd has been tested annually for over twenty-five years, and since the first infection was gotten rid of, there has not been a single reactor in the herd except one reaction that took place some five years ago. This same condition has been reflected in a great many other herds.

Variation in Test

On March 3 one of my cows freshened and on the visit of the cow tester on March 19 he gave her a month's record of 1,380 lbs. milk testing 3.6 per cent, or 49.7 lbs. fat. I thought she ought to test more, so took a sample of her milk to the creamery two days later and the test showed 4.7 per cent fat. Could there be this much variation in test in two days when a cow receives the same feed and care? How much will cows vary in test from year to year?

Wisconsin. J. C. S.

A variation of 1 per cent in test is not usual with cows, although this does happen occasionally. It is frequently difficult to assign a cause for this variation in test, as there are a great many factors that influence the test of milk and they are not readily recognized. Sometimes when a cow comes in heat she will raise her test very materially, and again her test will decline. The same holds true of sudden changes in the weather, exposure to cold, sudden changes in feed, and a variety of other things. There is, of course, the possibility that either the sample in the first case was not taken correctly or that it was not tested correctly, or that an error was made in sampling or in testing the second time. It is quite possible to make an error of this kind, and we would not condemn the tester unless we were in a position to note a repetition of careless methods in doing his work.

While the above named causes are most usually assigned, yet with our present knowledge of the physiology of milk secretion we are unable to connect these variations with their particular cause. As Professor Haecker says, "Surely the ways of the cow are very strange."

Some years ago the Michigan Station studied 270 records made under ordinary herd conditions where regular feeding and milking were practiced, together with 2,070 records of official Advanced Registry tests. From the data thus secured the following conclusions were drawn: One may expect that during 7 consecutive days about 30 per cent of a herd of cows will show a range in the percentage of fat in the milk at different milkings of one per cent or less; 50 per cent will show a range of 1.1 to 2 per cent in fat; 14 per cent will show a range of 2.1 to 3 per cent; and the remaining 6 per cent of the herd will show even greater variation. In other words, six per cent of the cows might yield milk testing 3 per cent fat in one milking during the week, and at some other milking produce milk containing 6 per cent fat.

All of this does not answer the question propounded, and we very much doubt whether the question can be answered. It is quite like a question that might be asked as to why the famous baseball player, Babe Ruth, is able to make several home runs in one game, and on the following day fans out every time he comes to bat. These changes have been known to come when the same pitcher was in the box and when the weather conditions were apparently the same, and when Babe himself seemed to be in his usual physical condition. The fact remains that this does happen, and more often than not a reasonable and positive answer can not be given.

About all that we are able to say at the present time is that the fluctuation in the composition of the milk from the same cow is much greater and more common than is often assumed. Why it should be so, science has as yet been unable to say, although many men have sought to explain it.

A cow will average to test very much the same from year to year, the general tendency being to raise the test slightly until she is mature and then to have the test decline. In individual cases, however, this varies from the normal but it is seldom that the widest variation would amount to more than one per cent.

We give below the average annual tests of twelve cows in the same herd that have been in a cow testing association for four years or longer:

Cow No.	Average yearly test at						
	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.
	%	%	%	%	%	%	%
1	4.6	5.0	4.8	4.8	5.0	4.6	4.5
2	5.1	5.8	5.1	4.9	5.0	5.1	4.6
3	4.4	4.9	4.8	4.1	5.0	4.9	
4	4.9	5.2	5.4	4.9	5.3	4.7	
5	4.6	4.5	3.5	4.1	4.1	4.3	
6	5.9	6.2	5.6	5.5	5.5		
7	4.8	4.5	4.4	4.6			
8	4.9	5.2	4.9	5.3			
9	4.9	4.6	4.5	4.1			
10	5.4	5.9	5.5	5.0			
11	5.7	5.6	5.1	4.8			
12	5.0	5.3	4.8	4.6			

While some of the variation noted above may be due to the varied efficiency of the several testers employed, yet we are inclined to think it is fairly representative of conditions that may be ordinarily expected. It will be noted that the widest variation takes place in the case of cow No. 2 that tested 5.8% as a three-year-old and only 4.6% as an eight-year-old. The next highest variation was in the case of cow No. 5 that varied from 4.6% as a two-year-old to 3.5% as a four-year-old. We do not understand the reason for this extremely low test as a four-year-old.

Plowing Under Straw

Kindly let us know the fertilizing value of a ton of oat or barley straw. Does it contain more plant food than barnyard manure? When is the best time to spread this straw, right after threshing or is it better to let it decay? Would there be any difficulty in plowing it under? We use an ordinary walking plow.

Hathaway, Minn. A. F.

A ton of mixed barnyard manure will contain about the same amount of fertilizing constituents as will a ton of oat or barley straw. However, the fertility elements in the manure are more readily available and will show, in general, better results.

Unless the amount of straw on hand is very largely in excess of needs, we would prefer to make use of liberal quantities of it for bedding as it will handle easier in this manner and it will also help to make the fertilizing elements in the straw more readily available for plant growth. However, straw may be spread right after threshing and this is preferable to allowing it to stay in the stack and rot down. When allowed to decay in the stack too large a part of the fertility and humus value of the straw is lost. If the straw is spread on stubble, it will plow under very well, if it is allowed to weather down. This holds particularly true if allowed to stand over winter.

Indeed, there may be a decided advantage in spreading straw lightly over clover or alfalfa fields as well as winter grain. This will help to give protection against the alternate freezing and thawing which does damage to these crops. If spread on hay land it might be desirable to rake up the straw in the spring, but a considerable portion of it will have been broken up and have become incorporated in the soil. The rest may be either used for bedding or spread on the fields or put in the barnyards for the cows to tramp.

Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

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Dairy Cattle Congress Judges

Secretary Estel of the Dairy Cattle Congress announces the following judges for the 1927 show: Holsteins, H. H. Kildee, Iowa; Brown Swiss, C. S. Rhode, Illinois; Jerseys, C. H. Staples, Louisiana; Guernseys, W. W. Yapp, Illinois; Ayrshires, L. V. Wilson, Minnesota.

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., May 25—The record of the proceedings of the Dairy Pilgrimage of the American Dairy Federation was completed and mailed out to those who registered for the pilgrimage. A small supply is available in addition to this, and may be had at a cost of one dollar each.

The annual loss of nearly $25,000,000 worth of milk bottles broken, lost, or stolen, and never returned to the distributors of milk who supply them, is reported. A suggestion was recently made to Secretary Hoover, of the U. S. Department of Commerce, that it might be possible to materially cut down this loss and waste, which finally comes out of the producer of milk, if all milk bottles could have a warning blown into the bottle in color, red for example, requesting that the bottle be preserved and returned to its owner.

Dr. C. W. Warburton, chief of the extension service of the U. S. Department of Agriculture, who has been detailed to the Mississippi flood area to assist the Red Cross work, is home and reports great trouble to the farmers whose losses have been especially heavy in destruction of their stock of feed and work stock and of small animals. In most of the flood area, he states, swine and poultry are a complete loss. In Mississippi in particular cattle, horses, and mules were destroyed in large number. In the other flood areas, except Louisiana, which is now in the crisis of its flood situation, horses and cattle were nearly all saved.

In this connection Dr. C. W. Larson, chief of the Bureau of Dairying, reports that the flood is very certain to sweep over the Department of Agriculture Dairy and Animal Industry Station at New Iberia in sufficient volume so that all employees and all animals must be removed, if this is possible. There is danger of great loss at this station, for not only will most of the experimental work be interrupted and largely lost for the year, but owing to the fact that the territory around New Iberia is largely tick infested, while the station there and all of the herds on it are tick free, the removal is likely to cause infestation with ticks which is certain to result in severe losses later on. Dr. Larson at the time this is written was in strong hope that some location, perhaps as far away as Eastern Texas, could be secured to which the dairy stock could be moved in carefully guarded trains and where they could be kept in tick-free area until the flood waters recede. He investigated various fair grounds and some big ranches which had been suggested as properly guarded from ticks as to be safe for this purpose.

The dairy industry continues its interest in tariff matters and during the past week or so two dairy cases now in the hands of the Tariff Commission have been moved forward another step toward final settlement. The final report in the Swiss cheese investigation has been completed and sent to the White House for the action of the President. No announcement has been made from the White House as to whether he will recommend the increase in the tariff. The milk and cream case field data has been completed and is being tabulated and checked up preliminary to the final public meeting.

Reports of oleomargarine production for the month of April, just made available by the Bureau of Internal Revenue which collects the tax, show that production jumped upward sharply for this month. Colored oleomargarine went from 915,000 lbs. for April last year to over 1,000,000 lbs. in April this year, while for uncolored the figures are as follows: April, 1926, 19,529,000 lbs.; April, 1927, 22,236,000 lbs.

T. B. eradication work is going forward in fine shape, according to the monthly report from the B. A. I. There are some black spots on the T. B. map, however; New York, for example, having but four T. B. free counties, while Colorado, Connecticut, Maryland, Massachusetts, New Hampshire, New Jersey, and Washington are real dairy states which have not a single accredited county. North Carolina holds high record with 34 free counties, with Michigan and Iowa next with respectively 34 and 30 accredited counties.

Like to Embroider?

In our June 25 issue we will run a complete color page describing articles stamped for embroidery which you can purchase through the Hoard's Dairyman Fashion Department. Kitchen curtains, vanity sets, children's dresses, aprons, buffet sets, luncheon sets, runners, and pillow cases are definitely described so that you will know just what the articles are. Remember these articles are ready for use as soon as you embroider them. Watch for our June 25 issue.



W. W. STAUFFER OF INDIANA DUSTING POTATOES WITH BORDEAUX FOR BLIGHT

Mr. Stauffer is one of Indiana's most successful potato growers.

"Horse sense



tells him when sa
is good for his syste

LEAVE it to the horse—
any of the farm anima
for that matter. You can sta
salt fence-high—but maki
them eat it, that's quite a
other thing.

Where salt is impure, it
bitter and strong and, try
you will, the stock will n
partake sufficiently to me
their physical needs.

With Diamond Crystal
pure, mild salt—horses, c
tle, hogs and sheep need
urging, Instinctively th
turn to it and feed themsel
to satisfy their requiremen

There is a Diamond Cr
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cooking, for canning, for b
ter and cheese-making,
curing meats. Ask for D
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A Bottle of Milk and a Bath"

e first request of Capt. Charles Lindbergh, after reaching the of Ambassador Herrick in Par- eported in every newspaper in ica was, "A bottle of milk and h."

is is the finest tribute to the act of the American cow which ver been paid. It is no less a te to the character and to the cal and moral sense of the avi- A previous dispatch from e, telling of the plans made to e this greatest of all flyers and re for him once he landed safe- ld of the stimulants of various which the doctors thought he l welcome.

ey never had a chance to offer With the same simplicity is the test of real wisdom that d him in every other detail of oss-the-ocean-flight, Capt. Char- . Lindbergh knew that the only lant he needed was the best lant that nature ever provided e individuals of the human race bottle of milk and a bath."

s slogan which the world's est flying champion has present- the dairy industry is worth to the industry than the prize y and the fame he has won is to Aviator Captain Lindbergh. estimated that his victory over ce, the elements, and hitherto mountable obstacles is worth million dollars in earning ca- . This well may be. He earned ly and well. But the value of logan he has given, "A bottle lk and a bath," is worth un- ed millions to the dairy indus-

y can it be made to be of the st value? A. M. LOOMIS, Sec. American Dairy Federation.

Bulletins of Interest

uld the Farmer Fall Plow, by rsey. Ext. Bulletin 102, Con- ut Agricultural College Exten- ervice, Storrs, Conn.

's' and Girls' 4-H Club Work, B. Smith, Miscellaneous Cir- 77, U. S. Dept. of Agr., Wash- , D. C.

ater Egg Production, by W. H. Circular 54, Extension Service rsity of Maryland, College Md.

les as Food, by Marie C. Doer- Extension Bulletin 59, New State College of Agriculture, runswick, N. J.

t Nodule Bacteria of Legumi- by E. B. Fred, A. L. Whiting, . G. Hastings. Research Bulle- , Wisconsin Experiment Sta- Madison, Wis.

its from Phosphates, by A. R. n and G. Richards. Bulletin Visconsin Experiment Station, n, Wis.

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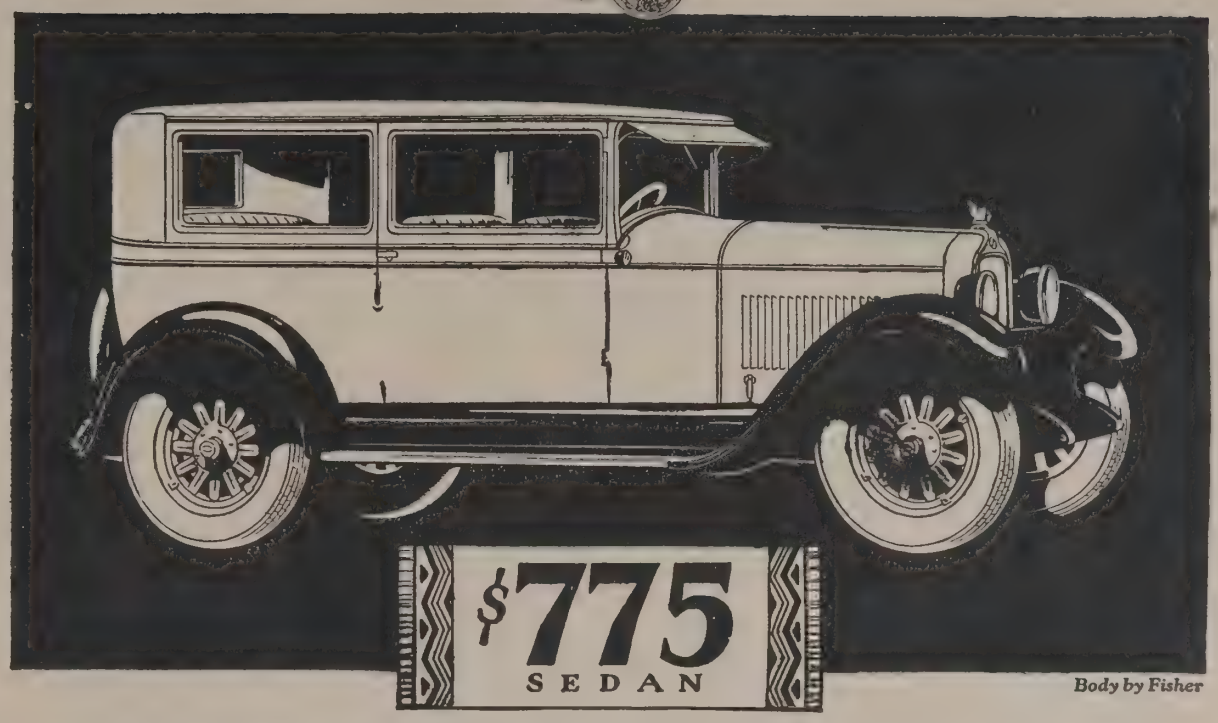
be Cow County of the East

D'S DAIRYMAN:—Oswego Coun- Y., under the leadership of unty farm bureau, has per- an organization for the pur- f fostering an intensive five- dairy improvement program, is aimed to make this county lly known as "the Cow Coun- the East." A county Dairy ement Council has been which has general charge of ogram. The principal project start will be the Dairy Im- ent Club, a unique form of sting association which has been in operation for the past three years and which it is expected through this effort will be largely expanded. One means of centering attention on this work will be the selection each year of three master dairymen who will be awarded prizes of $100 each to be used for a trip to the National Dairy Show, and suitable recognition for all 300-lb. herds.

Since the announcement of this program, the membership of the Dairy Improvement Club has increased over 50 per cent. An important feature of the program is to be the holding of a Field Day each year. The purpose of this Field Day is not only to provide an enjoyable outing and to maintain the interest of the dairymen in this program, but also to bring home to the residents of the towns and cities of this county the importance to them of a prosperous dairy industry.

The first annual Field Day is to be held on Wednesday, June 29, at Kingsford Farms, Oswego, N. Y. The speaker of the day will be Hon. L. J. Taber of Ohio, Master of the National Grange. A sale of pure-bred bulls bred in the county is another feature that is attracting wide attention among the dairymen. Oswego County is one of the pioneer communities in the United States in the breeding of Holstein cattle and the herds of the county number over 50,000 head, practically all of which have been tuberculin tested. There are within its limits over 1,000 fully accredited herds, so that there is every opportunity for far reaching results from the dairy improvement program started.

New York. M. S. PRESCOTT.



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Although lower prices and larger, more beautiful bodies by Fisher have created wildfire interest on the part of new thousands of buyers—

—the worldwide success of today's Pontiac Six is largely based on those two great fundamentals which made it the most popular car of its type ever introduced. *And those two fundamentals are endurance and thrift!*

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You can travel rough and rutty roads in perfect confidence—because every detail of the car was proved by three years testing on the great General Motors Proving Ground.

And when you have occasion to check back on upkeep costs, you will be amazed. For the Pontiac Six was designed to deliver quality six-cylinder transportation at the lowest cost in history. And it wouldn't be winning its present success, if that were not the case!

Coupe	$775	Sport Cabriolet (4-pass.)	$835	De Luxe Landau Sedan	$975	De Luxe Screen Delivery	$760
Sport Roadster (4-pass.)	775	Landau Sedan	895	Delivery Chassis	585	De Luxe Panel Delivery	770

Oakland Six, $1025 to $1295. All prices at factory. Delivered prices include minimum handling charges. Easy to pay on the liberal General Motors Time Payment Plan

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A patented process, known as "*Fillerless*" Cord—which does away with all cross-strands and puts an equal strain on each cord—enables Fisk to build greater *comfort*, greater *safety* and greater *mileage* into Fisk Cords.

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FISK
BALLOON
TIRES



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Conn.	Middlesex Co.	Apr.	530			H.	13	1040	36.2	C. W. Kelsey
Ariz.	Snowflake*	"	10	423	20.3	S. J.	1	786	31.4	D. A. Butler
Colo.	Mesa Co.	"	366	605	23.5	M.	7	742	39.5	E. C. Peyton
Wash.	Cowlitz Co.	"	571	751	30.0	J.	5	1047	52.8	C. S. Hount
"	King Co.	"	730	917	33.8	J.	21	910	43.3	H. L. Allen Co.
Tex.	Wise Co.	"	356	535	25.1	J.	7	989	40.4	Kelly & Sons
Minn.	Blooming Prairie*	"	389	677	26.3	H.	17	1065	38.6	Marie Kording
"	Morrison Co.	"	338	719	27.7	G. H.	13	1140	40.6	Swanson Bros.
"	Howard Lake*	"	417	721	32.9	R. J.	15	851	51.2	W. H. Eddy
"	Pope Co.*	"	319	638	25.3	H.	9	1036	39.0	C. H. Bennett
"	Watonwan*	"	391	664	27.4	H.	11	879	39.8	A. Sosinski
"	Becker Co. 1	"	257	737	29.5	H.	12	1141	37.9	W. L. Hanson
"	Barnum*	"	345	629	27.2	G. H.	7	1075	42.8	A. Ruhnke
"	Winona Co. 4	"	458	655	24.4	H.	12	1277	41.5	H. Brown
Md.	Carrol Co.	"	335	771	29.6	R. H.	8	1345	46.6	L. Devilbiss
Mich.	Barry Co. No. 1*	"	264	673	25.8	H.	8	1071	39.0	A. C. Clark
"	Charlevoix*	"	302	745	28.6	R. H.	20	1251	42.2	Orchard Bay Farm
"	No. Wexford	"	190	578	25.5	M.	6	1041	42.9	H. Dussel
"	No. Wewaygo*	"	234	426	23.3	J.-D.	6	858	43.7	W. Cornett
"	Ott.-Jamestown*	"	231	803	32.6	J. G.	8	1024	54.2	C. Hollis
"	Mecosta-Remus	"	174	757	35.2	J.	6	856	47.8	H. Wheeler
"	Hillsdale 2*	"	188	699	31.8	G. H.	9	1240	41.8	E. Percy
"	So. Kent*	"	198	632	26.0	J.	9	745	34.7	C. Kenyon
"	Oscoda Co. *	"	157	692	31.6	G. G.	14	847	41.7	E. Hendrick
"	Missaukee 2*	"	262	590	22.4	M.	16	837	35.0	A. L. Davis & Son
"	Mason-Ingham*	"	295	872	31.9	G. H.	3	1276	52.2	G. Higdon
"	No. Berrien*	"	258	639	26.8	R. H.	6	1183	46.2	C. E. Benson
"	Mason Co.*	"	276	609	27.0	G. H.	3	1044	40.0	H. Agens
"	Miss.-Falmouth*	"	205	825	30.9	H.	9	1395	46.9	A. De Reuter
"	Elsie-Ovid*	"	287	839	29.4	R. H.	10	1184	39.9	J. Coleman
"	Washtenaw-Saline*	"	247	755	27.4	H.	11	1135	42.5	Wilsey & Liptow
"	Lenawee 2*	"	280	740	23.8	G. H.	9	843	33.3	I. J. Beach
"	Freeport-Barry*	"	173	747	31.0	G. J.	5	887	41.5	T. Beuhler
"	Osceola-Evart*	"	231	693	27.5	D.-S.	12	993	41.9	H. Thiel
"	Otisville-Genesee	"	232	632	26.0	G.		1000	44.0	E. Root
"	Macomb 2*	"	268	697	22.1	G. H.	11	1149	40.3	W. Church
"	W. Oceana*	"	188	783	36.7	R. J.	5	922	47.4	H. Meyers
"	Chippewa*	"	299	663	23.6	H.	9	1162	41.1	H. Ploegstra
"	Ionia-Belding*	"	378	842	31.7	R. H.	56	1446	45.2	Michigan Ref.
"	Lansing-Ingham*	"	273	754	30.6	H.-G.	6	1181	48.1	D. J. Becker
"	Macomb 2*	"	199	813	31.5	H.	13	1293	45.6	A. Fistler
"	Coopersville	"				M.	9	1070	39.9	J. Kishman
Utah	Wells-Coll.-Ward*	"	549	694	25.9	G. H.	7	1099	42.6	E. Bankhead
S. D.	Day Co.	"	377	529	20.2	H.-G.	9	950	39.0	L. A. Philbrook
Kans.	Harvey	"	143	821	32.9	H.	19	1172	43.2	L. Vetter & Sons
"	Reno	"	295	725	20.3	R. B. S.	9	995	38.9	J. J. Zimmerman
Ind.	Randolph*	"	238	571	28.1	R. J.	8	798	42.0	O. E. Abel
"	Spencer-Perry Co.*	"	279	695	29.3	R. H.	11	1339	43.9	M. Vogelsang
"	Elkhart Co.	"	315	624	27.2	A.	8	1052	41.3	I. Eby
Ohio	Licking Co.	"	304	736	30.5	J.-H.	12	982	42.3	Puffer & Swisher
"	Wayne Co.*	"	326	743	30.3	R. H.	8	1577	59.6	O. L. Thomas
Nebr.	Lancaster	"	493	765	28.8	G. H.	5	1348	47.1	C. H. Becker & Son
N. D.	Burleigh Co.*	"	420	792	27.5	R. H.	16	1164	41.9	F. J. Splonskowski
Iowa	Sac Co.*	"	347	653	25.9	R. G.	8	895	48.0	W. Bath & Son
Ill.	Henry Co.	"	391	610	23.5	R. B. S.	11	915	33.1	C. A. Dunbar & Sons
Va.	Loudoun Valley 2	"	578	545	24.7	H.-G.	18	842	34.5	C. Ballenger
"	Loudoun Valley 3	"	712	610	25.6	G. H.	15	987	39.7	F. T. Anderson
Penn.	Allegheny Co.	"	388	700	27.8	R. G.	8	908	42.7	Fairacres Farm
Mont.	Lewis-Clark Co.	"	364	797	31.0	G. H.	21	1001	38.7	J. A. Woods
"	Cascade Co.*	"	550	812	28.6	H.	15	1236	41.8	C. G. McDermott
Wis.	Poynette-Col. Co.*	"	440	853	29.5	R. H.	12	1122	38.2	W. W. Curtis
"	Cicero-Black Creek	"	418	739	28.9	G.	13	895	42.1	A. Grunwaldt
"	West Bend	"	383	811	30.9	H.	11	1139	45.6	R. Riewesthal
"	Denmark*	"	454	820	28.7	H.	23	1259	43.7	H. H. Hansen
"	Union-Waupaca Co.*	"	343	809	29.4	H.	10	1226	43.0	L. P. Much
"	Cedarburg-Grafton*	"	298	920	33.2	R. H.	8	1228	49.1	E. Sporer
"	Waumandee*	"	478	605	23.0	M.	6	850	34.4	L. F. Kurth
"	Glenwood	"	532		29.9	G. H.	15	1100	42.7	M. Olson
"	Endeavor*	"	428	701	25.8	G. H.	7	1130	34.5	A. Parrott
"	Oak.-Tomah-War.*	"	496	691	28.9	H.	8	1376	45.7	N. S. Wakefield
"	Lake-Thiensville	"	413	695	27.0	G. G.	19	801	36.4	E. A. Bartell
"	Genesee-Eagle	"	591	612	28.1	G. G.	15	955	42.6	F. Kipp
"	Merton-Lisbon	"	530	779	29.6	H.	16	1132	39.5	F. Funk & Son

*Retest rules followed.

What is a Good Cow Worth?

HOARD'S DAIRYMAN:—When one attends a sale of pure-bred dairy cattle you will see many a man shaking his head and saying, "Too much money. They are not worth it." Perhaps the next day the same man will be at a scrub sale and buy some mongrel of unknown ancestry for $50. Perhaps his neighbor bought one for $175 at the pure-bred sale. Who got the best buy?

Last fall a member of the Long Prairie C. T. A. of Minnesota purchased a pure-bred Holstein cow, bred to a grandson of King Piebe, for $175. Was she worth it? C. T. A. records say she was. In 192 days since freshening she has produced 364 lbs. fat. At the average price of 58½ cents a pound paid by the local creamery the product is worth $213.17. As she had a bull calf which was sold for $100, her total return was $313.17. The feed cost was $100, leaving a profit of $213.17. In 192 days this cow not only paid her board but paid for herself and gave her owner $38.17 besides. She has 173 days to go before her year is up, so she will show a handsome profit for the year.

Suppose this man had considered $175 too much and had gone to another herd in our association and bought the best cow in the herd for $50. The best cow in this herd produced 187 pounds fat and showed a profit above feed cost of $51.20 for the year. She had a calf by an inferior sire worth, perhaps, $20 and making $71.20 return above cost of feed. Deduct the $50 paid for the cow and we have a profit of $21.20 a year on the $50-cow. How does this compare with the profit of $38.17 in 192 days on the $175-cow? Which cow is the cheaper?

It isn't the price that is paid, but the returns we get. Let C. T. A. records be the guide, both in buying and in selling.

B. J. ROSENQUIST, tester.

What We Put In

HOARD'S DAIRYMAN:—The members of the Genesee—Eagle Association of Wisconsin feel that we have passed through a long feeding period and are looking forward anxiously to pasture time. Many of them, owing to the early fall and late spring, are getting low on both silage and hay. I think that in general there is a much smaller carry-over of both these things than there has been in several years.

It has been a good winter, however, for the dairyman who has had to buy his grain, as prices have not been out of reach and the price of milk has remained up fairly well.

If more farmers could be brought to realize, "That we get out of a cow only what we put in," there would be a great deal less of the great cry that many of them put up, "There is no money in dairying."

The cow can be compared to a locomotive standing on a railroad track. It may have steam in its boiler; we pull the throttle but the engine stands still. Why? Because there is only enough steam to maintain heat,

Compare Its Wor
A safe guide to satisfaction in farm machine believing your *own* eyes and ears. Get the cat on the Ensilage Cutters you're interested in. C **pare the specifications, the exclusive feat the power needed,** the capacity secured quality of the work done, elevating effici safety, convenience, etc. Your nearest Blizzard dealer will give you the names of nearby users, and we'll give you his name if you don't know him.



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Never before an Ensilage Cutter like Blizzard
Gears run in oil. Fee entirely automatic ing parts all enca safety. Cuts cleanly and The latest Blizzard mod most efficient and popula history. 1926 Blizzard sal 50% ahead of 1925. Writ
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Exterminate Corn Bore
ROSS METAL SIL

Made of *copper-content Rossmetal galvaniz* No shrinkage or swelling. Can be increas in height. Movable. Safe against fire a wind. No freeze troubles. Send for rema able booklet—"What Us Say."



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Check items which interest and write for catalog.

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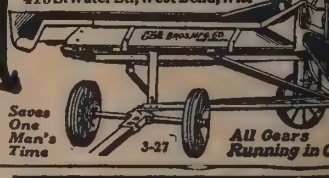
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In a University test a Gehl cut 19.26 tons hour with only 13.26 horse power or .688 H per ton cut—elevating 35 feet and runn only 465 R. P. M.—**the lowest power any cutter in the test.** It will do as on your own farm.

An all-steel machine, unbreakable steel wheel, built for years of hard service. Requires no at feed table. Faster work at less cost. All sizes wheel and cylinder types. **Dealers everywhere**—Write for catalog and name of nearest dealer.

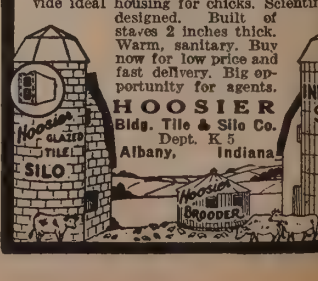
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All Gears Running in Oil

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INDIANA Wood and HOOSIER Tile Silos are the recognized leaders. They save their cost many times over by providing better feed, stronger cattle, greater milk or beef production. HOOSIER Wood brooders provide ideal housing for chicks. Scientifically designed. Built of staves 2 inches thick. Warm, sanitary. Buy now for low price and fast delivery. Big opportunity for agents.



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ld not enough to give the proper essure to make the wheels go and. It is just the same with the w, she may get feed enough for her dily maintenance, but she must also ve enough besides this to make her lking wheels go round before she is e to produce to the extent of her pacity into the milk pail.

The dairymen must wake up to the t that today things are different n in years gone by and that if he to make a success of the dairy siness he must study each individu- cow's needs and feed her accord- ly.

A good cow, if given the right e and treatment with the proper ount of feed in the form of a anced ration, will take care of the k-pail end of it without any worry the part of the dairyman.

GEORGE KING, tester.

ndiana Winners for 1926

During the year 1926 approxi- tely 8,000 cows in 24 Indiana cow ting associations completed a r's record of 9 months or longer. announcing the high herds the rec- s are divided into two groups. For se herds containing 4 to 9 cows, t place goes to Lyman Metzger the Fulton Association whose 5 lstein cows averaged 521.6 lbs. . For large herds those with 10 rs or more, Oscar Erni of the rk—Scott Association takes first ce with his 14 Jerseys showing an rage of 451.7 lbs. fat. Jacob cks & Son have the honor of own- the high cow, a pure-bred Hol- n that produced 728.3 lbs. fat.

How to Keep Alive

ordon C. Dana, tester for the Ke- ha C. T. A. and president of the consin Testers' Association, sug- s the following program for test-

Take the Guess Work out of Dairying!

JOIN THE ROCKFIELD COW TESTING ASSOCIATION

We don't keep Cows Cows keep us

ADVERTISING THE C. T. A.

The Rockfield Cow Testing Association stirred up interest in testing by means an auto windshield sticker as shown ve. The printing is in red on the mmed side of a sheet of paper 5" by 9".

to use in keeping alive interest in association:

Hold regular monthly meetings all members present. Have the meeting an attractive "pep" ting and mixer, combined with an testing program.

Plan a picnic during the summer all members and their families, ing friends and neighbors. es, amusements, and refresh- ts to be furnished—prizes fur- ed by local merchants for all ers of contests. It creates inter- and keeps the crowd in good or.

Tester should arrange to hold a testing association exhibit at the county fairs. Give demonstra- tions on milk testing to show the variation in test. Make your own charts showing different cows' records, different practices, and benefits of C. T. A. membership.

4. The tester may distribute state bulletins and circulars pertaining to dairy farming, etc., also U. S. Dept. of Agr. bulletins. Bulletins in stores, schoolhouses, and on farms throughout the locality give the impression that "Those fellows in that C. T. A. are doing things." It keeps this "cow testing" before the eyes of the public.

5. Rubber stamps should be made up and each bulletin stamped. Suggested stamps are as follows, the tester's name and address to be added:

Join A Cow Testing Association
And Make More Money
With Less Cows and Less Work
— Ask Us About It —
C. T. A.

Take Guess Work Out of Dairying
Join A
Cow Testing Association
Do It Now
Feed the Good Cow Better—
Sell the Boarder

6. Hold a "Farm Tour Day" for all members and friends in the fall when the heaviest work is over.

Have notices printed on post cards giving full particulars and urging everyone to attend, also have notices printed in all the local newspapers. The cars should all meet at a certain place at some definite time and then drive in a body to the different C. T. A. members' homes. Study the other fellow's way of doing things.

7. Monthly reports on the following:

Five high herds. List all cows producing over 40 lbs. butterfat.

Give some of the grain rations that were fed, etc.

Write reports on activities for local newspapers.

Give publicity when it is due; but do not overdo it.

8. By all means put out a good printed annual report. It will not be an expense to you but may prove valuable for your future job.

Montana Gets Results

HOARD'S DAIRYMAN:—Does the cow testing association get results? This is easily answered by noting the marked increased in production of the Lewis and Clark Cow Testing Association, Montana. This association was organized in February, 1926. The association average for that month was 604 lbs. milk and 21.8 lbs. fat for 330 cows. In December of the same year 373 cows were tested with an average of 713 lbs. milk and 28.3 lbs. fat. In April of this year 364 cows were tested, with an average of 797 lbs. milk and 31.0 fat.

These figures should prove very conclusively that herds are improved in a comparatively short time, when the farmers find out really what their herds are doing and decide that the poor cows must go.

HENRY JACOBSON, tester.

Tom Tarheel says that his alfalfa field is the most popular place on the farm with the live stock and chickens.

Monthly State Summary Table

e	Month	No. of ass'ns. Operating	No. of ass'ns. Reporting	No. of cows*	Ave. fat per cow* All cows	Ave. fat per cow* High ass'n.	Ave. fat per cow* High herd	High cow fat	No. of separators Tested	No. of separators Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
	Apr.	6	6	2,703	28.5	31.1	51.2		116	11	24
	"	5	5	2,515	27.8	29.9	53.9	115.9			18
is	"	30	28	8,353	25.2	32.3	54.8	101.8	65	6	163
ont	Mar.	23	21	9,997	24.2	30.7	48.3	92.7	16	2	
nsin	Apr.	158	136	57,931	27.3†	37.8†	57.8	109.9†	1230	95	722
	"	83	80	28,627		30.7	49.6				363
akota	"	8	8	2,607	22.5	26.6	46.1	82.3			24

*cludes dry cows. †Retest rules followed.



Getting the Good out of Grass

is easy. All you need do is turn your cows on it when it gets to the right stage, and feed a good grain ration night and morning.

There's a lot of good in fresh June pasture. It makes cows feel better and stimulates their milk flow. It's a tonic. But it positively will not produce a good milk yield alone because it has not enough of the necessary proteins, fats and carbohydrates.

This year, feed grain right through the pasture season. A simple ration will do and it is not necessary to feed heavily. The following inexpensive ration will bring your herd through the Summer in good condition and produce enough extra milk to more than pay for itself:

250 lbs. DIAMOND CORN GLUTEN MEAL
400 lbs. Bran — *Analysis:*
300 lbs. Ground Oats — 20% Protein 4% Fat
50 lbs. Hominy — 8½% Fibre

Ration Service Dept.
Corn Products Refining Co.
17 Battery Place New York City
208 E. Illinois St. Chicago, Ill.

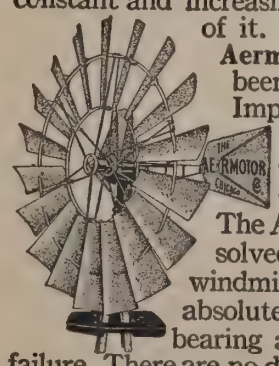


40% Protein

MAKERS OF THE FEEDS THAT ARE
IN EVERY LIVE DEALER'S STOCK
AND EVERY GOOD DAIRY RATION

A WONDERFUL SUCCESS

"Nothing succeeds like success," they say, but where success is constant and increasing there must be some unusual merit back of it. The continued success of the **Auto-Oiled Aermotor** is based entirely on merit. It has been made better and better year after year. Improvements have been added as experience has shown the way. The **Auto-Oiled Aermotor** of today is a wonderfully durable and efficient windmill.



The Aermotor Company, more than 12 years ago, solved the problem of complete self-oiling for windmills in such a way as to make the system absolutely reliable. The oil circulates to every bearing and returns to the reservoir with never a failure. There are no delicate parts to get out of order. The double gears run in oil in a tightly enclosed gear case.

CHICAGO KANSAS CITY **AERMOTOR CO.** DES MOINES OAKLAND DALLAS MINNEAPOLIS



FILTERING STERLING PADS

FOR MILK

Your Best Help to Reduce the BACTERIAL Count

STERLING FILTERING PADS will positively remove sediment and bacteria from milk, that no other straining medium can reach.

Sizes To Fit All Standard Strainers

FREE SAMPLE—If your dealer cannot supply you, send us his name and we will mail you sample of Sterling Filtering Pads free.

STERLING STRAINERS are made of special design to give the maximum results in connection with Sterling Filtering Pads. Write us for prices. If you have milk problems—write us—we can help you.

SANITARY COTTON CO., 1415 Jackson Blvd. CHICAGO, ILL.



DAIRYMEN!

Send now for our Free 1927 catalog showing milk cans, pails, strainers, coolers, scales, bottles, bottle caps, churns and all dairy supplies. Many new items. High quality, low prices, money-back guarantee.

C. H. DANA CO.,
55 Main St., West Lebanon, N. H.

Fetching the Cows

HOARD'S DAIRYMAN:—It has come—the month of June; the lazy cowbird is hopping about the bluegrass pasture looking for fat grubs and newly-hatched grasshoppers; the cowpath has little pools of water made by the afternoon shower and a barefoot boy squirms the soft mud between his toes as he journies to the far end of the pasture to fetch the milk cows home for the evening milking.

A striped gopher scurries along a little padded trail through the thick green grass and dodges into a hole that it has dug beside a cedar fence post. In a moment it reappears whistling saucily at the intruder. The boy produces a neat coil of binder-twine from his pocket and as soon as the gopher disappears again, sets his snare, then lays flat on his stomach in the cowpath and waits. His eyes watch intently the dark shadow by the cedar post that marks the gopher's burrow. In a few moments he sees the grass move and then the tawny colored nose and head appear. He can see the large, beady, black eyes blinking in the sunlight. Puckering his lips he blows a tremulous, whistled call. The gopher's head jerks back only to reappear in a moment, this time well above the burrow. Cautiously the boy's fingers tighten on the twine, then a quick jerk and the snare tightens. The boy springs to his feet and swings the helpless gopher clear of the ground, cutting a wide circle through the air and stunning it as it strikes with a thud against the hard bank of the cowpath. In another minute he crushes the life from i body, pulls a horn-handled jack-kni from the depths of this same pock cuts off the gopher's tail, returns t knife and snare and tail to the poc et, glances over his shoulder at t sun and continues on his way fetch the cows.

The path leads on down the h to the edge of the marsh. Here t coarse grass is knee-deep. A stran croaking noise comes to the bo ears. He stops and listens; th picking up a short stick, carefu parts the grass and searches until finds a snake holding, half swallow in its jaws, a bullfrog. With quick, carefully aimed stab he p the snake to the ground with the e of the stick, then taking the forel of the bullfrog in his fingers, gen releases it from the jaws that h held it in their death grip and dr it in a puddle in the cowpath, t continues on his journey to fetch cows.

At the far end of the pasture he fi some of the cows lazily curling th long tongues around great mouthf of green, sweet bluegrass. Others lying contentedly chewing their c in the shade of the wild crabap trees and a couple are drinking cool, fresh water that comes bub ing from the hillside spring.

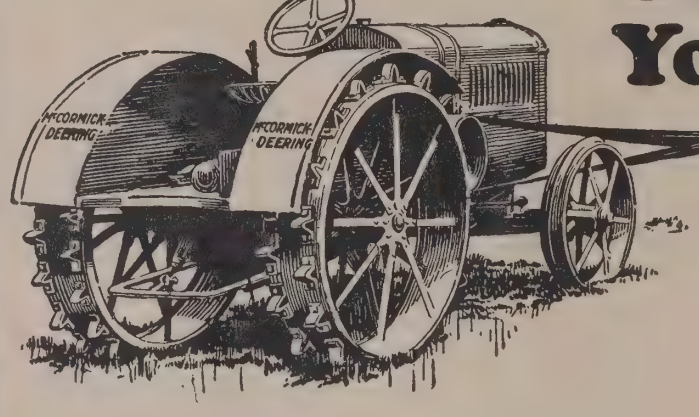
Sweet, succulent, nutritious fe fresh, cool drinking water; warm s shine and cool shade; a soft, c fortable resting place; ideal co tions for dairy cows and our sighs as he looks at the full, diste ed udders of these cows as he dri them back along the path to the b He is thinking that it will be s job to pail his three again this ning. It has been a job for a w past. But then, he muses, it w last long. The flies will soon c and the sun will get scorching and the bluegrass pasture will b brown and the hillside spring will dry. These same cows won't more than half as much milk by middle of July.

Ten years later our boy has ished his course at the agricult college and is back working the home farm. One of his chief cerns and, in fact, a main factor tributing to his success, is furnis June conditions for his dairy throughout the twelve months of year.

Illinois. J. S. NAYL

Drawbar, Belt, and Power Take-Off—
Ample Power for all Jobs at all Times

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USE liberal three-plow power! Don't overlook the many good, sound, practical reasons why you are investing in tractor power. You want to do much more work with the same or less labor expense. You want to handle each field, each crop, each job faster. You want to extend your farming operations in various directions, do each job at the right time, cut down weather risks, etc.

Be prepared for the many new calls for power—drawbar, belt, and power take-off—that may come along during the next few years.

The man who replaces horses with a small tractor is taking a big step forward. The man who goes to the three-plow tractor at once is getting himself ready for power farming on a broad scale, and for profit. He can also add to his income by outside field work, threshing, silo filling, grinding, shelling, sawing, baling, and hauling. He can do road work for the community. He can earn hundreds of dollars a year by custom work with the 15-30.

"Please accept my thanks for equipping me with a 15-30 McCormick-Deering. The smaller tractor gave me good service, but the 15-30 is much more economical, working at a greater saving in man hours as well as fuel. I do not see how I could handle my farm on a paying basis without the McCormick-Deering."

E. A. STAMBAUGH,
Green Park, Pa.

In the long run the McCormick-Deering 15-30 tractor is cheaper to buy than the two-plow tractor. It is able to earn *extra* money so easily. On the well-handled farm the extra cost is often returned to pocket in a single season, and then the liberal power of the 15-30 goes on making a profit for its owner in the proportion of three-plow to two-plow. When you buy your tractor, go into this thoroughly. Look the 15-30 over at the dealer's store.

INTERNATIONAL HARVESTER COMPANY
606 So. Michigan Ave. of AMERICA (Incorporated) Chicago, Illinois

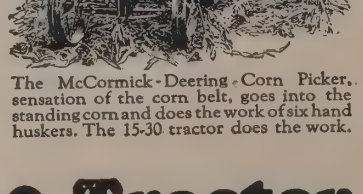
15-30 Power Advantages

ALL along the line the McCormick-Deering 15-30 *adds 50 per cent to the day's work of the smaller tractor without adding to labor costs!* A 3-furrow strip instead of 2; 12 acres plowed per day instead of 8; 30 acres double-disked as against 20. Time is saved, labor is saved, work is increased, and costs are reduced in every season.

The 15-30 will handle threshers, ensilage cutters, etc. with greater efficiency and profit. In grain and corn harvesting, 15-30 power is *essential* for power take-off operation of the *harvester-thresher* and the *corn picker. Be ready in the future to handle new equipment such as these two important modern machines.*



The McCormick-Deering Harvester-Thresher saves 20 cents per bushel over old methods in the harvesting of grain. It requires 15-30 power.



The McCormick-Deering Corn Picker, sensation of the corn belt, goes into the standing corn and does the work of six hand huskers. The 15-30 tractor does the work.

The Three-Plow 15-30 Tractor
McCORMICK-DEERING

Iron in Nutrition

That the iron content of mil not influenced by feeding ra high or low in iron is shown by experimental work by Elvehjem, rin, and Hart of the Departme Agricultural Chemistry, Unive of Wisconsin, reported in the Jan Journal of Biological Chemistry.

Two experiments were cond with milk goats. In the first ex ment the oxide of iron was fed creasing amounts until the iron was five times as much as wa ceived by the animals fed a base tion and used as checks. There w influence on the iron content o milk.

In a second experiment with iron sulphate was used up to times the iron content of the ration. It did not increase the content in the milk.

A third observation was ma an analysis of milk of cows fe tions varying in iron content. T tion for one group of cows pr twice as much iron as another for another group of cows, yet was no difference in iron conte the milk from each group. It w served, however, that the perce of iron in the milk of cows fe same ration varies greatly.

National Guernsey Sale—$84,350

THIS year's national sale was held on the beautiful state fair ground at Trenton, N. J., May Guernseydom packed the ring- before the gavel of George Bain led the crowd to attention. Sev- y-six animals were sold, averaging 109.86. Competition was keen all ough the sale, the first ten to pass ough the ring averaging $591.64 l the last ten $784.50.

The ten bulls averaged $1,655. ngwater Peter Pan topped the les with a figure of $8,600. He s consigned by John Ames and chased by Frank B. Foster of nsylvania. Ralph Flynn of Pitts- gh was runner-up. Peter Pan is ub's Prince, consigned by W. W. Marsh, Iowa, went to Harry Bailey, New York, for $4,300. Altogether 29 animals sold for amounts reaching four figures.

The general consensus of opinion was that the sale was a mighty good one. Buyers and consignors seemed very well pleased and many of the veterans spoke very highly of the offering.

The national sales of each breed are an important event in every year's history. The keenness of the competition reacts throughout the entire United States. We believe that careful scrutiny in selecting animals for future auction sales will help both the breed and the consignors more than is estimated.



GERAR FANNY 2ND, TOP PRICE COW AT THE NATIONAL GUERNSEY SALE
She was consigned by Louis Merryman and bought by Howard Heinz for $7,600.

d by Langwater Steadfast and out angwater Blanche who has a two- r-old record of 614 lbs. butterfat. orium Ultimas' Hero brought 350. He was consigned by F. J. ping of Wisconsin and purchased Wm. A. Fisher, Michigan.

erar Fanny 2nd, a three-year-old ghter of Cora's Royal of Shore- d and Gerar Fanny having a Class ecord of 610 lbs. fat, was the top ed female. She was bred and con- ied by Louis Merryman and pur- sed by Howard Heinz, Pennsylva- Emmadine Farm and Ward es kept the bidding lively on this ee-year-old until $7,600 was ched.

A five-year-old daughter of Cher-

The following is a list of animals bringing $700 and their purchasers:

Frank B. Foster, Pennsylvania	
Langwater Peter Pan	$8,600
Wm. A. Fisher, Michigan	
Corium Ultimas' Hero	$1,650
Beacon Hill Laurel	$1,125
E. W. Wadley, New Jersey	
Resolute's Hazel of Shorewood	$900
W. B. Ward, New York	
Hylan Cottage Lassie	$2,000
Red Cross Nurse of Porters	3,100
Golden Blossom of the Prairie	875
Mrs. Chas. N. Welsh, Pennsylvania	
Gretian's Itchen Bell of Vlaumans Kill	$800
Noyes Avery, Michigan	
Little Dorrit of the Ridge	$1,000
Beechford's Rosemary's Lass	1,000
Fisherman's Flory of Mt. Ararat	1,000

(Continued on page 630)



LANGWATER PETER PAN, TOP PRICE BULL AT THE NATIONAL GUERNSEY SALE
He was consigned by Langwater Farms and purchased by Sycamore Farms, Pennsylvania, for $8,600.

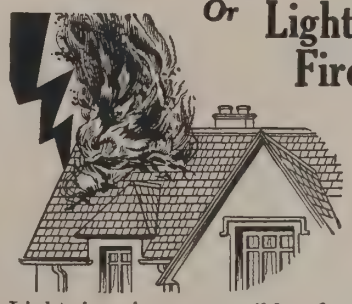
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WALTER S. GIFFORD
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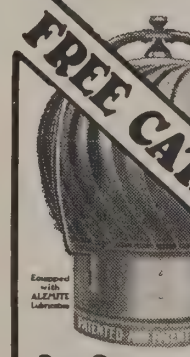


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The Center of Attraction at The June Wedding

So far as being noticed is concerned, there might as well not be anybody but the bride at the wedding. It is how she looks that counts, and whether her clothes and settings are right or not that make or mar the day.

Nothing delights me more than to be asked to help at a wedding. Even if I were told that my work was nothing more than peeling potatoes or some other back door job I wouldn't mind, just for the joy of being where all the happy bustle is going on. Yet when the ceremony gets along to a certain point, when I see the bride standing there looking so happy and trusting and the groom looking so reliable and fine, I always have to begin saying quickly to myself "Hey diddle diddle, the cat and the fiddle: the cow jumped over the moon," and keep it up furiously until the final "Amen" has been said. If I didn't say that or something else foolish, I would be sure to spoil the whole thing by weeping for there is something about the solemnity of the thing that always makes me have to look away—or else take the responsibility for breaking up the party.

But back to the bride and her clothes. I saw one the other day and the instant my eyes fell on her that hackneyed expression loved of school girls flew to my mind—"just too darling." Really, she was the prettiest thing imaginable, yet she herself was only an ordinarily pretty girl but she was fresh complexioned and tall and slender and very sweet and she had on the dress of all dresses for her. She had wanted for her wedding dress something that she could wear later for parties and simple affairs—just a good, practical dress. So she had chosen bride's gray taffeta and made it with a perfectly plain, close-fitting bodice, a very full skirt gathered on at a low—but not too low—waist line, and long, close-fitting sleeves. The thing that made the dress was what looked like a perfectly straight piece of sheer, white organdie laid in lengthwise folds about three-eighths of an inch deep that went around her neck and clear down the front of her waist line being crossed there and fastened with a silver bar pin. Demure, quaint—she looked like a modern bride for John Alden. Gray kid slippers with gray stockings and a hat of cornflower blue completed this lovely effect.

If you don't like gray for a wedding dress, the same idea could be carried out in any other color; only remember that taffeta is not a material that can be worn by just anyone. You must either be tall and slender or else short and dainty; otherwise taffeta is not for you.

But satin, that gorgeous fabric, is for anyone and if you want a formal wedding, creamy white satin with a lace veil is the loveliest thing there is. White satin is not nearly so useable afterwards as is most any other material, so if you want a practical dress it is well to choose something else.

Weddings are becoming more and more simple and veils are worn only with the conventional wedding gowns. Tulle veils are charming and inexpensive but very perishable; it is only the good lace veil that you can keep and hand down from generation to generation.

With practically all except the white satin dress, hats are worn and surely there never was a time when a bride had so good an opportunity to find a hat that would make her lovely to look at.

The smartest looking brides—except of course the extremely wealthy—are those who buy only a few dresses and have the correct things to go with them. It is much better to have two stylish, well-made dresses with the proper shoes, stockings, and accessories than to have half a dozen dresses with such accessories as take away all the smartness of the costume, for styles are such today that the wrong things, even with the right dress, throw the whole effect out of joint.

I would urge every bride to have her underwear simple, plain, and dainty. Once in Chicago I went into a shop where nothing but underwear was kept and there I discovered that all the much-trimmed, fussy garments were the cheap ones while the ones whose price fairly took my breath were simple almost to the point of severity but elegant in the fineness of their material and making. The same is true of negligees.

If the bride is so fortunate as to be going on a trip, nothing is smarter than a two-piece suit with pretty blouses. Unless, however, she can have all three things, it is better to sacrifice the suit and get a pretty dress and top coat as these fit into many more occasions than does the tailored suit.

The bride who pays attention to her color combinations is going to look much better dressed than she who buys a thing because it, in itself, is pretty and becoming. For instance, a tan hat, however lovely, does not go well with a gray dress and I think a good general basis for the selection of colors might well be either what goes well with tan or else what goes well with gray.

Always, however, there is the consolation that if mistakes have been made a happy bride looks pretty to everyone and her devoted groom, wearing his rose-colored glasses as all devoted lovers should, will think her pretty in anything she puts on.—LUCY THOMPSON.

When to Put Down Eggs

No one would just as soon have stored eggs as fresh but along about Thanksgiving and Christmas when fresh eggs bring more than at any other time of year, it is a mighty handy thing to have some to sell as you can if you have stored some earlier in the year. Fresh eggs sold then will purchase a good many odds and ends and you are not really cheating your family because there are plenty of places where stored eggs will answer just as well as fresh in cooking.

Spring and early summer is the best time for storing eggs because they are then most plentiful and will bring least if sold. Unless it is possible to watch the nests carefully and make sure the eggs are strictly fresh, it is best to candle them. The equipment for this is easy to make and costs nothing. Take a shoe box or one similar and cut a hole in one side about the size of a half dollar. Slip the box over a lamp or electric light, darken the room, and hold the egg, large end up, in front of the opening. A lantern is probably safer than a lamp and in either case ventilation must be provided by cutting holes in the top of the box.

A good egg, held before the opening, will look clear and firm. The air cell, or white spot at the large end of the egg, should be small, not larger than a dime, and the yolk will be seen dimly in the center of the egg. If the egg appears black or very dark it is not fit for use.

According to the poultry department at the University of Wisconsin the two best methods of preserving eggs are in lime water and water glass, used in earthenware crocks or wooden pails. Ten quarts of solution in a five-gallon jar will preserve 15 dozen eggs.

In using water glass the proper proportions are one part liquid water glass to nine parts of boiled water which has been allowed to cool. Stir the mixture thoroughly, pour it into the crock or pail and put in the eggs. Water glass in powdered form is more reliable than the liquid form if directions on the package are followed.

If you use lime take two pounds of quick lime and slack it in a small amount of hot water; mix this with two gallons of water and add a pound of salt. Stir thoroughly and allow to settle. Pour off and use the clear solution. This amount is sufficient for about 12 dozen eggs. Neither the lime nor the water glass solution is good for more than one year.

Stored eggs should be kept in a cool place, preferably the cellar, and the tops of the eggs should be covered with several inches of liquid. If this evaporates, add water.—LUCY THOMPSON.

Summer Style Book Ready

It is Later Than Our Spring and Summer Book

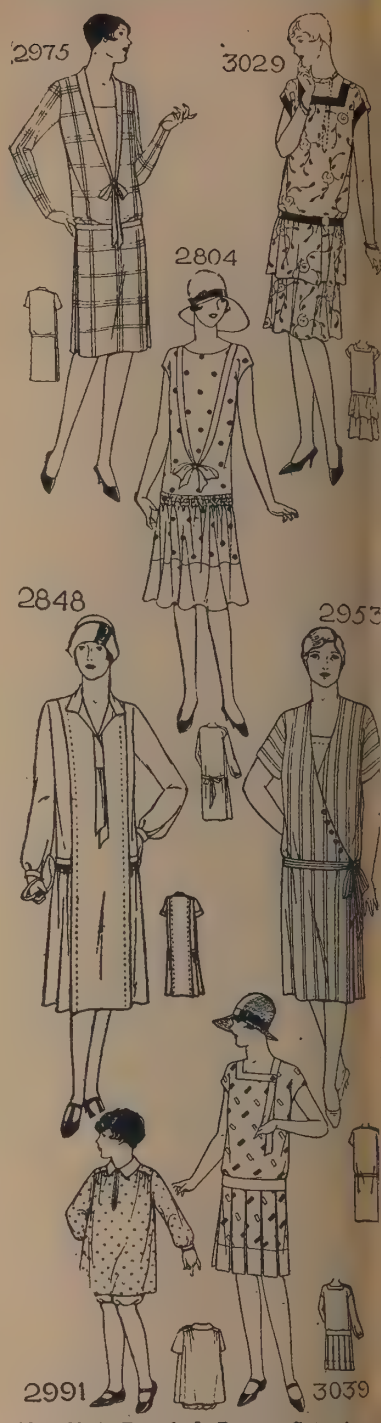
Send today for our Summer Style Book. You will find it contains patterns for summer clothes which are fashionable and easy to make. Costs only 10c. Fashion Dept., Hoard's Dairyman, Ft. Atkinson, Wis.

Tongue-twisting Chemical Protects Silks and Woolens

Paradichlorobenzine! It's hard on spelling contests, but sure death for moths.

Housewives may always win when playing hide and seek with moths. Grandmother played the game successfully when she wired and brushed her stored woolens and silks several times during the summer. But the modern housewife may store her winter clothing, bedding, or rugs early in the spring and forget them until fall, according to C. L. Fluke of the Economic Entomology Department at the Wisconsin College of Agriculture. A

Miscellaneous Fashions



No. 2975—Practical Dress. Cuts in s 16, 18, and 20 years, 36, 38, 40, 42, and inches bust measure. Size 36 requires yards of 40-inch material with ⅝ yard of inch contrasting.

No. 3029—Particularly Wearable. Cuts sizes 16, 18 years, 36, 38, 40, and 42 in bust measure. Size 36 requires 4¼ yard 40-inch material with ½ yard of 40-inch trasting.

No. 2804—Afternoon Dress. Cuts in s 16, 18 years, 36, 38, 40, and 42 inches measure. Size 36 requires 2½ yards of inch material with 1 yard of 40-inch trasting.

No. 2848—Slender Lines. Cuts in sizes years, 36, 38, 40, 42, 44, and 46 inches measure. Size 36 requires 3⅝ yards of inch material.

No. 2953—Morning Dress. Cuts in s 18 years, 36, 38, 38, 40, 42, 44, and 46 in bust measure. Size 36 requires 3½ yard 40 inch material with ¼ yard of 6-inch terial for vestee.

No. 2991—For Playtime. Cuts in sizes 6, and 8 years. Size 4 requires 1⅝ yard 40-inch material with 1 yard of 36-inch trasting.

No. 3039—Swagger Sports Dress. Cut sizes 8, 10, 12, 14, 16, 18, and 20 years. 8 requires 1¾ yards of 36-inch material ¾ yard of 40-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. your order to Fashion Department, Ho Dairyman, Fort Atkinson, Wis. Every tern is seam-allowing and guaranteed t perfectly. Do not fail to state size.

Our patterns are made especially for u the leading fashion designers of New City. No stock of patterns is carried in office and, since all orders are forwarde the factory, kindly allow a reasonable for delivery of any pattern you order.

Something to think about: Eve fish wouldn't get caught if it kep mouth shut.



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Sterilac is Sold as Powder STERILAC is sold only in the form of a powder. There is no loss in strength on standing. Even STERILAC solution will keep for a long time without losing much of its strength. The cost of STERILAC is small compared with the enhanced value of the milk and other food products that are produced through its use as a sanitary agent.

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of enough STERILAC to make 60 gallons of the strength used for ordinary sanitation $1.00. Complete directions enclosed.

Send a dollar bill today.
A trial will convince you.



The Sterilac Company
North Chicago, Illinois

tight trunk or box in which to pack the garment after it is aired and brushed is one good safeguard. A cedar chest is good, but it will not destroy the eggs that may be on the garment.

Some chemical must be used to destroy these eggs. Fluke suggests paradichlorobenzine which may be bought from an insecticide dealer or a drug store. This is the same white crystalline substance which is used in some parts of the country to kill the peach borer. It has a strong odor, something like moth balls or naphtha which will disappear very quickly when the article is aired.

Paradichlorobenzine may also be used in a closet in which there are moths. If the door is kept closed for two or three days, clothes may again be hung in it with perfect safety.

When moths get into the davenport or upholstered furniture, the only successful way of getting rid of them is to fumigate. However, this must be done by someone skilled in the use of fumigants, Fluke warns. Using a vacuum cleaner regularly will help to keep them from doing much damage.

Washing the Family Woolens

I feel sorry for men and for women who do not do any house work for they will never know the joy the rest of us feel when we suddenly decide that "this is the very day to wash up all the wool things—sweaters, knit caps, blankets, and so on—and put them away for the summer." It sounds like an awfully commonplace way to get a thrill but I never go through this process that I don't get a big one.

Many people who know what they are talking about claim that woolens should always be washed by hand so as to insure gentle handling but life is too short for that in this busy world and I always do mine in the machine and get practically as good results. The really important things to consider are, I think, the temperature of the water and the drying.

It is best to start with the white and light-colored blankets and go right down the line of colors. Of course if there are any delicate baby things they should be done first by hand. Take warm, not hot, water and make a good suds by adding mild soap that has been shaved and melted separately in a kettle of boiling water, run the machine just long enough to make sure all the dirt is out and then rinse in tepid water. Changing from the warm wash water to a cold rinse makes wool harsh.

Experts usually call for "several" rinse waters. I find that two rinsings give splendid results and I know that no one wants to do any more work than is necessary to get things right. Besides, woolens are fluffier if not all of the soap is rinsed out and the really expert way to do is to rinse and rinse until every bit of the soap is out and then rinse again, adding a bit of soap to the final water.

Wringing is another disputed point. The very most particular people squeeze the water out of woolens but never wring them and that is undoubtedly the way to do with delicate things, but when it comes to blankets and the rough-and-ready sweaters I just put them right through the wringer and I am sure you would never know the difference.

Drying is something you can't be too careful about and any knitted garments like sweaters and play suits should be spread out on something clean on the floor, stretched to the proper size and shape, and left to dry that way, turning them once or twice a day. Such garments as these may be put on hangers to finish drying. When it comes to blankets, I think the nicest way is to fold them with the hems together and pin the hems to the line using plenty of clothes pins to avoid a scallopy edge. A day of not too hot sun and a gentle breeze is ideal for drying them.

When you pack these things away, I hope you have a little scent of some kind to put in with them—not perfumery, of course, but a bag of balsam needles, or one of mint—or lavender—anything that will soak through and through them as they lay through the summer in their box and give them that clean, delicious smell of nature that no French perfumer has ever been able to imitate. —LUCY THOMPSON.

A Word for Plenty of Tomatoes in the Garden

If mothers realized the value of tomatoes I don't believe there would be a child in the world who would say to me as one did yesterday, "I just can't bear the old things." Early training will make any child like tomatoes and even grown people can learn to relish them if only they want to.

There seems to be almost no end to the good things we can say about this sturdy old vegetable friend (I still continue to think of tomatoes as vegetables, though painstaking friends have pointed out patiently that they are really fruits.) They are cheap, easy to grow, they contain the vitamins A, B, and C in addition to containing the minerals we need for keeping in good health—lime, iron, potash, sodium, and so on.

Many persons feel that they must avoid tomatoes because they are acid but the truth is that these very acids are valuable aids in keeping the stomach and bowels in good condition. Tomato juice is being fed with the finest results to small babies and many physicians are using tomatoes as a food treatment for diabetes.

Ordinary cooking does not injure the vitamins in tomatoes as it does in some foods so the housewife who looks far enough ahead to plant a good crop of them will be able to can enough for the family supply until the next crop comes. We have always raised our own and I have had practically no trouble with my canned ones spoiling though I put them up by the open kettle method. The reason for this, I believe, is that I always use only the perfect ones and can them as soon as they are picked.—LUCY THOMPSON.

To a Sweetheart

To learn to drive the auto, dear,
First put the lever into gear,
Then push your left foot in like this,
That's fine. Now teacher gets a kiss.
Now, step upon the starter, so;
That makes the engine go.
Now, let your left foot back, like this,
Good! Teacher gets another kiss.
Upon the gas you now must step,
That fills the engine full of pep.
That's great! You are a clever miss,
Here teacher gets another kiss.
Now change to second; now to high,
You do that just as good as I.
Now stop the car right here and then
We'll do that lesson once again.
—Connecting Rod.

To a Wife

First, see if your car is out of gear,
How? By this gear shift lever here.
How can you tell? Why, feel it. See?
The thing is simple as can be.
Now step on that to make it start,
Great Scott! You'll tear it all apart
If you don't take your foot off quick
The second that it gives a kick.
Now throw the clutch. For goodness sake!
Your clutch! Your clutch! No, not your brakes!
Why? Cause I tell you to, that's why.
There, now, you needn't start to cry.
Now put this lever into low,
Step on the gas and start off slow.
Look out! You almost hit the fence!
Here, let me drive. You've got no sense.
—Connecting Rod.

Hot Water



from the

kitchen pump

HOT water for "washing up"! Our new method makes it easy. Connect a Perfection Kerosene Water Heater with your well or cistern. Simply light a burner—turn a small handle—and pump hot water. (Turn the handle back and you pump cold water.)

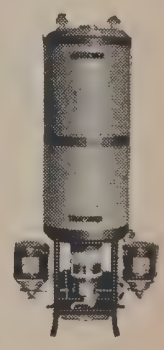
Plenty—Quickly

All the hot water you want, any time. 5 minutes after you light the heater, there's hot water for washing up or shaving, in 10 minutes enough for washing the dishes, in 30 minutes plenty for a hot bath.

The heater can be easily connected, too, in homes which have water pressure.

Not Expensive

Four models—reasonably priced. Two have thermostats which put out the flame when the tank is hot. One has a 30 gallon "Stay hot" tank. Keeps water hot for 36 hours. They all burn kerosene—the cheap fuel.



This is the model with the 30 gallon tank. No. 431

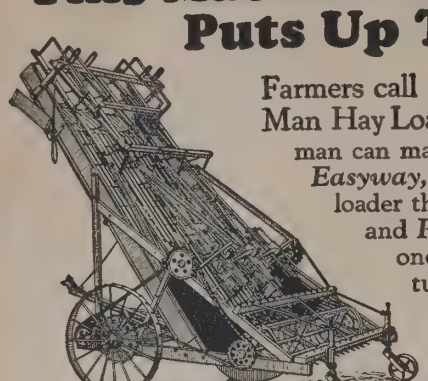
Free Booklet

Ask your plumber or write for full description and prices.

PERFECTION STOVE COMPANY
7609 Platt Avenue
Cleveland, Ohio
Sold in Canada by the Sheet Metal Products Co. of Canada, Ltd., Toronto, Ontario

PERFECTION
Kerosene **Water Heaters**

This Machine and One Man Puts Up The Hay



Sandwich Easyway Loader

Farmers call this *Easyway* the "One Man Hay Loader," for they tell us one man can make a big, full load. In this *Easyway*, inventive genius has made a loader that combines the *Cylinder* and *Push Bar* actions. This is one of the many exclusive features found only in the *Sandwich Easyway Loader.*

You've never seen a machine like it. The *Easyway* cuts down labor cost and farm machinery costs too.

The Cylinder gently lifts the hay from swath or windrow without change or adjustment. Steady work—no scattering—no broken clover or alfalfa heads. You get *all* the hay, better hay, and *all* the feeding value.

The Push Bars force the hay up and push it far onto the load. Thus less help and labor are required where this combined loader—two machines in one—is used.

Ideal Loader for Alfalfa and Clover. Solid Deck. We fit the *Easyway*, when wanted, with a solid deck which prevents the alfalfa and clover heads and leaves from being wasted by falling down through a slatted deck to the ground.

These other extra features of the *Sandwich Easyway Loader* mean much to you,—Adjustable Wagon Hitch, Flexible Tongue, Light Draft, works on even or rough ground, handles swath or windrow, does not dig up the ground, durable and lasting, works fine on alfalfa. There are over seventy years of manufacturing skill behind it.

Write to us and say, "I want full information on *Easyway Hay Loaders.*" We'll send you our interesting book FREE. Or go to your dealers; see this great machine. You'll never see another like it.

Stocks carried at Milwaukee, Madison, Eau Claire, Wis., Freeport and Jacksonville, Ill., Owatonna, Minn., Cedar Rapids and Council Bluffs, Ia.

Easyway SANDWICH Hay Loader

SANDWICH MANUFACTURING COMPANY, Sandwich, Ill., U.S.A.

NEW!

Startling Facts On Summer Feeding —just off the Press!



Mail The Coupon For Free Booklet



Years ago, summer feeding of dairy cows seemed simple as A-B-C. Plenty of pasture—why spend money for other feeds? But today there's a big change. Practical, prosperous dairymen now feed concentrates to stock on pasture.

How? This booklet tells you. Why? This booklet gives you the scientific reasons. It's packed with readable, usable information — tells you how to make more money this year by feeding Linseed Meal with a summer grain ration — to your milking herd, also to other stock. A proved success — yet a brand new story to 99 farmers out of 100. Mail the coupon for your copy.

Linseed MEAL

LINSEED MEAL EDUCATIONAL COMMITTEE
Fine Arts Bldg., Milwaukee, Wis.
Send your booklet T-5 on Summer Feeding.

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_____



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A Vest Pocket Herd Book is a good investment

Seasonable Live Stock Notes

ON May 12 we took a trip into the country to encourage the reorganization and continuance of a cow testing association. A few herds of cows were already on pasture; many more were casting eager eyes from muddy barnyards towards the oncoming green of fields waking up from a long winter's sleep. 'Tis now a month later; anticipation has been realized; green grass and bright sunshine have dissipated the memory of dry feed, hard floors, and the monotony of being tied in one place continuously. Pastures are in their prime over a large portion of the land where dairy cows contribute a substantial part of the farm income. A prime pasture in June does not necessarily mean one as good in July or August. How to properly supplement the deficiencies of pastures during the next two months is an important problem that should be considered carefully by many dairymen.

How Much Grain

We have numerous inquiries on the amount of grain and the kind of a mixture to feed cows on pasture. C. H. Eckles of the University of Minnesota makes the following recommendations as to the amount of grain to feed when pastures are good:

Guernsey or Jersey producing: 20 lbs. daily, 3 lbs. grain; 25 lbs. daily, 4 lbs. grain; 30 lbs. daily, 5½ lbs. grain; 40 lbs. daily, 8 lbs. grain.

Holstein, Ayrshire, or Brown Swiss: 25 lbs. daily, 3 lbs. grain; 30 lbs. daily, 4 lbs. grain; 35 lbs. daily, 5½ lbs. grain; 40 lbs. daily, 7 lbs. grain; 50 lbs. daily, 9 lbs. grain.

As pastures become more mature, less abundant, and less palatable the several amounts should be increased.

The mixture used may be very simple. One composed of 200 lbs. each of ground corn, oats, and barley or 300 lbs. each of any two of these plus 100 lbs. of bran and 100 lbs. of either linseed meal, cottonseed meal, gluten feed, or soy bean meal is very satisfactory.

How Do You Exercise Your Dairy Bull?

There is an increasing indication that some of the difficulty in getting heifers and cows to conceive may be charged against impotent bulls. Of necessity these animals are given less freedom than almost any others on the farm. That this close confinement and lack of exercise contribute to the delinquency of such animals has been fairly well demonstrated. How to give the bull plenty of exercise and at the same time safeguard members of the family and live stock sometimes attacked is a problem that has not been entirely and satisfactorily solved. We solicit the experiences of those who have solved this problem. How are you exercising your bull this summer?

Cull the Poor Sows Now

No herd of hogs can be maintained on a high plane of breeding performance unless the owner constantly culls the inferior animals. The best time to require an accounting of the individual sows in the herd is right now after the pigs are weaned. Only those sows which have produced good-sized, even litters of pigs and suckled them well should be retained for another breeding season. Sows with defective teats, cross sows with mean disposition, pig killers, and poor milkers should go to the fattening pen. The "best looking" sows will likely be numbered among those that should be culled out for the very simple reason that the really good sow has just finished suckling a large litter of pigs. She is a good milker and does not spare her body to make her owner proud of her pigs. She is the kind of a sow to keep.

Treating Chicks for Worms

The early hatched chicks are now feathered out enough to be following their inherited instinct of going higher and higher on the roosts. They are trying their wings. On such farms as are heavily infested with worm eggs, and if nothing has been done to prevent them, chicks are likely to show symptoms of being badly affected with worms. Light weight, unthriftiness, drooping of the wings, leg weakness are symptoms of such a cause. The tobacco treatment is recommended for growing chicks. Mix 49 lbs. of the dry, growing mash used with 1 lb. of tobacco dust. Feed the mixture for 2 weeks and then omit it for 2 weeks and repeat the tobacco feeding for another 2 weeks. This may be continued throughout the summer. Do not mix more of the mash and tobacco than will be consumed in a week. In other words keep the mixture fresh.

Grain for Dairy Calves

A recent inquiry propounded the question of grain mixtures for dairy calves on pasture. Since this is the beginning of the pasture season an answer to the question is timely. Let us limit "calves" to those over three and under 12 months of age. Calves under three months should not be made to depend on pasture grass for roughage; feed hay. As long as



JERSEY COW, JOVIAL'S PRINCESS

In 365 days she yielded 10,759 lbs. milk, 700.83 lbs. fat in Class AA, thus winning a gold medal and the championship of Florida. She is owned and was bred and tested by the Southern States Lumber Company at Magnolia Farm, Florida.

sonable amount of skimmilk is , 12 to 15 lbs. per head daily, on ture the grain may consist of any of a combination of ground corn, s, barley, or kafir grain. There is need for protein supplements from in sources. The skimmilk and ss supply plenty of good quality tein as also mineral substance. ne experimental evidence indicates t after calves are 5 or 6 months they prefer whole grain. A calf months old getting skimmilk and ss needs about 2 lbs. of grain ly. This should be gradually in- ased to 4 lbs. at 6 months of age. here skimmilk is not available it is visable to increase the protein con- t of the grain mixture by increas- the proportion of high protein ncentrates. A good mixture may made from 200 lbs. each of ground rn and oats, 100 lbs. of bran, and) lbs. of linseed meal.

He Keeps Books

HOARD'S DAIRYMAN:—In response your request for farm records I submitting mine, as follows:

Inventory

	Jan. 1 1926	Jan. 1 1927
nd (50 acres)	$5000	$5000
ildings and improvements	5840	5890
ops and feed	1963	2565
chinery and equipment	1153	1222
pplies	32	13
re stock	3394	2866
Total	$17382	$17556

Gross Income

eam	$1433
ttle	713
gs	1802
ed and crops	203
ultry and eggs	442
ndry	19
Total cash	$4612
ventory gain	174
use, meat, milk, etc.	486
Total income	$5272

Farm Expenses

ve stock	$623
eds, supplies, etc.	197
pairs and improvements	
Real estate	167
Machinery	272
xes and insurance	125
telephone expense	15
auto expense	45
ed	182
ay labor	121
achine hire	196
ent (45 acres)	275
ndry	70
Total cash	$2288
% on inventory	891
Total expense	$3179
abor income	2093
	$5272

The above indicates that I had a abor income of $2,093. My cash ving expenses were $1,105 and to his must be added the $486 listed as arm credits toward the family living, r a total of $1,591. This shows that got ahead $502 in 1926. I believe ay labor income should be at least 4,000 per year to compare with like ffort in the city.

SOUTHERN WISCONSIN.

Echoland Herd Averages $283

The Echoland Holstein herd, wned by Dr. Egil Boeckmann, White Bear, Minn., was dispersed at uction May 5th. The average, $283, vas considered very satisfactory un- ler the circumstances. No testing ad been done in the herd for years nd only two of the cows had records nd these were old.

Top price was $1,400, which was aid by Carnation Farms for the Echoland herd sire, Echoland Sir Romeo. This bull is a yearling show ull by Sir Romeo Mildred Colantha nd from Lizzie Pietertje Ormsby, a 36-lb., 1,017-lb. 3-year-old daughter of Sir Pietertje Ormsby Mercedes. The runner-up on this bull was L. C. Lenth of Iowa. Another yearling bull, a son of the show heifer, Bess Fayne Maid, sold for $600 to the Iowa State Institutions, represented by Senator A. M. McColl.

The top female was Lizzie Pietertje Ormsby that sold for $500 to Senator McColl. She was handicapped in that she was ten years old and off in the udder. She is still a wonderful individual and safe in calf.

The sale was under the management of the Melin—Petersen Company, Minneapolis, and the selling was done by Mack, Hanson, and Tellier.

Top animals and buyers were as follows:

Carnation Milk Farms, Wisconsin	
Echoland Sir Romeo	$1,400
Iowa State Board of Control	
Echoland Sir Ormsby Tidy	$600
Lizzie Pietertje Ormsby	500
Echoland Ormsby Lily	290
Echoland Daisy De Kol 2d	275
Echoland Piebe Ormsby 2d	255
Echoland Piebe Ormsby	235
Onal Holstein Farm, Minnesota	
Echoland Bess Fayne Maid	$470
Echoland Netherland Ormsby	380
L. C. Lenth, Iowa	
Johan Lad of Echoland	$360
Echoland Lizzie Tidy Ormsby	300
Dr. F. J. Plondke, Minnesota	
Echoland Clover Blossom	$335
Echoland Kearsarge	335
Horace Thompson, Minnesota	
Echoland Tidy Ormsby 3d	$310
Henry D. Cords, Iowa	
Echoland Patricia Ormsby	$300
Miss Lizzie Pietertje Ormsby	275
Echoland Netherland Inka	260
Dr. Gustav Schwyzer, Minnesota	
Echoland Daisy De Kol 3d	$240
O. M. White, Wisconsin	
Echoland Lizzie P. Ormsby	$235

The Standard Milk Ordinance

HOARD'S DAIRYMAN:—In your issue of April 25, 1927, I notice an article written by C. H. Staples, Louisiana State University, opposing the Standard Milk Ordinance. It is not my intention to enter into the discussions that have existed between Mr. Johnson of West Virginia and Mr. Staples of Louisiana but I do seriously object to Mr. Staples' statements regarding the merits of the Standard Ordinance. He makes the statement that certain organizations and state departments in Louisiana have gone on record as being opposed to the standard ordinance because it is "entirely too stringent, theoretical, experimental, and non-enforceable."

The Arizona State Board of Health, the State Dairy Commission, the Dairy Department of the University, and almost the entire dairy industry of the state have gone on record as favoring the standard ordinance because it is NOT what Mr. Staples says it is. W. S. Cunningham, head of the dairy department of the University of Arizona, made the statement a few days ago before the Arizona State Dairy Inspectors' Association that the Standard Ordinance is the biggest thing that has ever come into Arizona in the way of a milk control program. From one end of the state to the other the dairy industry has either signed petitions or gone in person before the city councils and asked them to pass the ordinance. In only about three instances has it met opposition by a few dairymen.

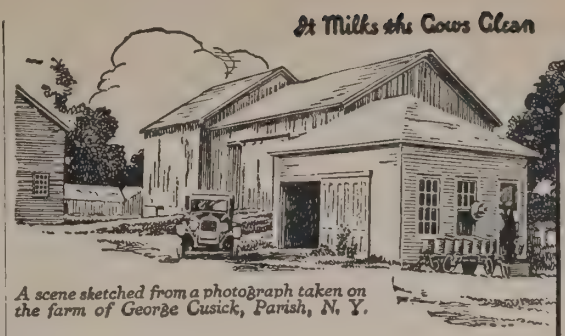
As for it being "highly technical" it is simplicity personified. It is a merit system that gives a dairyman credit for what he does to safeguard his milk supply. There is nothing in it that a dairyman can not do if he wants to. The dairymen here like it because it is fair, practical, and just to them—something they have not found in other milk ordinances. And the public likes it because it gives it protection in a way that other ordinances do not.

I feel justified in making the statement that anyone who opposes the U. S. Public Health Service Standard Milk Ordinance is either badly misinformed or knows nothing about milk control work. I feel further that any municipality in America that has an opportunity to operate under this ordinance and does not, is doing a great injustice to both its dairymen and consuming public.

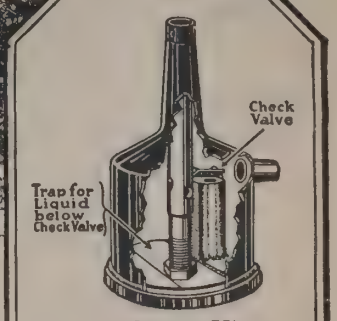
F. R. JENNINGS,
Arizona State Dairy Commissioner.

Say, pop, what do you call a man who drives an automobile?"

Father: "It all depends on how close he comes to me."



A scene sketched from a photograph taken on the farm of George Cusick, Parish, N. Y.

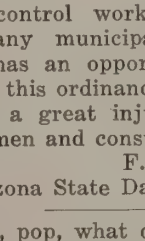


Cross-Section View
Burrell
Sanitary Moisture Trap

This Feature Is Essential For Low Bacteria Counts

"It is easy to make clean milk with the Burrell Milker. I consider the Burrell Moisture Trap absolutely essential for the production of clean milk and low bacteria counts. I supply the village of Parish and have to have milk of low bacteria count."—*George Cusick, Parish, N. Y.*

IN all milkers, the space in the pail above the milk is filled with vapor during milking. Some of this vapor is drawn into the tube leading to the vacuum pipe line. There it condenses and becomes contaminated, and, if allowed to flow back into the pail, it contaminates the milk. No ordinary check valve or trap will prevent this—but the Burrell Moisture Trap *does*.


It Skims the Milk Clean

For many years, the wonderful Link Blades of the Burrell-Simplex Cream Separator have made it famous as the *closest skimmer*. It has a greater capacity for the size of its bowl, for the speed at which it is operated, and for the power required to run it than any other separator. It is simple, light and easy-running. But, above all, *it skims the milk clean*—and that's what you want in a cream separator. Four sizes—350, 500, 750, 1000 lbs.—hand or power driven.

It Prevents Contamination

The Burrell Sanitary Moisture Trap catches any condensed vapor which flows back from the pipe line. The check valve, being located above the liquid in the trap, prevents an inrush of air from carrying this contaminated liquid into the pail. The Burrell Sanitary Moisture Trap is a necessary safeguard against high bacteria counts.

4 Exclusive Features

There are four exclusive features which make the Burrell the *perfect* milking machine. The first three are interdependent—each increases the efficiency of the others. (1) The *Automatic Controller*, which regulates the suction to suit exactly each individual cow; (2) the *Air-Cushion Teat Cup*, which supports and compresses the teats by air alone; (3) the *Positive Relief Pulsator*, which gives complete rest between pulsations and assures natural circulation; (4) the *Sanitary Moisture Trap*, which entirely prevents contamination from the pipe line.

The Burrell Milker is noted for its simplicity. It is a single tube system, with only half as many rubber parts as the ordinary type of milker.





Send For Valuable Free Books

Here are two valuable, illustrated books that are free to dairymen. One pictures and describes the Burrell Milker and explains how "*It Milks the Cows Clean*". The other tells about the Burrell-Simplex Cream Separator—all about its simple, sanitary, rugged construction, and how "*It Skims the Milk Clean*". Every dairyman should have both of these interesting, practical, helpful books for handy reference.

(Fill out coupon below, clip here and mail today)

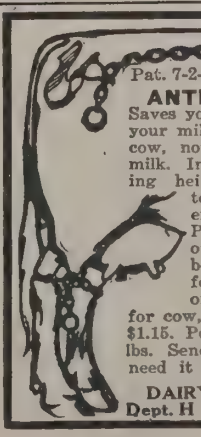
D. H. BURRELL & CO. INC., 10 Albany St., Little Falls, New York.
Without obligating me in any way, please send me the two *free* books described above.

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His post office is ..... State .....
I milk ..... (number) cows. I do / do not use a milking machine. I sell cream / whole milk
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ANTI-COW KICKER

Saves your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H Topeka, Kansas

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

The Origin, History, and Use of the 4-H Club Emblem

[EDITOR'S NOTE: This is the second and concluding article by O. H. Benson on the early history of 4-H club work. In the first article, featured in the Junior Department of the preceding issue, he told the origin of the 4-H idea, why and how he introduced 4-H club work into the rural schools of Wright County, Iowa, nearly a quarter of a century ago, and where the 4-leaf clover emblem came from.]

DURING the 5 years of leadership in the Wright County schools we had a number of distinguished visitors who not only gave us inspiration and re-enforcement, but also gave us many valuable ideas for which we have ever been grateful. Some of these men were Dr. A. E. Winship, America's bishop of modern education and editor of the Journal of Education; Uncle Henry Wallace, editor of Wallace's Farmer; Prof. Perry G. Holden, and his fine corps of workers from the State College of Agriculture. Among this number was Professor R. K. Bliss, the present Director of Extension—without the help of the Extension Department of the College of Agriculture we never could have carried the work forward—Mr. Herbert Quick, editor of "Farm and Fireside" and member of Roosevelt's Country Life Commission; Senator Jonathan P. Doliver, who not only visited the county but helped secure bulletins for instruction in the work; Otis E. Hall, Indiana's Consolidation School Expert and County Superintendent of schools in Indiana; Mr. Hall later became one of our state club leaders in charge of 4-H club work in Kansas and is now one of the ablest leaders in4-H club work in the United States, and, by the way, the highest salaried county club leader in the world. Many other men came to see our work and brought inspiration and ideas.



O. H. BENSON

4-H Emblem Becomes National

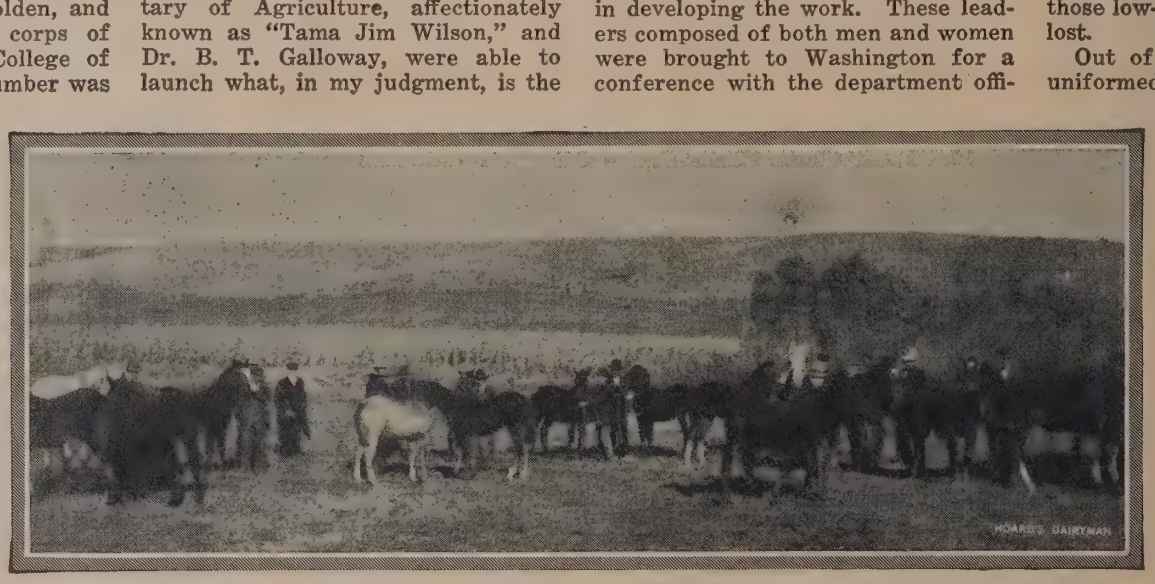
In February, 1910, the writer moved to Washington, D. C., and became a leader of boys' and girls' club work of the United States Department of Agriculture and assisted the famous Dr. Seaman A. Knapp in initiating club work in the southern states.

The agricultural extension work had already been under way in the South as a boll weevil control program under the Bureau of Plant Industry with Dr. B. T. Galloway as its chief.

The boys' and girls' club and county agent work was under the leadership of Dr. Seaman A. Knapp, assisted by his son, Dr. Bradford Knapp, now president of the Oklahoma College of Agriculture and a number of other men including myself, O. B. Martin, former State Superintendent of Public Instruction of South Carolina, together with a number of able field agents. These men, backed by the enthusiasm and vision of our Secretary of Agriculture, affectionately known as "Tama Jim Wilson," and Dr. B. T. Galloway, were able to launch what, in my judgment, is the greatest piece of constructive education and field service work ever given by the Department of Agriculture, namely, 4-H club work, with boys and girls as the hope of rural America.



RURAL TEACHERS AND LEADERS IN 4-H CLUB WORK, OF WRIGHT COUNTY, 1907, IN A NAIL DRIVING CONTEST



A 4-H COLT CLUB IN A TOWNSHIP CLUB FAIR AND FESTIVAL, EXHIBIT AND JUDGING CONTEST

While the extension work was still confined to the southern states and most of the funds provided by the Rockefeller Foundation, a few state and county club leaders were employed to assist the department staff in developing the work. These leaders composed of both men and women were brought to Washington for a conference with the department officials. It was at this conference that a committee was appointed to design and recommend a suitable emblem or insignia and medal for boys' and girls' club work. The Wright County 4-H club emblem and its explanation was submitted to the committee for its consideration with the result that this first group of government, state, and county leaders adopted the 4-H emblem as the insignia for this remarkable piece of work known as the 4-H club work. It is possible that few, if any, in that first conference really knew the origin and previous use of this emblem in the Wright County, Iowa, schools and I am sure that no one in that historic assemblage had ever been told anything about the birth of the idea and that it had really come out of the heart and hands of rural childhood while standing in the sunlit clover field of an Iowa countryside.

It is interesting to note that nearly every great movement has a small beginning and that most of our great ideas of education have their source and birthplace in the life and needs of childhood.

The Boy Scout Movement

Seventeen years ago, an American journalist, W. D. Boyce, of Chicago, in his tour around the world embarked from the boat in the early morning to the streets of London and was immediately enveloped in one of those low-hung London fogs. He was lost.

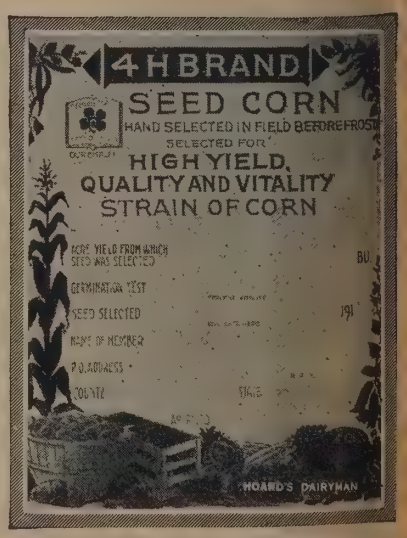
Out of the fog stepped a dapper uniformed English boy scout. He saluted the American and said, "Sir, is there anything I can do for you?" To this the American replied, "Yes, show me the way to the hotel." The scout stooped, picked up the bags from the hands of the traveler, and led the way to the hotel and to the room clerk's desk.

Stepping aside, the scout stood in salute while Mr. Boyce signed the register, then he turned to the scout and said, "I thank you, young man, for your help and courtesy" and reached in his pocket for a coin and offered the boy a liberal tip. The boy stepped back, saluted the American and said, "I thank you, sir. *I am a Scout.* This is my *daily good turn* and *a scout accepts no pay for daily good turns and courtesies.*"

This was an unusual treatment o



A 4-H CORN CLUB EXHIBIT TENT ON COUNTY FAIR GROUNDS AT CLARION, IA., SEPTEMBER, 1908. ARROW POINTS TO MR. BENSON



A 4-H BRAND SEED CORN LABEL USED IN WRIGHT COUNTY WHEN MR. BENSON WAS COUNTY SUPERINTENDENT

American traveler in Europe and urally led Mr. Boyce to an investi-ion of Scouting. He asked the to tell him all about Scouting. To s the boy replied "Come and see Chief, Sir Robert Baden Powell. will tell you all about it." Mr. yce did go to see "Sir Robert" and a result, Mr. Boyce brought back our shores the Boy Scout move-nt.

Not only in its service to city boys by the creation of a Rural Scout partment, the 4-H club work with lessons of thrift, ownership, and ter practices in agriculture, the m boy, like the city, may have the ining of this greatest of boy or-nizations of the world and through oath, laws, preparedness training, ly good turn, and scout craft, may a truth develop the 4-H training head, heart, hand, and health.

Today on a public square in the y of London stands a bronze statue a buffalo awarded by the Boy outs of America to the Unknown glish Scout, who through his daily od turn sent out of a London fog message of scouting to the boys America.

Over 3 million boys have been ined in scouting since 1910. To-y we have 800,000 boy scouts, 0,000 men friends representing ev-y walk of life who are the scout-sters, council members and other unteer leaders of boys in scouting is quite possible that this service d training for boys might have en denied to American youth had t the English scout demonstrated daily good turn.

Thousands have helped develop 4-club work as it is today, including n and women of national affairs, icials of state and county, preach-s, teachers, and business men, but r the inspiration for the idea as apped up in the 4-H emblem we e our thanks to the group of eleven rm boys and girls who through eir bouquet of good luck clovers nt the 4-H message to the rest of e boys and girls of rural America.

electing the Dairy Calf for Club Work

HOARD'S DAIRYMAN JUNIORS:—Dur-g my five years of calf club ork I have found that the selection the dairy calf is a very important rt of the work. In most cases this lf is to be the foundation cow of a w herd. The success or failure of a rd depends greatly upon the selec-on of the foundation stock.

Usually we find when a new breed-g establishment springs up, the best the breed in the female line is se-red. The wonderful cows are then aded by one of the breed's best res. In making your choice of a ifer calf, you want to think that me day you will have such a breed-g establishment as the one just entioned. It should be your desire produce some of the very best cat-e the breed possesses in type and oduction.

You will ask what qualifications ust such a calf have in order to be e foundation of such a herd? First, e calf must have breed type and be easing to the eye.

Second, the dam should have good pe; she should have a good yearly cord in her class; and she should be great reproducer of *type* and *oduction.*

Third, the sire must have type true the breed, and must be able to sire aughters that have correct breed pe and make large yearly records.

The calf you select should have lenty of style, a straight top line, a ood deep body with plenty of spring f rib; a deep heart girth that has a ide floor and is well filled in the op; a well attached udder in rear and well forward with teats evenly placed; the rump straight, pin bones well apart and about level with the hip bones; a head that is characteristic of the breed.

Her dam should be true to breed type. Don't buy the "cat in the sack" as we say, when the dam has no record of production. You know that the selection of this calf means a great deal to you, so before you go any farther find out from the owner the records of the full sisters to the cow now in question. In this manner you can avoid the "pop" record. By a "pop" record we mean that one cow out of a group of closely related animals has made a large record, and the rest all run on a good deal lower level.

Always beware of the "pop" record for they are very misleading. The dam must be able to transmit her type and production to her offspring. A cow having a "pop" record usually has no more ability to transmit production to her offspring than her full sisters which produce a good deal less.

If the dam in question is old enough to have some daughters in the Advanced Register, see if they are doing well in their classes. This is a good indication that your calf can do the same when she freshens. The type of the full brothers or sisters of your calf should be kept by them until they are well up in years; for many calves have very nice type when they are young, but may change as they grow older.

The sire of your calf should be even more true to breed type than the dam. A show ring winner is desirable. We again must look for his ability to transmit type and production to his daughters and sons. It is best to buy a daughter of a proven bull. Look and see how many of his daughters are in the Advanced Register. If only a few have been tested find out the reason why the rest were not. Are the records of the daughters well above the average of the breed? Do his daughters' records show quite a uniformity in production? How are his daughters doing in the show ring; are they successful?

In closing this article I will warn you to beware of the "pop" records; watch out for the cow that does not transmit production and type to her offspring; and beware of the sire that fails to transmit production to his daughters. In this article I have brought out the necessity of beauty plus function in the foundation cow of your herd. When going out to buy always remember that little phrase, "beauty plus function," and when you have a calf that possesses "beauty plus function" you are on the right trail to success.

Minnesota. ELMER HAASE.

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

You will find more about farm buildings—the silo, hog house, poultry house, corn crib and granary—in our May 25th issue.

Does the silo pay? Practically every successful and prosperous dairyman has one or more silos. There were over a half million silos that proved their worth this winter in reducing feed bills and increasing milk yields. (See page 552.)

Why should silo walls be air and water tight? Because if they are not, spoiled silage will result.

Why should a silo be cylindrical in shape? To prevent excessive spoilage.

Is feeding silage during the summer months a good practice? Yes, it is one of the best methods of preventing the abnormal decline in the yield of milk. It is usually cheaper feed than soiling crops and has been found to be of equal feeding value.

What are some of the common types of silos? The solid concrete wall, concrete stave, concrete block, vitrified tile, wooden stave, wooden hoop, brick, stone, and sheet steel. Pit silos are commonly used in the semi-arid regions.

What determines the size of the corn crib and granary? The capacity wanted. This may be determined by the rule that a bushel of ear corn occupies 2½ cubic feet and a bushel of grain, 1¼ cubic feet. (See page 553.)

What are the weights of some common grains? The weight per cubic foot of grain is as follows: Barley, 39 lbs.; corn and cob, 28 lbs.; shelled corn, 45 lbs.; flax, 45 lbs.; oats, 26 lbs.; rye, 45 lbs.; wheat, 48 lbs.

What are the essential features of a hog house? Warmth, dryness, abundance of direct sunlight, ventilation, sanitation, convenience, serviceability, durability, minimum cost of maintenance, and reasonably low first cost. (See page 554.)

Why are good ventilation and dryness important in the poultry house? Because they are essential to the good health of the poultry and health is a prime factor in egg production. (See page 555.)

Self-help has accomplished about all the great things of the world.



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New Dairy Scales
Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound
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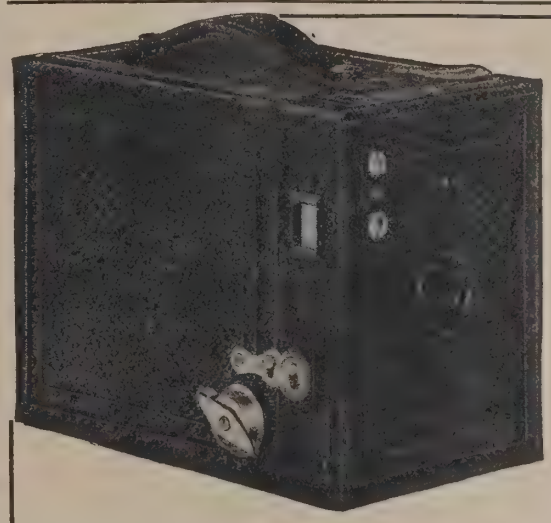
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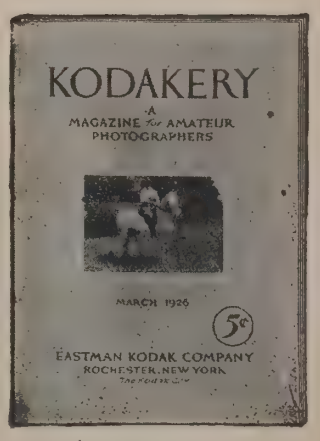
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HOARD'S DAIRYMAN JUNIORS
FORT ATKINSON WISCONSIN

You can bank on deliveries to us!



WHEN you deliver butter-fat to us it is receipted for with cash! As you drive in you can count on depositing cash at the bank on your way home!

Because of Armour and Company's far-reaching system of distribution, it can guarantee to find a consumer for your produce either in this country or in foreign countries! This means that you are assured of a steady unbroken demand for your dairy produce—milk, eggs, dressed poultry—at every season of the year, and in all weather. *Above all it means you get cash on delivery at current prices!*

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DAIRY MARKET NEWS

Connecticut May Milk

The Connecticut Milk Producers' Association announces the following prices for Grade B milk delivered during May at market milk centers:

All milk sold in fluid form, 9.5 cents per quart for 4 per cent milk, and 4 cents per point allowed for other tests; all milk made into cream that is sold in fluid form, 22.5 cents per pound fat above the average monthly price of 92-score butter on the Boston market; all milk made into butter, at a price per pound fat equal to the month's average on 92-score butter in Boston.

Butter and Cheese in May

Butter averaged 43.5 cents on the New York Market for the first 26 days of May, a decline of nearly five cents from the April average. The May average is still above that of the past few years, being three cents above 1927 and one cent above 1925. As will be noted by the chart, prices for the past week have remained fairly steady despite increased receipts and reports of production greater than last year. The quality of the butter is good and more fancy butter has gone into storage than is usual at this time of year.

Cheese prices advanced a half cent during the month, averaging 22.3 cents. This is three cents above last year and a half cent above May, 1925.

Wisconsin Milk

The Wisconsin average farm price for milk in April was higher than for any April since 1920. An average of $2.05 per hundred pounds of milk was received by the farmers of the state for the month as compared with $1.84 a year ago, according to the Wisconsin Crop and Live Stock Reporting Service at Madison.

During the past six months farm milk prices for the state have been well above the two preceding winters. On an average, the price for the last half year was 14c per hundred pounds above a year ago and over 30c above the price of two years ago.

Since about half of the Wisconsin farm income has for some years been received from milk, this improvement in the price becomes especially significant. The cows of the state produce about ten billion pounds of milk annually and the improved price is, therefore, a distinct help to the farm income.

May Milk Prices

(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 103 local markets, for fluid milk (test 3.5 per cent) f. o. b. local shipping point or distributors' country plant:

Table I—May Producers' Prices by Geographic Sections

Sections	Range of prices per cwt.	Comparison of average prices 1927 May	1927 Apr.	1926 May
New England	$2.73—3.95	$3.33	$3.32	$3.32
Middle Atlantic	2.20—3.02	2.78	2.80	2.57
E. North Central	1.75—3.00	2.51	2.57	2.48
W. North Central	1.49—3.10	2.17	2.29	1.91
South Atlantic	2.55—5.00	3.50	3.68	3.84
E. South Central	1.87—3.39	2.32	2.44	2.36
W. South Central	1.75—2.70	2.31	2.31	2.48
Mountain	1.79—3.20	2.43	2.41	2.35
Pacific	1.50—3.13	2.52	2.59	2.68
United States	1.49—5.00	2.67	2.71	2.65

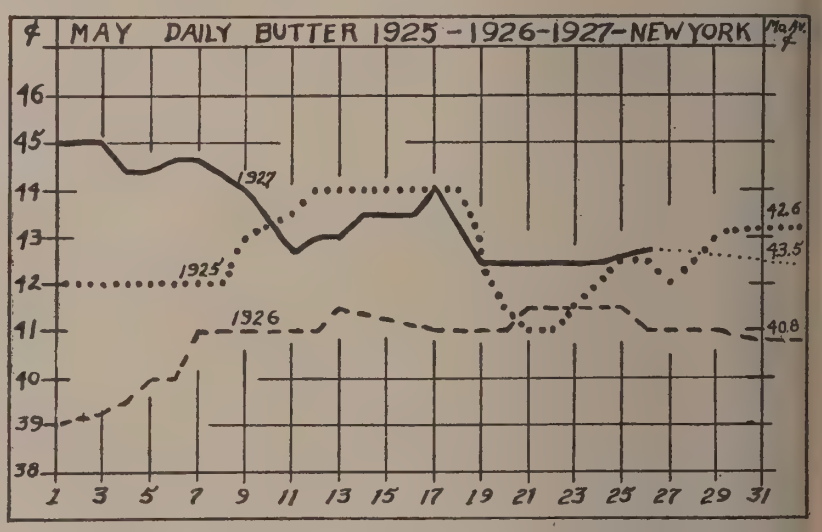
Table II shows for certain representative city markets the prices of standard grade milk (Grade B test 3.5 per cent) received by producers f. o. b. city and paid by consumers:

Table II—May Producers' Prices F. O. B. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		cents
Birmingham, Ala.	$3.42—3.91	17
Phoenix, Ariz.		10—15
San Diego, Calif.		15
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	2.01—2.10	12
Hartford, Conn.	4.22*	16
Washington, D. C.	3.50*—3.72*	15
Jacksonville, Fla.	3.37*	18—20
Chicago, Ill.		14
Indianapolis, Ind.	2.10	12
Des Moines, Ia.	2.55*—2.65*	11—12
Topeka, Kans.	2.00—2.10	10
Louisville, Ky.	2.13	12
New Orleans, La.	2.81*	14
Baltimore, Md.	3.55*	14
Boston, Mass.	3.63*	14
Detroit, Mich.	3.00*	14
St. Paul, Minn.	2.70*	11
St. Louis, Mo.	2.20	13
Butte, Mont.	2.60	13
Lincoln, Nebr.	1.84	9
Trenton, N. J.	3.41*	13
New York, N. Y.		15
Cleveland, Ohio	3.24*	13—15
Tulsa, Okla.	227—2.45	15—20
Portland, Ore.		12
Philadelphia, Pa.	3.49*—3.52*	13
Pittsburgh, Pa.	3.45*—3.50*	14
Providence, R. I.	3.63	14.5
Memphis, Tenn.	2.58*—2.73*	15
Dallas, Texas	2.60*	13
Richmond, Va.	3.93*—4.05*	14
Seattle, Wash.	2.56*—2.61*	12
Milwaukee, Wis.	2.90*	11

*Basic prices for fluid milk.

The following net prices were reported paid to members of producers' associations



The price lines for past three years are nearer together for May than for the past several months.

supplying the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and "Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade, and the latter applying to that portion classed as "Surplus," which is used for manufacturing purposes:

Table III—Net Prices Paid Members of Producers' Associations for 3.5 Per Cent Milk

Cities	Paid*	Period	Previously announced prices for same period	
Hartford	$3.77	Feb.	$4.22	Butter markets
"	3.69	Mar.	4.22	Butter markets
Des Moines	2.49	Mar.	2.65	$2.15 Basic surplus
Baltimore	3.41	Mar.	3.55	Butter markets
Boston	2.48†	Mar.	2.85	Butter markets
Detroit	2.86	Mar.	3.00	Butter markets
St. Paul	2.50	Mar.	2.70	All milk pooled
New York	2.60‡	Mar.	3.00	$2.31—2.56
Akron	2.79	Apr.	3.40	$2.00
Cleveland	2.70	Mar.		
"	2.75	Apr.	3.24	Butter markets
Pittsburgh	3.35	Mar.	3.90	Butter markets
Milwaukee	2.62	Apr.	2.90	Butter markets
Duluth	2.42	Apr.	2.80	All milk pooled

*F. O. B. city unless otherwise indicated. †181—200 mile zone. ‡201—210 mile zone.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5 per cent) at e dealers' country receiving stations or at e

oducers' railway shipping points, as also ice f. o. b. city, are given in Table IV:

ble IV—May Prices at Country Stations

ies	At country stations	Freight zones to which prices apply
w Haven	$3.70*	28c rate
ashington	2.91*	35c 10-gal. can
icago	2.40	All
ltimore	2.97*	35c rate
ston	2.87*	181—200 mile zone
Louis	1.70	34c rate
enton	2.85*	41—50 mile zone
ffalo	2.62*	28c rate
w York	2.95*—3.00*	201—210 mile zone†
veland	2.86*—2.93*	All
iladelphia	2.91*—2.95*	51—60 mile zone
tsburgh	2.70*—2.75*	All
anton	2.72	30c rate
llas	1.90*—2.10*	All

*Basic prices for fluid milk. †53c rate.

Table V gives for a few cities the retail ices of special milk, certified milk, cultured ttermilk, cottage cheese, and cream testing to 25 per cent butterfat:

Table V—May Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
ron	15—18	20	6—8	7—10	16
ieville	19	25			20
ltimore		30	14	15*	16
ston	18½	26	10		
ffalo	14	26	9—10	15	19—22
icago	17	25	10—20	15*	16
veland	19—20	25	12—13	15	17—22
umbus	17		7—12		10—14
nver	14		8	10*	14
Moines	14—25		9—11	14	12—14
troit	25	25	25—35		16
luth	14	25	8		17
Paso	17		10	20*	15—17
rtford	20—25	25—35			18
lianapolis	16		8—12	15*	12—13
cksonville	25		10—11	30	20—30
nsas City	15	25	10	20*	10—15
coln	13	15	9	15	9
Angeles	15—17	28	10		17
isville	16	24	13	17*	15
mphis		30	6—7	20	12—15
ami	25—30	28—32	15—20	30	25—30
lwaukee	14—18	25	5—6	9—10	14
nneapolis		22	13	12*	15
shville	18		10	20	16—18
w Orleans	18	31	14		17
w York	30	28			
aha	15	15	10	15	10
iladelphia	15—16	30	9—13		17
tsburgh		25	10		17
tland	14		12	15	15
Diego	20	30	9	15	15
Francisco		25	14	20	20
ttle	25	20	7	20	15
ux City		25	6	10*	10
Louis	18	25	10—18	15	17
nton	17	30	13		15—16
shington	18—23	30	15	15—20	20
lmington	20		10	13*	17

12 oz. package. †18 to 25% fat.

Twin City April Milk

The Twin City Milk Producers' Association Minnesota paid $2.50 a hundred for 3.5 r cent milk delivered in St. Paul during pril. The Association handled 26,513,581 s. milk, of which 5.0 per cent was surplus. Cream patrons were paid 57 cents a pound r butterfat in first grade cream during pril. This is 6.7 cents above the average ice of 92-score butter on the New York arket.

Feed Market Situation

(By The Grain, Hay, and Feed Market News rvice, U. S. Department of Agriculture.)

Offerings of most feeds were hardly equal to rrent requirements during the week ending ay 18 and prices averaged higher although an and linseed meal were easier at some ints. Further advances in feed grain prices dened the demand for feedstuffs while pasrage made slow progress over the eastern lf of the country, particularly in the Northst where warm, dry weather is needed. The mand for feeds was largely for small lots, ggesting that dealers were piecing out their pplies until the arrival of pasturage.

Wheat feeds ruled firm with shorts and midngs showing a further gain. Production sed on weekly flour output continued about e same as in recent weeks but larger than a ar ago. Demand for bran slackened at a mber of points but an increased inquiry deloped for shorts and middlings, doubtless for g feeding.

Linseed meal was barely steady. Domestic mand was taking the limited offerings at ffalo although there was practically no inry at this point for deferred shipment. ading at Chicago was limited and prices dened slightly at Minneapolis where mills were tching up on their orders.

Cottonseed meal quotations showed a furer advance although most reports indicated at the volume of trading was small. Stocks around 182,000 tons of cake and meal on nd May 1 were larger than at this time ice the war with the exception of the 307,-0 tons held a year ago, but definite inforation is not available concerning the extent flood damage since May 1.

Gluten feed quotations were withdrawn at icago where the local manufacturer was out the market for the next two months and e only offerings available at Buffalo were om re-sellers who were asking sharply higher prices. Demand was good at the latter point while offerings were very small but inquiry for this feed was dull at Philadelphia.

Hominy feed was also sharply higher on limited offerings and continued strength in the corn market. Offerings were steady at Philadelphia. Mills at Buffalo were out of the market for the next thirty days and the limited offerings were moving at much higher quotations than a week ago. Prices also advanced at Cincinnati and at Chicago although quotations were nominal at the latter market. Prices, however, were only about steady at Omaha with demand for immediate needs only.

Alfalfa meal of good quality was wanted at Chicago where even some new crop meal was secured.

Tankage moved freely at the recent reduction to $65 a ton and no accumulations were reported although demand at some markets appeared only fair.

Quoted, May 18: Standard spring wheat bran, Minneapolis, $28.00; Buffalo, $32.50; Philadelphia, $34; Chicago, $31. Soft winter wheat bran, St. Louis, $29.50; Cincinnati, $30; Atlanta, $38.50. Hard winter wheat bran, Kansas City, $28; Omaha, $27.50. Spring middlings, Minneapolis, $29. Gray shorts, Kansas City, $31.75. Cottonseed meal, 43 per cent, Chicago, $39.75; Kansas City, $38.80; Ft. Worth, $32.50. Linseed meal, Buffalo, $47.; Minneapolis, $47. Gluten feed, Buffalo, $38.80. Hominy feed, Buffalo, $35.50; Cincinnati, $35; Omaha, $32. Alfalfa meal, Kansas City, $22.

April Dry Milk

(From Report by U. S. Department of Agr.)

The wholesale prices given below are based on reports from manufacturers governing actual sales F. O. B. factory during April:

Dry Skimmilk: Prices ranged from 7 cents to 11.5 cents for dry skimmilk in bulk, averaging 9.24 cents a pound for sales, totaling 7,895,812 lbs. When packed in one-pound cans the price reported was 31.7 cents a pound.

Dry Whole Milk: Prices ranged from 23 cents to 28.5 cents for dry whole milk, averaging 27.5 cents for sales totaling 520,283 lbs. When packed in one-pound cans the price reported was 45.8 cents a pound.

Dry Buttermilk: Prices ranged from 6.5 cents to 9.5 cents for dry buttermilk in bulk, averaging 8.8 cents a pound for sales totaling 2,422,918 lbs. When packed in one-pound cans the price reported was 10.6 cents a pound.

Butterfat Prices

The five co-operative creameries of Illinois paid a premium of 7.8 cents net per pound butterfat over what their members would have received from cream station operators in the fiscal year just closed.

The price received by dairymen selling to co-operative creameries located in Northwestern and Southwestern Illinois averaged 45.3 cents compared with 37.5 cents paid by private buyers, and 41.7 cents per pound quoted on 90 score butter at Chicago.

On the other hand, co-operative cream buying stations paid an average of 40.9 cents last year, or more than three cents higher than private stations. Co-operative stations in Ohio paid 42.8 cents or approximately two cents more than similar stations in Illinois.

This showing by the co-operative creameries exceeds that of 1925 by nearly 50 per cent. It means that the five co-operatives located at Mt. Carroll, Galena, Elizabeth, Freeport, and Raymond, Illinois, paid their members $49,980 more in premiums last year than they paid the year before.

Based on an annual output by the five co-operatives of 2,500,000 pounds of butter, their patrons received $195,000 more than they would have received by marketing their butterfat in the old way at the local cream station.

The survey shows that with the exception of Indiana other Midwest dairy states paid a higher price for butterfat delivered co-operative creameries than did Illinois. In Minnesota the average price was 48.6 cents, in Iowa 49.4 cents, Wisconsin 47.9 cents, Indiana 45 cents, and Illinois 45.3 cents. The highest prices paid by Illinois co-ops in 1926 were realized in December when the average price went to 54.9 cents. The lowest month was July when prices averaged 40.9 cents.

Illinois. A. D. LYNCH.



Perfection Saves Time When Time Is Money

HAVEN'T you often wished to be in the field an hour sooner or stay an hour longer? Yet at busy times, as always, two or three persons must drop their other work for milking.

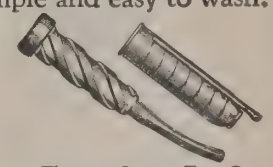
This is no longer necessary. With a Perfection Milker, you can have that extra hour every morning and night. One man with the Perfection does the work of three by hand, and does it better. Let the others go on to the field.

When plowing, seeding or harvest is pressing, when extra time is extra dollars, then Perfection saves money for you. Many users say it is indispensable.

As the Perfection saves you time it will make you money. Cows like it better than hand milking and they yield more milk to its natural uniform action. The new sanitary teat cup milks cleaner, faster, with less vacuum; only two parts—simple and easy to wash.

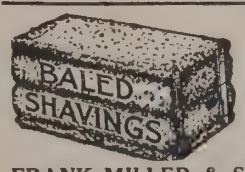
The Perfection Milker puts two extra days into every week for thousands of satisfied users. It pays for itself each year in the saving of wages alone.

Why milk by hand? Write today for your copy of free catalog. Learn how to save valuable time.


The new 2 piece Teat Cup. One pull and it is all apart for quick and easy cleaning.

Perfection Mfg. Co. or **Perfection Milker Co., Inc.**
2100 East Hennepin Ave. Minneapolis, Minn.
240 West Jefferson Street Syracuse, New York

PERFECTION MILKER



Now is the Time **All wise Dairymen get their orders placed for Baled Shavings.** They are plentiful now and can be bought at a reasonable price. Don't wait until they are scarce and high and be left without them. Write us today and reserve a shipping date and it will save you money.

FRANK MILLER & SONS (*The Sawdust Millers*) 3613 Auburn Ave., Chicago, Ill

for feeding calves

Do you know that you can cut milk costs in half by adopting the "minimum milk method," using dry skim milk? Hundreds of dairymen who sell all their whole milk are making this big saving. They simply mix a pound of dry skim milk with a gallon of water, making a money-saving mixture which young calves thrive on. And they buy a pound of dry skim milk for half or less of what they receive for a gallon of whole milk. (1 gallon whole milk contains 1 pound milk solids.)

AMERICAN DRY MILK INSTITUTE
160 North La Salle Street Room 720-C
CHICAGO, ILLINOIS

FREE Write today for "Better Calves" giving successful feeding methods. State number of calves you feed. We'll tell you where to buy dry skim milk.

Remixed—1 pound dry skim milk to 1 gallon of water—is also good for pigs and poultry. It is splendid also for baking.



Replacement Head for FORDSON means

MORE POWER

Gives 3 to 5 horse power more. Saves its cost in thirty days' operation, then it's clear profit.

INSTALLATION EASY

Only a wrench and an hour's time needed. Nothing to fit, file or adjust. Sold on a money-back guarantee—low in price. Sold by dealers, garage men or direct. Write for "Ricardo Replacement Head" book describing and giving prices on Fordson, Ford and Dodge Ricardo Replacement Heads.

Saves a Dollar a Day on your Fordson

Waukesha Motor Company
900 St. Paul Ave., Waukesha, Wisconsin
BUILDERS OF HEAVY DUTY MOTORS FOR TWENTY YEARS

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

Vilter Ice Machinery



For Daires and Creameries

Send for Bulletin No. 29R It is FREE

THE VILTER MANUFACTURING CO.
874 Clinton St. Estab. 1867 MILWAUKEE, WIS.

Buy a Vest Pocket Herd Book

Beating the Labor Problem in Silo Filling

(Continued from page 603)

run on top of the silage all night.

I have heard warnings about getting too much water on silage, but I do not believe it possible to do so. If more water is put on than can be taken up by the silage, it runs out below. Some of the best silage I ever made was in the pit of one silo, where it was necessary to wear boots and bail out water before throwing the silage out.

If there was any advantage in tramping or weight, water added to the silage would supply this advantage. A ton of water added would result in considerably more pressure than would be obtained by a 200-pound man tramping.

From September 18, when we started, until October 9, when we had the last of the four silos full, we had nothing but rain. During that time we were able to work twelve days and sometimes then it was raining. Although the corn had been killed by the frost it did not dry out as badly as would have been the case in a dry season. There were days, however, when dust flew from the cutter, and the power required to cut the tough, dry corn was increased.

The second, third, and fourth silos were filled in the same manner as the first as regards tramping. By the time the third and fourth silos could be filled the corn was in very bad condition. To look at and examine it, the experienced corn fodder man would say that it would make a very poor quality of corn fodder. Yet this corn has made good silage, perhaps a little off on quality, but still there were not any spoiled spots.

The Low Rack Wagon

It had always been the custom to use the ordinary hay wagon to haul the corn from the field. These wagons are so high that the corn must be lifted up to the driver who stands on the wagons and when unloaded the driver must stoop and lift from the level of his feet.

It was also the accepted practice to have "loaders" in the field to lift the corn up to the drivers on these high racks. One loader to each wagon or from four to five loaders to five or six wagons. With the old system of filling this is about the crew required

3 men tramping in silo
1 man holding distributor pipe
1 man feeding cutter
1 man helping driver unload
1 man operating tractor
5 drivers with teams
5 loaders

17 men, total

It looked reasonable to do away with the loaders and lighten the work of the drivers by the use of the low-down wagons. In 1926 four of these racks were made according to the plans shown.

This wagon has proved to be a wonderful labor saver. The driver loads his own load and he unloads while standing on the ground at the side of the wagon.

Three of these wagons were used to haul from near fields and four from distant fields. After checking up on the number of men required for filling in 1926, the results were gratifying:

1 man feeding cutter
4 drivers with teams
2 loaders

7 men, total

The reader will notice two loaders listed above. These men did not spend all of their time loading but helped to cut also. The tornado that flattened our corn in August put the corn binder out of our list of labor saving machines for that year. It has been my experience that the corn must be cut by hand two years out of five, because of wind and rain.

It is true that the big outfit of seventeen men used in 1925 was a fast filling outfit, but it was not fast enough as compared to our seven-man outfit used in 1926. The big outfit filled about one-third faster than the small outfit, but that gain in time would not justify the use of seventeen men as against seven men.

The gentle art of filling silos is veiled with many superstitions and theories, none of which are founded upon fact or experimentation. Probably more so than any other "dark of the moon" farm operation. Go on any silo-filling job and you can prove it. "Not enough water." "Too much water." "Corn is too green." "Corn is too ripe." "Not enough men tramping." "Hose should be in the far." "Hose should be at the top." Everyone has a different idea as to what is right.

My experience of the last two years has settled several much-disputed questions, so far as I am concerned, and in the future our silo-filling job is going to be done with fewer men and no worry according to these rules:

1. No tramping done.
2. No distributor pipe to be used.
3. Corn must be 80% mature.
4. Cut in one-fourth-inch lengths.
5. Don't worry about frost if there is plenty of water.
6. Add water and then more water if corn is dry.
7. Use low-down wagon racks.



HAVE A CAMEL

No half-way verdict—Camel is supreme

THE American people have had many favorites. But there's never been a choice like Camel.

Camel is the most popular cigarette this nation ever had. Millions unite to place it first, and there's no comparison. Camel is supreme.

There must be reasons back of such a preference. There must be mountain-high quality in this famous cigarette to make millions join in saying, "I will have only Camel."

That is true. Camel quality is just as supreme as its leadership. In Camel, no substitute has ever been made for quality. No compromise has ever been made with expense. For Camels, the country's largest tobacco organization buys the choicest Turkish and Domestic tobaccos grown. There simply are no better tobaccos or blending.

If you don't yet know that supreme tobacco enjoyment, try Camels. All the taste and fragrance, all the mild and mellow pleasure you ever hoped to find! We invite you to compare them with any cigarette made, regardless of price. *"Have a Camel!"*

R. J. REYNOLDS TOBACCO COMPANY, WINSTON-SALEM, N. C.

© 1927

Beautifying the Country Roadside

(Continued from page 602)

igher form of income called happi-ess, for no man can plan, plant, and are for a project of this kind with-ut adding to his joy in living.

Shrubs Preserve Cuts

Highway patrolmen and interested ommunity boosters can plant hardy ative vines and shrubs as well as rasses on the raw banks in cuts and lls. The cost of such planting ould be small in comparison to the ctual saving from the prevention of rosion. What a vast difference there between a shrub overgrown cut nd the ugly scars that are so often ft along our roadsides by construc-ion engineers. In setting out trees, owever, beautiful views into valleys



C. MARNEY'S MAIL BOX, OREGON, IS BUILT LIKE A HOUSE AND STANDS IN THE SHADE OF A BEAUTIFUL TREE

r across ridges should be left clear. or safety purposes no new tree plant-igs should be set within 150 feet of a ighway crossing and 400 feet from a ailroad crossing, because the risk of fe is too great a cost to pay for the dded beauty. The inside of curves, oo, should be kept open so a driver an see what is coming. All plant-igs, whether trees or shrubs, should ake into account their effect on the oad for transportation purposes and e set so they do not cause snow rifting on the road bed nor shade irt roads so much that they will not ry out quickly.

The type of planting will depend omewhat on the landscape and near-ess to a city. Straight lines of trees n both sides of the road stretching or miles and miles would soon grow onotonous, but alternate stretches f such a style of planting with lumps of trees on knolls and high laces will relieve this objection, es-ecially if many of the native variety re set. In any event the planting ould be such that it will fit in har-oniously with the native landscape. he landscape architect, Jens Jen-sen, says we do not want our prairie highways checkerboarded with lines of trees, as scattered plantings are more in keeping with the American mind.

Kind of Trees to Plant

Much could be said about the kind of trees to plant. In Europe one can find thousands of miles of roads planted to fruit and nut trees. It is an inspiring thing to travel over these roads at blossoming time. In those countries a considerable revenue is realized from them. Judge Simpson of Lafayette County, Wisconsin, has suggested that one fruit tree should be planted at every mile post as a start in this direction. In planting fruit trees along the roadsides, however, it will be well to remember that such trees will not bear good quality fruit unless they are sprayed and pruned. The sense of private property is probably not yet well enough developed in this country to guarantee that the fruit will be free from thievery, but we may develop that sense some day. Counties cannot hope to plant such trees for revenue purposes unless states pass laws giving the highway commissions complete control over the highway, or unless the farm owners dedicate such uses to the public.

Since nut trees cost but little more to start than ordinary shade trees, farmers can well set some of these along their roadsides. It is not an uncommon thing to hear of such trees producing as much as $50.00 worth of black walnuts in a single year. Moreover, cows enjoy their shade quite as much as that from an elm and the harvest is more pleasing to the boys, pigs, and squirrels than are shade tree leaves.

No one has figured out how much a shade tree in a pasture is worth to a cow in dollars and cents, but no cow is contented when she has to fight flies on a hot summer day without any protection from the sun. Contented cows are usually profitable ones, so the dairyman who provides contentment for his animals in the form of shade along the roadside not only adds to the beauty and charm of the landscape, but he increases his milk check at the same time.

Much could be written about planting forest trees along the roadside as a means of increasing the farmers' fuel and lumber supply. Farmers who do plant such trees, however, should set them far enough to the side of the road to provide for future improvements and they should set them far enough apart so they will not cause drifting of snow or undue shading of the roadway.

Perhaps it will not be amiss to close this article with a few words about Thomas Jefferson and his flowers. It is said that he never went on a journey but that he took a bag of flower seeds with him to scatter along the highways. Much of the loveliness of the Virginia landscape is credited to him, because his flowers are still bearing annual crops of beauty.

Ohio Holstein Sale

At the Ohio State Guarantee Hol-ein Sale held May 3—4 at Wooster, 3 animals were sold for $26,490, an verage of $275, with $2,475 the top gure. This one four-figure price was aid for Sir Hollyhock Cornflower, a -year-old son of Creator out of Pabst orndyke Cornflower, 38-lb. 3-year-d that established a price record at e 1920 National Holstein Sale. This re was consigned by John E. Smith and purchased by the Lousangle Co. Home, California.

Haeger, Andrews, and Barker did the selling. The sale was under the management of the state association.

Below are given the averages for animals of the different classes: Thirteen bulls averaged $470; 11 heifers under 2 years, $170; 6 two-year-olds, $233; 8 three-year-olds $263; 57 cows, $261.

Activity is the only road to knowl edge.—G. B. SHAW.



Better profits from a smaller farm *in California*

HALF the farms in California are less than 50 acres. A third of them are under 20 acres.

Yet 136,000 farms like these—about half the number you will find in many eastern states—produce an annual crop-wealth of more than $700,000,000 and have made California the third greatest agricultural state in the Union. And four of the eight leading counties in the United States are in California's Great Valley.

Come out and see what you can do to share in California's prosperity, with less work, fewer hardships, more kinds of enjoyment for your family than you have now. Talk with farmers in the Great Valley and the other valleys that border it, who have owned farms both here and in the East—ask them whether they would be satisfied to trade with you!

Ask them what a California winter is like. Let them show you oranges that will be sweet and ripe on the trees this winter when the snow is drifting over the fences at home. Watch them "making" their own weather, under a cloudless summer sky, with the help of California's abundant irrigation. See the fine stands of alfalfa that yield five or six crops for cutting and leave another one green and growing for winter pasturage.

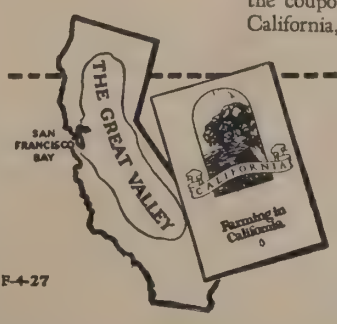
These are farmers who can show you cream checks that are 20% higher than the price the average farmer in the East gets for his butterfat. Out in their fields are pigs from last year's second litter—worth up to $2.00 a hundredweight more than yours because with all our advantages we still raise only 25% of the pork we need.

Then talk with the manager of any big creamery plant. He will tell you about California's 22,000,000-pound shortage of butter every year in California, although dairying is easier, cows live longer, and the average production of butterfat per cow is the highest in the United States.

The fact grows plainer the more you investigate—California needs more farmers to produce butter, hogs, eggs and poultry for the people in our growing cities. If you have succeeded where you are, you will succeed here where conditions are so favorable—and like it better. You will like our schools, our highways, the nearby mountains and seashore and the great cities on San Francisco Bay.

Low summer round-trip fares to California—$90.30 from Chicago for example.

Californians Inc., a non-profit organization of citizens and business institutions interested in the sound development of the state, has published an 84-page booklet of clear authoritative information on what you will need, where to go, what to look out for and how to find just the place you want to live. It is free, and will be sent you postpaid for the coupon below. If you are seriously thinking about moving to California, or interested, send the coupon today!

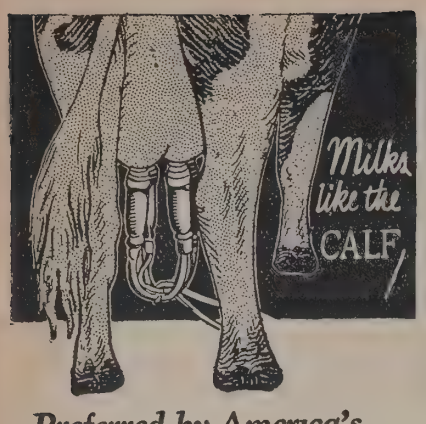


F-4-27

Californians Inc
Headquarters
SAN FRANCISCO
140 MONTGOMERY STREET, ROOM 693
Please send me "Farming in California"—free

*Name*_____

*R. F. D. or Street, City & State*_____



Preferred by America's Leading Dairymen —

SUCH famous dairy herds as these are milked by Universal Natural Milkers:

The herd which produced the Grand Champion Holstein Cow at the National Dairy Show, Detroit, 1926—

The largest pure-bred Guernsey herd in the world—

The foremost pure-bred Guernsey show herd of 1926—

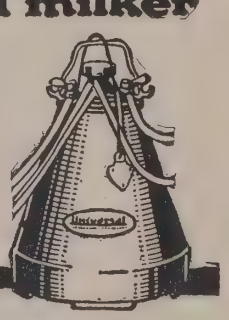
And hundreds of other nationally known pure-bred herds of all breeds—producers of Certified, Inspected, and Grade "A" Milk. The owners of these herds (America's leading dairymen) know the value and importance of low vacuum, alternating action (like milking with hands), the perfect teat cup, a life-time guarantee, and service after the sale. You get all of these features, and more, when you install a Universal Natural Milker.

THE UNIVERSAL MILKING MACHINE CO.
Dept. H, Waukesha, Wisconsin

Universal natural milker

Our new 24-page catalog has the whole story and will be mailed free on request.

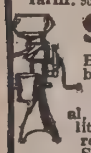
Two Types: Double and Single Units.



Better Milk by simply using the B-K Rinse

85% of bacteria in milk comes from contact with non-sterile cans and other utensils at the farm. 95% of them can be removed by a B-K rinse.

Separators



B-K rapidly dissolves the invisible film of casein and other matter that clings to the bowl and fittings. After washing as usual, you rinse in water containing a little B-K, effecting remarkable reduction in bacteria and germs. Send for Separator Bulletin 112.



Milking Machine Parts



Just keep them between milkings in a dilution of B-K and water. For protection against possible spread of infection, from cow to cow while milking, rinse the cups and tubes in a pail of the B-K dilution after milking each cow. Send for Milking Machine Bulletin 124.

95% Bacteria removed by B-K Rinse

Cans



Without B-K Rinse



with B-K Rinse

Illustrations are based on actual tests. Milk Can No. 1 after washing with hot water and brush, contained 41,000,000 bacteria (not fit to receive milk). Can No. 2 after washing the same way was given a B-K rinse. 99% of all bacteria in the can was destroyed. Send for our Bulletin 928 on sterilizing milk cans.

General Laboratories, Dept. 101F Madison, Wis.

it's good B-K and it's Cheap

Mention Hoard's Dairyman to your dealer—it helps us.

The Coventry—Dunwalke—Florham—Rockingham Sale Enjoys $1,038 Average

(Continued from page 604)

Coventry Herald's Nemea	1,775
Richard W. Woolworth, New York	
Coventry Valentine Lustre	$1,350
Frank B. Foster, Pennsylvania	
Coventry Valentine Radiance	$1,050
Coventry Valentine Bright Hope	1,025
Coventry Belladonna's Honour	1,400
George B. Post, New Jersey	
Imp. Snowball of La Hougue	$950
A. A. Vandeveer, New Jersey	
Imp. Candie's Zeta II	$700
J. E. Ward, New Jersey	
Imp. Gem's Cyrene of Coventry	$750
Florham Consignment	
R. F. Loree, New Jersey	
Florham Challenger	$3,000
Richard Woolworth, New York	
Florham Peeress	$1,025
Majestic Beauty	1,150
Caumsett Farm, New York	
Imp. France's Cateline	$1,500
J. A. Winston, New York	
Senator's Royal	$1,100
Howard Heinz, Pennsylvania	
May Princess	$5,000
D. G. Tenney, New Hampshire	
Florham Lilac	$750
J. E. Andrus, Jr., Minnesota	
Florham Marcia	$1,000
Dunwalke Consignment	
N. L. Avery, Michigan	
Imp. Buttercup of Grand Pre	$800
John T. Candler, Georgia	
Imp. Verena of Myrtle Place	$900
Compton Bros., Iowa	
Dunwalke Buttercup's Billy	$800
Manual Training School, New Jersey	
Imp. Lady Gazelle of Clovelly	$900
Rockingham Consignment	
N. L. Avery, Michigan	
Rockingham Dairymaid	$2,900
C. C. Bolton, Ohio	
Rockingham Buttermaid	$700
S. N. Aldrich, Massachusetts	
Rockingham Sunflower	$2,400
G. M. Dahl, New York	
Rockingham Stella	$1,900
Wm. A. George, Michigan	
Rockingham Twinkle	$2,400
Rockingham Royal's Polly	1,725
H. J. Krebs, Delaware	
Rockingham Marguerite	$2,600
E. F. Price, New York	
Rockingham Autocrat	$1,000
W. M. Taylor, Vermont	
Rockingham Yoeman	$725
W. P. Jackson, Maryland	
Rockingham Bessie	$2,800

Farrington's New Book

"Quality in Dairy Products" is the title of a new book of 250 pages by Professor E. H. Farrington of the Wisconsin College of Agriculture. In his preface Professor Farrington states that there appears to be considerable similarity among the many questions that have been answered by him during the years he has been connected with the Dairy School. This suggested that a reference book based on these common, every day questions would find a place among those engaged in the production of milk and those engaged in the manufacture of this milk into its various products.

The buttermaking group covers the causes and prevention of common defects in butter; instructions for cream grading, pasteurizing, and neutralizing; starter making, butter working, testing, and figuring overrun as well as many other problems that come up in the every day work of buttermaking.

The cheesemaking group includes a discussion of the causes and prevention of some of the defects in cheese; the paying of patrons for milk by several methods and many helpful hints to patrons about the quality of their cows and their milk.

The ice cream making group of inquiries refers to overrun, sandiness, weak body, unevenness in flavor, texture, etc., together with suggestions about causes of good and of bad qualities in ice cream.

The dairy farmer and the cow milker group of questions discusses the causes of variation in milk and cream tests; the effect of individuality and ways of milking as well as many other practices on the milk production of a cow; points on running a farm cream separator; ways of taking accurate samples of milk for testing; why dairying is profitable; the creamery vs. the cheese factory from the dairy farmer's standpoint; and other practical questions that come up in the every day work of a cow owner and a cow milker.

Copies of this book will be sent postpaid by the Book Department of Hoard's Dairyman upon payment of its regular price of three dollars.

Poisoned Sudan Grass

HOARD'S DAIRYMAN:—An experience which is not welcomed by any farmer has been the lot of T. M. Lambert & Son of Antelope County, Nebraska, when 34 of their 100 head of stock were killed by supposed poison from sudan grass hay. The story of the poisoning as told by Mr. Lambert is as follows:

"We had 100 head of cows which had been running in the cornstalks and at the same time had access to wild prairie hay. To give them a change of feed we hauled to them during the forenoon a load of sudan hay from the top of stack. About noon of the same day my son came from the yard and reported one of the cows dead and another one of them down. I went to the yard immediately, which was half a mile from our home, and on arrival I found eight or ten of the cows down and within three more hours there were 34 of them dead in spite of anything we could do to save them."

The sudan grass was cut for hay just as it began to show heading and after cut it was allowed to lie on the ground about ten days. This was partly due to a rain which hindered stacking it before this time. But, outside of some coloring, the hay appeared all right.

This crop did not grow fast at first as sudan usually does, but this was probably due to very dry weather at that time. Foxtail grass and pig weeds came up very thick in the field. But later the sudan started to grow and as it was on comparatively rich ground it grew exceedingly fast. Mr. Lambert says he never saw any plant life with a more vigorous growth from this time until cut. It is thought that this regrowth from a stunted condition might have formed poison which later killed the stock.

Instances of poisoning have been known from this forage elsewhere, but it has generally been supposed that it was caused by allowing the grass to stand until after frost before cutting.

Nebraska. GEO. G. MCVICKER.

This report was so unusual that we referred it to the Nebraska College of Agriculture. Dr. L. Van Es replies as follows:

"This particular instance has not been called to our attention by any one in the state, but I believe the following comments are entirely warranted by the circumstances described:

"The accident described has all the ear marks of prussic acid poisoning. This is occasionally seen in many forms of forage, including the sorghums, and especially so when at the end of the season either by frosting or other factors the vegetative processes were either interrupted or altered.

"Prussic acid forms as a result of the action of an enzyme on some of the glucosides. It cannot always be foretold when this poison is apt to form or when it is apt to cause damage. But this is certain, when sudan grass or any of the sorghums are to be fed as hay or otherwise after the growth has been damaged by frost or arrested in some other way, then great care and caution should be exercised in feeding it. In such a case it is always well, in the first place, to leave the fodder until toward the last of the dry feeding season and before it is given to a large number of valuable animals to have its character tried out by feeding it to one or two animals of inferior value for a couple of weeks.

"With caution in curing and with the precaution mentioned, the occasional poisoning of animals by this type of fodder should not detract from its great feed value."

National Guernsey Sale—$84,350

(Continued from page 619)

Imp. Glenchester Anne	1,075
Dr. L. C. Fischer, Georgia	
Amanta Gele	$1,025
Wm. A. Hill, Maryland	
Beechford's Fancy Lady	$1,100
F. J. Rueping, Wisconsin	
Eulalia's Laddie of Beechford	$1,150
Mrs. Barger Wallach, New York	
Ada of High Point	$1,350
Beechford's May Clyde's Sunbeam	850
Renowned Preen	750
J. E. Andrus, Jr., Minnesota	
Meadowland Mary	$1,000
Nichetta	1,100
Meadowland Maid	800
Fisherman's Red Rose	2,550
Maxim's Josephine of High Point	1,000
Maxine of High Point	800
Gloria of High Point	775
Emmadine Farm, New York	
Dorelia	$2,050
Jessy Rose of Ophir Farm	1,100
S. C. Price, Pennsylvania	
Cora of Phillips Farm	$700
Penncrest Farms, Pennsylvania	
Gerar Fanny	$1,150
Howard Heinz, Pennsylvania	
Gerar Fanny 2d	$7,600
May Rose Clara of Minot	1,500
Ralph E. Flynn, Pennsylvania	
Lady Beatrice of Beechwood	$2,000
Mixter Ripple	1,000
Caumsett Farm, New York	
Mixter Sunbeam	$2,000
John Govatos, Delaware	
Atamannsit Buttercup	$1,000
F. W. Wallin & Robert Holmes, Mich.	
Green Meadow Valor	$800
G. N. Dayton, Minnesota	
Border Raider's Rose	$1,650
Green Meadow Miss Quality	825
Harry Bailey, New York	
True May Rose of the Prairie	$4,300
John Henry Hammond, New York	
Cherub's Buddie of the Prairie	$750
D. O. Brant, California	
Ard—Na—Clachan Banner	$1,050
J. Farrand Williams, Michigan	
Willowmere Senorita	$700

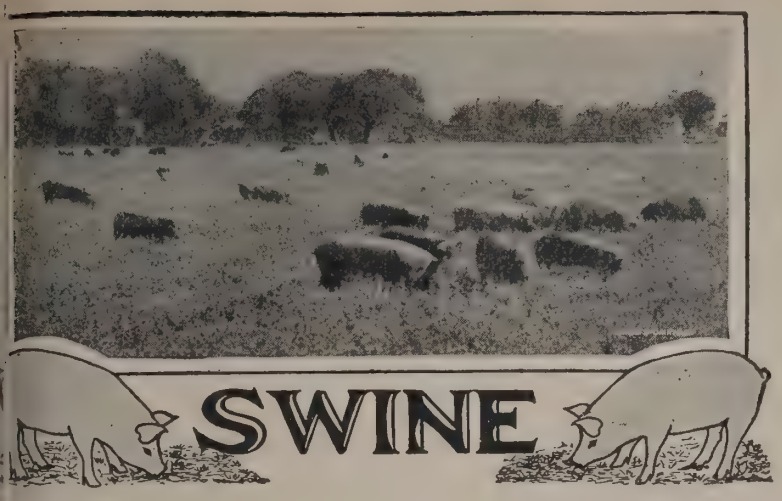
On Guernsey Pilgrimage

The following is the membership list of the American Guernsey Cattle Club Pilgrimage that sailed from New York per S. S. "Tuscania," May 14, to the home of the Guernsey breed. This pilgrimage is in honor of the fiftieth anniversary of the Club's organization:

Miss Arvilla Boese, Miss Jessie M. Hill, Mr. and Mrs. J. C. Ralston, and Mr. and Mrs. Ralph Tratt, Wisconsin; Floyd S. Barlow and Mrs. Champ Jackson, Ohio; W. de L. Burgess, J. D. Dodge, Robert Scoville, and J. Law Siple, New York; John Endicott and Miss Elizabeth T. Endicott, Michigan; Mr. and Mrs. G. P. Clark, Rhode Island; C. B. Finley, Minnesota; W. W. Fitzpatrick, South Carolina; Mr. and Mrs. Wm. F. Fretz, C. A. Hayden, M. J. Judge, Chas. E. Patton, and Frank W. Smedley; Mr. and Mrs. E. T. Gill, John Gill, VII, Miss A. L. Gill, Wm. M. Nulton, and G. E. Ward, New Jersey; D. W. Gates, Connecticut; Mrs. Tena Har and John Hastie, Washington; R. I. Holden, Indiana; Mr. and Mrs. H. C. Horneman and K. Horneman, Illinois; Mr. and Mrs. E. J. Montague, Massachusetts; Mr. and Mrs. Karl F. Musser, New Hampshire; Mr. and Mrs. T. R. Phillips, Vermont; E. I. Westover, Oregon.

Irate Employer: "Late again; have you ever done anything on time?"

Clerk: "I bought a car."



-feeding Pigs on Pasture

f-feeding pigs has become a ar practice among progressive rs of late years because, when rly done, it reduced the labor rements, increased the rate of and consequently fitted pigs for rly fall market which, as a rule, mewhat higher than the prices for similar hogs later.

this time of year when pas- are generally good and when are ready to be pushed toward et weight, a discussion of self- ng pigs on forage is in order. aver at the Missouri Station fed groups of 40-lb. pigs on rape re plus ground corn, shorts, and ge. One lot was self-fed, each e three feeds being placed in ate compartments of the self- r so that the pigs could take as or as little as they wanted. The lot received the three feeds l in the proportion of 9 parts 3 part shorts, and 1 part tank- The mixture was wet with wa- nd fed twice daily as a thick as much as the pigs would clean

e average daily gain of the self- igs was 1.05 lbs. per head com- l with 0.95 lb. for those hand- The amount of feed required ach pound of gain was 3.84 lbs. elf-fed pigs and 3.65 lbs. for -fed pigs.

bison of the Ohio Station sum- es the results of self-feeding ifferent groups of pigs that re- d forage of some kind and of fferent groups hand-fed on for- In all, 67 pigs were included e self-fed groups and 165 pigs e hand-fed groups. Corn and ge constituted the basal and emental feeds used. The pigs ged 55 lbs. weight at the be- ng of the trials.

e average daily gain of the self- igs was 1.49 lbs. per head and he hand-fed pigs it was 1.28 lbs. consumed for 100 lbs. gain was bs. for the self-fed pigs and 338 or those hand-fed.

nry & Morrison of the Wiscon- Station summarize the results trials comparing self-fed pigs those hand-fed on pasture. Corn tankage constituted the basal supplementary feeds. The self- igs made an average daily gain .32 lbs. per head and required lbs. of feed for 100 lbs. gain; and-fed pigs gained 1.2 lbs. per daily and required 364 lbs. of for 100 lbs. gain. The pigs ged 58 lbs. at the beginning of rials and were fed for an aver- of 112 days.

l of the foregoing experiments that hand-fed pigs on forage ire less concentrates per 100 lbs. than do self-fed pigs. Robison ins this by saying that since pigs h have access to concentrate at all times are inclined to eat rather than exert themselves much in procuring green fed, self-fed pigs utilize less forage than do hand-fed pigs even though the latter are fed all the concentrates they will clean up readily twice daily.

Dairy farmers who have skimmilk available should bear in mind that when pigs are on pasture the requirement for protein is somewhat lessened and the amount of skimmilk fed may be cut down quite materially and still get good results.

It is erroneously assumed that pigs will properly balance their rations if a variety of feeds are set before them in separate self-feeding compartments. This holds true only with corn and tankage. For example, if ground barley and tankage are offered pigs they will eat more of the tankage than is necessary to properly balance the ration. If linseed meal is offered pigs in a separate compartment, they will usually refuse to eat much of it but if it is mixed with tankage or tankage and shorts they will consume a considerable quantity and what is more will do well on the supplemental mixture plus corn or other carbonaceous feed.

The self-feeder is not adapted to feeding brood sows or to pigs that are to be grown for breeding stock rather than fattened because the tendency is to become too fat. The only way to avoid this is to offer a concentrates mixture containing considerably more bulk than one suitable for rapid gains on pigs to be fattened.

In using the self-feeder the feeds offered, that is the basal and supplementary feeds, must all be about equally palatable else the tendency is for pigs to eat too much of one feed and not enough of another. If one finds a tendency to this it may be corrected by mixing the feeds in proper proportion.

Good Pastures Reduce Grain Requirement of Pigs

On the average dairy farm the number of hogs grown is limited, quite largely, by the amount of grain grown that is not needed for the dairy herd. This is as it should be, provided the cows are good enough to make a profitable return on the grain. As long as the grain available is the limiting factor with hogs, an effort should be made to make it go as far as possible. This may be done by the use of good forage crops.

The Wisconsin Experiment Station supplies us with good evidence on this point. For five years comparisons were made of pigs self-fed corn and tankage in dry lot with similar pigs fed these feeds plus alfalfa and rape pastures.

The pigs that were deprived of pasture gained 1.05 lbs. per head daily and required 441 lbs. corn and 42 lbs. tankage for 100 lbs. gain. The pigs fed on alfalfa pasture gained 1.31 lbs. per head daily and required 374 lbs. corn and 21 lbs. tankage for 100 lbs. gain. Those pastured on rape gained 1.3 lbs. per head daily on a feed requirement of 375 lbs. corn and 23 lbs. tankage for 100 lbs. gain.

The alfalfa pasture pigs required 67 lbs. less corn and 21 lbs. less tankage and the rape pasture pigs 66 lbs. less corn and 19 lbs. less tankage per 100 lbs. gain than the "dry lot" or "no pasture" pigs.

Converting these gains into money value using $9.90 a hundred as the average selling price of hogs and deducting the feed costs on the basis of 85 cents a bushel for corn and $68.90 a ton for tankage, we have the following returns per acre over the grain and supplement feed costs: Alfalfa pasture, $99.66; rape pasture, $97.76. The pigs fed in dry lot without pasture would have returned $47.67 above the cost of their corn and tankage if applied to the same number of pigs as were carried on one acre of rape pasture.

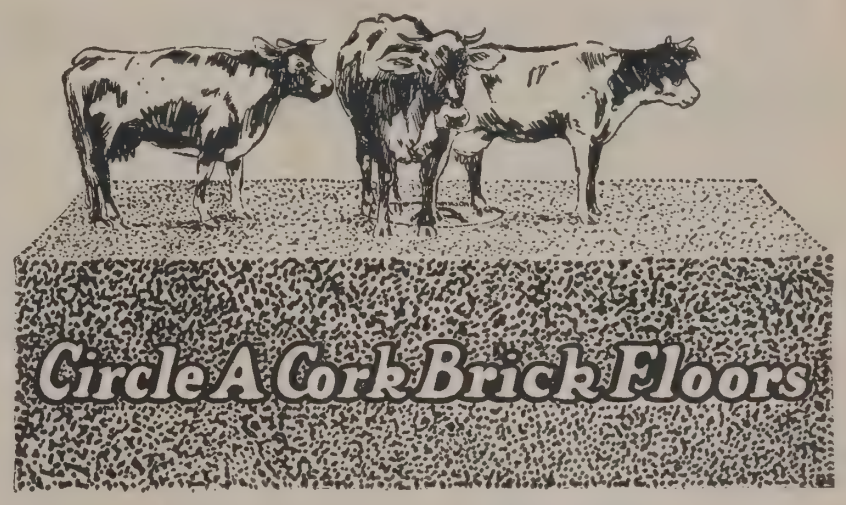
No consideration is given to the more rapid gains of the pigs on pasture. The pigs were started at about 50 lbs. weight and carried to about 225 lbs. On this basis the pasture fed pigs were ready for market about 31 days sooner than the dry lot pigs.

It is not too late to seed some rape for pasture for this year. Looking ahead one can put in some alfalfa for hog pasture for next year. It doesn't take a large acreage. One acre of good rape will carry 20 pigs and good alfalfa pasture will carry a few more. Three acres of either pasture will carry more hogs than are commonly produced on the average dairy farm.

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Poultry on the Dairy Farm



A Profitable Unit

The essentials for profit from a poultry flock at any time under any conditions or with any market price is determined by the efficiency of that unit. Efficiency is determined in part at least by the machine, which means the breeding of the flock; the house, which means the cost and comfort; the age, which means the time of hatching as well as the proportion of pullets and hens; the feed, which means the completeness of the ration; and the condition, which means freedom from disease and parasites, both external and internal.

All of these points are a part of the regular management of any good farm flock with an average investment and average care.

The following points have been stressed for farm flock owners in Wisconsin:

1. Chicks purchased on basis of quality, not price.
2. Early hatching.
3. Flock at least 80% pullets and 100% if possible.
4. Started, ranged, and matured on clean ground.
5. Maximum of 400 chicks to a unit; coal burning brooder in early season; efficient, economical ration.
6. Portable brooder house.
7. Wisconsin type gable roof, straw loft house.
8. Pullets prepared for a production in October and November.
9. A complete ration with cod liver oil during winter.
10. Uniform production, low cost per dozen.

The success of this program is best evidenced by the results to date of Oscar Westberg, in Douglas County. He purchased 700 S. C. W. Leghorn chicks from a breeder operating an accredited hatchery. The price on these chicks may have been a little bit higher than through some other sources or sections, but the chicks were all sired by production bred 200 or better egg males. He was building the right sort of a foundation on which to start the year.

These chicks were purchased about April 8 and were started under two coal burning brooder stoves. He was not taking a chance on weakening the entire bunch by brooding with just one stove in one small room with consequent poor results. He wanted them early to obtain late fall and early winter eggs.

Since Mr. Westberg is located in a dairy section, he used the Wisconsin 80—20 mixture with milk to drink. Up to six weeks of age there had been a loss of only six chicks, and 330 pullets were brought through to housing in the fall.

It might be worthy of note to state that the chicks were started in the house for the first six weeks and were then moved to absolutely clean range and raised there until housed in the fall. No absolute records on brooding were kept but they thought that the income from the sale of the cockerels as broilers about paid for the pullets to laying age.

The house was a 20x40 two unit, gable roof, straw loft. Other types would undoubtedly work, but this house is especially designed for Wisconsin conditions. In this building, in extreme Northern Wisconsin, it w possible to bring the flock throu without freezing.

The ration was a regular scrat and mash composed of easily tained ingredients. The scratch co sisted of 2 of corn, 2 of wheat, 1 barley. The mash was the "Big Fiv of equal parts by weight of grou corn, ground oats, wheat bran, whe middlings, meat scrap, and 1% fine salt.

In addition, cod liver oil was us at the rate of 2% or 1 quart to ea 100 lbs. of mash. We do not consi this at all unusual since all of better farm flock poultry keepers Northwest Wisconsin use cod liver continuously from late fall u spring. This is considered just as tegral a part of the ration as ma water, or shell.

In the fall, about 330 pullets w housed. This number was decrea by culling to 275 when the rec work started Nov. 1. Nothing pullets were kept, which was one factor in the profit and low prod tion cost per dozen eggs in the ea winter. Production started in O ber but no record was kept until N 1, when the flock record starts for year.

The following table gives the turn to date:

Month	Nov.	Dec.	Jan.	Feb.	M
No. pullets	275	275	270	265	
No. eggs	4,782	4,922	5,167	5,146	5
Feed cost	$34.81	$42.80	$40.40	$40.80	$3
Profit	$150.89	$131.70	$131.80	$66.95	$5
Av. No. eggs per pullet	17.39	17.89	19.14	19.41	2
Feed cost per doz.	$.09	$.104	$.093	$.094	$

A good flock of hens that had b culled in the fall gave the follow production for the same period in same county: November, 0.77 e per hen; December, 0.38; Janu 1.98; February, 9:76; March, 18.6

The contrast gives one a better ception of the heavier early proc tion obtainable from pullets t from hens. If market conditions tinue as at present, and they will will be found necessary to have h ier production earlier in the win This will mean a higher percent of early hatched pullets in the fl For farm flock owners buying b chicks, it should mean housing pullets each fall or at most a low per cent of good hens.

A second advantage derived f this sort of a unit is noticed in more uniform production each mo The hen flock cited jumped from egg per hen in November when were high to 18.62 eggs in M when the price was low. With a comparable to this and a lot of g solid horse sense, one need fear overproduction or loss in the pou flock.—J. B. HAYES.

Kamala for Worms

The poultry department of y paper recommends the drug, kam as a treatment for worms in p try, but it does not state how to it nor how much. We know our h have worms and I would appreci very much if you would explain t things for me. Could it be used little chicks and, if so, how

ıld they have? Does the ordi-
r drug store handle this drug?
adysmith, Wis. (MRS.) J. M. W.

amala is a reddish brown powder
:h can be purchased from any
rgist, but as it can be adulterated
the best quality should be pur-
ed. As a flock treatment it is
ssary to group the birds accord-
to weight, fast them for about
ıours, then compute the amount
amala required by the following
e: Birds weighing one-half to
pound, ¾ gram; birds weighing
to three pounds, 1 gram; birds
hing three pounds and over, 2
ns. The powder should be mixed
one-third as much corn meal as
flock will consume at one time.
not, however, necessary to fol-
this treatment with a purgative.
ases of heavy tapeworm infesta-
it will be necessary to follow
with a second treatment.
ndoubtedly the best results come
the individual treatment of
s with the kamala in capsule
n. In case of that, the follow-
table is used:
ne birds weighing one-half to one
ıd, one-half gram; birds weigh-
one to two pounds, 1 gram; birds
hing two pounds and over, 1½
ns. Kamala can be put into half
n gelatin capsules and can be
easily administered by dipping
il of some sort and then placing
n on the back of the tongue of
bird. This seems like quite a
undertaking, but it can be done
rapidly and is probably the most
factory thing to be followed.
efore administering any sort of a
tment it is necessary for a per-
to be positive as to what they are
ting for. One should call a vet-
arian or a sample should be sent
neir own college for examination
e sure that it is tapeworm that
esent, in order to treat for tape-
n rather than just having the
ıd worms present and then giv-
the tapeworm treatment. These
require, apparently, two distinct
s of medicines or drugs.
treatment is the best way out of a
proposition, and is not entirely
factory. It is like bandaging up
fingers after having been burned
ead of keeping your fingers out of
fire in the first place.
fter a heavy worm infestation of
sort there is a tendency for the
stinal walls to become thickened
the result, undoubtedly, that di-
ion and assimilation are seriously
fered with. In other words, if
examine the intestinal wall of a
that has been infested with
ns you will find that it undoubt-
isn't getting the full value of
food that would be obtained in
the walls were normal in con-
n.
nat is the reason why, within the
year or so, so much emphasis
been placed upon the necessity
lean range, clean brooding, and
n everything else in connection
brooding and rearing chicks to
ent worm infestation if possible,
er than attempting to correct or
rol it afterward.
ven clean range is not 100 per
proof that tapeworms will not
ound in any of the birds, but it
is taking advantage of every possibility of preventing this, and we do know that better chicks will be produced on clean range than is possible when the old range that the old hens have been using is made available to the chicks year after year.

One reason why even range will not absolutely control tape, is that they feel that the flies can be one of the intermediate hosts for dissemination of these. In this case it will be necessary not only to provide clean range but also to screen the houses and the range or the runs that the chicks have available to them to exclude flies at the same time.—J. B. HAYES.

Pullets Starting to Lay

I have some Barred Rock pullets hatched January 7, two or three of which are beginning to lay. They started at the age of 3 months 15 days and 3 months 18 days. Don't you think they are laying too early? Would it not be better to hold them back until June or should they be fed so as to rapidly continue their growth and let them continue to lay? They weigh 3 to 3½ lbs.

How could I feed them so as to continue their growth and check their egg production? I have been feeding the Wisconsin ration. They have had all the sour milk they will drink and recently a limited amount of water.

Banks, Oregon. (MRS.) R. L.

These Barred Rock pullets have gone beyond the stage where it is possible to do anything with them. Barred Rocks starting to lay in 3½ months is entirely too early, since it is absolutely impossible to develop enough chicken in that length of time to ever carry them through with a size that will result in a continuous sustained production from them.

What I am trying to point out is that when stuff is along about 12 or 14 weeks, weighing 1½ to 2 lbs., it is possible at that time to drop out a certain amount of animal protein feed which is responsible for the sexual development of the birds. With this 80—20 ration one can drop out the liquid milk fed to the birds in part or in whole, depending upon the way in which and the amount in which one wants to conserve production and yet the mineral balance is left in such a way that development will continue and production can be held off for just about as long as one wishes. The trouble in this case is that they were given nothing but milk to drink or an unlimited supply of milk which has resulted in bringing them through rapidly.

Even under those conditions you may be able to carry them through July, August, September, and October all right, and when you develop out a bird at that time or at the size that you have, your egg size is going to be influenced in the same amount, and I don't believe that when you get along in the summer that you are going to get anything at any time except a pullet, a small, or a pee wee, egg, from pullets of this sort. That is, when one stunts the growth of the bird they are apparently at the same time going to control to some extent the size of egg those birds will produce.

Our recommendation in connection with the use of this ration is that a person bring the birds along for the first period just as fast as he can. We are interested, primarily, in making a 1½ lb. broiler, which is about the minimum size that the market will take in just as short a period as it is possible to do so. Just as soon as they are turned off the more the profit is going to be, as the broiler market is always a falling market.

From that time on one can drop out the amount of milk or the amount of meat scrap or whatever is fed as a source of animal protein to them, in such way to control the growth on the birds, which means frame development. In the past when we dropped out the meat scrap, we were dropping out the only source of mineral feed and instead of holding back the birds why we just limited the frame development for them.

It will usually take around about 7 months to grow out a Barred Rock pullet the size that we want to give us an egg that is going to make a good market size.

I wouldn't make a change on the ration for this bunch at the presen. time. Keep them coming right along, since a change at the time that you have that development on them is going to react more seriously than advantageously.—J. B. HAYES.

Chickens Cough

HOARD'S DAIRYMAN:—I would like to find out if there is anything that can help one of my chickens. She coughs every little while, then runs to a pan of water and drinks a great deal. At last she falls over and acts as if she is dying. Is this a contagious disease and is there any cure for it? Do you think it advisable to kill this hen to prevent spreading of disease or is it worth while to try to cure her?

Antigo, Wis. V. D.

The symptoms given in this case are so very meager that one is absolutely not in a position to draw any conclusions from it or to make any recommendations.

In case of a cough in a bird, it usually means some sort of an obstruction in the trachea or the bronchial tubes. The things that might have carried from this are just an infection in there or it may be that the bird has developed canker to such an extent that it has started growing down in the trachea or at the opening of the trachea. This would tend to explain why the bird would endeavor to drink water or why it would occasionally lie down gasping and appear to be dying until it had an opportunity to get a sufficient amount of air.

In this case if a person would just open the mouth of the bird, they will notice that the canker occurs as a white, yellowish, or brown growth or crust-like material occurring in the roof of the mouth, along the edges of the jaw or even at the opening of the trachea.

It is very questionable whether it is advisable for a person to attempt to keep a bird under those conditions. If individual treatment is followed, I would not advise removing this material since apparently it will cause bleeding with the possibility of the disease being spread farther, but rather it is advisable to paint each sore spot with iodine, lysol, or some material such as that and to allow them to dry up on their own accord.

This means, of course, a lot of individual care, and unless the bird is particularly prized, I rather think that one should kill it and then avoid scattering the blood around and burn or bury the carcass.

Under these conditions it might be advisable to give the flock Epsom salts at the rate of one pound to every 100 birds, since it will bring them back into a little bit better physical condition and get at the cause of it, which, apparently, is associated with cold, roup, and those various things of that sort, the predisposing causes of which are damp, drafty, or poorly ventilated poultry houses. It is always advisable to remove birds in this condition and keep them by themselves. If a post mortem examination is made either by the owner or by the veterinarian it would be possible to more nearly diagnose the trouble in that way.—J. B. HAYES.

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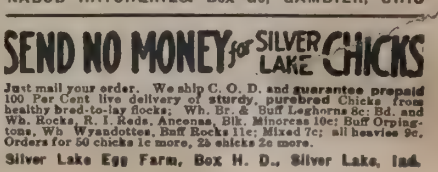
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Wanted—At once, working foreman past 30 acre farm. Must be thoroughly experienced dling pure bred Holsteins, raising calves and doing general farming. I want a live man who able and willing to think and work, too, and to handle two or three other men besides. State ex perience, whether married and if so size of Give references. J. H. BURR, St. Charles, Ill.

Wanted—Single man for general farm wor be good milker. State wages in first letter. W REN MACK, Whitewater, Wis.

HELP WANTED

Wanted—Single man around thirty, who has had experience in bottling house or creamery work, as working foreman in bottling house on Certified milk plant where two thousand quarts are produced and bottled daily. Must be clean and capable. Give references and full particulars in first letter. KEYSTONE FARMS, Waukesha, Wisconsin.

Wanted—Middle-aged married man (without minor children) and a relative for general dairy farm work. Wife to help milk. Modern equipment and new house, electric lights, etc. Good wages with big privileges to right parties. BEN J. MAY, Spring Grove, McHenry County, Illinois. Phone 516 Richmond. 11-*

Herdsman, for dairy of from thirty to forty cows. Must be good hand milker and understand feeding for production. If married, can use wife in charge of milk house preparing products for the daily morning delivery. Give references and salary wanted in first letter. SPRING CREEK DAIRY FARMS, Montezuma, Ga.

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Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

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A Federal Accredited Herd

HELP WANTED

Wanted—Single, first class dry hand milkers for certified dairy. Must be neat and clean about work. Wages seventy dollars per month, board and room. Address H. F. RHODES, Bella Vista Farms, Ypsilanti, Mich.

Wanted—Two single dry hand milkers. $65.00 per month to start. Prefer one who has worked before in certified dairy. State experience and references in first letter. HANDY ANDY DAIRY, Box 422, Hollywood, Florida.

Wanted at once—Single herdsman who is thoroughly experienced in handling registered Holsteins and can produce results. State age, experience, wages expected, and give references. J. H. BURR, St. Charles, Ill.

Wanted—Teamsters on Capstan Ditching Machine. Now working in Dane and Iowa Co., Wisconsin. Wages $50.00 per month, board and room. Write L. P. KUNZ, Oconomowoc, Wis.

Wanted—Married man without children for farm and dairy. Machine milking. July 15. $80.00 monthly, house, fuel, electric light, milk. State age. BOX 1616, Butte, Mont.

Wanted—Reliable, experienced, single man for dairy farm work. Machines used. Seventy a month and board and room. R. B. WENDELKEN, Belle Fourche, South Dakota. 11-2

Firemen, Brakemen, beginners $150—$250 monthly; railroads everywhere (which position?). RAILWAY ASSOCIATION, Desk M-10, Brooklyn, N. Y. 11-2

Wanted—Steady, reliable farm hand. Must be good milker. State religion. $50.00 board and room. ELFERING BROS., R. 2, Waukegan, Ill. 10-2

Help Wanted—Single dry hand milkers. Good living conditions; chance for advancement. Can use two married men with small families. HARTMAN STOCK FARM, Columbus, Ohio. 9-*

Wanted—Single men, good milkers and barn men. Plenty of opportunity for sincere fellows. Apply now. LARSEN'S FERN-DELL FARM, Green Bay, Wis. 9-*

POSITION WANTED

Experienced Herdsman open for position; lifetime with dairy cattle; agricultural school training; good feeder; A. R. work; exhibition; calf raising; certified milk; some veterinary experience; operate Babcock tester. Prefer place where A. R. work is being done. Would accept salary and bonus on records with right kind of herd, or straight salary. State full particulars in first letter. Steady and reliable. Address BOX 394, care Hoard's Dairyman.

Man 34 years of age, married, one child, wishes position as manager of dairy farm. Prefer a place used as summer home for wealthy family. Have experience and references. Hold at present government position. Please write JOHN KOOISTRA, Inspector in charge Immigration Service, Zapata, Texas. 10-2

Position wanted by dairyman where results count. Experienced in production of certified and high class milk. Good calf feeder. Can make official records. Do not use tobacco or liquor. Best of references. Married; no children. Address BOX 383, care Hoard's Dairyman. 10-2

Position as herdsman on large dairy by married man who can assume responsibility and get things done. Life experience in all branches. Efficient and economical. Guernseys preferred. Excellent reference. State wages and details. All letters answered. Address BOX 397, care Hoard's Dairyman.

Single man, lover of good cattle (Holsteins favored), wants position only where good cows are kept. I am a Hollander 44 years of age. No tobacco or liquors. Open for position June 15th. JOHN VAN HEES, Southborough, Mass.

Herdsman, single, age 24, open to take charge of dairy herd. College training, practical experience in calf raising, test cows, showing and production of "Grade A" milk. Address BOX 393, care Hoard's Dairyman.

Man 32 years of age, married, no children, wishes position as herdsman. Twelve years experience in scientific dairying. Wife willing to board help. Best of reference. Address BOX 402, care Hoard's Dairyman.

Position wanted for July 1 or later by experienced farmer as foreman on modern dairy or stock farm. Can board help if necessary. Good references. Make offer in first letter. Address BOX 396, care Hoard's Dairyman.

Young man, experienced creamery bookkeeping, cheesemaking and handling milking machines, desires job in West. References. LE ROY PUFFER, Beaver, Utah.

Position Wanted as manager or foreman on dairy farm. Married, 33 years old, one child. Wife good housekeeper. Experienced in all lines of farming. References furnished. A. NORDGARD, Maiden Rock, Wis.

Herdsman, age 34, single, 10 years experience A. R., general dairy, and calf raising, wishes position with high grade herd. State salary first letter. Address E. H. BROWN, Rockingham, New Hampshire.

Wanted—Position superintendent modern dairy farm or estate. Age 36, married. Fifteen years experience. BOX 314, East Liberty, Pittsburgh, Pa.

New York Champion in Farmers' Division

When a cow makes an average production of sixty-six pounds of butterfat per month for ten months and is only milked twice daily, with ordinary farm care, she deserves a place at the head of the list of profitable producers.

That is just what was done by Crescenda, a pure-bred Guernsey cow owned by G. S. Mawhinney of New York. Beginning her test at the age of nine years and 129 days, she produced 13,154.2 pounds milk containing 661.3 pounds fat in 305 days, and carried a calf for 252 days of that time. This record makes her the world's champion Guernsey for this age and class.—The American Guernsey Cattle Club.

North—"Don't you agree that speed is the curse of America?"

West—"No, I can't say I do. I'm an installment collector!"

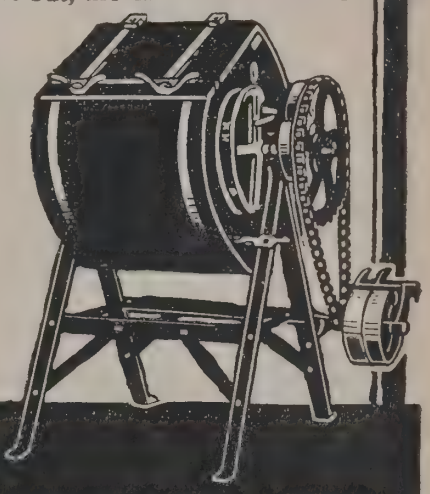
SALE ANNOUNCEMENTS

June 15—Guernseys. Breidablik Guernseys at Auction. Breidablik Farm, Wilmington, Del. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 15-16—The National Ormsby Sale at the Minnesota State Fair Grounds, Minneapolis, Minn. Melin—Petersen Co., Sale Mgrs.
June 16—Guernseys. Louis Merryman's 16th Semi-annual Sale, Timonium, Md. Herrick—Merryman Sales Co., Sparks, Md., Sale Mgrs.
June 21—Holsteins. W. H. Krause Dispersion at Thorp, Wis.
June 22—Edward Yager, Holstein Dispersal, Rice Lake, Wis. W. H. Krause, Thorp, Wis., Mgr.
June 23—Guernseys. Dispersion Sale. Powers Bros., Owen, Wis.
Oct. 6—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.

MINNETONNA
HOME BUTTER MAKER

A WONDERFULLY efficient butter making machine built on the same working principles as the machines used in large creameries, differing only in size and price.

It gets all the butterfat out of the cream. It churns rapidly so the butter comes in from one-half to one-fourth of the time. By simply throwing in clean water and giving a few turns, you remove all buttermilk. Instead of working the moisture *out*, the MINNETONNA works the moisture *in*, so necessary to the flavor and the keeping qualities, and giving an "over-run" (of moisture and salt) of from 20 to 25 per cent above butterfat test. Hence *more* and *better* butter.



Churning capacity 3 to 12 gallons. Working capacity 3 to 20 lbs. Larger sizes up to 100 lbs. capacity.

Write for description and for FREE 320-page catalogue of Dairy Goods.

The CREAMERY PACKAGE MFG. COMPANY
(World's Largest Dairy Supply House)
1245 W. Washington Blvd.,
CHICAGO ILLINOIS
Sale Branches in Principal Cities

CHURNS THE BUTTER AND WORKS IT.

"If—for any reason, the valve chamber on this Milker should be damaged, or get out of order, we will repair or replace it free of charge, during the life of the machine."

What THIS Guarantee Means

19 years ago, the first Hinman Milker carried the above guarantee.

From that day to this, *no Hinman owner has ever had to buy a new valve to replace the original one.*

THIS GUARANTEE MEANS

1. That from the start, the Hinman idea has been to sell *dependable, day-after-day machine milking*—not just a machine.
2. That the Hinman Valve, so simple it hasn't even a spring, *has* to be reliable or we couldn't afford to make that guarantee.
3. That of the two moving parts on the Hinman (aside from power) the only one that needs factory attention to adjust it, is protected by free service *as long as you operate a Hinman Milker.*

Think what that guarantee means! And then get *all* the facts. Find the other reasons why the Hinman is today "the milker most dairymen use."

Send for the Hinman Catalog. Write today.

HINMAN MILKING MACHINE CO.
2nd St., Oneida, N.Y.

HINMAN
PORTABLE GAS ENGINE • STANDARD • PORTABLE ELECTRIC
MILKERS

THE FARRELL HOIST



FOR UNLOADING HAY WITH GAS ENGINE. HAS QUICK RETURN DRUM AND BAND BRAKE. BOTH DRUMS OPERATED FROM LOAD BY ONE ROPE. SEND FOR CIRCULARS.

JOHN FARRELL & SON
NEWTON, SUSSEX CO., N.J.

Keep Milk *Clean* this easy way

For clean milk pays!

At milking time, put Johnson's Filter Cloth over your pail—and keep out hairs and flying bits of dirt. Every time you transfer the milk, filter through Johnson's Filter Cloth. And when you strain the milk into the cans for market—use Johnson's Discs in your strainer.

In appearance—and in bacteria count—you'll have cleaner milk.

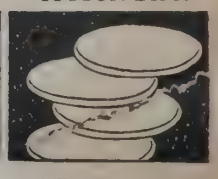
Ask at your dealer's to see these Johnson & Johnson aids to cleaner milk. Or mail this coupon *today!*

JOHNSON & JOHNSON, Dept. H 525, New Brunswick, N. J.
Please send me FREE samples and booklet on your Filter Cloth and Cotton Discs.
Name_____
Address_____

Johnson & Johnson

FILTER CLOTH COTTON DISCS





A Vest Pocket Herd Book is a good investment



CLIP YOUR COWS IT MEANS MORE--

Cleaner and Better Milk.

Easier to keep them clean, make them feel more comfortable and keep dirt out of the milk pail.

CLIPPING improves the health of CATTLE, HORSES, MULES, etc. Use a GILLETTE PORTABLE ELECTRIC CLIPPING MACHINE. Also furnished with GROOMING ATTACHMENTS for cleaning. Operates on the light circuit furnished by any Electric Light & Power Co. or on any make of Farm Lighting Plant.

Price list free on request.

GILLETTE CLIPPING MACHINE CO.
129 West 31st St. Dept. M. New York, N. Y.

THICK, SWOLLEN GLANDS



which make a horse wheeze, roar, have thick wind or choke-down can be reduced with Absorbine. Also other bunches or swellings. No blister, no hair gone, and horse kept at work. It is economical. At druggists, or $2.50 postpaid.

Horse book 3-S free.

A thankful user says: "Completely removed flesh growth on gland about 7 inches diameter. Sincerely thank you for good advice and Absorbine."

ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.

W. F. YOUNG, Inc. 454 Lyman St., Springfield, Mass.



Heaves, Coughs, Condition-er, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.

The Newton Remedy Co.
Toledo, Ohio.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Exposing Cows to Storms

We have been asked whether it does dairy cows any harm to let them stay out when there is a big thunderstorm and a deluge of rain during the summer grazing season. The inquirer is of the opinion that when cows have been accustomed to run on pasture at all times, from early spring, they become hardy and "tough" so that the heavy rain does them no harm and, indeed, is "good for their skins."

We agree that it takes a "tough" cow to withstand such exposure to the elements. The "big thunderstorm" usually comes on during very hot, muggy weather and, in many of such storms, hail falls or the rain becomes icy cold. It is certain that the sudden chilling of the cow's body, during such rains, is highly injurious. Always it means a serious shrink in milk yield and it may be some days before the cow completely recovers. Besides that, there is great danger of losses from lightning stroke. The cows try to find shelter from the cloudburst. They huddle under trees and there are most likely to be shocked, or they drive before the wind until they are held back by a wire fence and there a lightning stroke may kill them by the score. We have seen terrifying pictures of cattle lying dead by such a fence. The wires should have been grounded at short intervals, but there is little use of "locking the stable door after the horse is stolen." The grounding of wires usually is done *after* cattle have been killed. Do it now!

Dairy cows need shade in the pasture. Milk secretion is greatly retarded by long exposure to the hot sun, on a dry, bare-bitten, shadeless, and waterless pasture and yet it is not uncommon to see cattle suffering in such a place. It would be well were there at least an open shed in every permanent pasture to be used by cows during stormy weather, and when no such shed is available it would seem well to bring the cows in when the appearance of the heavens and the "feel of the air" clearly indicate the approach of a severe thunderstorm.

We are strongly of the opinion that exposure to a heavy, cold rain and the added danger from electricity should, so far as possible, be avoided for dairy cows. There can be no benefit and much injury from such exposure. It has even been blamed for causing abortion in some instances and it is during or just after such storms that cows are most subject to anthrax on infected farms; for the water, after a dry spell, activates the germs that have lain dormant in the low places, or washes them on the grass where they may be taken in by cows.

A dairyman who was taken to task by a patron because of the thin, watery quality of the milk he supplied, explained the matter to the newly-wed lady of the house by stating that his cows had been out all night in a heavy downpour of rain and were so saturated that the milk naturally was "thinned out." That, no doubt, was as reasonable to the lady as the explanation of another dairyman to the effect that he put so much milk in the bottles delivered to his customers that the cream had no chance to rise. But, joking apart, the soaking of cows by rain must be considered injurious and causes a shrink in milk yield, but does not add to the normal 87 per cent of water found in milk.

Rudimentary Teats

I have a cow that has a teat on each side of the two back teats. They are about half as long as her teats and are rather in the way when I milk her. Could I remove them while I am milking her or should I wait till she is dry? Could you tell me how they can be taken off?

North Bend, Neb. R. A. D.

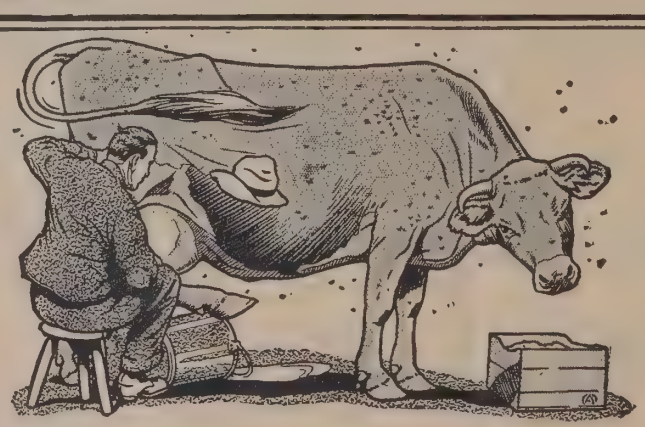
The rudimentary teats should be amputated by a veterinarian when the cow is dry. He will then cauterize the ducts of the small secreting glands to prevent leaking of milk. The amputation is done by means of curved scissors, every possible precaution being taken to prevent infection. The cow should be cast or secured in stocks for the operation.

Goiter

I would appreciate your advice as what is best to do with my calves. I have three calves four months old now. One of them has an enlarged throat and breathes quite heavy and for the last few weeks it is not gaining as fast as the other two of its age. I think it may be goiter trouble. I have two more calves about one week old that I also intend to raise and they also have enlarged throats.

Sheboygan, Wis. M. H. F.

The calves have enlargement of the thyroid gland, constituting goiter. To prevent the disease give each pregnant cow 2 grains of potassium iodide daily in water throughout pregnancy and feed alfalfa or clover hay, silage or roots, a well balanced ration of concentrates, and supply



Dr. Hess Fly Chaser

makes cows milkable

They relax. They let down. You get the last drop.

It is long lasting.

Dr. Hess Fly Chaser has the odor of the pines. Because of this odor it serves a threefold purpose:

First—It is the most effective fly and mosquito repellent known to science—quick in action, long lasting.

Second—It is an excellent disinfectant. Therefore, while it is keeping the flies away, it is also destroying the disease germs that attack your cow's body—disinfecting your barns, and injecting into the atmosphere a most healthful odor.

Third—No herd sprayed with Dr. Hess Fly Chaser ever suffers from warbles, which cause a great annual loss to dairymen and farmers.

It does not blister—does not stain the hair—does not taint milk. Applied to the hands and face, it keeps the mosquitoes away.

If Dr. Hess Fly Chaser does not prevent the milk slump, make your cows milkable in fly-time, save your horse-flesh all summer long, it will not cost you one cent.

DR. HESS & CLARK, Inc., Ashland, Ohio



Are Your Cows Losing Their Calves?



If they are, you are losing money!
You can stop this loss yourself
AT SMALL COST

Write for FREE copy of "The Cattle Specialist," our cattle paper. Answers all questions asked during the past thirty years about this trouble in cows. Let us tell you how to get the "Practical Home Veterinarian", a Live Stock Doctor Book, without cost. Veterinary advice FREE. Write us tonight about your live stock ailments. A POSTAL WILL DO.

Dr. David Roberts Veterinary Co., Inc., 195 Grand Ave., Waukesha, Wis.

Pipe Smoker Enjoys Can of Tobacco Sixteen Years Old

Railroad agent uncovers can of certain tobacco that had been lying in baggage room since 1910

Of course, all good tobacco is aged before it is packed, but here is a case of "aged in the can."

On the strength of Mr. McDonald's letter we certainly owe our packing department a vote of commendation. For no tobacco could retain its flavor and goodness lying in a dark, musty corner for sixteen years unless it had been properly packed in an absolutely airtight can.

So while someone was deprived of this particular can of tobacco for sixteen years, it did provide smoke enjoyment for an appreciative railroad cashier when it finally came to light.

Mr. McDonald's letter is reproduced below:

Waxahachie, Texas
May 18, 1926

Larus & Bro. Co.
Richmond, Va.
Gentlemen:

The agent while going through his plunder stored in our baggage room came across a can of your tobacco, and account of his not using a pipe he made me a present of this tobacco.

You will note the revenue stamp and your memo which was inclosed. The tobacco was put up in 1910, sixteen years ago. But it was in good shape, of remarkable flavor, and was greatly enjoyed by me.

Thought you would be interested in knowing how your tobacco held out in these days of fast living.

Yours very truly,
(signed) Gordon McDonald.

Pipe smokers prefer Edgeworth for various reasons. Some like it because its quality never changes. Some like it because of its flavor. Others smoke it because they can buy it wherever and whenever they like. Now, Mr. McDonald adds another reason—the quality and flavor of Edgeworth are sealed up everlastingly in the can.

To those who have never tried Edgeworth we make this offer:



Let us send you free samples of Edgeworth so that you may put it to the pipe test. If you like the sample you'll like Edgeworth wherever and whenever you buy it, for it never changes in quality.

Write your name and address to Larus & Brother Company, 15 S. 21st Street, Richmond, Va.

We'll be grateful for the name and address of your tobacco dealer, too, if you care to add them.

Edgeworth is sold in various sizes to suit the needs and means of all purchasers. Both Edgeworth Plug Slice and Edgeworth Ready-Rubbed are packed in small, pocket-size packages, in handsome humidors holding a pound, and also in several handy sizes between sizes.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Edgeworth Ready-Rubbed for the same price you would pay the jobber.

On your radio—tune in on WRVA, Richmond, Va.—the Edgeworth Station. Wave length 256 meters.

ls. For full particulars study ns on minerals for live stock you can obtain from the state ment station at Madison. Paint largement with tincture of 2 or 3 times a week. Give the h-old calf 5 grains of potas- odide daily in water and the affected calves 2 grains of the laily. Stop the treatment for if the eyes and nostrils start ging.

Chemical Dehorning

like very much to know how to use n preventing the growth of horns in Kindly advise me as to what form or caustic to use and at what age it e done.
der, Minn. H. S. S.

revent growth of horns, shave ir from the skin over the horn s when the calf is not over one old; dampen the skin immedi- ver the horn buttons and ap- d or vaseline to the skin away hat part; then rub the damp- kin with a stick of caustic pot- til ready to bleed. Wrap one the caustic with thick paper so wear an old glove to pro- e skin. Be careful not to get n so wet that some of the caus- l run down and get into the Blindness sometimes has been in that way.

Barrenness

e a five-year-old Holstein cow that h coming in heat every three weeks r. I had a veterinarian examine her nassaged the ovaries from the rectum. e examination it showed that she open too much or too little. After examined her she came in heat every about two weeks. Now she is getting her regular time but she does not stick.
a, Ia. A. & C.

s the womb that is at fault, t the ovaries, in a majority of where the cow comes in heat ular periods but does not con- e when bred. The infection flammation may either be in k of the womb (cervix) or in mb proper (uterus) and treat- t by douching with antiseptic ns, etc., will have to be ap- ntil normal conditions are re- e If the cow is valuable it may have such treatment given, re is no absolute certainty of . Isolate the cow while she r treatment.

Leaking of Milk

e of your issues I saw an article cure or treatment for a cow that r milk. I lost the paper it was in, e send me what to use.
, Ill. E. D. Y.

h teats possibly may stop leak- i you immerse them night and g in water containing one f tannic acid per cup, or in a solution of alum. If that does fice dip the tip of each teat in- ture of iodine and repeat the treatment when seen to be necessary. Discontinue the applications if the teats become sore. In chronic cases letting a calf nurse may have to be tried or the secretion dried off and the cow fitted for the butcher.

JERSEYS

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

FOR SALE

JUNIOR 2-YEAR-OLD JERSEY BULL
PLYMOUTH'S FOXY PENNITHORPE, 253566, Tattoo M88
Dropped December 24, 1925. Broken color, white tongue and switch. The dam of this bull is Cowslip's Golden Plymouth 421380 in R. of M. with 588.4 lbs. butter as a two-year-old. Both grandams of this bull are heavy producing R. of M. cows, one of which milked 1823 lbs. of milk in May, 1922, an average of nearly 60 lbs. per day.
PRICE $200 F. O. B. our Station
Herd accredited and free of abortion.
Send for pedigree.
RAVINE FARM Estab. 1913 Prairie View, Ill.
Breeders of Purebred Jersey Cattle

"SYBILS and MAJESTYS"

Two heifers bred to freshen in September. One out of a Majesty bred dam, and sired by double grandson of Oxford Majesty. The other out of a Majesty bred dam, and sired by a grandson of both "Sybils Gamboge" and "Oxford You'll Do." Both solid fawn, well grown and good type. Write for particulars.

CEYLON COURT FARM,
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

Easton Farm

-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

JERSEY BULL

Dropped September 22, 1926, solid color, good type, sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.
AMBERG FARM, HILLSBORO, WIS.

Belswood Jerseys

A. F. Bloch, Waukesha, Wis.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

High Production, Low Feed Cost



In 1926 ALL JERSEYS officially tested for 365 days AVERAGED 10,209 LBS. OF MILK, 545.20 LBS. OF BUTTERFAT.

You *can* have heavy production of high quality milk in your herd without a heavy outlay. Jerseys purchased at present prices will prove to be a very profitable investment. Prices are moderate and Jerseys produce at a remarkably low feed cost.

Write today for free information on Jersey cattle. Assistance in locating stock may also be obtained without cost.

E AMERICAN JERSEY CATTLE CLUB, Dept. B, 324 West 23d Street, NEW YORK

Jersey Bull Calves

offering at reasonable prices a few bull calves sired by Vive La France's Darling Son of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, Jersey cow to make 1000 lbs. butterfat.
OLDEN GLOW JERSEY FARM KENSINGTON, MD.

WHITE COLLIE PUPPIES

We are expecting another litter of white Collie puppies about June first. If you intend to buy a dog this summer we suggest you act promptly as our supply is limited. All dogs eligible for registration. We will furnish necessary papers for registering if required. Price F. O. B. Fort Atkinson: Females $10.00, males $15.00.

HOARD'S DAIRYMAN FARM
Fort Atkinson, Wisconsin

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM

MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)
Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

20 years may be a long time, but—
74.4% of Hoard's Dairyman's live stock advertisers have been advertising regularly for from 2 to 20 years

AYRSHIRES

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 3 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.

ALDEBARAN FARM, E. J. Nelson, Mgr., Racine, Wis.

Spring Valley AYRSHIRES

Accredited Herd
Foundation FEMALES - BULLS
For Sale At All Times!

Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL
AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us.
Herd under Federal Supervision.
SYCAMORE FARMS, Douglassville, Berks Co., Pa.

Penshurst Ayrshires

HEALTH—PRODUCTION—QUALITY
Ours is the first tuberculosis accredited herd in the state and the sixth accredited abortion free. Every cow in the herd is on test. 100 A. R. records made at Penshurst average 14,036 lbs. milk, 567 lbs. fat. Foundation Ayrshires, guaranteed healthy, for sale.
PENSHURST FARM, NARBERTH, PA.

A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.
GLEN FOERD FARMS TORRESDALE, PA.

South Farm Ayrshires

Will sell a limited number of Young HEIFERS and BULLS.
Let us know your wants.
SOUTH FARM, Willoughby, Ohio

AYRSHIRE COWS

FULLY ACCREDITED
300 Head in the Herd
Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.
ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

A Fitting Head for Your Herd



No bull is better qualified to head your herd than an Ayrshire. His daughters will prove deep-milking cows that are an improvement over their dams in both type and production—and Ayrshire milk brings the high dollar.

Even the calves of an Ayrshire bull make market-topping veal.

Herd Improvement Begins When the First Ayrshire Steps on Your Farm.

Write for free booklets and list of herds to visit near you.

AYRSHIRE BREEDERS' ASSOCIATION
10 Center St., BRANDON, VT.

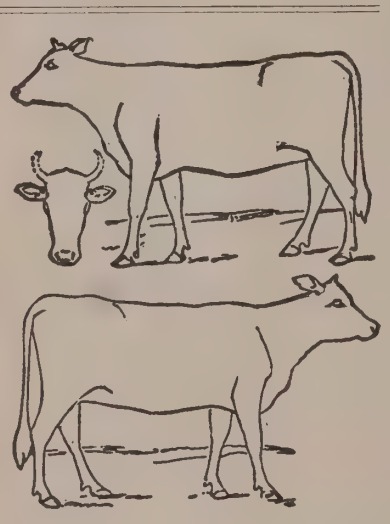
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Name_____

Born_____ No._____

Record_____ lbs. M_____ F_____ Age

Record_____ lbs. M_____ F_____ Age

Sire_____

Dam_____

Record_____ lbs. M_____ F_____ Age

Bred to_____ Due_____

Bred to_____ Due_____

Regular Size 3x5 inches

Order Your's NOW!

PRICE $2.00
Postpaid

HOARD'S DAIRYMAN
FORT ATKINSON WISCONSIN

Herd Report of E. A. Miller, Minnesota

Cow's No.	Cow's age Yrs.	Mos.	Days in milk	Lbs. milk	Lbs. fat	Value fat	Value skim-milk		Value of calf	Cost of feed	Cost barn room	Labor 50c per hr.	Profit per cow
1	6	11	307	8,299	464.0	$ 236.33	$ 24.90	B	$10.00	$ 65.44	$ 24.00	$ 80.00	$101.79
2	4	10	313	7,453	436.1	229.12	22.35	H	15.00	62.13	24.00	75.00	105.34
3	3	1	342	8,071	356.9	173.48	24.21	H	10.00	60.06	24.00	75.00	48.63
4	2	5	332	6,238	329.5	175.25	18.71	H	10.00	58.47	24.00	77.50	43.99
5	4	5	120	2,374	131.2	64.91	7.12			28.50	8.00	25.00	10.53
6	1	9	241	5,691	300.5	156.19	17.07	B	1.00	33.54	16.00	50.00	74.72
Total				38,126	2,018.2	$1,035.28	$114.36		$46.00	$308.14	$120.00	$382.50	

(Cow No. 5 sold May 1st. Cow No. 6 fresh May 1st)

Sold butterfat to creamery	$ 934.14
Sold to five calves (estimate)	20.00
Sold to two Tom cats	7.00
Sold to household 500 quarts	30.00
Left in cans at creamery, natural shrink, spilled, and variation	44.14
Total	$1,035.28

Total value	$1,195.64
Total cost	810.64
Profit	$ 385.00

This is all twice-a-day milking, except a total of 36 days of different cows.

Labor bill looks a little large, but had to do a considerable lot of rummaging last summer to keep cows from starving. Feed cost is considerably higher than usual, due to failure of pastures.

Cows No. 2 and No. 6 are full sisters, and out of Cow No. 1. Cow Nos. 1, 2, and 6 have earned a permanent place, as each has paid for itself before three years of age; so they cost 00, worth $200. Cow No. 3 is hanging on in a very precarious condition, as there are five heifers looking for a permanent home in the herd. Cow No. 4 is on a safe margin, so far. Cow No. 5 was a $75 cow with a $200 pedigree so she was sent bye-bye. There are too many of that kind not only in this county but all over the U. S. A.

One of the important things to consider is the selling of the skimmilk. Porkers at $12.00 per hundred will pay 75c to 90c per hundred for it. In moderate quantities where milk is fed to larger hogs, 35c to 40c is about all that it can be figured to be worth. The difference between failure and success in farming is often found in not having enough hogs to make good use of the surplus skimmilk.

Biblical Butter

Butter wherever it occurs in the Bible is chemah, signifying curdled milk. In Deut. XXXII, 15, we find, among the blessings which Jeshurum had enjoyed, milk of kine contrasted with milk of sheep. Butter was much in use among the Hebrews and was prepared as is done today by the Arabs and Syrians, but it was not used by the Greeks and Romans except for medicinal purposes.

The Arabs of Hejaz put milk in a large copper pan over a slow fire and a little sour milk or portion of the dried entrails of a lamb is thrown in. Milk then separates and is put in a goat skin bag, which is tied to one of the tent poles and constantly moved back and forth two hours. The buttery substance then coagulates, the water is pressed out, and the butter put into another skin. In two days the butter is again placed over the fire with the addition of a portion of burgoul (wheat boiled with leaves and dried in the sun) and allowed to boil for some time, during which it is carefully skimmed. It is then found that the burgoul has precipitated all foreign substances and that the butter remains quite clear at the top. This is the process used by the Bedouins, and is also employed by the settled people of Syria and Arabia. The chief difference is that, in making butter and cheese, the townspeople employ the milk of cows and buffaloes, whereas the Bedouins, who do not keep these animals, use that of sheep and goats. The butter is generally white, of the color and consistency of lard, and is not much relished by English travelers. It is eaten with bread in large quantities by those who can afford it, being taken in a mass with a morsel of bread and not spread as with us.

The butter of the Hebrews might have been sometimes clarified and preserved in skins and jars as at the present day in Asia, and, when poured out, resembles rich oil (Job XX, 17). It acquires a rancid taste that is liked by the natives. All Arab food considered well prepared swims in butter and large quantities are eaten independently of other food.

Butter and honey were used together and were esteemed among the richest productions of the land (Isa. VII, 15) and Arabs use cream or new butter mixed with honey as a principal delicacy.

The Alberta Dairy Pool

In its first year of operation, 1926, the Alberta Co-operative Dairy Producers, Ltd., Edmonton, received from its members 2,575,565 pounds butterfat, for which the members received $814,962, or about 32 cents a pound. From this quantity of butterfat the 12 creameries manufactured 3,118,700 pounds of butter which was sold for $1,039,927, an average of about 33 cents a pound. Cost of manufacturing came to $235,821, and the net loss was $5,057.

Early in the year the management of the new organization realized that it was to be forced to meet competition and decided to limit the operations of the Pool to 12 creameries. Two of the 12 did not operate as Pool creameries until May. This resulted in a lower average price for the year as prices are high during the first four months.

At the beginning of 1926 the membership stood at 3,547, and at the end of the year it was 6,456, a gain of 2,909. Most of the organization work was done in the territory surrounding the 12 creameries.

Numerous requests and petitions for Pool facilities have been received during the year and because of these demands the board of directors is negotiating with certain commercial creameries to operate as Pool creameries this year. The first step toward ownership of creameries has been taken at Eckville where a creamery is being built.—Agricultural Co-operation.

Old Lady: "You can't be so poor, my good man, if you wear spats."

Tramp (sadly): "Ma'm, these are suede shoes with the soles worn off."

GUERNSEYS

Every New Moon Sees a Thousand New Guernsey Bull

What chance has the scrub bu against odds like these? Ever month our breeders sell ov 1000 pure bred Guernsey bulls

If you're not interested, te your neighbor about it. He ma need one of these good bulls help increase his profits.

Ask for "The Story of the Guernsey"

The AMERICAN GUERNSE CATTLE CLUB
8 Grove Street PETERBORO, N

BARGAIN BULLS *prod* **CLASS LEADERS**
Guernsey Breeders' Journal says in Fe issue—OUR NEW CLASS LEADERS— Silverwood's Diana, 20,006 lbs. mil Sire:—BROOKMEAD'S BANNER A. *Sold sight unseen as a youngster.*
Write for Sales List
BROOKMEAD FARM, 526 Land Title Bldg., PHILADE

Bargains in Bull Cal
A TWO-CENT STAMP CAN SAVE YO
From $100.00 to $500.00
WRITE FOR SALES LIST—FINEST B
Lines—May Rose through King of the Golden Secret, Langwater Cavalier; founder, France, Glenwoods. Greatest of herd sires in any herd. A. R. reco to 800 lbs. fat.
WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphi

PENNCREST FAR
ACCREDITED HERD 36876
WALTER SMEDLEY, OWNER
Senior Herd Sire, Lancastrian No. 37057, pro by authorities as the best son, individually, of Ultra, whose offspring, for a number of yea have invariably topped the sales of major imp Near descendants of this great sire are ha harder to secure, and in the near future will uable acquisitions. Breeders desiring the best in this blood will do well to investigate, as offering stock at the right price. Address inq
WM. P. SMEDLEY, MGR., MED.

PROVINCE LINE FAR
BULL CALVES from 2 months to year Sired by our great bull, Langwater Bra and from high producing A. R. dams. grees and prices furnished on applica Federal Accredited. Certificate No. 115
J. W. MILLER, Owner, Box 73, PRINCETON, I

FOUNDATION GUERNS
FOR SALE, FROM A CLEAN H
Langwater Juvis, a son of Langwate rior from a good record May Rose m our senior sire. We have for sale a f class registered cows and heifers as some excellent young bulls. They are to sell. Write.
ELM FARM, DEERFIEL

Thorn Hill Farm Guernsy

Have several high class sey bulls at reasonable May Rose and Glenwood ing. Dams have record 700 lbs. of fat. Write f list to
AUGUST ZIESING, Deerfield,

When writing an advertise him you saw his ad in Ho Dairyman. He will appre knowing it.

'OREMOST GUERNSEYS

have for sale, bulls ready or service and bull calves.
ghty-three A. R. Cows in the erd average 11,643 lbs. milk, 01 lbs. fat.
e dams of our four herd sires verage 14,058 lbs. milk, 730.5 bs. fat.
st as well breed cows with igh production and proper ype.
remost Guernseys have won 69 prizes in the past three ears at State and National Shows including Premier Exibitor of 1924-'25-'26.
will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
EWELL JUNCTION (Dutchess Co.) N. Y.
. PENNEY, Prop. JIMMY DODGE, Mgr.

uernsey Heifers FOR SALE

very best breeding. Accred- Herd. Write for information.
TO W. POST, Ensenore, N. Y.

nie Brae Guernseys

Sire—Itchen King 49803 A. R. of 8 A. R. Daughters that will ge 640 lbs. fat. Sons of Itchen for sale out of A. R. Dams of ar breeding. Priced reasonable.
NIE BRAE FARM, Clinton, N. Y.

JTTERGOLD UERNSEYS


HERD SIRE

deral Accredited
No Abortion

ering TWO CHOICE TYPY BULLS sired 1922 National Grand Champion and out of ed dams, born last August and November. o choice senior heifer show calves out of ed dams and sired by son of National and Champion whose dam has just comted a record of over 700 lbs. fat, not yet ified. Boss' daughters on test are doing y well. One in A is going at 800-lb. clip, s made as high as 3.26 lbs. fat in one day d retest requirements her 4th, 5th, 6th mos.
RR BROS., NEW AUBURN, WIS.

TYPE Plus PRODUCTION
OFFERING
OREWOOD ULTRA CHERUB. Born Aust, 1926. An excellent individual, almost id fawn, well grown. Double grandson of dysmith's Cherub 30760. SIRE—Cherub's yal Leader of Shorewood 74296 whose daughs are doing splendidly on test. DAM—Cher-'s Ultra May Rose of Shorewood 83707 Granddughter of Ne Plus Ultra A. R. record 11314 . milk 581 lbs. fat Class D. Here is Breed- and Individuality that will suit the most criminating. Pedigree and price on request.
Buy Ladysmith Cherub Blood
IOREWOOD FARM, Crystal Bay, Minn.

ADISSON FARM GUERNSEYS

are offering at attractive prices a few t bulls sired by RADISSON'S GOLDEN ALIST 91632, whose get was awarded prize at Dairy Cattle Congress in 1926. a son of GOLDEN CORONET OF JEAN LUTH 81283, world's champion Guernsey ass AA, 968.80 lbs. fat.
E. IVERSON, Herdsman,
Hotel Radisson, MINNEAPOLIS, MINN.

GUERNSEY BULLS

MAY ROSE GOLDEN SECRET and NE LUS ULTRA breeding. Write for descripons and prices. Dams are official tested. ccredited herd.
IAHER & MAHER, Devils Lake, No. Dak.

JR GUERNSEY SIRES

nbine Type and Production
INCE CHARMING OF SHUTTLEWICK. Dam, lewick Levity, 804.44 lbs. fat at 2 yrs. Sold for 0. Her dam, Langwater Levity, grand champion 923 National. CINDERELLA'S FAME OF ND CITY. Dam, Cinderella's Josephine, 909 lbs. YOUNG BULLS for sale by these sires and from dams; also a few bred and open heifers. Aced herd. Write.
LINWOOD GUERNSEY FARM
r Rundell, Owner, Livingston, Wis.

BREIDABLIK FARM

Wilmington — Delaware

Public Auction

50 SELECTED GUERNSEYS

JUNE 15, 1927

Included in this lot are 5 sons of Cherub's Nonpareil of the Prairie from A. R. dams. 12 daughters of Cherub's Nonpareil of the Prairie from A. R. dams. Also a number of Advanced Register cows, cows on test, and bred heifers sired by our former herd sires, Langwater Poilu 52117 and Brookmead's Taurus of Breidablik 47887.

Herd Federally Tested and Negative to Blood Test

Write for Catalog

Owner— H. J. KREBS
Manager— J. P. BROADHURST

Your Next Herd Sire Need Not Be Expensive

But he must improve your Production and Individuality

WRITE FOR OUR LIST OF BULL CALVES

They will interest you!

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
MARQUETTE MICHIGAN

MOUND CITY FARM

Offers For Sale — GUERNSEY BULL

ready for service. Sire, Prince Charming of Shuttlewick, a son of Shuttlewick Levity, record of 804 lbs. fat at two years of age and sold for $25,000, the record price for a female of the breed. Dam of calf is daughter of Lone Pine Absolute A. R. whose three nearest dams' records average 890 lbs. fat.

Younger bulls sired by Lone Pine Absolute and Cinderella's Fame of Mound City whose dam's record is 909 lbs. fat.

Write your bull wants to

CHAS. A. WILKINS, PLATTEVILLE, WIS.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

GEO. E. LARSON, AMHERST JCT., WIS.

HERD SIRE FOR SALE

Valentine's Count of Four Pines, my 4-year-old, line bred grandson of King of Chilmark, is for sale. A splendid bull with good type and backed by excellent production. Guaranteed right. Clean herd.

J. M. HARVEY, R. 2, WAUKESHA, WIS.

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

GUERNSEY DISPERSION SALE — 50 Head Registered Guernseys

THURSDAY
JUNE 23rd
1 o'clock sharp.
Catalogs ready June 10. Write

ENTIRE HERD TO BE SOLD AT AUCTION — This Herd, Male and Female, represent Nineteen Years of Constructive Breeding

FORTY HEAD OF FEMALES, some with A. R. records, a number of heifers and young cows are sired by the herd sire, Rex of Maple Heights, 71367. Herd Federal Accredited and free from abortion. Excellent railroad service, farm on state highway. Write for catalogs to

POWERS BROS. Owen, Wisconsin

SERVICEABLE BULL — Show Type

FROM A CLASS LEADER DAM

I am offering Dairydette's Cherub of Chippewa for sale. Born Feb. 20, 1926. A growthy show prospect good enough to suit anyone. His dam, Dairydette's Verena of Chippewa A. R. 697.87 lbs. fat in EE is eighth in her class and first in both E and EE in Wisconsin. His sire, Proud Prince of the Prairie, a son of Cherub's Prince, was a prize winner at the 1921 and 1923 Dairy Shows. Write today if you are interested in a good herd sire prospect.

L. P. MARTINY, Chippewa Falls, Wisconsin

CORIUM GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

GUERNSEYS

Good proven BULLS or Good YOUNG BULLS at prices you want to pay. Write

LARSEN'S FERN-DELL GUERNSEY FARMS A. W. FOX Manager Green Bay, Wis.

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

BUY HOLLISTON SIRES

LANGWATER HOLLISTON, our famous senior herd sire, now has 23 A. R. daughters and 7 A. R. sons. His daughters are unusually persistent milkers and have what many call the foundation type and character. Langwater Holliston is out of a superior daughter of Imp. King of the May and he is sired by Jethro's May King of Linda Vista.

NOW OFFERING FOR SALE TWO YOUNG BULL CALVES
that will be ready for service next winter. Dam of one now on test will make 600 lbs. fat. Dam of other made 583 lbs. fat in GG.

D. G. TENNEY, 15 West Fourth St., NEW YORK CITY
FARMS AT SALEM, N. H., AND METHUEN, MASS.

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

HELENDALE GUERNSEYS

TYPY BULL CALVES

of best of breeding and from producing cows, for sale at moderate prices. Herd Federal Accredited and free of abortion.

HELENDALE FARM. Athens, Wisconsin

Luxerin Guernseys

(SHERIDAN'S)

FOND DU LAC WISCONSIN

We sold bull (best bred Glenwood bull calf of the breed; four nearest dams ave. 819 fat) to E. H. Fahrney, Oshkosh, for $1000.00 and seven other high class bull calves in past two weeks.

WE ARE OUT OF BULLS EXCEPT A FEW CALVES. No females for sale now, either.

Our close acquaintance with practically every Guernsey herd in five counties around here might be of value to you in helping you select what you want.

Springers and Fresh Cows

HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

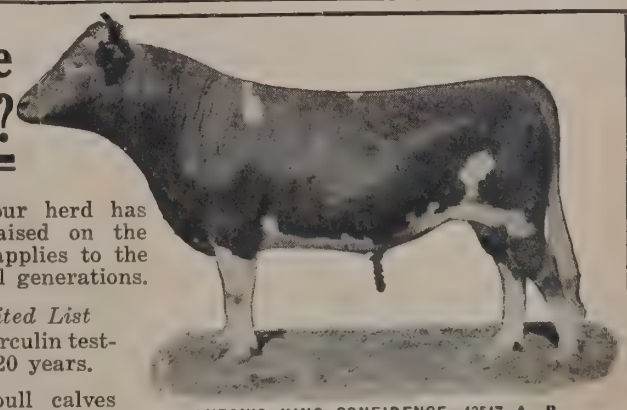
Need a Sire Next Fall?

Every female in our herd has been bred and raised on the farm. The same applies to the females for several generations.

Herd on Accredited List
Has also been tuberculin tested for more than 20 years.

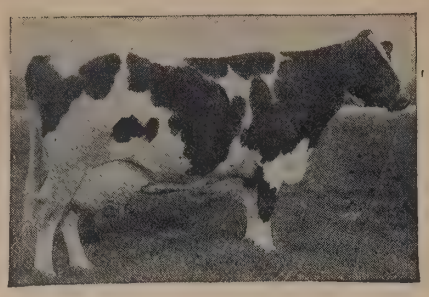
We believe our bull calves are well worth your consideration if you want a bull calf that will improve your herd.

HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production. His first nineteen A. R. daughters average 8739.4 lbs. milk and 422.8 lbs. butterfat on two time milking and herd rations at the average age of three and one-nineteenth years.



TILLAMOOK DAISY
BUTTER KING
DE KOL

"The highest record National Champion of our breed or in fact of any breed is Tillamook Daisy Butter King De Kol. She has a 7-day record of 815.1 pounds of milk, 31.38 pounds of butter, and as a senior 4-year-old made the splendid yearly record of 32,488.4 pounds of milk, 997.40 pounds fat."
—*Type And Production Book.*

You Can Buy Her Full Brother Or Her Line Bred Son

We have been using the full brother of Tillamook Daisy Butter King De Kol on our herd. We believe he is as desirable a bull as can be purchased for the man who wants type and production, and wants to invest less than $1000 in a herd sire. His first daughter to freshen in the Carnation herd is milking 100 pounds a day right now. He was seven years old on May 15th.

We are using the son of Tillamook Daisy Butter King De Kol (sired by her sire) on our herd right now. We don't use a bull unless we know a good deal about him. This bull is as near an ideal herd sire as can be purchased at any price. It will pay you to investigate this bull.

We have followed five generations of this breeding, and we have yet to see one animal that is ordinary as a producer or as an individual in the entire five generations.

There is seldom a chance to buy a bull like this—fully guaranteed and bearing the stamp of our highest recommendation.

Write At Once For Details

Address all correspondence to

611-A CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Sterling Creek Farm Dispersion Sale
JUNE 21, 1927, THORP, WIS.

75 HEAD PUREBRED HOLSTEIN CATTLE — 2 HEAD PUREBRED GUERNSEY

Cows with over 600 lbs. fat in C. T. A.—two milkings per day. Many with A. R. O. records.

35 young cows—milking and others due at sale time.

10 heifers bred to freshen in October and November.

15 calves and open heifers.

15 bulls, 2 months to 9 months. (Well grown and good individuals.

This is a clean sweep sale—all our foundation families. Car Roys, Prospects and Duchess families—Ormsby and King Seg. Pontiac Breeding. Backed by forty years of selective mating.

Herd Fully Accredited — Abortion Fre

Horses and Machinery in A. M. — Catalogs Ready

AUCTIONEERS—MACK AND POHLMAN — PEDIGREES—EVERSO

STERLING CREEK FARM, W. H. Krause & Son, Props., Thorp, (Clark Co.) Wiscons

EDW. YAGER SALE AT RICE LAKE, WIS., ON JUNE 22

Dairymen!

We are now in a position to furnish carloads of springing and fresh dairy cows and heifers — all breeds — from modified accredited counties. Can also furnish pure bred bulls, and high quality pure bred and grade heifer calves at reasonable prices.

We invite your patronage. You can save *time* and *money* by buying direct through the

CHICAGO DAIRY COW EXCHANGE, Inc.
Reid Murray, - Manager
Union Stock Yards, CHICAGO, ILL.

Last Reminder!



150 HEAD

All descendants of Pieter Maid Ormsby, the greate foundation cow of her time.

120 Females

including 1000-lb. cows, daug ters of 1000-lb. cows, fre cows, springers, yearlings a calves.

30 Bulls

12 from 1000-lb. cows a many others from heifers wi 1000-lb. equivalent. All ag from calves to mature sires.

Tuberculin Tested -- Retest Privile

Don't Miss This Sale

Sir Bess Ormsby Fobes

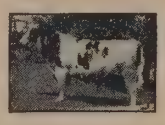
Head Your Herd With a "Sir Bess" Bull

We have for sale a few very good young bulls by Sir Bess or from Sir Bess daughters and by Creation. If you want breeding, type, and long time production we are sure one of them will suit you. Write us or come to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) **DOUSMAN, WIS.**
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

NORRIS FARMS *Now Offering* — a September '26 CALF whose two nearest maternal dams have over 31 lbs. Dam now on year test. Sire, a well-bred Creator-Prilly bull. Write for all details of a mighty good calf. **NORRIS FARMS (Fully Accredited) Mukwonago, Wis.**

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

ABORTION FREE HOMESTEADS

We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.

T. B. under Federal Supervision.

MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager.

Milford Meadows

Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.

Ask us about them.

W. W. KINYON, LAKE MILLS, WIS.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to **A. F. GAFKE, secretary, JEFFERSON, WIS.**

HOLSTEIN Bulls - Females

YOUR PICK OF 150 HEAD. Abortion tested and T. B. free. First prize National Dairy Show, 36-lb. Ollie bull, also Pietertje Ormsby Mercedes Della, sire of World's Champions.

F. H. BOYLE, Prop., L. F. Murphy, Mgr., PEEBLES, WIS.

Sheboygan County For Holsteins

85% of all cattle in county are Holsteins. Over 200 fine Federal tested herds to select from. Full time field man is at buyers' service. Write or come if you want good Holsteins.

SHEBOYGAN COUNTY HOLSTEIN ASS'N
Arthur V. Jensen, Fieldman, Plymouth, Wis.

Dicmere Holsteins

30-LB. SHOW BULL

We are offering a very typy January calf from a 30-lb. 3-year-old dam. His sire, Walcowis Ollie Abbekirk, is a 968-lb. son of that grand champion, Iowana Sir Ollie. The herd is federal accredited. Write today if you want a good bull at a reasonable price.

H. E. DICKINSON, Oconomowoc, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Holstein Service Bull

29-lb. dam. Sire, full brother to former world's record 2-year-old. Other bulls and heifers highly bred. Herd accredited and abortion tested.

HARRY O. KIMMEL,
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STATE and FEDERAL TESTED HOLSTEINS

BUY FROM AN AREA TESTED COUNTY

The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.

Write or wire for information or appointments.

WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

SERVICEABLE BULLS

GRAND CHAMPION BREEDING

Two serviceable bulls for sale. Very typy. From 23-lb. Jr. 3-yr.-old and 24-lb. 4-yr.-old dams. One is by the All-American Johanna Rag Apple Pabst. The other by Walcowis Sir Ollie from a daughter of Johanna Rag Apple Pabst. Have also a few bull calves of the same breeding. Federal accredited herd. Write

JOS. E. PIEK, R. 5, HARTFORD, WIS.

SERVICEABLE BULLS — FOUNDATION HEIFERS

Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.

BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y, Watertown, Wis.

YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write

SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

JUNE 22 At 1 P. M. JUNE
YAGER'S DISPERSAL SA

at farm 7 miles N. E. of

RICE LAKE, WISCONSIN

Accredited herd of 40 head, headed by show son of a show bull Sir Inka May

Remember the W. H. Krause Sale June

JEFFERSON COUNTY HOLSTE

Registered and Grade Cows

Do you want registered or grade cows? to Jefferson County to make your sel whether you want one or a car load. have good ones for sale at farmers' p Area tested county. Full time fieldma your service.

JEFFERSON COUNTY HOLSTEIN BREEDERS' A
C. W. Clingan, Field Sec., Ft. Atkinson,

20 years may be a long time, but —

74.4% of Hoard's Dairyman's live stock advertis ers have been advertising regularly for from to 20 years



Write for our booklet—
"The Holstein-Friesian Cow"

HOLSTEINS

are producers of

BUTTERFAT

Holsteins lead the world in production of butterfat—the largest factor in dairy profit. Eighty per cent of the cows which have produced 1,000 lbs. or more of butterfat in a year are Holsteins.

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The HOLSTEIN-FRIESIAN Association of America

0 E. Ohio St. **CHICAGO**
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re in the market for grade or registered Hol-om tested herds write us today.
LINOIS HOLSTEIN-FRIESIAN ASSN.
Dearborn, St., CHICAGO, ILL.

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rmsby-Homestead Bulls

ve for sale 2 very good calves born and Dec. 27, sired by Rawleigh Ormsby je Posch, our 41-lb. Ormsby sire. They m 24- and 25-lb. 4-year-old Homestead with good year records, one a state cow. Priced to sell. The herd is Write
IE W. T. RAWLEIGH COMPANY
Rawleigh's Ideal Farm, FREEPORT, ILL.

TAKE TIME!!

are saving $50 to $100 by purchasing st summer Holstein bull calves NOW. on better. Every cow has C. T. A. Many have official records. Some sired by 1,138-lb. bull whose dam tested .2%. A card brings list.

ck River Farms, Byron, Ill

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ialo Creek Farm Holsteins

re offering BULL CALVES rich in y breeding from tested dams. These rom six to eleven months old. Some as low as $100.00. Write for pedigrees urther information. Herd under federal rision.
HAM BROS., Arlington Heights, Ill.

ULL BORN SEPT. 23, '26

f a 24-lb. two-year-old with 460 lbs. of He is sired by a good proven bull. He is ¾ white and a real individual. Send edigree and price.
ELLWOOD & NELSON
ALB ILLINOIS

YDE PARK FARM

OS PARK, - ILLINOIS
Offers BULL CALVES
by an outstanding 35-lb. son of Mata-from Fully Accredited Registered Yr. with leading cow testing association ds. $100.00 up for typy individuals.
A. CARROLL WILLIAM EDGAR
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ligh Grade Holstein Springers

f in the market for big production hese cows will please you. Tuberculin ested. Address
IVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

OHIO HOLSTEINS

gistered COWS, HEIFERS and BULLS. ry choice Calf Club CALVES. We have two es agents in the field all the time who can te care of all orders in fine shape. All in-iries are referred to our entire membership.
OHIO HOLSTEIN-FRIESIAN ASS'N
29 E. 102nd St. Cleveland, Ohio.

K. P. O. P. Bulls

you will need a new sire dur-g the next year get in touch ith us. We can offer you just hat you want.
ARGROVE & ARNOLD, Norwalk, Iowa

S VICEABLE 30-LB. BULL and BULL CALVES
P. O. P. breeding. Sons of Rival King Ormsby edes, his dam world's champion in Class C. er Federal Supervision. If you want show type and production write
E. FERGUSON, LAURENS, IOWA.

A SON OF

PRIDE OF SIR PIETS

FOR SALE

Born Jan. 12, 1927. A very typy calf, well marked and bred in the purple. If you will need a bull next winter buy this calf and save money.

His Sire:

PRIDE OF SIR PIETS, is a senior sire at Femco Farms. His dam is the highest record daughter of "37th" with 1327 pounds as a 3-year-old. His sire is a 42-lb. son of the famous sire, K. P. O. P. Eight 2-year-old daughters of Pride of Sir Piets have made from 20 to 33 lbs. His first 2-year-old to finish a year record made 908 lbs.

His Dam:

SOUTHSIDE CLARA ORMSBY, a splendid individual now making fine year record. Her sire is by a son of Pietertje Maid Ormsby and her dam is a 25-lb. 3-year-old daughter of a 31-lb. cow and a granddaughter of Oak De Kol Ollie Homestead, twice Grand Champion at the National Dairy Show.

Price for immediate sale.....$200.00

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

---

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.
CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.
C. L. SPAULDING, MGR., Warren, Minn.

A GOOD BABY BULL

Sired by ST. OLAF ORMSBY SENSATION No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write
ST. OLAF COLLEGE FARMS, Northfield, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.
NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

STEELE COUNTY HOLSTEINS

are noted for their size, type and production. Pure-breds or grades. One or a carload.
GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

Akona Holstein Farm

Two registered heifers. No. 1 born Oct. 6, No. 2 Nov. 5, 1926. Sire's dam's record 1016 lbs. butter in year. Dam's on yearly test. Price $85 each.
B. A. NORRIS, ANOKA, MINN.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.



Come to Michigan for Holsteins

SUMMER BUYERS given every help to locate good **PUREBRED** Holsteins. Fifteen County Sales Managers eager to help you at no cost to you. Let me know what you want and I will ask these Sales Managers to quote you.
J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

SERRADELLA FARM *Offers* —

A SON OF SIR DUTCHLAND COLANTHA DENVER, whose dam is a 36—1300-lb. cow

The dam of this bull is a 27-lb. 4-year-old. She has 2 A. R. O. daughters. He is evenly marked, well built, straight topped youngster. Born July 9, 1926.
SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.
RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

A GRANDSON OF "FOBES 6th"

A DARK COLORED BULL OF EXCELLENT QUALITY AND TYPE. BORN JUNE 6, 1926, AND WELL GROWN

His sire, Marathon Bess Burke 32d, is a son of the famous "Fobes 6th," the cow that sold for $6800 in the Erickson Dispersal Sale. She is a 38-lb. cow with 1105 lbs. butter in a year.

His dam is a 27.3-lb. Jr. 4-yr.-old daughter of a 31-lb. cow with 989 lbs. butter in 365 days.

Send for pedigree of Tag No. 661

"THE MICHIGAN STATE HERDS"
BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of
Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.
"The Herd With Straight Top Lines and Perfect Udders"

MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN



$250 — Dean Segis Bess Ormsby — $250

BORN AUGUST 26, 1926

We offer this week, a nice straight typy bull calf, eight of whose fifteen nearest dams, average 1070 lbs. butter for their 305-day or yearly records.

SIRE—Dean Colantha Segis Ormsby, a richly bred Ormsby show bull of 1000-lb. breeding.

DAM—Lashbrook Bess Ormsby, with a junior two year old record of 552 lbs. butter in 305 days.

You will like this bull. Send for pedigree and photo.

A. J. LASHBROOK Northfield, Minnesota

MAYOWOOD FARMS

HOLSTEIN BULLS

We have enjoyed a very keen demand for our bulls this winter, but can still offer a few of serviceable age. We have, also, calves sired by "White Hope," who was recently sold to the Japanese government for $8,000. Write for our sales list.
O. C. JENSEN, Supt., Rochester, Minn.

HOLSTEIN BULLS

FOR SALE
Spring Brook Bess Burke 2d Ormsby
BREEDING
WRITE FOR SALE LIST—JUST OUT
Herd under Federal and State supervision for tuberculosis—blood tested for abortion.
WINTERTHUR FARMS. Winterthur, Del.

4 feet or 4 inches?

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Like this

The Surge Milker



Which would YOU rather wash?

ANY salesman will tell you that his milker is easy to clean *but* — he is not going to be there to wash it for you. You have to do that yourself. So why not judge for yourself! Don't buy any milker until *you* have taken it all apart, washed it thoroughly, and then put it all back together again. When you have done that a few times you'll know—and not until then! Once you you have washed The Surge Milker you will not be interested in an old-fashioned milking machine with a lot of rubber tubing and twisted claws to wash. Don't just take our word for it — *try it!*

Above you see an old-fashioned milking machine with claws and long tubes. Look at the chances for bacteria—"bugs"! The milk washes around in the teat cup and then flows past several joints into the claw. By this time it has probably gathered a good many bugs. But the worst is yet to come—the trip through the long milk tube—3 feet of constant exposure to bacteria! Finally the milk reaches the pail after having washed 4 feet of rubber. Contrast that with The Surge Milker shown to the left above. NO Claws! NO Long Tubes! Milk travels ONLY 4 scant inches from teat to pail. A short, direct, *clean* route!

The Surge Milker

The Surge Milker is EASY to clean. NO claws! NO Long Tubes! It can be taken ALL apart, easily, in 20 seconds, washed in 3 minutes and assembled in 30 seconds. *Because* The Surge is so easy to clean it IS washed after every milking as it should be. *It is not neglected.* That's why average farms under average conditions are producing clean milk every day with The Surge. And that's why we guarantee clean milk and premium prices with The Surge.

Bear this in mind: To produce *clean* milk ANY milker must be taken ALL apart and washed *clean* every day. Mere rinsing, dipping in sterilizing solution or sucking water or sterilizing solution through by means of any "circulation system" is NOT ENOUGH! That's why we say—before you buy any milker be sure to see how much of a job it is to wash and clean!

No milker with long tubes and claws *can* be as easy to clean as The Surge. Surge owners never have any bacteria trouble. They get premium prices every day for their milk. Don't buy any milker until you have seen the famous "Easy-to-Clean" Surge Milker.

Read This:—

"I have used .... and .... machines (*both* Long Tube Claw-Type Milkers). I find The Surge far easier to keep clean, and I can produce a higher quality of milk." — G. Schmidt, Lenexa, Kansas.

Mail This *NOW* for Free Book

Pine Tree Milking Machine Co., Dept. A2-85
2843 W. 19th St., Chicago, Ill.

Please send me without cost or obligation your FREE Surge Book telling all about The Surge Milker and also tell me about your special FREE Demonstration and "Easy Terms" Offer.

Number of cows milked _____ *R. F. D.* _____

Name _____

Address _____

State _____

6 Milkings FREE!

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You can buy a Surge Milker on very easy terms. We'll figure to use any equipment you may have already in your barn. You'll be surprised how little it will amount to. Mail coupon now. No obligation to buy.

In order that you may see for yourself we make you this liberal Free Offer to install The Surge Milker complete in your barn and give you —6 milkings Free! Then you can SEE how easy it is to clean. SEE its wonderful NEW milking action milk your cows like no other machine ever milked cows before. No obligation to buy! Get the facts about our wonderful FREE OFFER. Mail coupon today—NOW!

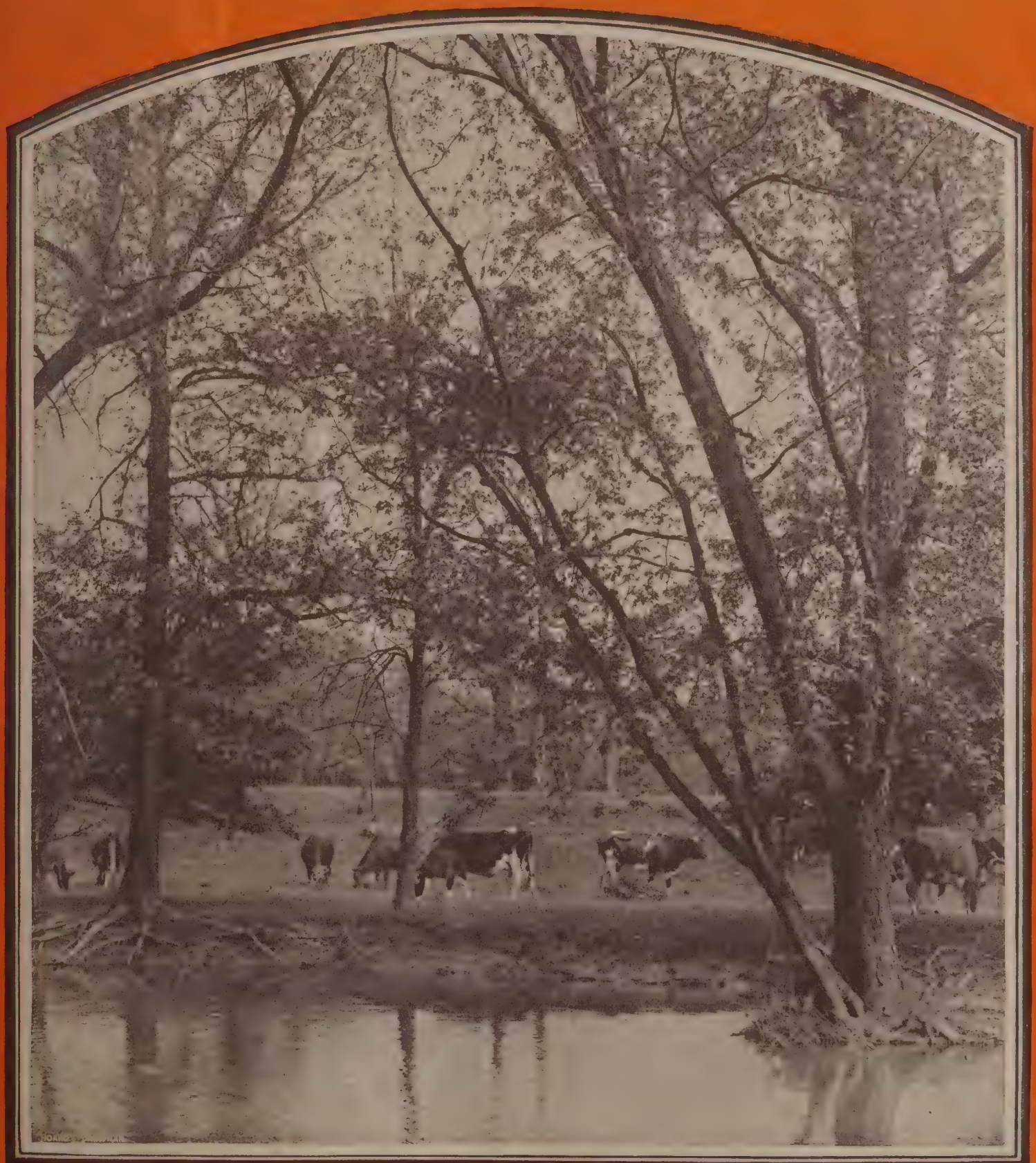
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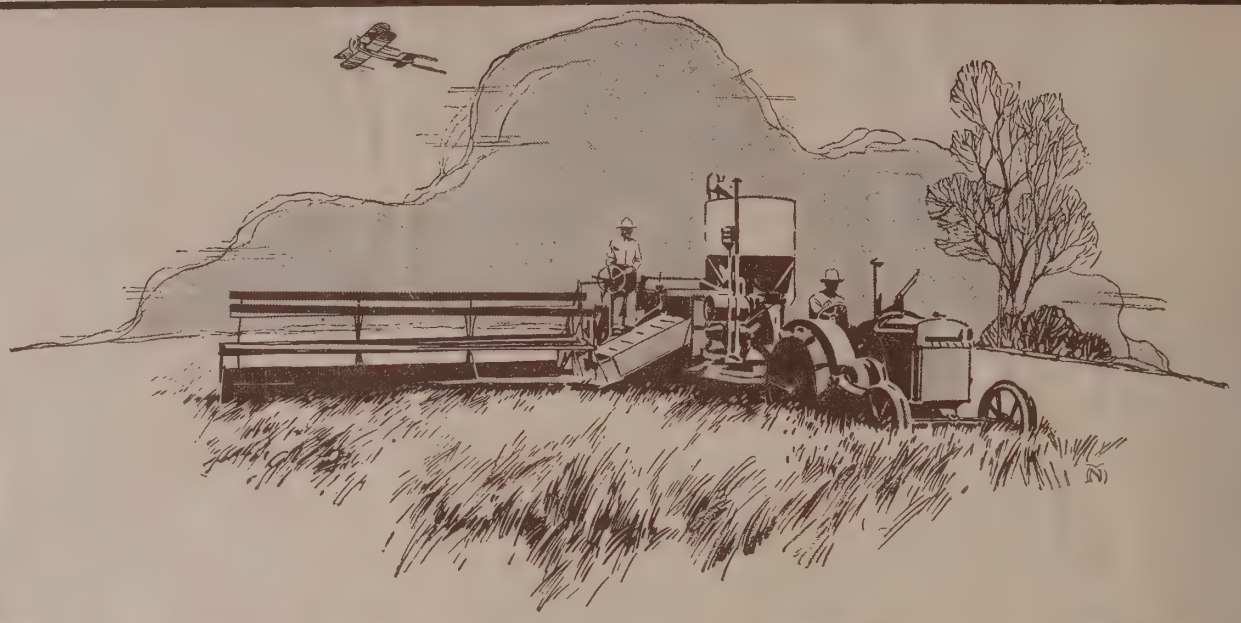
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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



olume 72, No. 12 Fort Atkinson, Wisconsin June 25, 1927



Tractors Prefer Polarine

THE PERFECT MOTOR OIL

If you have used Polarine, you know they do. If you haven't, try it and see for yourself! A tractor lubricated with Polarine pulls away steadily, willingly — while a tractor that is not properly lubricated complains of the oil by doing poor work.

Of course, a tractor isn't alive like a horse—but it requires good treatment just the same—and rewards you for it! If you will lubricate your tractor with Polarine and see that the oil is changed every two weeks—or better still, every week—you'll get good steady work out of your machine.

With a tough film of oil over all the fast-moving surfaces, Polarine protects the engine from the grind of grit and the heat of friction. When the oil becomes thin and dirty, it is no longer able to protect the engine and fresh Polarine is needed. That is why it is important to give the lubrication of your tractor regular attention — to change the oil every week or two.

If you give your tractor good treatment — lubricate it regularly with Polarine—it will reward you by working well — and lasting long. Tractors prefer Polarine — and it pays to give it to them!

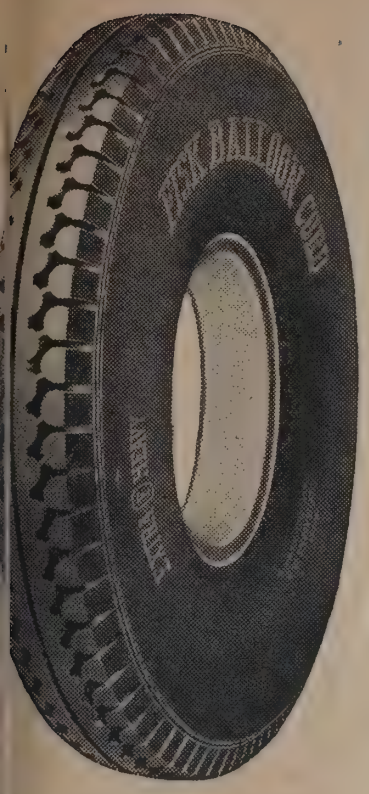
For years Polarine has lubricated the tractors on farms throughout the ten states of the Middle West. For years it has given faithful, dependable lubrication service. Farmers know that they can count on Polarine to do a thorough job of lubrication—that it is a *uniform* product, always the same, always satisfactory — with the solid reputation of the Standard Oil Company (Indiana) behind it. Polarine is a good old stand-by that gives maximum lubrication at a minimum cost.

To get Best Results — change your motor oil at frequent intervals.

For correct grade consult chart at Any Standard Oil Service Station.

Standard Oil Company, 910 S. Michigan Ave., Chicago
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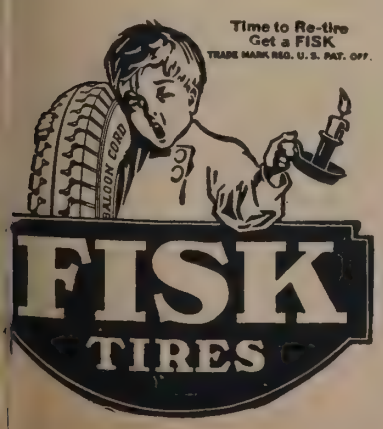


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You cannot know the
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at mean added pleasure
riding until you really
now the Fisk Extra
eavy Balloon.

There is a tire for every need, in type, size and price, in the Fisk line.

"ISK SAYS IT WITH MILEAGE"



The Magic of Milk

The Aryans, one of the earliest races of man, believed in the actual existence of a magical cow who produced not only milk but also yielded healing herbs, ambrosia, and precious gems.

Our ancestors 3,500 years ago thought of all good spirits in the world as cows. The Dawn was mother of the Sun and it was her milk that nourished him. These were the "white cows" while the storm clouds were evil spirits called "red cows."

Greatest of them all was the moon-cow, giver of abundance. They could see her gold tipped horns as the new moon came, or as the old moon passed out. The sky was a great verdant pasture. The star-cows were the five-horned cattle of the heavens. Across the sky then flowed the great stream of heavenly milk, "The Milky Way."

The cow was worshipped in Babylonia and Tyre 2,000 years B. C. The moon was identified as a cow in the cow-headed goddess called Hathor with the round moon between her horns. She watched the fertility of the land. The Nile was likened to a milk cow and the fertilizing water which it spread over the soil to the milk that sustains human life. Hathor caused the river to overflow.

David had 10 cheeses in the pack of provisions he was carrying to the army just before he challenged and slew the Phillistine giant, Goliath.

In India today milk is sprinkled over the heads of the newly married couple in blessing, and upon those of mourners to soften their sorrow.

The most popular method of beauty culture among the Romans was to rub the face with pieces of bread soaked in milk. Both butter and milk were used as medicines from Roman times through the Middle Ages.

In the heart of Africa, Uganda, the tribal cows are so holy that they can be milked only when the precious fluid is cared for with the most elaborate ceremonies.

On the Sahara Desert, people live almost entirely on the milk and milk products of their grazing herds, (goats, camels, sheep). An Arab boy is as lithe and straight as the ideal athlete. Milk and its products give him the courage and the physique to meet and conquer the many hardships of his life.

In Japan where milk has been as little used as anywhere in the world, people are short in stature and their span of life brief. Japan has recently bought dairy cattle hoping that the Japanese of the future will grow into "great big boys."

Among the hardiest races of Europe are the Scandinavians, the Alpine Swiss, and the Scotch English. All three have always been users of dairy products.

Cattle did not exist in America until Columbus, on his second voyage in 1493, brought a few from Europe to the Island of San Domingo.

When the Pilgrim Fathers first set foot on Plymouth Rock, they brought no cows and during the first two years paid dearly for the lack with the deaths of many young children.

Later pioneers remembered the lesson. As they pushed ever westward to the new frontier, the cow went with them. Oxen, sons of the cow, drew the covered wagons and behind each wagon followed its two or three milk cows.

Recently in Bulgaria a son of seventy-odd testified along with his father that they attributed the patriarch's hundred and twenty years, authenticated by the Bible in the village church, to the milk he had drunk daily since childhood.—From "The Path of the Gopatis" by Zilpha Carruthers published by the National Dairy Council.

Solves That Water Pumping Problem

Whether the winds blow or not, you can always have plenty of fresh water for your stock—with no loss or time and no hard work if you have a

JOHN DEERE PUMPING OUTFIT

This consists of a John Deere Type E 1-1/2 H. P. engine and a John Deere Direct-Drive Pump Jack.

You can use it anywhere—in the barnyard—out in the pasture—right among the stock. It requires no enclosure. There are no belts or chains to endanger stock. The jack is driven directly from the fly wheel of the engine.

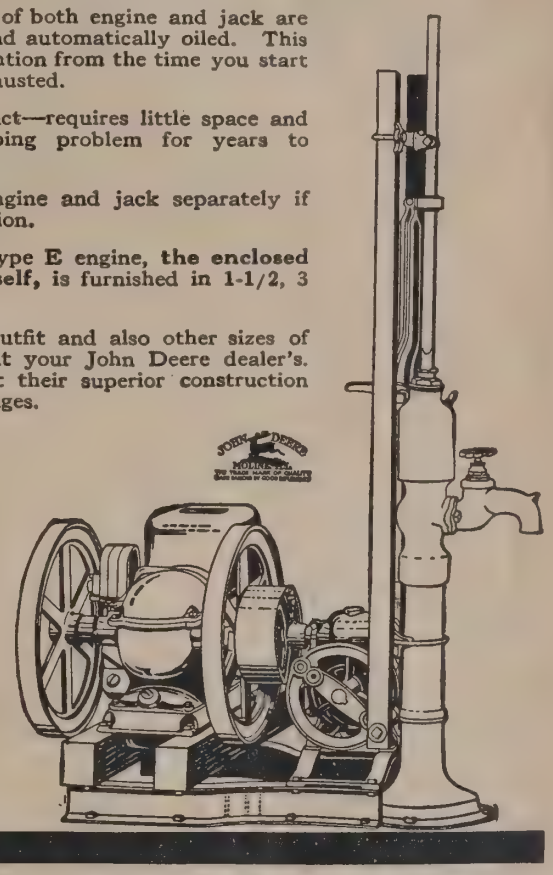
The operating parts of both engine and jack are completely enclosed and automatically oiled. This outfit requires no attention from the time you start it until the fuel is exhausted.

It is simple, compact—requires little space and will solve your pumping problem for years to come.

You can get the engine and jack separately if desired for belt operation.

The John Deere Type **E** engine, **the enclosed engine that oils itself,** is furnished in 1-1/2, 3 and 6 H. P. sizes.

See this pumping outfit and also other sizes of John Deere engines at your John Deere dealer's. You are sure to want their superior construction and operating advantages.

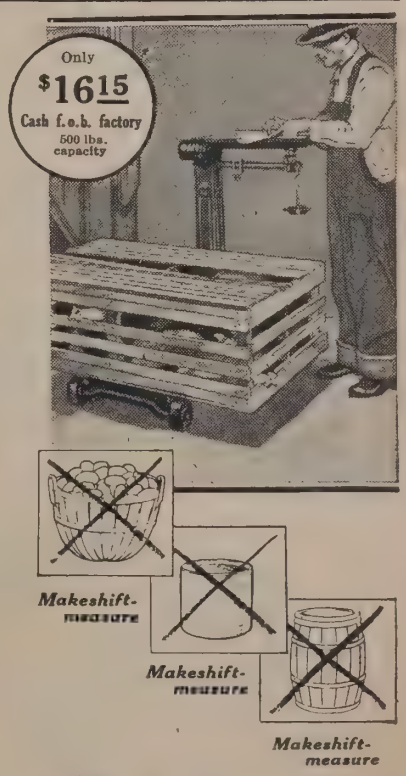


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Tells all about John Deere engines and this special pumping outfit. Write to John Deere, Moline, Ill., and ask for booklet WT—814.

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344,679 car owners say Buick will be *their* next ca

A GENERAL and impartial survey of automobile owners recently conducted by a great organization, shows that 344,679 owners of other cars intend to change to Buick next time they buy a car.

These owners have compared their cars with Buick —in performance, in economy, in comfort, luxury and dependability. And they have decided that Buick offers greater value.

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They marvel at the efficiency of Buick's powerful six-cylinder Valve-in-Head Engine, which is *vibrationless beyond belief* at any speed.

And in all probability, a majority of those who intend to buy Buicks have been influenced in still another way—by the actual experience of their friends who are Buick owners.

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Division of General Motors Corporation
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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

red at Fort Atkinson, as second class matter.

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LAND O' LAKES LEADS DAIRY CO-OPS.

JOHN L. RICHARDSON, WASHINGTON, D. C.

UILT upon a firm foundation in the form of a sound and substantial system of local co-operative creameries, the Land O' es Creameries, Inc., today stands he leading successful co-operative butter marketing organization in rica. It has only been after forears of growth and development this organization has been able each the envious position it now holds.

arting with the establnent of the first local coative creamery at Bis- McLeod County, in , a movement was inid that has resulted in ing Minnesota far out in t of all other states in country as a producer of er and a home of sucful co-operative cream- Although the co-operie movement started at a t date in Minnesota than ome other states, it has constructed on sound fundamental principles have given it stability momentum, enabling it ithstand the tests of time. veral creameries of this were established in nesota in 1890, and with- period of ten years over creameries were organ- in that state. Several res have resulted but number is relatively l in comparison with e in neighboring states. large majority of cases been successful, how-, and the first creamery olished is still in operaIn 1921 there were 645 perative creameries in nesota producing 67.1 cent of the total output utter of that state.

ardinal Principles of Co-operation

corporated in the by- of the first co-operative mery established in nesota were three cardinal prins of co-operative effort that not only endured but have ed the basis for practically all he successful organizations that followed. These rules are: one per member; paying only the g rate of interest on money ind by stockholders; and prorathe profits of the business among patrons in proportion to the busifurnished to the association.

e theory that a thriving local is fundamental in building a g co-operative organization has substantiated by the experience he Minnesota creamery move-. The rather dense population ows in that state has enabled the meries to secure ample volume of business within the radius of from three to five miles which has tended to build up a strong community relationship.

Procedure in organizing the local creameries has been very significant in explaining their success. When agitation for a creamery was started in any community, the first move was to make a preliminary survey. The purpose of this survey was to determine if enough farmers having a sufficient number of cows were willing to take membership or stock in the venture. If this investigation resulted favorably, a temporary organization was perfected for the purpose of creating a permanent organization. They then set out to sign up the necessary farmers as members, but no one was held to his contract unless a sufficient number of signers were secured to start operation.

Federation of Locals

Local co-operative creameries in Minnesota have, until recently, marketed their butter individually and independently. That is, each local has built up its own trade and has in no way been connected with other locals.

After a few unsuccessful attempts, a movement was initiated in April, 1918, which set the stage for a statewide creamery organization. At this time a group of local co-operative creamery men met in McLeod County to consider plans for a marketing program. The proposal met with favorable response, but it was decided that an actual beginning should be postponed until at least 200 creameries signified their intentions of becoming members of this marketing organization. On the call of A. J. McGuire, dairy extension specialist of the Minnesota Agricultural College, representatives of over 300 co-operative creameries met in St. Paul and perfected the Minnesota Co-operative Creameries' Association on June 7, 1921.

The Land O' Lakes Association, which is an outgrowth of the Minnesota Co-operative Creameries' Association, is a typical federated form of co-operative enterprise. It is a co-operative stock corporation, the stockholders being approximately 475 local creameries, 26 of which are located in Wisconsin. Headquarters are maintained in Minneapolis, and branch offices are located in New York, Philadelphia, Chicago, and Duluth. The area in which the member creameries are located is divided into 16 districts with a manager for each. The duties of these district supervisors or fieldmen are twofold. First, they are to assist the managers of the local creameries to improve the quality and uniformity of the butter produced. Secondly, they supervise the assembling of butter produced by the local creameries into carload lots for economical shipment. In order to qualify for a position as district manager these men must be expert buttermakers, which will enable them to give helpful advice to the local buttermakers. They must also possess the ability to gain the confidence of all the members and buttermakers within their territory.

Develop Merchandising Plan

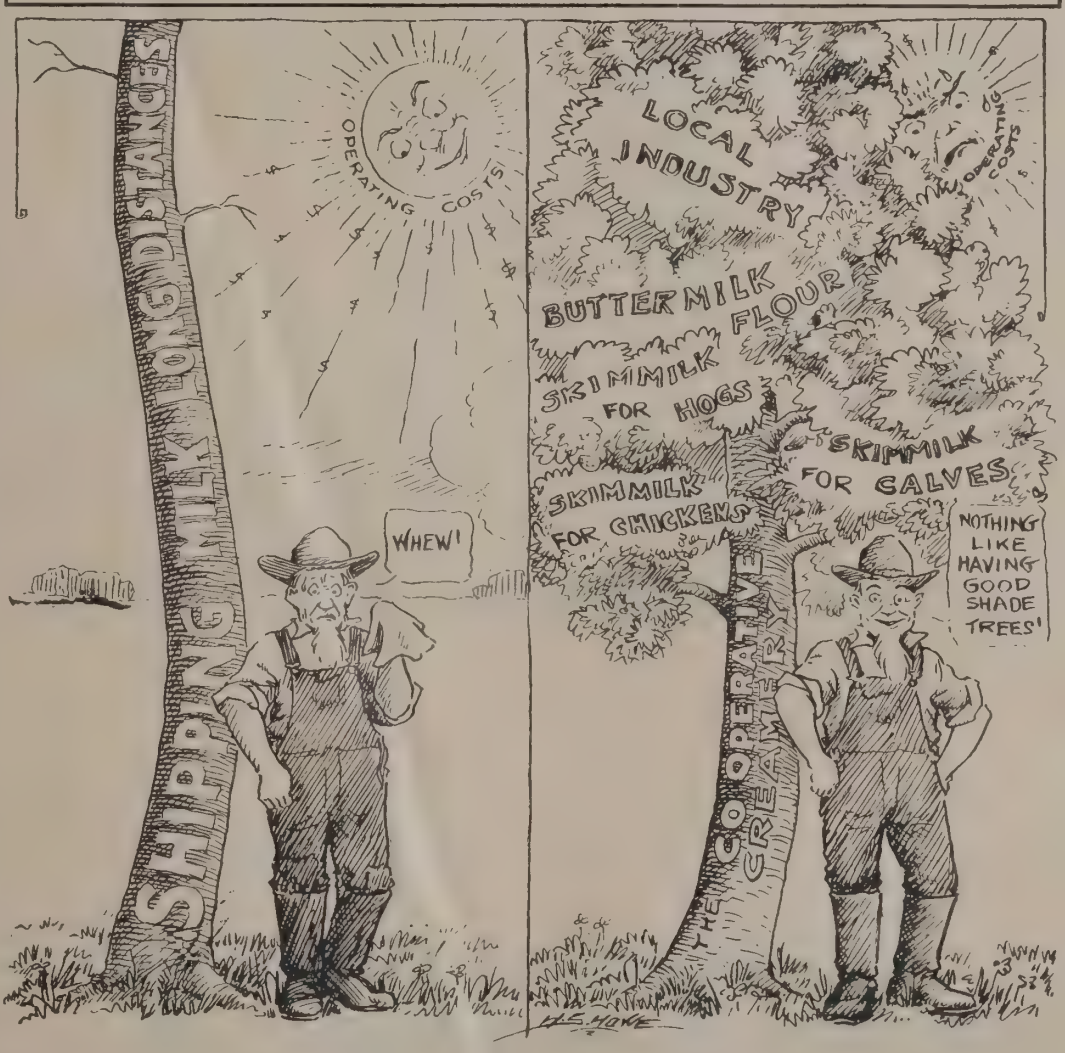
Prior to 1924 the co-operative creamery movement in Minnesota had been a co-operative producing enterprise. Marketing had not come in for a great deal of consideration. Two reasons have been given to explain why a centralizing selling agency had not been developed. In the first place, many local managers had been unwilling to give up the function of selling the butter; while, secondly, many authorities felt that standardization had not been perfected to the point that would give a satisfactory product for centralized marketing.

At a meeting of the executive committee of the Minnesota Co-operative Creameries' Association in September, 1923, plans were worked out for the marketing of the butter co-operatively. It was at this time that specifications were made for the grading processes which would stimulate the making of high grade butter. Besides adopting a program for the improvement of the butter, other plans were made for expanding the merchandising activities and for the development of markets in cities other than New York and Philadelphia where most of the butter had been going.

Several important points were set forth in this new program. In order to standardize the butter produced by the local co-operative creameries, it was necessary to have it concen-

(Continued on page 678)

THE LONG AND THE SHORT OF IT



A WEEK IN PENDLETON COUNTY, KENTUCKY

E. M. CLARK, ILLINOIS

THE Irishman who said that land in America was so plentiful that they had to pile it up must have had reference to Pendleton County, Kentucky. During my week's travel on foot and by auto in that county, assisting in a better dairy sire campaign, no wide, fertile valleys or verdant prairies were encountered. It's all hills and narrow valleys down there. I wondered how the farmers could eke out a living on those steep hillsides. My first impression was that if I ever was to become a county agricultural agent I surely would be competent to give sound advice to these farmers. I would advise them all to move out. But I found that C. L. Hill, the county agent, was not giving out the advice that I thought was so clearly needed. In fact, before the week was over he convinced me that the farmers were prosperous in Pendleton County and their prosperity was due largely to those old hillsides rather than in spite of them.

The "Noxious Weed," Sweet Clover

Here's the secret: Limestone abounds in the hills. Years ago sweet clover discovered these sweet old hills and despite every effort on the part of the farmers this "noxious weed" virtually "took" all the farm land except the narrow, crooked valleys. It was thought that "nothun" would eat it and the farmer was doomed.

The Honey Bee to the Rescue

Just about the time when the farmers were in deep gloom in the losing fight they were waging against their arch enemy, someone discovered that honey bees were sipping the nectar from the sweet clover blossoms. Why not go into the honey business and make some use of this "weed?" So into the honey business the farmers went. Pendleton County is now the leading honey producing county in Kentucky. Thanks to our friend, the enemy, sweet clover. While every cloud may have its silver lining, yet that silver lining might become slightly tarnished. So it has been with the honey business. The honey bee proved to be the silver lining to the dark cloud which sweet clover had cast on Pendleton County. Recently "foul brood" has tarnished that silver lining. Heavy losses have been experienced. One farmer who had about two thousand dollars worth of bees lost all of them. In their characteristic fighting fashion the farmers are now warring against "foul brood." It seems as though there is always some pest waiting to take the joy out of life.

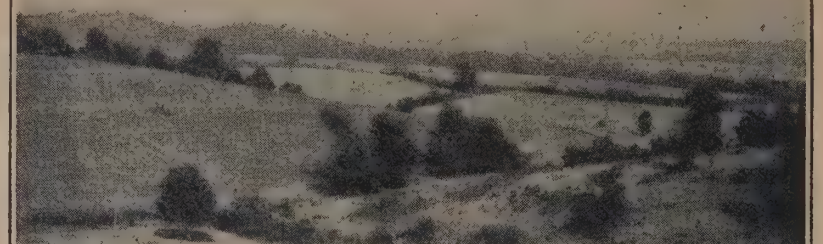
Enter Queen Alfalfa

Some of the leaders in the county reasoned that if sweet clover was so anxious to grow on those old side hills, maybe alfalfa would also grow. It was given a trial. The results exceeded all expectations. Today Pendleton County is the leading alfalfa producing county in Kentucky. All that is necessary to get a good stand of alfalfa on the hill land is to sow the seed. No limestone to spread—mother nature did that centuries ago.

Live Stock Development

With the production of large quantities of choice alfalfa hay, sweet clover, and bluegrass has come a gradual increase in live stock production. Yet there is an insufficient number of animals raised to consume all the roughage produced. About two hundred carloads of hay are shipped out of the county each year. It is true this makes a good cash crop yet it is believed that this hay could be marketed to better advantage through more live stock. County Agent Hill says, "When the good Lord made Pendleton County he intended it to be a live stock district and that's what we intend to make it."

Sheep growing is becoming more popular and is proving profitable.



A TYPICAL LANDSCAPE IN PENDLETON COUNTY, KENTUCKY

The "standard Kentucky lamb" commands a premium on the market. Kentucky wool is famous for its splendid quality.

At present not many hogs are raised. An effort is being made to grow at least enough pork for needs within the home. The small acreage of corn will always prevent this county from producing a large number of hogs.

Poultry raising and egg production are increasing rapidly and help to swell the farmer's income.

Light Burley Tobacco

Nearly every farmer in Pendleton County raises light burley tobacco. Some years this is a very profitable crop while at other times a lot of money is lost. It's quite a gamble, so we have found,—this tobacco raising business.

Milk for Cincinnati

Good roads have brought the Cincinnati market to the very doors of the Pendleton County farmer. Milk trucks run daily over the county's pikes, gather up the milk and rush it to market. The dairy business in Pendleton County is an "infant industry" yet in its swaddling clothes.

Sufficient corn can be grown for silage and grain. The combination of silage and alfalfa makes winter dairying profitable. Sweet clover and bluegrass furnish abundant pasture.

The Pure-bred Sire Campaign

County Agent C. L. Hill—they call him "High" down there and he is "High" by both name and nature—decided that the scrub and grade bull should be banished from the hilltops and valleys of his domain. Poor, nondescript boarder cows were being brought into the county by the hundreds and sold to the farmers. It seemed as though the farmers would buy anything that would give milk. Careful scrutiny on the part of the writer did not reveal any milk goats, but many animals called cows looked as though they did not produce more milk than a good goat. So "High" decreed that pure-bred bulls must be used and the best heifers raised. He enlisted the help of Ed. Prewitt, Dairy Extension Specialist of the State University. A plan was developed. A survey was made of the county through the aid of men elected in each school district. The survey revealed the fact that 1 scrub and 76 registered bulls were being used. The name and address of every man using a scrub bull was obtained. The next step was to send each of these men using scrub bulls a circular letter, in fact three letters on the subject of better breeding.



"HIGH" HILL, PENDLETON COUNTY'S AGRICULTURAL AGENT
He is "high" in stature, has "high" ideals, and travels in "high."

The week of March 1 was set for the launching of an intensive campaign. Fieldmen of the breed associations, a railroad agriculture agent, a representative of the United States Department of Agriculture and extension men from the University were present to help. The campaign started off with a banquet given by the business men in Falmouth. Farmers were invited to this banquet and were convinced of the wisdom of the movement.

A Day in the Hills

It's doubtful if there is a stretch of road in the county that is straight for more than three hundred yards. The roads follow the ridges and valleys and the old saying that "the longest way 'round is the surest way home" was invented in Pendleton County. Starting out one morning I asked my driver how far it was to our first "prospect." He said, "Why as the crow flies it's about three miles, but about twelve miles by road." On the way out we picked up two farmers who wanted to go with us and help us on our mission. Now, Jasper, our prospect, lives on a dirt road near the river so it was decided to leave the car on the state road and walk cross lots to Jasper's farm—a distance of about two miles up hill and down, but mostly up. Jasper's home made a beautiful picturesque sight nestled down among the trees on the river bank, the blue smoke curling out of the large stone chimney,—a sight that was worth walking two miles to see even if Jasper was using a scrub bull.

We didn't venture too close to the house as several dogs put in an appearance. The dogs' barking brought Jasper to the door and he assured us that none of his nine canines friends would harm us. We entered and drew up chairs around the sheet iron stove placed in front of the old, walled-up fireplace. Why in the world do these Kentuckians stop so many beautiful fireplaces by walling them up and using stoves? I say be it's easier to heat their homes that way but many a home owner would give his eye teeth for those unused fireplaces.

Well, after we had passed the time of day and talked about the weather we gradually brought Jasper around to our subject of better bulls. Much to our surprise Jasper fell right in with the idea and agreed he needed a better bull. He promised that his next bull would be a registered bull but he would need some help in locating and buying the animal he needed. We told him that "High" Hill would help him. Jasper was not required to "sign" anything as some of us have a pet aversion to "signing."

And so we traveled on, visiting farmer after another day after day until all those who had scrub bulls had been seen. The results were very gratifying. Nearly every one agreed to buy a registered bull or agreed to sell his scrub bull and go into partnership with his neighbors and buy a community bull. At the end of the week we totaled up the results of our combined efforts and found that we had orders for 104 bulls.



PENDLETON COUNTY'S EXHIBIT AT THE 1926 KENTUCKY STATE FAIR

HOLSTEIN NOTABLES AT NATIONAL MEETING



THE WISCONSIN DELEGATION

Top row, left to right: A. C. Osterhuis, Bill Rhoda, R. J. Schaefer, L. L. Oldham, J. Oberlin, W. L. Baird, W. D. Hoard, Jr. Bottom row: J. C. Cort, C. Vanderschaff, T. G. Lehman, . E. Mack, F. Darcy, F. H. Everson.



MINNESOTA REPRESENTATIVES

Left to right: H. G. Miller, V. S. Culver, J. C. Marlow, W. S. Moscrip, J. B. Irwin, A. J. Lashbrook, N. P. Hansen.



FROM NEW YORK AND NEW JERSEY

Left to right: Ward Stevens, Harvey Farrington, Harry Yates, M. A. Faitoute.



THE MICHIGAN DELEGATION

Back row, left to right: H. W. Norton, Jr., J. E. McWilliams, M. D. Buth, J. C. Buth, W. H. Porter. Front row: J. G. Hayes, D. D Aitken, O. E. Reed, W. Schoof.



CHAIRMEN OF COMMITTEES IN CHARGE

Miss Watson, Tom Elder, F. P. Knowles, A. Thorne, and Mrs. W. S. Kellogg.



OHIO BREEDERS

Back row, left to right: G. B. Warner, Ben Studer, J. D. Hadley, E. E. Sprigg. Front ow: H. C. Barker, H. O. Frederick, W. L. Biddle, B. F. Boise.



PENNSYLVANIA DELEGATES

Back row, left to right: R. B. Arnold, A. Deysher, E. J. Davidson, Dr. L. Thompson, F. A. Keene, W. A. Woods. Front row: J. W. Hunter, J. M. Shirk, A. B. Craig, Davidson, Jr., J. A. Bell, Jr., J. M. Paxton.

Holstein National Totals $27,975

SEVENTY head of Holsteins were sold at Springfield, Mass., June 2, the day after the annual meeting. A good crowd was on hand and although the animals were not quite as desired for a national sale, an average of $399.60 was received.

Harry Yates' eight-year-old cow, Cattaraugus Flora Colantha, topped all consignments, bringing $1,225. She has a record of 1,022.5 lbs. butter and is sired by John De Kol Colantha, a son of Colantha Johanna Lad 8th. Her dam is Cattaraugus Mildred Paladin Burke, an untested daughter of Paladin Trilby Burke. John Tuck of Massachusetts purchased her and Quonquont Farms were runners-up. Wisconsin Bess Ormsby Johanna, a daughter of Sir Pietertje Ormsby Mercedes 37th, with 1,037 lbs. butter, from the Detroit Creamery herd, was the second highest female. She went to Quonquont Farms, Massachusetts, for $1,100.

Hollyhock Farms consigned the most desired male. This animal was Sir Bess Ormsby Fobes 63rd, a son of Sir Bess Ormsby Fobes and out of

(Continued on page 671)



CATTARAUGUS FLORA COLANTHA WITH HER NEW OWNER, JOHN TUCK OF MASSACHUSETTS, AND HER CONSIGNOR, HARRY YATES OF NEW YORK

She brought $1,225, the top price at the National Holstein Sale.



SIR BESS ORMSBY FOBES 63RD, TOP-PRICE BULL AT NATIONAL HOLSTEIN SALE

He was consigned by Hollyhock Farms, Wisconsin, and sold to D. D. Aitken, Michigan, for $1,200.

HOW EUROPE FARMS

A General Farm of Holland

HERBERT R. COX, NEW JERSEY



Dr. Mansholt spends much of his time experimenting with different varieties of field crops.

IN the last two stories we have introduced to you a Dutch dairyman and a Dutch potato grower. When we have presented a general farmer we have covered the three principal types of farm in the kingdom of the dikes. Bulb growing is, of course, a distinctive industry in this land but it does not figure largely in total financial returns.

No people perhaps in all history have so altered the character of their land in the interests of agriculture as have the Dutch. Nearly 40 per cent of the country is within three feet of sea level or below sea level and would be inundated if the sea broke through the barrier of dunes and dikes. Much of the reclamation was done centuries ago and is a lasting memorial to the able Dutch engineers of the Middle Ages, at a time when the rest of Europe was engrossed with the quarrels of various kings and which was the correct and simon-pure method of worshipping the Almighty.

Reclamation has proceeded from that time to the present and will continue into the future, for have not the audacious Dutch perfected plans and made a beginning at draining the Zuider Zee so that fifty years hence it will occupy only about a quarter its present area?

Something like fifty years ago a polder was formed from the North Sea in the province of Groningen in Northern Holland by the approved Dutch method of ditching and diking. One of the first men to take up farming in the new polder was a man named Mansholt, an immigrant from Germany. Today his grandson, Dr. R. J. Mansholt, operates this same farm of 140 acres. Dr. Mansholt is a general farmer, that is, he raises a variety of field crops with just enough cattle and sheep to balance the system. The crops raised are wheat, barley, oats, peas, beans, rape, mustard, caraway, flax, white clover, red clover, sugar beets, poppy (for oil), and potatoes. Practically all of these crops are raised for seed. He keeps 14 head of dairy cattle, 20 sheep, 60 chickens, and 9 horses.

The land on this farm is valued at $500 an acre including the buildings. How can land devoted to field crops justify such a high valuation one may ask, which is a legitimate question for a farmer who is content with 35 bushels of corn and 18 bushels of wheat to the acre. The answer is: The average yield of the crops raised on this farm are—wheat 58 bushels per acre, barley 74 bushels, oats 120 bushels, peas 61 bushels, field beans 64 bushels, sugar beets 16 tons.

This farm is in most respects typical of the province in size and in the kind of crops grown. Most of the farms are well tilled and the region is prosperous. In one respect, however, this farm is not typical, and that is in the kind of man at the head of it. As mentioned above, Dr. Mansholt raises crops largely for seed. For years he has been carrying along simplified breeding and variety trials, all for the purpose of improving the strains he grows. He is continuously striving for better seed. These seeds he makes available to his neighbors, who take practically his entire output and at a price 50 to 70 per cent higher than market price for the products. He has his farm so organized as to permit him leisure to conduct experiments.



Racks of this kind are used on this farm to stack hay and grain in the field so air may circulate freely.

This man was born on this farm and has lived here all his life, excepting for the years spent at the University of Wageningen of which he is a graduate. Recently the University of Groningen recognized his services to agriculture by conferring upon him the honorary degree of Doctor of Science. Here is the case of a man of unusual ability who is devoting his life to the improvement of farming and at the same time making a commercial success. What could be more satisfying?

This is a much larger farm in terms of gross sales than the acreage would indicate. There are 12 men hired throughout the year; and at the weed pulling and harvesting seasons as many as 50 workers are employed. For weeks the laborers go through the crops before harvest and pull out the weeds. Scarcely a weed is to be seen on the farm. In addition to this, the proprietor has the most modern cleaning machinery operated by power. Also, he has his own threshing machinery, several sets of them. There are machines for treating the grain for smut and other diseases. There is also a twenty-five horse-power tractor. With all this modern equipment, however, the crops are harvested by hand with scythes. Dr. Mansholt finds that he can produce better seed by this method of harvest; also, he has an abundance of labor during the harvesting season, anyway.

No regular rotation is practiced, excepting that two cereals are not grown in succession.



The top of the dike that borders the North Sea and prevents the sea from overflowing Dr. Mansholt's Farm.

A great deal of fertilizer is used, a phosphate, nitrate of soda, and a l tle potash, which is purchased se rately and applied according to t needs of the crop. He is also beg ning to use calcium nitrate. As t polder is comparatively new, there not much need as yet for potash a lime. A field is treated with sta manure every six years. This ap cation, together with the clover, pe and beans grown, seems to maint the land in high production. T grain straw, of which a large qu tity is produced, is sold in bales t farmers' co-operative factory manufacturing into paper.

Dr. Mansholt has a wife and f children. The house is spacious, a immaculate like all Dutch houses. buildings are equipped with elect light and with electric power to op ate the machinery. He has a mo car of a well known American mak

This farm which is about one f above sea level borders the North S A dike protects the farm, of cou from inundation. Dr. Mansholt, in operation with his neighbors who h der the ocean, has taken steps wrest still more land from the This consists of the preliminary s of running ditches about twenty apart from the dike directly into sea. The tides and waves bring in silty water. The silt is deposited the water drains off in the ditc Eventually a new dike further will be built and another strip of l will be added to the Kingdom of H land.

Holstein Breeders Re-elect Lowden—Milwaukee Chosen for 192

THE first Wednesday in June is annually designated by Holstein-Friesian breeders as the time for their annual meeting. The 1927 meeting was held at Springfield, Mass., the same state which cradled the association from its beginning in 1870 to its time of incorporation at Syracuse, N. Y., in 1880. Secretary Houghton's report informs us that this year's meeting was the 57th meeting and the 42nd annual meeting.

The open discussion which always takes place the day before the meeting brought many helpful opinions to the surface which might not have escaped the lips of their originator had the custom of other breed associations been followed. Breeders, delegates, friends, and bystanders may take the floor at these gatherings and the general result is very satisfactory. Everything is discussed and impediments for legislation are decreased or increased according to the desirability of the idea. The herd test, the 14-day lapse after freshening before a 7-day record may start, the Extension Department, and the report of the special committee on selective and superregistration occupied quite largely the time devoted to Holstein affairs. The pro and con arguments were very enlightening in a majority of instances and helped the delegates clear up any hazy points that might exist.

The banquet was so well attended that the large dining room of the Hotel Kimball proved insufficient, a large overflow having to be taken care of by extra tables placed in the lobby and in other dining rooms. The hope that Ex-governor Lowden would voice his personal opinion regarding his entering the 1928 presidential race brought many local citizens. His silence on this question caused, as usual, many different viewpoints.

This year's meeting was largely centered around three main problems: (1) a reliable herd test or herd improvement plan; (2) report of committee on selective and superregistration; (3) period between freshening date and starting 7-day test. Many breeders had not paid much attention to the herd improvement idea (which means testing the whole herd) until facts and figures were presented showing that the pure-bred cow has been challenged. Some voiced the idea that a great many pure-bred owners were hesitant to place their herds in a cow testing association because of the keen competition that might be present. Statements such as this have more than an atom of fact. More general testing is needed not only by the Holstein breed but by every breed. (The Ayrshire breeders already have a herd test.) It is a practice to test "the good cows or heifers." This is really deplorable and cannot last if a sincere desire for breed improvement exists. A committee consisting of several Holstein breeders and five or six state experiment station authorities was appointed to formulate a herd improvement plan and present same to the Board of Directors when they convene at Memphis this fall. Hoard's Dairyman believes this move to be a step in the right direction and hopes the committee will secure the utmost co-operation.

The report on selective and superregistration brought forth considerable debate. Nearly everyone believed the idea in general to be highly desirable. The whole matter was settled by receiving certain parts of the report and omitting the working principles and requirements. When the convention convenes at Milwaukee it is hoped that more time will be dev to superior classes and a work plan submitted. The plan submi at Springfield included Excellent, perior, and Gold Medal sires, eac have ten daughters meeting spec physical requirements in the first classes and also meeting produc requirements in the Gold Medal c The sire in all classes is to be s on conformation, with the Medal class requiring a higher than the other two. In debating question ancestry of individuals, number of daughters included, general conditions at this time c the indefinite action on the repor

In regard to the period lapsing between freshening and the startin a 7-day test, varied opinions exi Some thought the existing rules s factory, others wanted ten days, were for the 14-day period, and th ers wanted 30 days. During the cussion the idea seemed quite p inent that 7-day records are ra losing prestige. Buyers place little confidence in them and nat ly prefer the yearly tests. The d of 7-day records is clearly indic

heir value to the buying public. period of 14 days was finally ed upon as the time necessary to e between freshening and start- on 7-day test.

fore the meeting some question raised concerning the Extension artment. A curtailment was in minds of a few who favored lower- he transfer fees. When the mat- was placed before the assembled rates the value of the depart- was quickly grasped. Confi- e and approval of the existing and its work were so strong that matter was disposed of in short r.

esident Lowden, Illinois; Vice- ident Thompson, Pennsylvania; Directors French, Iowa; Vesper, ouri; Reynolds, Ohio; Schaefer, onsin; were elected to succeed selves. President Lowden inti- d strongly that this would be his term.

e location of the 1928 meeting narrowed down to St. Louis Milwaukee. When the votes counted Milwaukee had won by rgin of twenty-four.

s From Annual Holstein Meeting

e fact that some breeders were r the impression that selective superregistration would force to register only certain animals due to a wrong understanding. tive and superregistration will in any way interfere with the tering of males or females. It ides classifications for those ing the distinction of more rigid irements. It is entirely volun-

w requirements for production installed. A 24-month-old heifer now produce 310 lbs. of butter- turing a year. This increases 30 butterfat every year, making the irement for a 5-year-old 400 lbs. C is ten per cent below Classes d B for the yearly work.

e hundred sixty-two delegates present; 176 was the full quota.

is evident that next year's meet- will bring about a better under- ding of what are the acceptable markings around the hoof of an al. Breeders interested in this ct should try to discuss it with neighbors and if possible with egate to the 1927 meeting.

rector of Extension Cooper re- d approximately 10,500 boys and in Holstein calf clubs.

auty Girl Gerben Re-Becky, d by University of Nebraska, the highest yearly butterfat d during the testing year, 1926 27. She made 1,106.62 lbs. fat. ation Walker Hazelwood made 1 lbs. fat at 29 months of age. was the highest yearly record 2½ years.

e thousand, one hundred two and heifers were tested during ast year; 2,368 of these complet- ng time semi-official tests. Elev- ws made more than 1,000 lbs. fat.

ck of Phosphorus Prob- le Cause of Mysterious Cow Disease

at a phosphorus deficiency has ably been the cause of a mys- is disease known as "Pica" dairy cattle have been suffer- or ten years in Door County, eastern Wisconsin, is the find- f Investigators E. B. Hart, B. A. n, E. J. Delwiche, and E. G. Bai- ley, and recently reported by the State Experiment Station.

Cows suffering from the disease show extreme emaciation, are stiff in the hind quarters and at times in the front quarters, have swollen joints, harsh coats, dull eyes, and perverted appetites. Legs and ribs are easily broken and the animals chew raw bones with eagerness. The milk flow is considerably decreased.

This disease has been observed in other countries and states, noticeably in Africa, Australia, and New Zealand, Norway, Germany, Montana, and Minnesota. In localities where the disease has been noticed analysis of hays grown in that region show them to be deficient in phosphorus content.

The Wisconsin investigators took six sick cows, divided them into two lots and fed them rations liberal in phosphorus. The first lot received a ration consisting of corn silage, alfalfa hay, a grain mixture of 35 lbs. each of yellow corn and ground oats, 25 lbs. wheat bran, and 25 lbs. oil meal. Salt was also fed. One of this group received one-fourth pound of cod liver oil daily to make sure there was plenty of vitamin D present to enable her to use the phosphorus and lime in the feed.

Ration number two consisted of mixed hay and corn silage and the grain mixture was made up of 45 lbs. ground oats, 50 lbs. ground corn, and 5 lbs. steam bone meal plus common salt. One of the cows on this ration also received in addition one-fourth pound cod liver oil daily.

The test lasted three months. The improvement in all the animals was remarkable. Every one of them gained over 200 lbs. and one of them gained 322 lbs. The stiffness disappeared, the hides became loose and supple, the coats smooth, and the milk production increased 50 per cent. The addition of cod liver oil did not appear to improve the ration and both rations appeared to be equally effective.

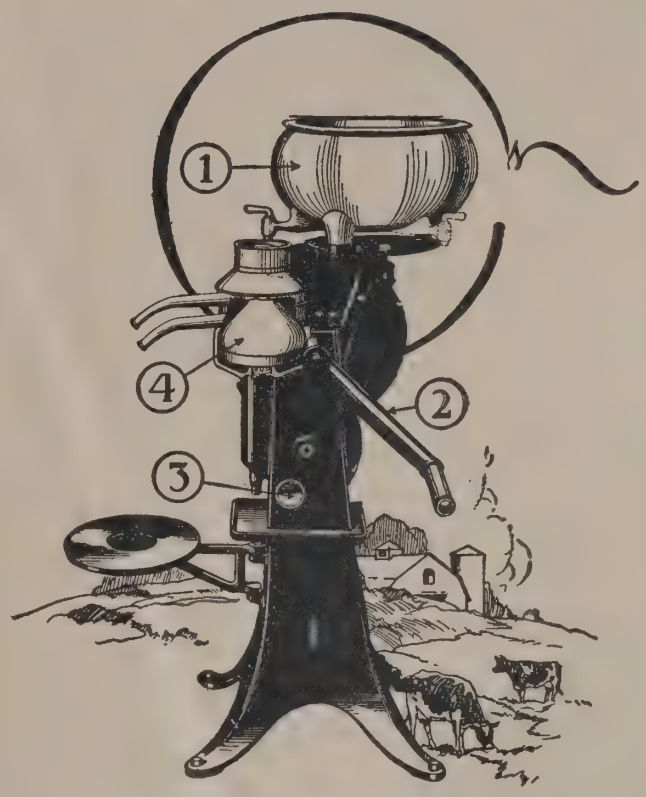
The test emphasized the fact that the health of the herd can be protected by feeding concentrates rich in phosphorus such as bran, wheat middlings, linseed meal, or cottonseed meal.

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These new De Lavals are the easiest starting and turning separators ever made. Try one and you will agree they are.



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1. Turnable Supply Can: The supply can may be turned so that tinware and bowl may be put in place or removed without lifting the supply can from its position on the separator. Every user will like this feature.

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A Compact Unit



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BUILD up the reputation of your product by delivering only in bottles which have been washed and sterilized in your own dairy. It pays.

And do it with the No. 9 Fort Atkinson Washer and Sterilizer shown above. Everything is handy. Without moving a step the operator stands at the machine and cleans 500 bottles or more per hour. Only one handling of each bottle. Rinsing and sterilizing practically automatic.

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Milk gathers *Dirt*

between the cow and the pail

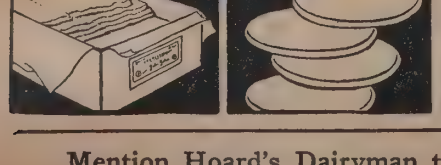
EXPERTS say that hairs, flying bits of dirt, and microscopic particles that enter the milk stream between the cow and the pail are an important source of high bacteria count. Put Johnson's Filter Cloth over your pail —*and keep out this dirt!* Catch still more of these dirt particles by filtering through Johnson's Filter Cloth whenever you transfer your milk. And use Johnson's Discs when you strain the milk into your shipping cans.

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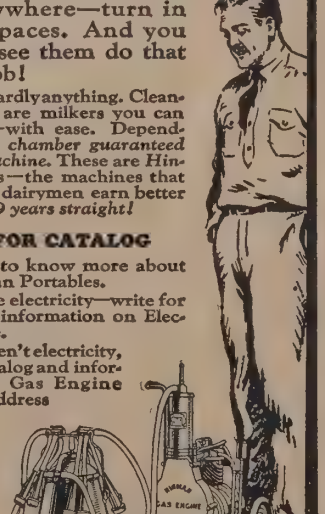
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COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Ohio	Ashtabula Co.	Apr.	319	813	29.7	R. H.	13	1108	37.8	G. A. Faerber
"	Northeastern	"	340			G. H.	9	1350	45.5	C. Gill
Vt.	Lamoille Valley	May	554	566	23.3	J.	4	917	45.2	W. C. Hadley
Ill.	Henry Co.	"	510	724	29.0	G. J.	8	933	44.5	L. Good
Ida.	Pioneer	Apr.	363	681	28.1	H.	9	1064	40.7	J. R. Crawford
Ore.	Central Oregon	"	502	601	27.2	G. J.	18	762	40.1	M. Hager
La.	Shreveport	"	798	544	25.7	R. J.	31	640	27.7	E. T. Fisher
Ida.	Gooding-Jerome	"	384	703	30.0	G. J.	4	973	45.6	B. E. Ahalt
Utah	Rich.-Lewiston	"	506	801	27.9	G. H.	10	1140	38.1	J. L. Robinson
Minn.	St. Louis Co. I*	May	251	714	27.4	G. G.	4	974	41.2	M. C. Francisco
"	Blooming Prairie*	"	380	756	28.3	G.	10	860	44.2	T. Pitersen
S. D.	Yankton	"	269	754	26.0	H.-S.	4	1290	49.5	J. J. Neiken
Mich.	Cheboygan*	"	221	721	27.0	R. H.	6	1326	42.7	F. G. Carlson
"	Macomb 2*	"	268	777	29.0	R. G.	4	892	51.9	H. Kruse
"	No. Wexford	"	187	687	30.2	M.	5	1105	48.6	H. Dussel
"	No. Antrim*	Apr.	234	600	26.1	J.	12	810	41.5	T. Shooks
"	Osceola-Reed City*	"	236	665	27.3	R. H.	10	1111	45.8	E. Hammar
"	Alpena-Leer	"	265	568	24.1	J.-G.	6	794	37.4	G. Weinert
"	So. Newaygo*	"	232	694	29.2	H.	5	1295	51.2	J. Meyer
"	Ogemaw*	May	279	766	30.5	H.-D.	7	1330	47.3	P. Siegrist
"	Mason-Ingham*	"	297	875	32.7	G. H.	3	1237	53.5	G. Higdon
"	Van Buren 1*	"	275	723	31.2	R. G.	7	995	48.7	A. E. Reading
Wis.	Endeavor*	"	407	744	27.2	G.	8	848	41.4	M. Ely
"	Spring Valley*	"	398	777	31.2	M.	9	1015	42.7	W. Strauss
"	Richland*	"	569	921	33.1	G.	9	1139	44.0	J. A. Hart
"	Clegborn-Eleva	Apr.	434		27.0	H.	14	961	38.7	J. Blodgett
"	Westby*	May	389	993	21.6	G. J.	5	987	42.6	J. B. Wemmer
"	Cedarburg-Grafton	"	294	1027	36.3	R. H.	8	1230	46.7	E. Sporer
"	Genesee-Eagle	"	526	783	30.9	G. H.	16	1335	46.8	L. Andofer
"	Denmark*	"	449	959	34.3	G. H.	9	1326	49.9	H. E. Johnson
"	Algoma*	"	495			G. G.	11	949	46.2	J. Jacobosky
"	Poy.-Columbia City*	"	444	844	29.3	H.	10	1342	39.0	W. Hill
"	Fond du Lac-G. Lake	"	456	829	30.4	M.	10	1109	43.8	M. R. Willsnak
"	Merton-Lisbon	"	524	817	31.4	H.	31	1266	44.1	I. J. Harness
"	Cicero-Black Creek*	"	436	804	31.4	H.	15	1396	47.0	F. Tubbs
Ind.	Spencer-Perry Co.*	"	296	647	29.1	R. H.	7	1469	46.9	G. W. Hafele
Mass.	Essex Co.	"	634	684	25.4	G. H.	25	981	35.1	G. W. Kinney

*Retest rules followed.

The High or Low Producer Overfed

HOARD'S DAIRYMAN:—The 515 cows tested in the Centerville Association of Wisconsin produced in April an average of 576 lbs. milk and 24.4 lbs. fat. Because of feed shortages, April apparently is one of the hardest months of the year to make the cows produce.

The criticism being made that high cows and high herds are being fed concentrates in quantities that are excessive and uneconomical are not justified. These cows have been fed according to production as far as good judgment would permit. In reality the low producing herds in this association consumed more concentrates per unit of production than the high herds. Herds averaging under 20 lbs. of fat per cow consumed about 10 lbs. of concentrates per pound of fat; those between 20 and 30 lbs. of fat consumed about 9.2 lbs. concentrates, while herds over 30 lbs. of fat consumed only about 8 lbs. of concentrates. While these figures may seem a little high, it should be remembered that they are figured on the basis of the herd rather than the individual cow. A net return of $3.36 per cow was made on herds under 20 lbs. of fat, while herds between 20 and 30 lbs. fat returned $6.72, and herds over 30 lbs. returned $10.01 per cow above feed cost.

Only with low production do feed costs eat up profits; consequently this is the only class that is overfed. Select cows that can make a large return over feed cost.

The figures have been based on Centerville records made during the winter months when the cows were on full feed. While they may lack experimental accuracy, I believe they show the facts in their true relationship. HARVEY L. BECKER, Tester.

Fewer Cows—More Profit

HOARD'S DAIRYMAN:—More profit from fewer cows is the result of improvements made by Clyde Brewer of the Richland Association of Wisconsin. During the first five months of the present year his 15 cows made $141.50 more profit over cost of feed than his 18 cows did during the five months of the previous yea

The 18 cows in Mr. Brewer's last year produced 2,331 lbs. fa first five months at a feed co $690. During the first five m of this year his herd of 15 cows duced 2,580 lbs. fat at a feed co $673. With three less cows i herd he secured 249 lbs. more fa his total feed cost was $17 less. butterfat at 50 cents a poun profit over feed cost was $1 greater the first five months o year, and he had less labor an pense because there were thre cows to care for.

Wisconsin. PETER NELS

Relation of Cream Laye Test

HOARD'S DAIRYMAN:—I have several trials the past two mon find out whether there was any tionship between the depth of e that rises on milk through stan and the test of the same mi placed the fresh milk in the ru Babcock test bottle and measur height of cream that rose t scale for the per cent of fat tat on the neck of the bottle. Th instead of measuring the numb inches of cream I took the me ment in per cent as though the were fat.

These trials indicated tha height of the cream does not ec sarily indicate any relationship test of the milk. I took two sam from the milk of one cow. Or kept out of doors where it wa c and the other was placed on ash in the kitchen. The cream on th fi showed a measured height of 8 the butterfat scale, while the kch sample of the same milk showed measured height of 5. Both sam were thoroughly mixed and o t showed the same per cent of f per cent.

In several cases the milk sh the highest cream layer would sh the lowest test. Milk from ow testing 3.5 per cent showed a re layer of 1.4 at one time. Th n time her test was 3.4 per cen the cream layer was up to 2. sample from Cow B showed a re layer of 2.1 with a test of 3

while a sample from Cow C
d a cream layer of 1.8 and a
f 3.3 per cent. The next time
C showed a cream layer of 2.8
test of 3 per cent.
ese figures show that no re-
can be placed on the height
e cream layer in measuring the
fat in milk. The Babcock test
only safe means of determining
uality of milk.

WILH. BODEKER, Tester.

of That Testing Pays

RD'S DAIRYMAN:—A dairyman
e a member of the Loudoun
y, Virginia, C. T. A. No. 2 last
ry, after much time and
ht was spent wondering if it
or a worthwhile cause. After
eting the fifth month's test he
"If I had known what I do now
ld have been a cow testing as-
ion member ever since I have
in the dairy business."
s herd consisted of 18 cows the
month, producing an average of
lbs. fat per cow and a total net
for the herd of $127.94. Some
ese cows appeared to be board-
ut it would have been unfair to
e of them without a fair trial,
cows were being fed alike.
e second month the feed was in-
d for most of these cows and
esult was a slight increase in
ction with one fresh cow. But
et profit was less than the first
n. It then seemed advisable to
e of these suspicious boarders.
ows were sold as unprofitable
wo new ones were purchased,
g a total of 14 cows in the
The ration was changed and
verage production per cow was
ised to 24.6 lbs. fat against 18.7
wo months previous. The aver-
et profit for the herd was $163
ared with $128 in January. The
made on this herd above feed
has been of marked improve-
each of the five months since
rst of the year. The month of
with only 13 cows in the herd
et profit was more than double
rst with a total of 18 cows in
rd.
s dairyman is now a booster of
A. work and his first five
s' experience as a member has
l him to take more interest in
rd and the work is more like

STEWART RIVERS, Tester.

Summer Feed

RD'S DAIRYMAN:—As the sum-
coming on dairymen are think-
their summer feed. Consider-
lfalfa was winter-killed by the
ce covering. The alfalfa that
d to stand the ice best was that
d by a topdressing of manure.
overing held the ice up and al-
more air space for the plants.
ctically all of the members are
ng on feeding grain with pas-
his summer. The older mem-
ave had its value demonstrat-
them before and the first year
ers are progressive enough to
p the better practices with
little urging. Watching the
ss of the older members is an
ive to higher ideals and prog-
r the newer.
se who have tried it realize that
er grain feeding will amply pay them for all their trouble. Not only will they profit by it this summer over and above the cost of the grain, but their cows will go into the winter in much better condition to continue to produce well all winter. Thus the returns will be double for a little extra care this summer. This ration should be made up of grains high in carbohydrates and fat this spring and gradually increased in protein as the pasture gets poorer and drier in July and August. A ration made up of four parts by weight of corn meal or barley, three parts oats, and one each of bran, cottonseed, and corn gluten feed meets the early pasture requirements very nicely.

Those who have doubts as to the returns from summer grain feeding have only to try it a year and see for themselves.

CLARENCE PRENTICE, Tester.

Annual Association Reports

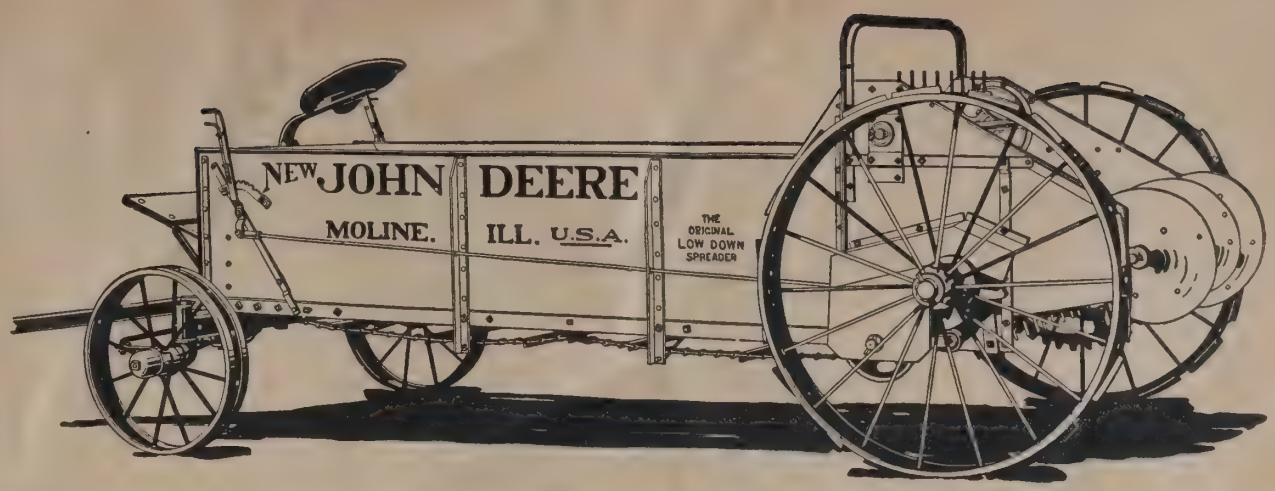
Association	Year ending	Total cow years	Ass'n Ave. Milk	Ass'n Ave. Fat	Cows culled	300-pound Cows	300-pound Herds	Fat records High cow	Fat records High herd	Tester
			Lbs.	Lbs.				Lbs.	Lbs.	
Osceola-Evart*	Apr.	139	8,020	319		82	9	512	393	E. S. Huff
Holmen	Mar.	417	7,474	340	81	317	32	727	420	M. Hendrickson
Cedarburg-Grafton*	"	242	9,638	356	43	185	21	658	537	G. Wild
Waumandee*	Apr.	389	6,776	249	68	107	5	535	342	A. Steen
Barnum	Dec.	332	8,071	331	35	129	22	532	412	A. Dahlman
Elkhart Co.	Apr.	99	6,867	319	19	93	10	629	432	G. L. Horton
Gooding-Jerome	Mar.	410	7,700	305	85	125	23	551	397	H. L. McBirney
Harrison Co.		220	5,846	182					345	W. Hendren

*Best rules followed.

Why Join?

James C. McCormick, tester for the O'Brien County Association of Iowa, gives in his annual report the following reasons for joining a cow testing association:

1. The association is made up of wide-awake constructive breeders of dairy cattle.
2. Guesswork is eliminated.
3. Better care is taken of the cows.
4. Unprofitable cows are culled out.
5. It is the only way to build up a herd.
6. The calves and cows are worth more to a buyer.
7. How many successful business men do not keep books? Isn't dairying a business? Why milk for the exercise? Know whether there is profit or not.
8. The cost of the association is very small and is not above the means of any dairyman.



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In this New John Deere Spreader you can now get that combination of advantages you have always wanted in a three beater, wide-spread machine.

Easier loading, lighter pulling, better work and longer life—all of these things, so essential to greatest satisfaction and profit from your investment, are combined in the New John Deere.

Its low easy loading box reduces the labor in loading from 15 to 25%. You can load 115 to 125 loads on this new spreader with less work than that required to load 100 loads on the ordinary machine.

Users say that the New John Deere is the lightest draft spreader built. Many of them who previously used three and four horses on other spreaders are using only two on this new machine. Higher drive wheels, roller bearings and fewer moving parts make possible this money-saving feature.

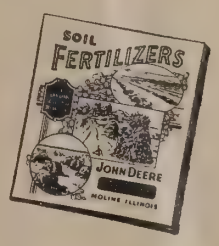
Good work follows the large diameter, low-to-the ground beaters. Manure is evenly spread in a well defined line, beyond the drive wheels before side winds can cause drifting.

John Deere quality construction—fewer parts and all of them made of high grade materials by good workmen—that's your assurance of years of satisfactory service.

Remember, two exclusive features on the New John Deere, the beater on the axle and the box-roll turn make possible this combination of advantages you are sure to want in your spreader.

See this new and better three-beater spreader on display at your John Deere dealer's. Put this money maker to work for you now.

If you prefer the single beater type of spreader be sure to see the John Deere Spreader, the spreader with the beater on the axle. There are more John Deeres on farms in agricultural sections than any other make. It gives you everything you want in an endless apron machine.



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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Co-operate

Ay tink ay vill co-operate
Und help my neighbor out
Ay can't get anyvere alone;
Dat's so vidout a doubt.

He needs my help, ay needs hes, too,
Ve pull yust like a team
Ven he kvits quarreling vid me
Und ay kvits fighting heem.

Ve neighbors act yust like beeg fools
Ven ve each odder fight
Und say each udder von is wrong
Ven neider von is right.

Ve pull our loads dat easy
No vun vill feel de veight—
Ven me und heem togeder vork
Und boat co-operate.

Minnesota. ERNEST F. SAUER.

Tufts Elected President at National Ayrshire Meeting

AYRSHIRE followers gathered at the Hotel Kimball, Springfield, Mass., June 8 for their 52nd annual meeting. The business session was quite brief, due to the thoroughness and completeness of the plans for the business at hand.

A list of amendments designed to place the existing rules and by-laws in a more legal form were carefully discussed, then adopted. They dealt largely with minor details of memberships, registrations, date of sale and delivery fees, etc.



LEONARD TUFTS, NEW PRESIDENT OF AYRSHIRE BREEDERS' ASSOCIATION

President Tufts is an ardent breeder of Ayrshires. He has studied Ayrshire breeding problems for over twenty years and much may be expected of him. Mr. Tufts has bred and raised champion bird dogs as well as champion Ayrshires.

The matter of the Ayrshire Bull Futurity was finally accepted. Six hundred dollars cash prize money will be annually devoted to this class at the Eastern States Exposition. Breeders may nominate any registered Ayrshire cow that has an Advanced Registry, Roll of Honor, or herd test record equal to 10,000 lbs. milk, 400 lbs. butterfat for a mature cow. (The requirements are graded down to 6,400 lbs. milk and 256 lbs. butterfat for junior two-year-olds.) All nominations must be made to Ayrshire headquarters Brandon, Vt., prior to August 1, 1927, for the 1928 show and accompanied by a fee of $2.00.

The date of service and name of sire to which cow is bred must also be furnished.

All bull calves dropped on or after August 1, 1927, from dams that have been nominated are eligible for the 1928 Futurity, providing they are properly registered in the Herd Record of the Ayrshire Breeders' Association, and another fee of $3.00 paid prior to January 1, 1928. Nominating fees paid for cows that subsequently drop heifer calves will be applied as second payments to bull calves that are eligible for the Futurity, or in the event that no bull calves are dropped by nominated cows belonging to that particular breeder the fee will be returned. The third and final payment of $5.00 must be made prior to August 1, 1928.

Considerable interest was shown in this new eastern class during the annual meeting. At least twenty nominations are expected by August 1, 1927. If twenty or more are nominated, the first prize will amount to $120. Fourteen places will receive cash awards. The main idea back of the class is to give more emphasis to Ayrshire bulls about one year of age. This is the popular marketing age and consequently commercial interest is also centered on this new class.

The Ayrshire breed has had a herd test in operation since January 1, 1926. The results have far surpassed the expectation of those who fostered the plan and an enormous amount of general breed development is expected as the test progresses. Seventy herds have been on test at one time totalling over 2,500 animals. At the present time 2,350 Ayrshires are being tested in various classes, making the largest number on test of any breed. Valuable information is being constantly secured regarding various sires and females, also statistics on certain blood lines and families which will have much effect on future breeding operations. The vision of the Ayrshire breed in adopting the Herd Test is certainly very commendable and the success of the plan stamps it as extremely worthy of more general attention.

Breed business increased throughout the various departments du the past year. The gross incom the Brandon office amounted $40,687.38. Six thousand nine h dred one animals were transferre new owners, 1,568 being females 5,333 males; 7,862 animals v registered, an increase of 159 1925. For the fifth consecutive a profit was shown at the end of regular twelve months' period.

The following officers were re-el ed unanimously to serve during next year: President, Leonard T North Carolina; Vice-preside Hugh J. Chisholm, New York; A. Seitz, Wisconsin; Percival Rob Pennsylvania; Dr. Jno. A. N Maine. Directors for three years D. Karr, New York; R. M. Gore, diana; Dr. E. C. Deubler, Penn vania; C. W. Wilson, Vermont; Henry Higginson, Massachuse David G. Page, Kansas; Gilbert Millan, Quebec; C. H. Bartlett, York.

The photograph of the Ayrs cow worked out by Cochrane Tryon was pleasantly discussed preliminary plans laid for the ph graph of the ideal Ayrshire bull.

The meeting adjourned at and shortly after eating all pre journeyed to Alta Crest Farms. a very enjoyable and educational ternoon was spent as guests of and Mrs. Sagendorph. Alta produces certified milk on a l scale and also does considerable work as well as showing, all of w added to the interest. In the eve the annual banquet took place. C. W. Larson, chief of Bureau Dairy Industry, gave a very inte ing talk on the magnitude and pre scale of the dairy industry. He gave those present a clean-cut of the future for dairying.

John J. Morgan, Morgan Ad tising Agency, Boston, talked "Bulls—How to Sell Them." Hi marks were very interesting an explained some of the fundam points of selling that every bre can and should employ. C. W. son presided at the banquet.

Between the addresses Secre Conklin and Superintendent of vanced Registry Kyle distributed silver plate and medal awards by various breeders throughout

Annual Ayrshire Sale Averages $240

On June 9, the day after the annual meeting, Ayrshire breeders gathered in the coliseum of the Eastern States Exposition for their annual sale. This year it was held under the auspices of the Ayrshire cattle breeders of New England and W. E. Brigham was sale manager. Fifty-eight animals of various ages were sold by Auctioneers Granger and Watson for what was considered very fair prices. No outstanding average was expected but buyers were confident of a profitable return on their individual investment.

Pineholm Farm, Massachusetts, consigned the top animal, Butter Girl's Valley Fair Kilbowie, a seven-year-old daughter of Weymouth Robin Hood 4th. Strathglass Farm paid $500 for her.

Robin Hood's Elowine from the same herd went to Sycamore Farms, Pennsylvania, for $475. Edgerstoune's Captain, a three-year-old bull sired by Hobsland Ayr Pilot and out of Auchenbrain Miss Craig 7th, champion head and horns cow at Boston Ayrshire Show, brought $310. He was consigned by Edgerstoune Farm, New Hampshire, and purchased by M. H. Benson of the same state. It was a popular opinion that this bull could have brought more money and still been below his real value.

Fifty-eight animals were sold during the afternoon for a total of $13,940.

Next year the Ayrshire Breeders' Association intends to conduct the annual sale. Complete co-operation of all breeders is of course necessary if the event is to be considered as national. Present plans are to select the animals very carefully so that buyers may make plans to attend an outstanding Ayrshire event.

The animals selling for $250 and over and their buyers are:

Fairlea Farms Co., Connecticut	
Berlin Bess 3rd	$380
Mrs. Alice H. Fox, Rhode Island	
Middlesex Elizabeth	$250
Marguerite of Solitary Acres	255
Mondamin Farms, New Hampshire	
Middlesex Bloodroot	$325
Walter H. Halbert, Massachusetts	
Betty's Son's Daisy of Old Forge	$280
M. H. Benson, New Hampshire	
Edgerstoune's Captain	$375
American Woolen Co., Massachusetts	
Dyke's Pansy 2nd. Imp.	$375
H. L. Higginson, Massachusetts	
Champion's Red Bess 2d	$255
Woodford Farm, Connecticut	
Royal Bell	$300
Snowball of Essex	330
Jerome Heffler, Connecticut	
Lessnessock Violet 7th	
Henry Trumbull, Connecticut	
Kirkbrae's Mayflower	
R. P. Cole, Rhode Island	
Fairlea Flossie	
Fieldhouse Mona	
Maribel Exchange	
Sycamore Farms, Pennsylvania	
Lewiston Lora	
Robin Hood's Elowine	
A. Spungin, Rhode Island	
Judy Kilbowie's Strawberry	
Strawberry's Royalist of Pineholm	
Strathglass Farms, New York	
Butter Girl's Valley Fair Kilbowie	
Benj. Stockdale, New Hampshire	
Tiddledywink's Duchess	
Irving B. Howe, Massachusetts	
Willowbank Duchess	

Duty on Swiss Chees Increased

An increase of 50 per cent in th duty on Swiss cheese was ord on June 8 by President Coolidge. T increase in the rate, which is n cents a pound, was decided on an investigation by the tariff com sion.

Johnny came back from his sight of an elephant much excit "Oh, Mama," he exclaimed, "Ju spilled some peanuts on the gr and what do you think happe The elephant picked them up wit vacuum cleaner."—Ohio Utility N

An Announcement That Revolutionizes Milk Handling Methods

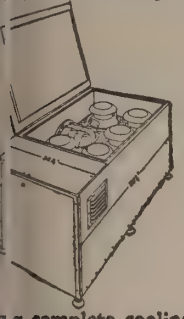


Definite Economies~ More Profits~ Less Labor~

ry dairy farmer in the country will this message of intense interest. ething new. Something modern. ething better. Displacing old-fash-d, laborious methods. Saving time, r, money, worry, and insuring a full rn for your milk.

efficient, economical, sanitary milk ing method at last. Practical for the time. Nizer-Kelvinator Electric Coolers.

can do away with expensive, troublesome ice esting. No more worry about the weather or ice supplies. No more slow cooling.



2 Sizes—2 Types for Large and Small Herds

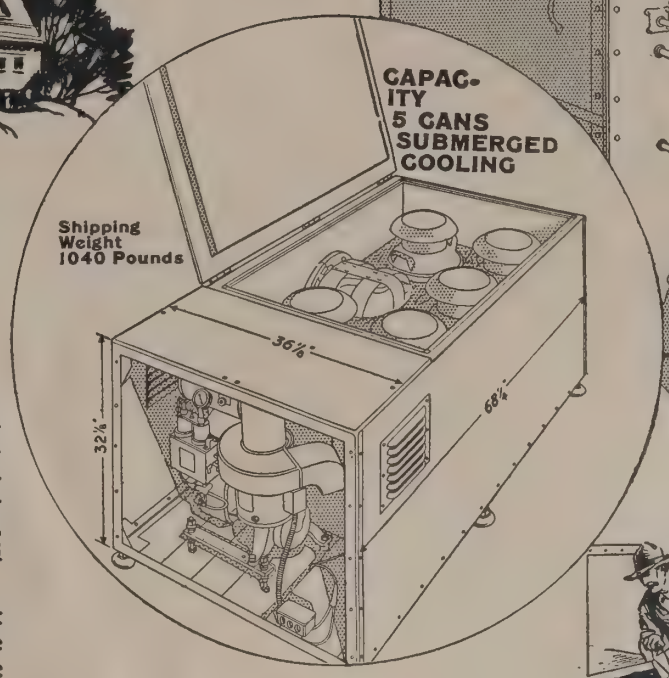
Nizer-Kelvinator Electric Milk Coolers are made in two sizes, the larger of which will take care of the output of a 16-can dairy. There is a storage space for eight 10-gallon cans of the night's milking and the morning milk can be quickly cooled over the aerator from 95° to below 50° F. It has a 16-tube 18-inch return tubular aerator, al-

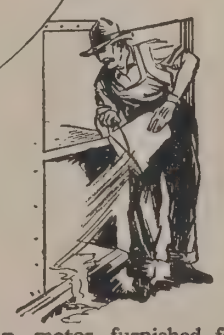
g complete cooling by brine. Making you entirely endent of water supply. Or, if plenty of water is able, the milk may be precooled at a saving of from to 60% in operating cost. Either way, operation is isingly easy, and you can quickly cool the milk.

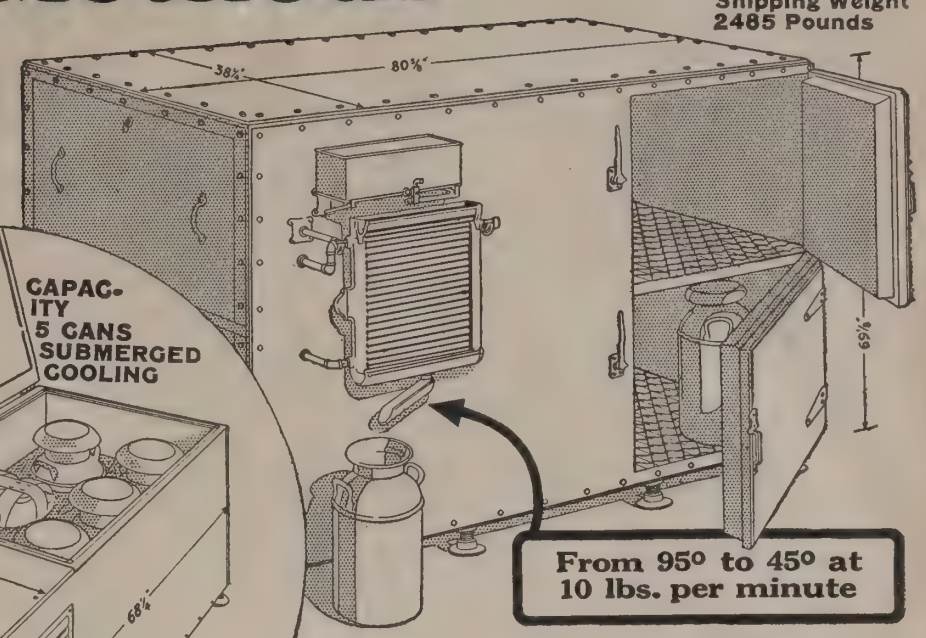
smaller cooler is of the submersion type and will ac-nodate five 10-gallon cans. Like the larger, it is com-ly self-contained. Ready to set up and start working ou. Reliable and fool-proof.

Lowest Possible Operating Cost

Nizer Compressors have proved their efficiency for in ice cream cooling installations. Model I, used with arger cooler, has a $^4/_{10}$-h. p. Universal Motor run by volt A. C. or D. C. It has ½-ton ice melting capacity and, on a 5¢ K. W. hour rate, produces cold equivalent to 100 lbs. of ice at a cost of only 10½¢. Model A Compressor, used with the smaller cooler, has ¼-ton ice melting capacity and operates on a ¼-h. p. motor, furnished for 110-volt A. C. or D. C. or for a 32-volt farm lighting system.







Last a Lifetime

Nizer-Kelvinator Coolers are ruggedly built—to stand the wear of farm use for years. Heavy steel housing, protected by steel bands and lined with galvanized iron. Shelves and flooring of the larger cooler are of heavy subway grating, removable for cleaning. And it is on adjustable standards for cleaning underneath. Storage compartments can easily be flushed out with water.



Tested on Real Dairy Farm

Nizer-Kelvinator Dairy Coolers have been under the most rigid dairy farm tests. Not an experiment—not a half-baked idea brought out in a hurry. But thoroughly tested. Proved practical, economical and efficient.

Best Farmer Selling Arrangement

Nizer-Kelvinator has arranged to sell to and through milk dealers and most Kelvinator dealers in the United States and Canada. Ask your dealer about it at once. He will explain how easily you can have the advantage of this modern cooling method. Or, if you prefer, write direct to the nearest Nizer branch for a descriptive folder.

$500.00 free for a name

Nizer-Kelvinator wants a good single-word name for its new Electric Milk Coolers—a name that means something practical, efficient, economical—a real dairy farm name.

Anyone connected with dairy farming may compete, by merely filling in the coupon below. The First Prize for the winning name is $500.00 in gold.

Beautiful Kelvinator for Second Prize



Nizer is combined with Kelvinator as a part of Electric Refrigeration Corporation, which makes it possible to offer as second prize—the celebrated "Sealtite" Cabinet Kelvinator Model 272. The oldest domestic electric refrigeration. In a beautiful gray cabinet—steel-clad, white enamel lined, two inches corkboard insulation. Ample storage space, light and easy to move about. The ideal electric refrigeration—giving "cold that keeps" without attention. Worth $210.00.

This Folder Will Help You

Learn all you can about Nizer-Kelvinator Electric Milk Coolers. Send for a descriptive folder. Then get up a good descriptive name. This is a fair, square contest. The judges are Harry A. Sieck, General Salesmanager of Nizer and Vice-President of Kelvinator, Inc.; W. A. Schreyer, Business Manager of Dairymen's League News; W. C. D'Arcy, President, D'Arcy Advertising Company, and Gordon Muir, Advertising Manager of Nizer.

Send in as many names as you wish—but each must be on a separate sheet of paper—and they must all be in the offices of Nizer Division, Electric Refrigeration Corporation, Detroit, Michigan, by noon Wednesday, Aug. 15th. The names of the winners will be published in this publication by Sept. 15th.



NIZER Kelvinator

Send this Coupon with your names

Take Advantage of This Help on Your Milk Cooling Problems

izer-Kelvinator will give dairy farmers the nefit of the counsel of one of the foremost iry authorities in the country, free of charge. arry A. Sieck, who was formerly Chief Engi-er of the Dairymen's League and Dairy Engi-er and Consultant of note, now General Sales-anager of Nizer and Vice-President of Kelvin-or, Inc., will answer your questions. Address arry A. Sieck, Nizer Division, Electric Re-geration Corporation, Detroit, Michigan.

REG. U. S PATENT OFFICE

THE PRACTICAL ELECTRIC MILK COOLER

Sold to or through milk dealers by Nizer Division, Electric Refrigeration Corporation, also by most Kelvinator dealers, and in Canada by Kelvinator of Canada, Ltd., London, Ont.

Nizer Sales and Service

Plymouth Road, Detroit
816 Sharples Bldg., Chicago
603 Spring St., Atlanta, Ga.
620 S. Delaware Ave., Philadelphia
1 West Forty-seventh St., New York
164-166 Manassas St., Memphis, Tenn.
4003 Wentworth Ave., Minneapolis, Minn
1911 Washington Ave., St Louis
701 Pacific Bldg., San Francisco
171 Sidney St., Cambridge, Mass.
1916 Gorman Ave., Waco, Texas
208 Third Ave., South, Seattle, Wash.
910 Pacific National Bank Bldg., Los Angeles, Cal.

NIZER—(*Div. of Electric Refrigeration Corp.*)
Detroit, Michigan.

Gentlemen: I submit the following name for your Electric Milk Coolers.....

Name.....Address.....

Size of dairy herd.....Name of Milk Company. I sell to.....

EDITORIAL COMMENT



THE TUBERCULIN TEST

At the annual summer meeting of the Wisconsin State Guernsey Breeders' Association, a resolution was unanimously passed expressing confidence in the tuberculin test as an accurate diagnostic agent and commending the tuberculosis eradication program that has been instituted by the Wisconsin Department of Agriculture.

This group of Guernsey breeders fully appreciates that tuberculosis is a costly disease and that it should be eradicated. They look with disfavor upon the few who would discontinue this good work and who are engaged in trying to create a suspicion as to the accuracy and reliability of tuberculin in locating animals suffering from tuberculosis.

The work of eradicating tuberculosis in Wisconsin is being well done. No thinking dairy farmers or breeders desire any interference with this program for they know that if we can free all herds of tuberculosis, their animals will be more valuable and in greater demand. This means better herds, a larger consumption of dairy products, and a more profitable industry.

BUTTER THIEVES

Late in April thieves broke into the Bloomington, Wis., Co-operative Creamery Company and stole eighteen tubs of butter valued at $600. Other instances have been reported by creameries sustaining similar losses. Good roads and trucks have made it possible for thieves to operate on a different system than in the days when stealing horses was so common. We have not heard of a horse being stolen in years because it is practically impossible for a thief to escape with a horse.

No plan has ever been worked out to stop all stealing. Through organization and the adoption of burglar alarms it can be minimized. The time may come, through electrical devices and improved methods of fastening doors, when the thief will be defeated. In the meantime, the simplest way to keep butter from being stolen is to have some one sleep at the creamery. We believe the situation is such as to warrant creamery manufacturing companies to devote attention to the development of a refrigerator which would require some hours' work to open. There can also be added protection by the installation of a burglar alarm.

GRADES—PURE-BREDS

Grade dairy cows are selling at relatively higher prices than pure-breds. This and other things have caused this statement to be made, by those who are not careful reasoners, that grades are better than pure-breds. It requires but a moment's reflection to reveal that grades are wholly responsible to pure-breds for their superiority over natives or scrubs. That some grades will produce more than some pure-breds is true, but to hold that all grades are superior to pure-breds is to overlook the source of grade blood.

The good prices which the well selected grades bring should challenge the attention of all pure-bred breeders and lead them to inquire why they sell for relatively higher prices than pure-breds. The answer is simple. The grade is more carefully selected. There is no reason for keeping an inferior grade, either in production or type. Consequently when a grade cow does not measure up to a certain standard of production she is sold to the butcher. This is particularly true of dairy farmers who belong to a cow testing association and conduct their affairs on a sound business basis. Data reveal that grade cows with good yearly records and of good type are the ones selling at attractive prices.

The pure-bred is responsible for these good grades, but the better selection of the grades points the way for the breeder of pure-breds. The breeder who expects to develop a good herd must make tests upon a yearly basis and eliminate low producers and those of poor type. The demand is for capable cows and of good type. The pure-bred breeders that meet this demand will be the ones to sell their stock at good prices. The stock of such breeders will be superior to the grades and will sell at relatively higher prices.

WHY MORE LAND?

The Reclamation Bureau has devoted itself constantly to opening up new sections of country and so far as we are advised their results on the whole have been most disappointing. According to reports, a survey has been made through the southern part of this country for the purpose of determining ways and means of draining certain sections in order to provide more land for cultivation. The government should direct itself to taking more marginal lands out of cultivation and growing more timber, rather than bringing more land under cultivation. The chief trouble with agriculture today is that we are cultivating too much land.

Millions of acres in this country can well grow a crop of timber before they will be needed to produce other agricultural products. Wisconsin has recently amended its constitution so that land devoted to forestry need not be taxed. The proposed plan is to levy a tax upon the timber when it is cut. It seems to us it is nothing more or less than good sense to give the coming generations an opportunity to bring land under cultivation rather than for the government to go to the expense of reclaiming land for agricultural purposes when we already have more under cultivation than it is profitable to operate.

SELLING FEEDS

If there were two elevators in town, one paying a dollar a bushel for corn and the other two dollars, there is no question what elevator the farmer would sell his corn to.

Cows on the farm which offer a market for feeds, pay various prices for them and many farmers do not seem to be the least bit concerned as to what each pays. Cow testing association records are giving us much information regarding the different returns cows make for their owners. The following table shows what cows will return that produce various quantities of fat:

Lbs. fat per cow	Returns pasture per month	Per ton silage	Per ton hay	Per ton grain
150	$ .92	$2.22	$ 8.32	$21.70
150—200	2.10	5.28	20.34	48.94
300—350	3.27	8.76	33.10	92.42

It will be noted that the cow producing but 150 lbs. of fat paid but $21.70 a ton for grain, while the cow that produced from 300 to 350 lbs. returned $92.42 a ton, more than four times as much as the 150-lb. cow. It should also be noted what these cows of varying abilities paid per month for pasture, per ton for silage and hay. It is then well to ask how much your cows pay per ton for their feed.

A RECORD OF CO-OPERATIVE ACCOMPLISHMENT

The audit of the accounts of the Twin City Milk Producers' Association shows that at the close of 1926 it had assets of something over two million dollars, with liabilities of three quarters of a million dollars, the net worth of the association being one and a quarter million dollars.

It is interesting to note that of the total sales of $5,362,524 for the last eight months of the year, 51 per cent was for whole milk, 26 per cent for sweet cream, 10 per cent for butter, 5 per cent for condensed milk, 3 per cent for cheese, 2 per cent for skimmilk, 2 per cent for powdered milk, and 1 per cent for ice cream. This is the gross ceipt from sales and does not necessarily re sent the net income from these sales. Conden milk represents 5 per cent of the total sales, the expense of this department is greater t any other. This is largely accounted for by expenditure of $61,000 for sugar, or nearly fourth of the total receipts from the sale of densed milk. The association received $9.50 its sweetened condensed milk, finding it a pr able outlet for a portion of its surplus.

The most interesting and instructive item in report is the showing as to the expense of op tion. The association returned to its member per cent of the total amount received from sale of products for this period of eight mon The total cost of operation of the association only seven per cent, and this includes the supp and manufacturing costs for the 49 per cent plus of the total milk received as well as the pense incident to supply the dealers with w milk.

Members of the Twin City Milk Produc Association may well take pride in this record accomplishment. It illustrates the possibility securing efficient management that not only m the local situations as they arise, but that does work at a reasonable cost and without extra gance. The success of a dairy co-operative is entirely measured by the price received for product. Questions of local supply and dem influence price materially. Good manager meets this situation and protects the prod from exploitation, but it is particularly plea when this management is able to operate reasonable cost.

SWEET CLOVER INCREASE YIELDS

If one were to ask the average farmer whe legumes increase or help to maintain the yield succeeding grain crops, the answer would be 'y as many times as the question were asked. If were to ask how much legumes increase yield the answer would be somewhat speculative. If were to ask how much different legumes incr succeeding grain crops the answer would still speculative.

The Ohio Experiment Station reports some perimental trials that throw some light on subject, at least for the particular soil on wh the trials were conducted. For nine years yields from a 3-year rotation of corn, oats, and gumes have been measured on a soil known heavy phase of Brookston clay. In this trial legume crops compared were plowed under year as they came into the rotation. The increase in yields on corn and oats were as follows:

Where medium red clover was grown the age annual increase of four crops of corn was bushels per acre compared to corn grown with a legume in a rotation of corn and oats. Wh sweet clover was grown the increase was 8. bushels per acre; where mammoth clover wa grown the increase was 7.3 bushels per acre.

The influence on the oat yield for medium re clover was 2.6 bushels per acre inerease f crops; for sweet clover the increase was 9 bushels for mammoth clover it was 3.9 bushels.

A similar experiment was tried where th gumes were cut for hay and only the stubblean fall growth plowed under the following sprin for corn. Sweet clover gave an increase of 6.3 bushel of corn and 8.5 bushels of oats above the yield se cured from medium red clover, and 9.4 bushe corn and 7.4 bushels of oats above those se re from mammoth clover.

The outstanding point of interest in this experi ment, and one that dairy farmers ought to ak use of, is the increase from sweet clover. Th in creases from the red and mammoth clover ar very good but those from sweet clover are grate than many farmers realize.

Savings for Bedding and Fertilizer

it advisable to use waste wood products such shavings or sawdust on the land? Will it harm soil? Do they have much value as fertilizer?
ferta, Mich. M. S.

wdust and shavings contain about one-half as h nitrogen as straw and about an equal amount hosphorus and potassium. Ordinarily straw absorb two times its weight of water, while lust and shavings have from two to three s the absorbent power of straw. The plant in the shavings, particularly if they are pine ings, will not become so readily available as that in the straw.

avings are preferred for bedding by producers gh grade milk because of their greater absorb- power and because the cows will keep some- cleaner with a less amount of bedding. Some tion has been registered as to their use be- e they do not always decay readily in the soil. would be no great disadvantage on medium y soil but might prove of some disadvantage ght, sandy soils that are inclined to dry out dly. However, we anticipate this danger in the of shavings is overestimated. Manure is m applied in such quantity as to make the ning effect of the shavings a very material r in its drying out. Hardwood shavings will y more readily than will pine shavings.

Best Depth to Plow

ease inform me whether it is a good thing to deep. My soils are clayey and quite sandy.
dison, Wis. R. S.

has been abundantly proved that it is not good ow a field the same depth from year to year. lowing shallow or at a uniform depth, the soil ot become mixed well and a hard bed is formed e bottom of the furrow, which neither the air, r, nor the roots of plants will penetrate readi- A little subsoil turned to the surface occasion- allows the elements to act upon it freely, thus ating food as it mingles with the surface soil vegetable matter. In this way more valuable food and greater depth of soil are furnished plants which grow upon it.

e quite frequently observes soils containing plastic clay. In times of rain, the clay from urface of these soils is washed away either in- reams or it percolates through the soil and is ited into the subsoil below. It happens in this a usually that subsoils contain more finely divid- ay than do the loam which overlay them. Clay to retain moisture.

is also true that these clayey soils appear dry e surface at the same time when the subsoil is aps too moist for affording best condition for ing. Plowing under such conditions may form er of puddled clay as it slips across the wet il and in so doing brings about a very unde- le condition of the plowed soil.

r deep, rich soil, deep plowing, say from six to inches, is best in the fall of the year. The should be increased by one-half inch each eding year until the required depth is ed. Then return to the normal by gradually ishing the depth from year to year. Light ing soils, those running into sandy loam and it is safer to plow shallower. For thin, clayey and equally light subsoil, plow from five to inches; for small grains it is perhaps better very deep plowing, because it does not turn ompact clay to the surface and it loosens the o a good depth. Of course, where root crops intended to be raised, it is profitable to oc- nally subsoil and plow deeper. Some farmers ice plowing a little deeper each year for sev- years in succession and then for one season at about half the depth of the deepest plow- n a series of years.

Food Value of Milk

ease give the relative food value of milk as ared with other foods.
nesville, Wis. A. R. C.

quart of milk contains as much protein as 7 es of sirloin steak, 6 ounces of round steak, eggs, and 8.6 ounces of poultry. In energy a quart of milk is equal to 11 ounces of sir- steak, 12 ounces of round steak, 8.5 eggs, 10.5 ounces of poultry.

an economical source of protein, sirloin would have to sell at 23.3 cents a pound and at 25.1 cents a dozen, when milk can be pur- d at 10 cents a quart. With milk selling at ents a quart, sirloin steak should sell for 35 a pound and eggs at 38 cents a dozen to l milk as a source of protein.

As an economical source of energy and heat building, sirloin steak should sell for 14 cents a pound and eggs at 13 cents a dozen to equal one quart of milk at 10 cents. If milk sells for fifteen cents, the consumer can afford to pay 21 cents a pound for sirloin steak and 20 cents a dozen for eggs to secure the same amount of energy he will get in the quart of milk.

Comparison is made here on the basis of animal products only as they are more nearly the chief competitors of milk on the family table. If the vegetable and grain products were considered, the comparative protein and energy value of milk would not be so favorable. But, even so, the whole story of milk has only been partially told, for milk is more than protein and energy. Milk is a fundamental food for all mankind.

Milk contains something special in it that is essential to growth. Scientists call it vitamin A, and milk and milk products are the best and cheapest source in the human food supply that is available for this essential.

Milk proteins are complete proteins such as is found in no other food. They are nicely balanced to the body's need and are nearly all digestible.

Milk contains lime, and the diet of the ordinary person is more often deficient in this than in any other chemical constituent. A quart of milk contains a quarter of an ounce of mineral matter, of which lime and phosphates constitute one-half. These materials are in such a form as to be most readily assimilated. Lime and phosphate build good bones and good teeth, and milk is much richer in these than other common foods and is one of the cheapest sources of this essential but often neglected food constituent.

Making Alfalfa Hay

In handling alfalfa hay do you stack it the day after it is cut or do you bunch it after raking? Do weeds amongst it affect the curing of second and third cuttings? How many turnings do you find the windrows require in good haymaking weather and does the side delivery rake shake off much more leaf than a tip rake.

It may interest you to know that herd testing is being subsidized by our federal government as well as by the state government of Victoria. There is now every inducement to progressive farmers to have their cows tested as half the cost of testing is borne by the government.
Yinnar, Australia. M. F. W.

The condition of the weather makes a great deal of difference in the handling of hay. In good, dry weather it is our practice to cut the hay in the forenoon, rake it up with a side delivery rake in the afternoon, and if the weather continues good we quite occasionally haul it to the barn the succeeding afternoon. It is well to go over the windrows some two hours before hauling so as to turn the bottom up to the drying action of the wind and sun.

The use of the windrow hay loader expedites the operation, although it is not difficult pitching the hay on to the load from the windrow. Where there is assurance of good weather it might be well in most cases to allow the hay to stand in the windrow for two days. If rain intervenes it is remarkable how quickly the hay in the windrow will dry out, particularly if it is merely rolled over with the rake after the top part has dried out.

The weeds will dry out quite as well as will the alfalfa, at least we have observed no trouble from this. Quite occasionally the hay will get very hot in the mow and will turn a dark brown in color. This is no disadvantage as the cows really like the dark colored hay the best; that is, hay that has heated in the mow and through the fermentation process acquires a somewhat sweeter flavor. Some men are fearful of spontaneous combustion and there is possibly some danger of putting alfalfa hay in the barn in this condition. However, we have followed this practice for a number of years and have had no difficulty, possibly due to the fact that we attempt to distribute the hay evenly over the mow so that it will pack down solidly.

A side delivery rake will not shatter the leaves as much as the dump rake. Its general tendency is to turn the leaves into the inside of the windrow so that they cure out somewhat more slowly and so do not shatter as badly as when raked up with the other type of rake.

We were glad to learn of the splendid support that is being given to cow testing associations by the government of Australia. We are inclined to believe that this is one of the most important things that the government can do for the advancement of the interests of the dairy farmer. It is a practical, every day sort of thing that does the work of building dairy farm profits.

Compensation of Farm Manager

I am a subscriber to your valuable paper and I am writing to get your views as to what is a fair wage to pay a man for running a farm, he to do all the work with the aid of his family. Not less than twenty-five cows will be milked the year round, and the expectation is to raise about eighty-five hogs a year and keep about 200 chickens.

In addition to a straight wage per month the farmer is expecting a share of the profits. Should this be based on gross or net, and what proportion? He is to furnish nothing in the way of stock or equipment. Farm consists of about 160 acres, divided into about one-half plow land and one-half bluegrass pasture. The farmer has had considerable experience in farming in the past, but failed during the deflation and has been doing common labor and wants to get a fresh start.
WISCONSIN OWNER.

Wages are so much influenced by local conditions and the ability of the worker that it is impractical to make any definite statement. It is probable that such a man as you have in mind should receive a wage of not less than $60.00 to $75.00 a month, and in addition house rent, garden, milk, eggs, and if hogs are raised, a certain amount of meat each year. It is probable that as a farm manager he should receive even more than this, particularly if he is to supply all labor that is done on this farm. Such a farm as you have would require, normally, not less than the full time of two men. If all work is to be done by family labor, your manager should receive not less than double the wage of the usual farm laborer in your vicinity plus a certain allowance as manager of the farm.

The suggestion has been made that a man employed as working manager should receive a definite monthly salary of something in excess of the wages paid to regular farm help in the vicinity. In addition to his salary and the usual perquisites of garden, milk, etc., he should receive, say, 25 per cent of the difference between the receipts and expenses of the farm. Under this arrangement the owner should supply all the capital for the running of the farm and the manager has no other responsibility except to see that the work is well done, the books kept, and the interests of the owner protected at all times.

Professor Boss of Minnesota some years ago suggested the following agreement as being suitable for the conditions as outlined:

"This agreement is for the term of one year, beginning ———— with the option of renewal for two years additional, or so long as may be mutually agreeable.

"The Farm: The farm to be operated is known as ————, described and located as follows: ———— and owned by————. The general type of farming to be followed is dairying and mixed crop raising.

"Manager's Salary: Mr. ————, as working manager, and his wife, as housekeeper, are to be paid a joint cash salary of $55 a month and board. In addition to the salary of $55 a month, they are to receive, at the end of the year, 25 per cent of the difference between the receipts and the expenses. In determining the difference any increase in inventory is to be counted as a receipt. A decrease in inventory is to be counted as an expense. Land and personal taxes and insurance are to be considered as an expense. Permanent improvements in the way of new fences, buildings, tiling, ditching, or alterations and repairs requiring material or additional labor beyond two per cent per year of the inventory value of the buildings and fences, are to be charged to the capital account of the owner.

"Financial Management: The farm is to be operated on a budget system providing for a certain amount of money from which to operate the farm during the year. The budget allowance is to be supplied by the owner until it can be provided from the receipts of the farm. All receipts shall be paid into the budget by the manager. All expense shall be paid from the budget by the manager upon the approval of the owner. He shall keep the owner fully informed of all financial transactions and shall keep a book account of expenditures and receipts which shall be open at all times to the inspection of the owner. No expenditures involving a sum greater than $50 shall be undertaken without the agreement of the owner and the manager. Each party to the contract shall make it a point to keep the other party fully informed as to the plans and prospects and, so far as possible, shall determine jointly in advance the crops to be raised, the stock to be marketed, and the general policy to be followed in operating the farm and marketing the produce."

Use BOVINOL
REG U.S PAT OFF

and Stop the Unequal Fight

your cows must wage against flies. A cow has only a switching tail for a weapon to keep flies from stinging. Fighting the unequal battle for quiet and comfort, the cow wastes energy—equivalent to the food value of a pound of oats per head per day! Scientists have made that estimate.

What is the result of this waste to farmers and dairymen? Financial losses. During very severe outbreaks of flies, it has been estimated that milk production was reduced by 40 to 60 per cent, while the rate of fattening was reduced almost as much.



Spray your cows with Bovinol and prevent such losses. Flies may settle on a cow that has been sprayed with Bovinol—but they cannot sting! Bovinol is harmless—contains no poisonous elements. It is odorless, tasteless, and stainless.

Apply Bovinol with the compressed air type of sprayer in which the oil is forced out by air pressure and is further atomized by an air blast. Spray against the direction of the hair, so that Bovinol will penetrate the coat, and be sure that every square inch of the hide is covered. It requires less than a minute to spray one cow.

Agricultural experiments and practical dairy tests have shown that a consistent use of Bovinol will increase milk productionat least 10%!

Spray your cows morning and evening with Bovinol.

BOVINOL
REG. U.S. PAT. OFF.

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4701

Jerseys at National Bring $45,530

THE national sale idea is what might be termed a new one to Jersey breeders. In past years many sales have been held, some of them annual affairs, which made it a bit difficult to get a national consignment sale started. The spirit with which Jerseymen are taking hold of the matter speaks well for future sales.

To fit its place in Jerseydom a national sale must be outstanding in character. Breeders should feel that it is an honor to own an animal or two that the committee deems acceptable. When this state of affairs is brought about, not only with Jerseys but with all breeds, buyers will purchase with confidence the offerings that pass through the ring.

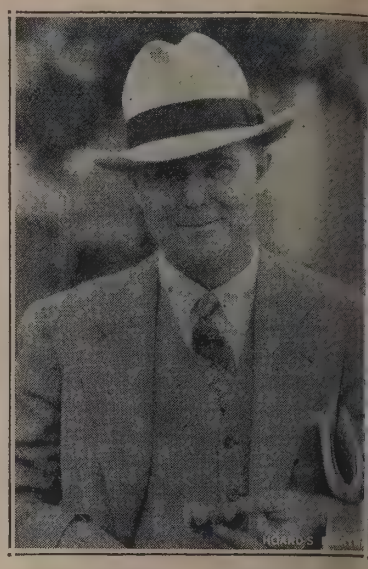
This year's national sale was held June 3 at the Interstate Fair Ground, Trenton, N. J. In passing it might be appropriate to add that the management of the Trenton Fair takes an active interest in live stock affairs. Its co-operation and many courtesies are sincerely appreciated by the followers of the various dairy cattle breeds.

The animal bringing the most money of the sale was Rower's Belle 3rd, a four-year-old daughter of Cedar's Golden Oxford. She was imported and consigned to this sale by B. H. Bull & Son, Canada. Her price was $3,600 and she went to Dr. W. H. Hutchings, Alabama.

Another Bull consignment, namely Merry Magpie's Girl, a three-year-old daughter of You'll Do's Volunteer, went for second high money when she brought $1,650. This animal was also purchased by Doctor Hutchings' agent, John Lee.

Nine bulls were sold for an average figure of $387. Pebble Hill Plantation paid $850 for Lorraine's Prince, a four-year-old son of Fauvic's Prince and consigned Barnes. J. W. Woodruff, Geor placed the high bid on Wauba Highland Lassie's Forward and this three-year-old son of Forw for $775.

The sale started shortly after



JOE MORRIS, SALE MANAGER A NATIONAL JERSEY SALE

o'clock and quick action was ne sary to sell the entire 85 head du the afternoon. Bidding was q brisk, however, and the details of sale were handled very well by



J. S. CAMPBELL, JR., W. R. SPANN, TOM DEMPSEY AT NATIONAL JERSEY SALE

Manager Morris and Auctior Perry and McCord.

The average price paid for th animals sold was $542.

The animals bringing more $400 and their purchasers are:

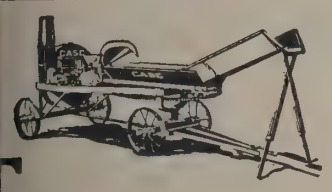
Pebble Hill Plantation, Georgia	
Fauvic Rosalie	$8
Fauvic Lady Rosebay	5
Lorraine's Prince	8



ROWER'S BELLE 3RD, THE HIGHEST PRICED ANIMAL AT THE NATIONAL JERSEY SALE

She was consigned by B. H. Bull & Son, Canada, and sold to Dr. W. Hutchings o Alabama for $3,600.

., Means, Massachusetts	
Boadicea of Oakland's Folio	$1,100
Rowland, Jr., New York	
Hetty Bloom	$1,150
ace MacMonnies, New Jersey	
a Hougne Beauty Spot Folio	$575
L. Hutchings, Alabama	
Merry Magpie's Girl	$1,650
Tower's Belle 3rd	3,600
Kenia's Juliette	1,000
. Madding, Illinois	
Sybil's Rose 3rd Folio	$525
Sultan's Field Flower	950
S. Ellsworth, Connecticut	
Sybil's Rose 4th Folio	$925
. Mock, Kansas	
mp. You'll Do's Volunteer's Pallas	$500
. Heald, New Jersey	
mp. Coronation's Ivy May	$775
Lady Cunarda	600
. Erdle, Pennsylvania	
Victor's Cherry Bud of Lehigh	$800
Victor's Beauty of Lehigh	625
L. Lippincott, New Jersey	
Victor's Pretty Lady	$950
Victor's Lady Plymouth	825
Corey, California	
Victor's Graceful Bowlina	$500
Victor's Oxford Viola	500
. Howland, Vermont	
Victor's Viola's Princess	$525
Oaks Farms, New Jersey	
Alligator's Favorite	$500
Golden Maid's Feather Lass	750
Campbell, Pennsylvania	
Sultan's Mascot	$775
L. Loomis, New Jersey	
Kenia's Sunbeam's Sultan	$550
y Springs Farm, Pennsylvania	
Dairylike Primrose	$500
t. Carter, Pennsylvania	
Imp. Ethel Agnes	$600
Farewell's Society Queen	725
Oaklands, Michigan	
Meridale Imported Camilla	$725
. Woodruff, Georgia	
Highland Lassie's Forward	$775
ter Gordon Laboratory, New Jersey	
Coronation's by Gum	$525
L. Scranton, Maryland	
Bowlina's Oxford Composer	$625
. Cornish, New York	
Fern's Golden Clare	$800
. Cooper, Pennsylvania	
You'll Do's Fauvic Maid	$1,000



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the average machine
and the low cost
per year of service
you get with a
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less power used,
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Chambers Rocks Farms, Delaware	
Imp. Lady Skirmish	$600
A. E. Carpenter, Vermont	
Blonde's Oxford Victor of H. P.	$500
Margaret England, Maryland	
Mistletoe's Laughter	$550
Mrs. R. H. Poland, Pennsylvania	
Mistletoe's Mirth	$550
Old Forge Farm, Pennsylvania	
Imp. Speck's Fern	$1,300

American Jersey Cattle Club Meeting

The 59th annual meeting of the American Jersey Cattle Club was held at the Waldorf-Astoria Hotel, New York City, June 1. Lewis W. Morely reported that during the fiscal year ending March 31, 1927, the number of registrations reached 55,904, a new high record for any one year. Transfers of ownership totaled 44,536. Twenty-three bulls and 360 cows were imported from the Island of Jersey last year. The total number of animals registered recently passed the millionth mark, which establishes a new milepost in the history of this breed. The Club membership is now 1,057, forty-four new members having joined last year.

The adoption of the one-day test has undoubtedly been partly responsible for the increase in Register of Merit testing. Three-fourths of all breeders doing testing are using one-day supervision. In March, 1927, 2,380 cows were on test. During the fiscal year 2,147 records were accepted of which 1,095 were for 365 days and 1,052 were for 305-day tests.

The extension work followed much the same plan last year as previously. Nine fieldmen were employed. At present there are 284 organized Jersey calf clubs with 3,417 members, and about 280 communities expect to organize calf clubs. There are 199 Jersey bull associations in the United States.

During 1926—27 the Extension Department took part in six better sire or dairy campaigns and had representatives on five special trains operated by various railroads to stimulate better dairying.

The assistance given in the development of community programs has been one of the features of the Club's field work.

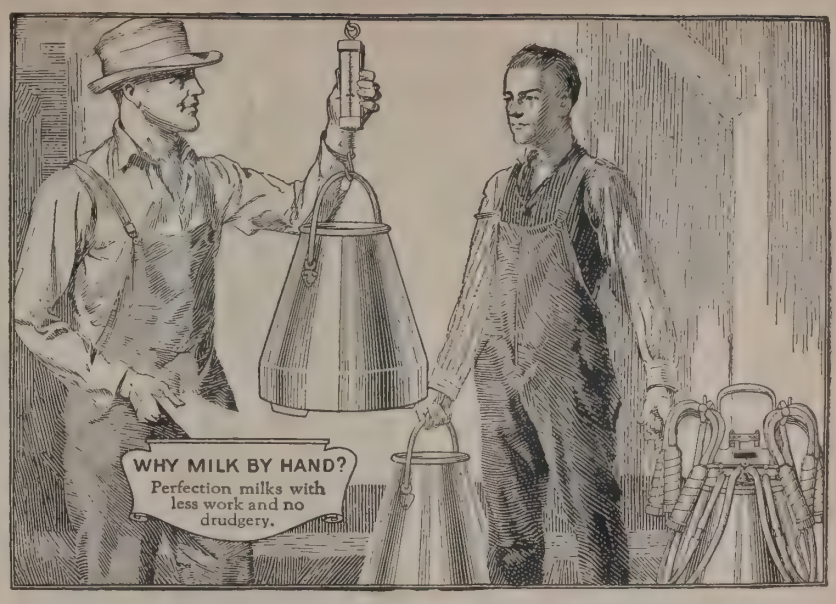
R. M. Gow, the treasurer, submitted a detailed report covering the financial transactions of the Club. The total net receipts for the year were $290,824.50 and the expenses were $13,143.92 over the receipts.

A resolution was passed tendering the profound sympathy of the Jersey breeders to those who suffered from the flood in Louisiana. An appeal was made to Jersey breeders throughout the country to contribute both Jersey cows and heifers to be shipped to tick-free areas, and distributed by the Rehabilitation Committee of Louisiana.

The adoption of a design for a Jersey milk trade-mark was announced. Steps will be taken to familiarize the public with the new design and what it represents.

President Barnes in his address outlined his plan to bring about more uniform judging in the show ring. He and Professor H. H. Kildee of Iowa and C. J. Tucker of Longview Farm, Missouri, have spent much time on this subject, and it is believed that the judges at the larger shows will co-operate with this committee in its effort to secure greater uniformity, with more emphasis laid on capacity and milking qualities as shown by veining, form, and size. The minimum and maximum weights for mature cows and bulls have been increased 100 pounds on the score card, but it is felt the effort to improve capacity, milkiness, and size will not conflict with the smoothness, beauty, and quality of the breed.

Col. A. Victor Barnes of Connecticut was unanimously re-elected president and A. L. Churchill of Oklahoma was elected vice-president. The new directors are: J. S. Campbell, Pennsylvania; Sam F. Crabbe, North Dakota; John S. Ellsworth, Connecticut; J. W. Coppini, California; and J. Riley Green, Texas.



Weighty Reasons Why Perfection Pays

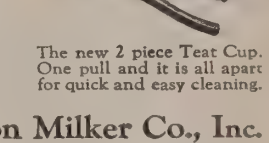
"AFTER five days of milking with the Perfection we had gained a full 8 gallon can of milk"; so writes another satisfied user.

Yet this is the experience, not of one Perfection owner but of thousands.

One needn't tell a Perfection user that cows like its natural uniform action. Cows show their own preference with more milk and a longer lactation period.

The new two piece Perfection teat cup accounts for much of this increased production. It milks cleaner, faster, and with less vacuum; besides it is quick and easy to wash.

The Perfection has still other ways of increasing your profits. It enables you to milk in one-third the time. In a dairy of ordinary size it saves enough in wages alone to pay for itself in less than a year. Now that the Perfection is so easily obtainable, (sold on monthly payments if desired) it is really expensive to milk by hand. Why assume this unnecessary expense? The Perfection is the old reliable milker, backed by fourteen years successful service. Write today for our new catalog.


The new 2 piece Teat Cup. One pull and it is all apart for quick and easy cleaning.

Perfection Mfg. Co. or Perfection Milker Co., Inc.
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PERFECTION MILKER

"Plant We a Tree"

Now to thy bosom, Mother Earth,
Let us in faith confide
This budding nursling—thine from birth—
Safe in thy care to bide.
Protect it well from drought and dearth,
Rich sustenance provide;
Cause it to wax a tree of worth,
Let no dire harm betide.

We pray that thy fair branches, Tree,
Pointing to Heaven above,
May guide our eyes to look, with thee,
Up to the source of love.
There may we inspiration find,
Whence come sunshine and light;
There courage seek, for heart and mind,
To work for God and right.

—A. S. ALEXANDER.

The senior three-year-old record for Kansas Jerseys is now higher by 230 lbs. of butterfat than it was before the young pure-bred cow, Octavia's Jolly Mabel, completed her test. This cow, which is owned by Everett T. Comp, was placed on test at 3 years and 8 months of age, and in the ensuing 365 days she produced 775.45 lbs. butterfat and 15,653 lbs. milk.—The American Jersey Cattle Club.

A New Sanitary Finger Pull Cap for Milk Bottles

LOW COST



A new sanitary cap that fits tight. Easy to remove from bottle with fingers. The household appeal of Kuvercaps gets new customers and holds the old. Try out a few and see how popular they are. The cost is small—they build new trade quickly. Ask your supply house for samples and prices, or write us. We also make "Midwest" Standard Disc Caps—noted for quality.

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Kelly-Springfield tires always have been built for the man who demands the utmost in riding comfort, in dependability and in long mileage.

They have been designed, not to sell at a given price, but to deliver maximum service.

Kelly has built a lot of good tires, but never any so good as the present Kelly Cords and Balloon Cords. In every respect these superb tires are far ahead of their predecessors.

Yet they cost *no more* than other well known makes.

"Kelly dealers everywhere—
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KELLY SPRINGFIELD PNEUMATIC TIRES



Strictly high grade milk wagons, built upon honor and fully guaranteed. Ask for free catalog showing styles for every requirement. Suitable terms and liberal cash discounts. Pioneers in milk wagon building with sanitary bottled milk equipment.

DEKALB WAGON COMPANY
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for feeding calves

Do you know that you can cut milk costs in half by adopting the "minimum milk method," using dry skim milk? Hundreds of dairymen who sell all their whole milk are making this big saving. They simply mix a pound of dry skim milk with a gallon of water, making a money-saving mixture which young calves thrive on. And they buy a pound of dry skim milk for half or less of what they receive for a gallon of whole milk. (1 gallon whole milk contains 1 pound milk solids.)

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FREE Write today for "Better Calves" giving successful feeding methods. State number of calves you feed. We'll tell you where to buy dry skim milk.

Remixed—1 pound dry skim milk to 1 gallon of water —is also good for pigs and poultry. It is splendid also for baking.

A Vest Pocket Herd Book is a good investment

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Electric or *GasEngine*

$90 Single Unit Complete



Now Used on Prize Herds

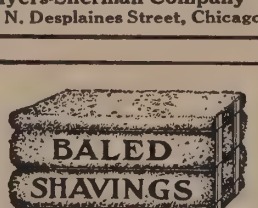
Send for our FREE booklet No. 20

Fords Milker is used by thousands of farmers who are getting more and premium-priced milk with it. Cows like it. Used on prize herds. Saves time and hard work, easy to operate and clean. Designed by men who have spent a lifetime in the business. Made with heavy aluminum pails, and best materials throughout. Does better work, lasts longer, and costs less.

You owe it to yourself to investigate. Send for Booklet No. 20

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For bedding most convenient, serviceable and sanitary. Write for prices.
Jagerson Fuel Company, Neenah, Wis.

Grahamholm Holsteins Average $53

HOLSTEIN breeders from at least a dozen different states were at Rochester, Minn., May 27—28, to attend the dispersal sale of Dr. Christopher Graham's Grahamholm Holstein herd. This herd has for years had an enviable and deserved reputation among Holstein breeders everywhere. In it were developed world record producers and show ring winners and it was to be expected that properly managed such a sale would be successful. It was.

Ninety animals, the Grahamholm herd, sold for $47,950, an average of $533, an average which is exceptionally good including, as it does, every animal in the herd. Sixty-six females averaged $540 and 24 bulls, $513. Ten head sold for $1,000 or more and nine went for less than $200.

In addition to the Grahamholm herd, there were 22 animals consigned by Graham and Hanson, Mayowood Farms, Dinal, Graham and Olin, Schuager Bros. and Graham, and Dr. A. W. Adson, bringing the total number of animals sold to 112 for which the average price paid was $475.

The top price of the sale, $3,000, was paid by Mrs. F. E. Murphy, Minnesota, for that great cow, Grahamholm Colantha Segis Maid, that has three records above 30,000 lbs. milk, her total three years' production being 100,469.5 lbs. Grahamholm Colantha Pauline Segis, another great producer (1,426.75 lbs. butter, 34,291.8 lbs. milk in a year as a 4-year-old), was purchased by F. E. Murphy for $2,550, the second high price of the sale.

Halsey Sedgwick, Wisconsin, purchased the top bull, Grahamholm Pauline Piebe King, an 8 months' old calf, for $1,300. This youngster is sired by a grandson of Piebe Laura Ollie Homestead King and is from Grahamholm Intensity Colantha, a daughter of "Dutch" and Grahamholm Colantha Pauline Segis.

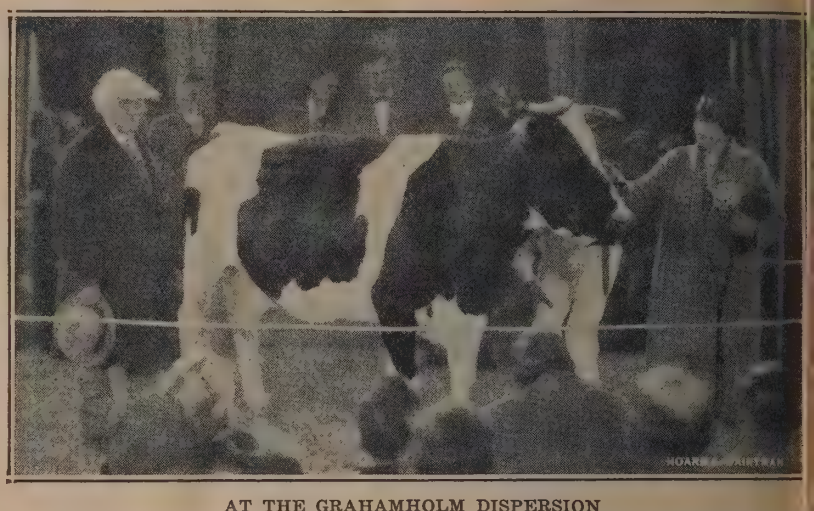
Dutchland Creamelle Colantha L (Dutch), 12-year-old sire who daughters have added so much to t Grahamholm herd, came into t ring, "guaranteed serviceable," a was sold to F. E. Murphy for $8 If he will sire but a half dozen a mals for Mr. Murphy, he may w prove a very profitable investment

F. E. Murphy was the heavi buyer, taking 16 head for $14,700.

The sale was managed by Me and Petersen; Mack, Thomps Hanson, and Wood did the selling.

Following is a list of those a mals selling for $500 or more a buyers:

F. E. Murphy, Minnesota	
Grahamholm Colantha Segis Maid	$3,
Dutchland Creamelle Colantha Lad	
Grahamholm Colantha Pauline Segis	2,
Grahamholm Segis Pauline Colantha	
Pauline Ormsby Segis Maid	1
Grahamholm Lulu Pauline Colantha	
Grahamholm Contentment Colantha	
Grahamholm Colantha Pauline Piebe	1,
Grahamholm Chantress Ormsby	1,
Grahamholm Goldie Colantha	1,
Meerland & DeGolier, Wisconsin	
Grahamholm Kaan Marie Lad	$
Frank E. Kistler & Co., Colorado	
Mayowood Dutchland Pinky Lad	$1
Grahamholm Sibyl Aaggie Colantha	
Grahamholm Charmer Colantha	
Grahamholm Margaret Ormsby	



AT THE GRAHAMHOLM DISPERSION

Grahamholm Colantha Segis Maid, the top priced cow at $3,000, is being held by the purchaser, Mrs. F. E. Murphy, Minnesota. Dr. Graham, owner of Grahamholm, is at the left.

R. V. Rasmussen, Illinois	
Grahamholm Pauline Aaggie Segis	5
Grahamholm Intensity Colantha	7
Halsey Sedgwick, Wisconsin	
Grahamholm Pauline Piebe King	$1
Horatio Hathaway, Massachusetts	
Grahamholm Colantha Segis Maid 3d	$
Grahamholm Fabulous Colantha	0
Grahamholm Barbetta Ormsby Lass	0
Grahamholm Divinity Colantha	2
Grahamholm Dapple Colantha	0
John Hanson, Minnesota	
Grahamholm King Piebe Colantha	0
Grahamholm Kaan Burke Colantha	2
Frank Rohrer, Nick Wienandy & Sons, John Bollinger, Wisconsin	
Grahamholm Pauline Aaggie Lad	7
Joe Graham, Minnesota	
Grahamholm Denver Cornucopia	7
Dr. Gustav Schwyzer, Minnesota	
Grahamholm Nockdair Colantha Lad	5
Grahamholm Kaan Alice	2
Monroe Co. Holstein Bull Ass'n., Illinois	
Grahamholm Colantha Dutch	5
George A. Curtiss, Wisconsin	
Grahamholm Aaggie Segis Colantha	0

Bulletins of Interest

Nitrogen and Dry Matter Content of Sweet Clover Tops and Roots at Various Stages of Growth, by H. J. Snider and M. A. Hein. Reprint from the Journal of the American Society of Agronomy.

Dietary Factors Influencing Calcium Assimilation and The Influence of Sunlight Upon Calcium Equilibrium in Milking Cows, by E. B. Hart, H. Steenbock, C. A. Elvehjem, H. Scott, and G. C. Humphrey. Reprinted from The Journal of Biological Chemistry.

Raising Calves on the Minimum Amount of Milk, by R. N. Davis and W. S. Cunningham. Bulletin 1 Arizona Experiment Station, Tucn Arizona.

Infectious Abortion in Cattle, by L. F. Rettger, J. G. McAlpine, G White, and R. E. Johnson. Bullin 137, Storrs Experiment Stat Storrs, Conn.

Raising Dairy Calves on Skimmk by T. W. Gullickson. Special Bu tin 108, Minnesota Experiment a tion, University Farm, St. Pa Minn.

Rate of Milk Secretion as Affe by Advance in Lactation and Ge tion, by W. L. Gaines and F. A. Iv idson. Bulletin 272, Illinois Exp ment Station, Urbana, Ill.



Gentlemen, here is a smoke!

I WANT you to meet my friend, Prince Albert. And what I mean by "friend" is *friend!* Why, there's friendliness in the way the tidy red tin smiles down upon you from the dealer's shelf. P. A.'s fragrance is just as friendly when you swing back the lid.

Fragrance that says "Come and get it!" in language you can't mistake. Eagerly you fill your pipe and apply the match or the trick lighter. That first wonderful whiff confirms this friend-stuff I've been telling you about. Here is smoking with the brakes off.

Cool as a notice to "Please remit." Sweet as the recollection that you already have a receipt. Mild as winter in the tropics. Mild, but with that full, rich tobacco body that makes every pipe-load *a smoke.* Nothing else ever tasted just like that.

If you have never met Prince Albert, you have never known pipe-joy at the very top notch. No matter how set you appear to be, I urge you to try P. A. I can't talk here the way P. A. talks in a pipe. That's the real test. Get going today with good old P. A.

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.

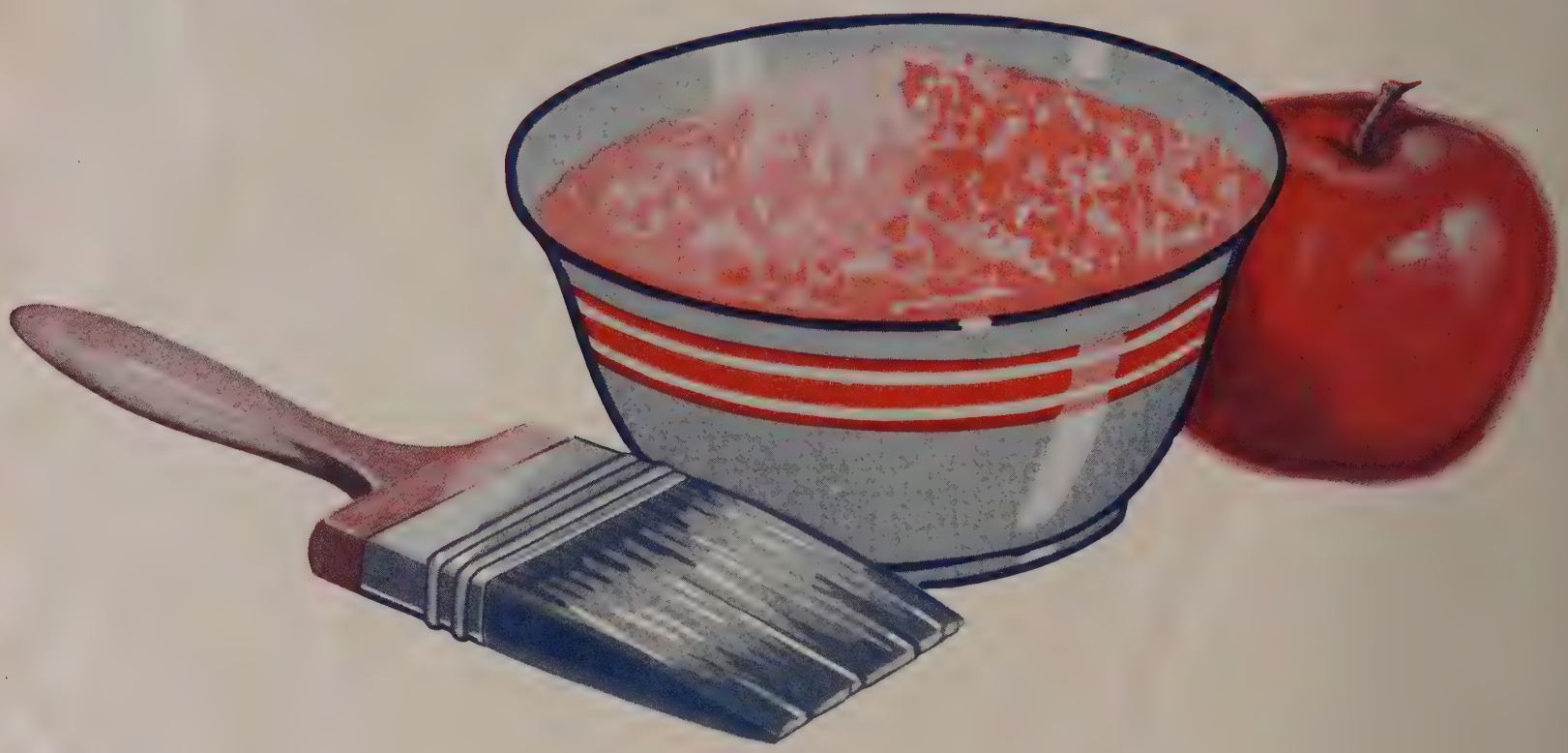


PRINCE ALBERT

—no other tobacco is like it!

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

SHERWIN-WILLIAMS



You can't paint a house with *apple-sauce!*

WHEN the question of painting or repainting your house comes up, *don't be fooled* by a low price. Remember that *apple-sauce* is not restricted to pretty parlor speeches. There's a lot of it in "cheap" paint.

When anyone tells you, for example, that a *cheap* paint is "just as good as SWP" or any other high grade paint—that's pure *apple-sauce*—plainly exaggerated—unbelievable—too good to be true.

The reason "cheap" paint can be sold at a *low price* is because it is *low in quality*—made of cheap or skimped materials—which smell and look like paint but can't play the part on the house.

If you want proof of this, insist upon seeing the formula of the "cheap" paint, either on the label or in the literature of the company.

Then compare the materials used in making the *"cheap"* paint with the ingredients of fine old SWP House Paint. The SWP formula is always clearly printed on every can.



What the formula test shows

Suppose, for example, that you are buying Outside Gloss White: Note the big percentage of *White Lead Carbonate* and *White Lead Sulphate* used in SWP Outside Gloss White House Paint. White lead should be the *basic* ingredient of all white paint and light tints. It is to these paints exactly what flour is to bread.

See how much less of this basic ingredient is used in the average "cheap" white paint.

Zinc oxide, another costly pigment, is the next essential ingredient. A liberal percentage of zinc oxide combined with a large amount of white lead makes for a *balanced formula*—such as the formula of SWP Outside Gloss White House Paint. It assures a finish of superior wearing quality.

THE FINEST HOUSE PAINT THAT MONEY CAN BUY

HOUSE PAINT

More than 90% of the pigment content of SWP Outside Gloss White is made up of these two important ingredients — white lead and zinc oxide.

In the majority of "cheap" white paints you will find only 50% or less.

It is the liberal quantity of this expensive basic material in every can of SWP Outside Gloss White that gives this fine old paint its remarkable covering capacity.

In the darker colors like browns and greens, the "*balanced formula*" of SWP is even more important.

Naturally, the dark colors can contain little, if any, opaque white pigment such as white lead or zinc oxide.

Sherwin-Williams have the pick of the world's colors. Sherwin-Williams Dry Color Works produce practically everything except the natural earth and mineral colors.

That is why SWP colors are so rich, so permanent and so true to character.

Greater durability of the paint film on your house is assured by SWP due to the use of a specially treated, pure linseed oil—made in Sherwin-Williams' own linseed oil plant.

Price per gallon doesn't tell the cost of paint

When you read or someone tells you that a "low price" paint costs you less than SWP—that's more *apple-sauce*—unbelievable.

The place to figure the cost of paint is *on the wall*—not in the can—by the job—not by the gallon. Do that and here is what happens:

Each gallon of SWP, because of its remarkable *hiding* and *covering* ability, will properly beautify and protect 360 square feet of wall (2 coats).

The average "cheap" paint, made of inferior or skimpy materials, will cover only 250 square feet per gallon (2 coats)—or less.

SWP costs more per gallon. But each gallon covers 110 square feet more (2 coats). Therefore fewer gallons are needed.

Get an estimate on SWP for your house. Then get estimates on several "cheap" paints. Compare them.

You will find that SWP House Paint costs no more for the amount you need than the cheap brands. And remember this: It costs just as much to *apply* the "cheap" paint as to apply SWP.

You get more years of service

You may hear or read alluring claims that a "cheap" paint is as durable as SWP. Plain apple-sauce — every word of it.

SWP with its fine materials, scientific grinding and mixing, dries to a firm, elastic, glossy finish. It will not chip, peel, chalk, or flake off. It weathers slowly.

Years after "cheap" paint has literally dried up and *blown away*, your SWP finish will still show a serviceable film. And when repainting *is* needed, you will save money because the finish will be in proper condition to take new paint.

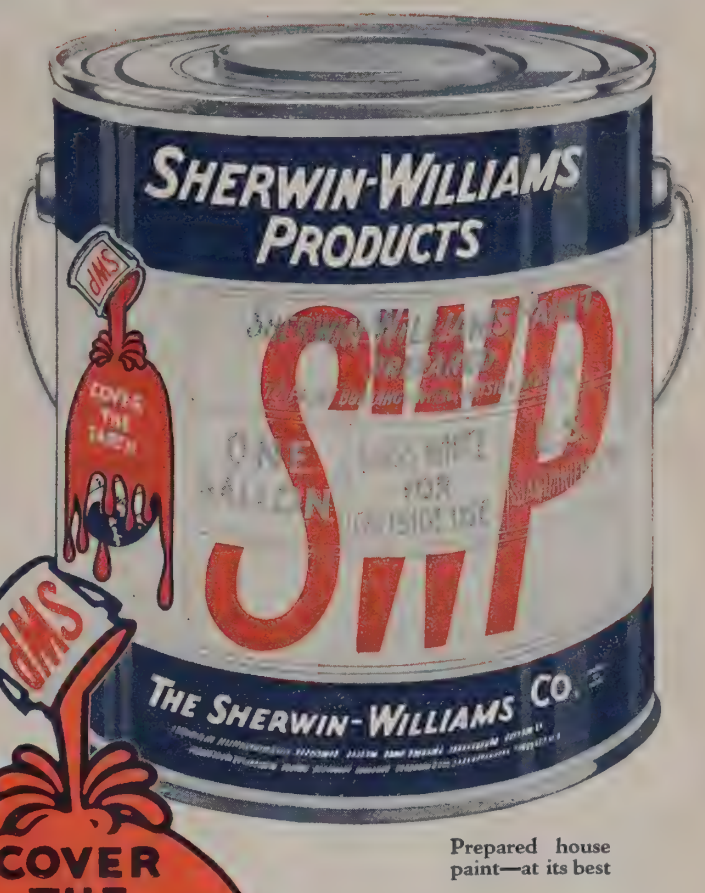
That is why SWP often costs less than half as much per year.

Greater beauty, too

Finally there is a richness and beauty about SWP colors that no "cheap" paint can even approach. They give your house a rich, colorful beauty that is always a pleasure. They are weather fast—and they are non-fading.

Long after the colors of "cheap" paint have faded like an old shirt, the house finished with SWP shows practically no dimming of its original beauty.

Even after several years it can be washed with soap and water and the colors will come up unusually fresh and bright.



Prepared house paint—at its best

Call at "Paint Headquarters" and save money

SWP House Paint is sold the world over by thousands of dependable SWP dealers. Each one is "Paint Headquarters" in his locality. There is one near you.

Before you let "cheap" paint blind you to real economy, get his advice on your paint problem.

He will estimate your requirements in SWP. Compare it with the cost of "cheap" paint. Then remember the greater durability of fine old SWP—the beautiful colors that do not fade. Then decide.

If you want literature, color cards, a copy of the famous SWP Household Painting Guide, help on a decorative scheme, write us.



THE SHERWIN-WILLIAMS CO.
Largest Paint and Varnish Makers in the World
CLEVELAND, OHIO

COSTS LESS PER SQ. FOOT . . . LESS PER YEAR . . . LESS PER JOB

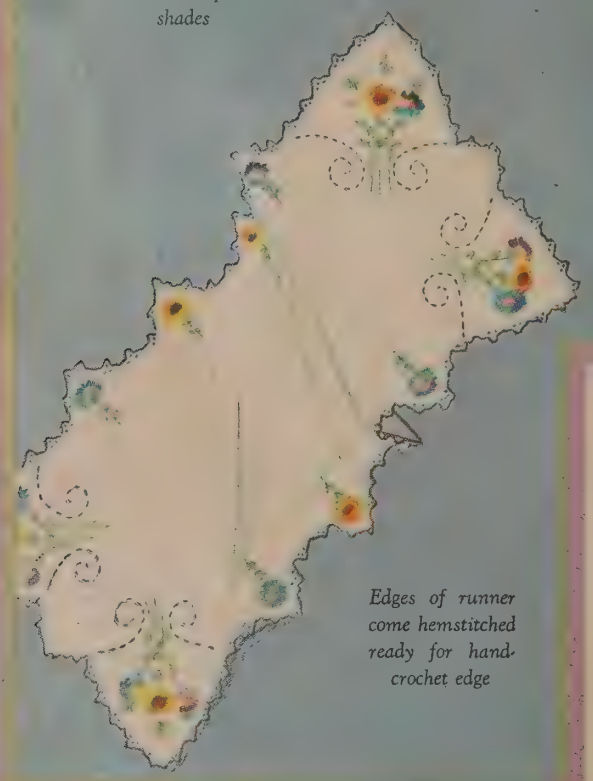
All Stamped ~ You Add the Embroidery

by Leonore Dunnigan





Pillow slips are lovely embroidered in white or pastel shades



Edges of runner come hemstitched ready for hand-crochet edge

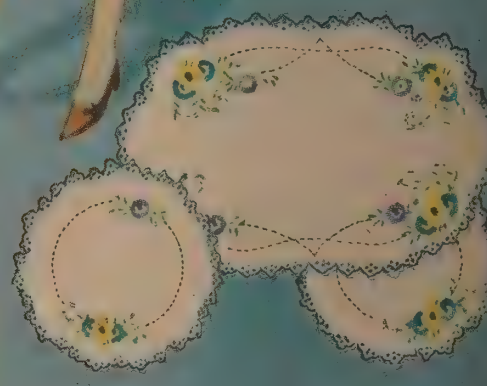


Charming dress in sheer voile for the very young

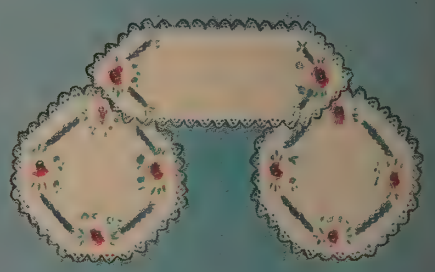
Clever aprons for those who would look attractive about the house

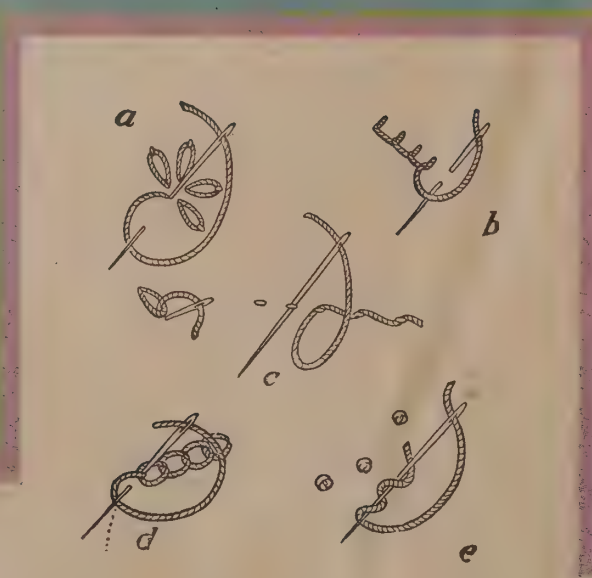


The very latest in a luncheon set with basket pockets to hold the napkins



A vanity set for girl's own room





NOTHING could be more interesting for summer porch work than these useful articles which come stamped, ready for your dainty touches of hand-embroidery. The work goes rapidly because the designs are simple and stitches easy.

Kitchen curtains No. 1642 come made up of white striped dimity, edged with green bindings. Each curtain measures one-half yard wide by one yard long, with one and one-half inch heading and one-half inch casing. Curtains are embroidered in yellow, orange, green and black.

For wear in the busy hours of the afternoon, Apron No. 1581, is charming in rose, blue or gold colored checked batiste. The design is dainty and effective worked in rose, blue, yellow, lavender, green and black.

Apron No. 1081 gives a well-dressed look. It comes stamped on unbleached muslin with pockets stamped on fast-colored blue chambray. Embroidery is in red, white, blue and black. The edges may be trimmed with blue edging or blue binding.

Mother's problem is solved for Miss One-year-old by this dainty little Dress, No. 1258, which comes made up in peach, yellow or blue voile with collar and cuffs edged with narrow Val lace. Clever flower design on front of skirt can be embroidered in less than an hour. The dress comes in one size only.

Luncheon set No. 1421 includes cloth one yard square and four 12-inch napkins. Design is stamped on linene. Clever little baskets of blue gingham at sides are really pockets to tuck the napkins in. The set is worked in shades of rose, yellow, green and black.

Runner No. 1065 is stamped on white linen with edges hemstitched. Flowers are embroidered in shades of rose, blue, yellow, lavender; leaves and stems in green.

Pillow slips No. 1775 are stamped on 42-inch wide tubing. Ends are hemstitched ready for hand-crochet edge.

Buffet set No. 1011 is interesting in shape and design. It measures 45 inches, including doilies. Edges come hemstitched.

Little sister will enjoy making this inexpensive Vanity set No. 1092 for her very own room. It comes stamped on white embroidery cloth.

Details for making embroidery stitches used on these articles are illustrated above: a. lazy daisy; b. blanket; c. twisted running; d. chain; e. French knot.

See another page for price list of articles.

Seasonable Live Stock Notes

JULY is a month when perhaps less attention is given to live stock than at any other time of the r. Two factors account for this, first being that less time is avail-, the second that of less attention ded. The ease of finding an ex-, however, is no reason for neg-ing some things that need atten- even in busy July.

Cows Ready for Fall Freshening

ows that are to freshen in Sep-ber and October need some at-ion beginning in July. Some s need more attention than rs. A good cow thinned down n hard work and bred to freshen y this fall must be given oppor-ty to regain her loss by the time calves or she will go down in pro-ion in her oncoming lactation. takes about three months to d such cows up to desired condi-. At least six weeks of that time ld be given over to complete rest relaxation from milk production. cows should begin to have grain e months before they are due to hen.

Keep Heifers Growing

he same suggestions just men-ed for cows apply also to preg- heifers due early this fall gh not for exactly the same rea-. Such heifers should be in good lition when they freshen. Ex-ence has shown that one should as much growth on heifers as ible before the double demand of inued growth and of milk pro-ion begins with the coming of first calf. As a rule, roughage titutes the major part of the ra- for heifers for the fifteen ths' period previous to calving. the last three months of this pe- however, or during the three ths just previous to calving, such rs could well have some grain. amount of grain to feed depends what on the character of the ure available as also on the con-n of the individual animals. The n mixture may be very simple, isting mostly of mixtures of home n grains, ground, and supple-ed lightly with bran and linseed .

Summer Feeding Open Sows

ow that the spring pigs are ed, able to shift for themselves, onger dependent on their dams, are we going to feed the open s? Frequently such sows are ected apparently because they orm no evident income or serv- until the beginning of the next ding season. Usually the really l sows are in thin condition at this time, having made sacrifices for the benefit of their pigs. Sows in such condition would just about maintain their weight on good forage without any grain; they might gain a few pounds. How much grain in addition to good pasture is enough to start them back up the hill towards a weight satisfactory at breeding time? Experimental evidence indicates that grain equal to one per cent of the weight of mature sows and to one and one quarter per cent of the weight of younger sows is sufficient. This means that a sow weighing 300 lbs. should have three pounds of grain daily.

July—Good Time to Cull Poultry

No management of the farm poultry flock is complete without a regular annual culling of the laying flock. Every dairyman who has had any experience with cow testing association work knows that culling out the low producing cows is a profitable thing to do. Hens are like cows in the same respect that there are low producing, unprofitable ones in the flock. If it were possible to pick these hens out at the beginning of the laying season it would be good business to do so. Not having a dependable way to identify such hens at that time we give them the benefit of the doubt; permit them to remain in the flock through the spring laying season. Low producing hens have now done about all they are going to do. If flock owners have not learned how to cull poultry they can easily do so by arranging a demonstration with their county agricultural agent.

Overtime for the Horse

Seasonal conditions sometimes upset our calculations of regular hours and even distribution of labor. A month ago scarcely any corn was planted, a lot of plowing was in waiting, much of it too wet to be turned. During the past month farm horses have of necessity been subjected to a strenuous overtime program. A good thing about the horse is that he can carry a big overload, at least, for a time. The horse, unlike his owner however, does not choose the kind of work he will do nor the amount; he eats whatever is put before him or goes hungry; if he has a bad tooth he worries along the best he can; if his body becomes bruised by ill-fitting harness he cannot change the fit nor discard the harness. In times of stress, of overload, of long hours under beating sun and sweating shoulders it is good business, it is right and just that farm horses be given every care and attention possible. They are entitled to it—a little more and better feed—first class grooming.



UNCLE DAVY FYFFE

In the background of the cow picture is the farm home of Uncle Davy Fyffe of Ohio tate University. It is always worth quite a bit of chugging off the main streets in or-er to drop into Uncle Davy's cubby hole of an office in the new animal industry building nd absorb some of his mellow life aspect and gracious kindness.—G. P. WILLIAMS, Ohio.

PROTECTION

For Five Cows or Fifty

Each one of your cows, whether you have five or fifty, represents so much capital investment, so much health and production to be safeguarded against disease and accident. That is why it is just as important in the small barn as in the big one to floor your stalls with Circle A Cork Brick. It is their value *per cow* that interests you.



Floors of Circle A Cork Brick are warm, resilient and comfortable, nonabsorbent and nonslippery. They are easy to lay and remarkably durable, and their reasonable cost is a sound investment in protection from chill and dampness and dangerous slips and falls. Write for a sample brick and descriptive book. ARMSTRONG CORK & INSULATION COMPANY, *(Division of Armstrong Cork Company)*, 112 Twenty-fourth Street, Pittsburgh, Pa.

Circle A Cork Brick Floors

For Dairy Barns and Hog Houses

RUNNING WATER WITHOUT WORK

With a good Well and a good Windmill you can have all the water you want without work, worry or expense. Water from a well costs you nothing. The cost of an **Auto-Oiled Aermotor** is moderate. The expense for maintenance is so small that it need never be given a thought.

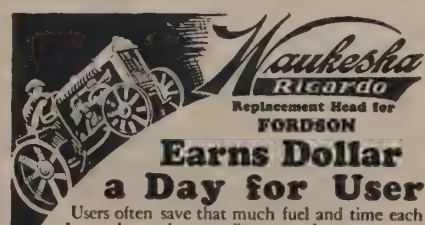


An Aermotor runs in the lightest breeze. It will also work safely and steadily in the heavy winds.

The **Auto-Oiled Aermotor** is completely self-oiling. The double gears run in oil in a tightly enclosed gear case which holds a year's supply of oil. When the mill is running the oil circulates through every bearing. Every moving part is constantly and completely oiled. Friction and wear are practically eliminated.

Auto-Oiled Aermotors have behind them a long record of successful operation. Their merits are known the world over. For further information write

CHICAGO · KANSAS CITY **AERMOTOR CO.** DES MOINES · OAKLAND · DALLAS · MINNEAPOLIS



Waukesha Ricardo

Replacement Head for FORDSON

Earns Dollar a Day for User

Users often save that much fuel and time each day and get three to five more horse power

INSTALLATION EASY

Only a wrench and an hour's time needed. Sold by dealers, garage men or direct. Moderate in price and sold with a money-back guarantee. Write for "Ricardo Replacement Head" book describing and giving prices on Fordson, Ford, Dodge and Graham Bros. Ricardo Replacement Heads.

GIVES 3 to 5 HORSE POWER MORE

Waukesha Motor Company
960 St. Paul Ave., Waukesha, Wisconsin
BUILDERS OF HEAVY DUTY MOTORS FOR TWENTY YEARS



No. D. 40 $4.50
No. D. 60 $5.50
No. D. 120 $6.50 Prepaid

"PELOUZE" New Dairy Scales

Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound

Guaranteed Accurate

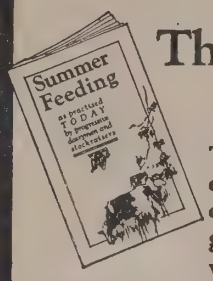
Made to comply with Departments of Weights and Measures. Large 7-inch Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail. Order through any leading supply house, specify "Pelouze." If they haven't it order direct.

PELOUZE MANUFACTURING CO. 232-242 East Ohio Street, Chicago.

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wisc.

Pastures Are Going Strong

-BUT



There's Something More to Summer Feeding!

Times change. Not so long ago few farmers fed grain and Linseed Meal to dairy cows on pasture. Today this practice is growing by leaps and bounds.

What's the reason? Production! Higher production in summer, with richer, better balanced feed. Higher production in the fall, from reserve strength built up by summer feeding. Better initial flow from well-fed dry cows. And heifers that grow up to be bigger producers, when summer-fed on Linseed Meal.

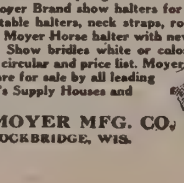
Feeding Linseed Meal in summer helps you make money this year, next year, the year after. The new Summer Feeding booklet tells you how and why. Send for it!

This free booklet contains the secret of fallmilk production. *Send for it!*

Linseed MEAL

LINSEED MEAL EDUCATIONAL COMMITTEE
Fine Arts Bldg., Milwaukee, Wis.
Send your booklet T-6 on Summer Feeding.

Name_____
Address _____
_____



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DAIRY MARKET NEWS

May Cheese

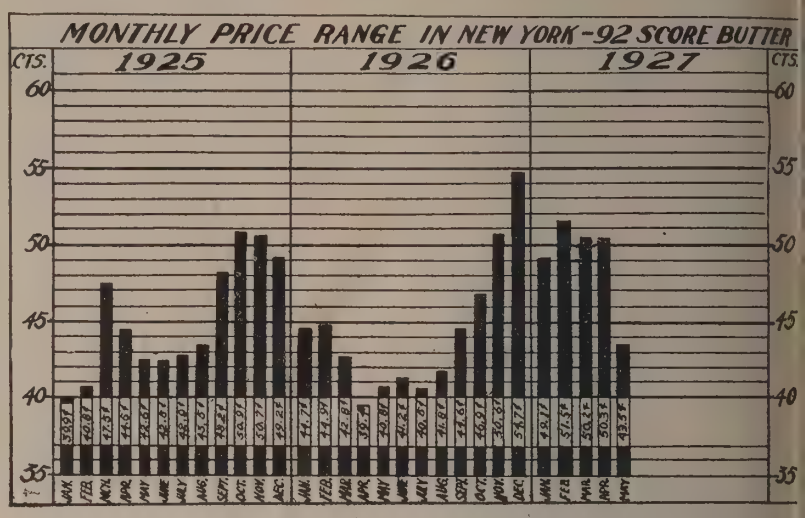
Cheese prices on the Wisconsin Boards averaged 22.3 cents in May, which is practically the same as April but is 3.2 cents above May of last year. Cheese receipts at the four large markets since January are six million pounds greater than a year ago, but despite this the storage at these markets is lowered by a like amount. This would indicate an increased consumption of nearly twelve million pounds despite an advance in price of three cents, a condition that is somewhat unusual and augurs well for cheese prices. The fore part of June saw an advance of a half cent over May.

Cheese production for the first three months of the year totaled 103,654,000 pounds, a decrease of two million pounds from last year. Net imports were 23,744,000 pounds, an increase of eight million pounds over last year. Storage on May 1 was 45,625,000 pounds, a decrease of two million pounds from last year. This brings the total estimated trade output for these four months to 153,828,000 pounds, a decrease of 3.7 per cent in apparent consumption of cheese as compared with the same period last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices on 92-score butter (extras) four of the principal markets, together receipts and storages:

	May 1927	April 1927	
Chicago	41.5	48.1	
New York	43.5	50.3	
Boston	43.8	51.1	
Philadelphia	44.3	51.3	
*Receipts for month	62,212	46,777	5
*Receipts since Jan. 1	227,321	165,110	22
*Storage (end of mo.)	9,470	960	1

*In thousands of pounds at the four kets (i. e.—000 omitted). Ninety score b



The May butter in New York City averaged 43.5 cents, which is 2.7 cents over last year and not quite a cent over two years ago. This is the lowest advance registered over corresponding months of the past two years, and the present indications are that the June average will show a similar condition.

wholesale prices for American cheese on the Wisconsin Primary Market during May:

	May 1927	April 1927	May 1926
Twins	21.9	21.7	18.5
Single Daisies	22.3	22.2	19.1
Longhorns	22.3	22.1	18.4
Square Prints	22.9	22.8	19.5
*Receipts since Jan. 1	76,192	56,175	70,368
*Receipts for month	20,017	15,801	14,156
*Storage end of month	9,634	9,202	15,111

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted).

May Foreign Butter

The following table of foreign butter prices gives the average of weekly quotations as published by the U. S. Department of Agriculture:

Market	May 1927	April 1927	May 1926
	Cts.	Cts.	Cts.
New York	43.5	50.3	40.8
Chicago	41.5	48.1	39.4
Copenhagen	32.9	35.6	34.3
Berlin	33.7	36.4	35.2
London:			
Danish	35.3	38.3	37.8
Dutch*	34.4	37.7	
New Zealand	35.0	33.2	36.8
Australian	34.4	33.0	36.2
Argentine*	33.9	33.5	33.0
Siberian	33.3		32.3

*Unsalted.

May Butter

Butter averaged 43.5 cents in New York for May, a decline of 6.4 cents from April but still 2.1 cents above May a year ago. From the beginning to the close of the month the decline was two cents whereas last year prices rose by the same amount during a like period. Production is increasing and the promise of good pastures would indicate the probability of greater increases during June. Stocks are showing some accumulation and further declines have been in part prevented by dealers storing high cost butter to avoid losses.

Creamery butter production for the first four months of the year was 417,607,000 pounds, an increase of nine million pounds over last year. Net imports for the same period averaged 40.1 cents for May in Chicago, centralized butter at this market selling 40.8 cents. Jobbers' prices on extras so retailers averaged 43.9 cents in Chicag spread of 2.4 cents above wholesale.

Feed Market Situation

(By Grain, Hay, and Feed Market Service U. S. Department of Agricultu

Further advances in prices of feed g widened the outlet for by-product feeds d the last of May and the first of June together with the scanty offerings of feeds, resulted in higher feedstuffs prices though the market turned easier toward middle of June. Demand for most feeds slackened but stocks in all positions have reduced almost to a minimum and offe for immediate shipment are still being r ly absorbed at this writing (June 9) though buyers are cautious about future mitments. Weather conditions during tended toward somewhat larger than feeding requirements since the month somewhat cooler than normal in the nort portions of the United States, particular the Northeast where large amounts of chased feeds are normally consumed, an the Northwest.

The outlet for manufactured feeds has been widened recently by the higher p commanded by feed grains. Corn prices been forced sharply upward by the unfa ble weather in the Corn Belt and the del corn planting. Both corn and oats p have made some recessions from their r high points, largely because of somewhat favorable conditions during the past days but a level of nearly $1 a bushel fo 3 yellow corn at Chicago still favors incr use of the heavier wheat feeds.

Bran prices have declined around 50c in the past week and mills have become anxious to sell this commodity for ship during the last half of June and in l Shorts and middlings met a good dema some markets where quotations held prac ly steady but at other points they foll the downward trend in bran prices. ings of red dog seemed light and were re absorbed.

Cottonseed meal prices have again adv rapidly, although reports indicate that mand has been only moderate from don buyers and inquiry has been further rec at the advance. Reports are conflicting some dealers ascribing the higher prices more active export demand while others uncertainty of the new cotton crop.

Linseed meal has been irregular offerings at centralwestern and northwe



Now is the Time **All wise Dairymen get their orders placed for Baled Shavings.** They are plentiful now and can be bought at a reasonable price. Don't wait until they are scarce and high and be left without them. Write us today and reserve a shipping date and it will save you money.

FRANK MILLER & SONS (*The Sawdust Millers*) 3613 Auburn Ave., Chicago, Ill.

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MORRISON HOTEL

Tallest in the World

Closest in the city to offices, theatres, stores and railroad depots

1,944 Rooms $2.50 up

all outside, each with bath, running ice water, and Servidor

MORRISON HOTEL
THE HOTEL OF PERFECT SERVICE
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CLARK and MADISON STREETS
IN THE HEART OF CHICAGO



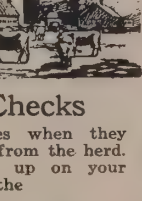
Bigger Milk Checks

Dairymen get top prices when they weed the poor producers from the herd. The easy way to check up on your cows is with the

Hanson DAIRY SCALE

Loose pointer sets anywhere on dial to offset weight of pail. Readings in tenth of pounds make figuring easy—and large dial with distinct figures and graduations insures correctness. Sturdy steel construction. Guaranteed accuracy. At better dealers—or order direct. Sent prepaid on receipt of price.

HANSON BROS. SCALE COMPANY
500 N. Ada St., Chicago, Ill.



Single Spring 30-lb. Size $3.85 *Double Spring 60-lb. Size $4.85*

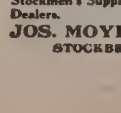
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Summer Planting of **GRIMM ALFALFA**

Do not hesitate to plant a field of Grimm Alfalfa in mid-summer! This earliest-maturing variety bears 3 and 4 crops in a season. Individual plants larger, leafier and of higher feeding value than ordinary varieties. Pure, pedigreed seed -- guaranteed Genuine Grimm. All seed scarified for highest germination.

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LYMAN'S GENUINE GRIMM



HERCULES BULL TIE
Patented June 17, 1924

For positive control of most vicious bulls; safe leading; firm tying, stable or pasture; ideal show halter. Best breeders say worth twice the price. Hercules Bull Staff, the staff without a spring. Has a safety lock, operates in a jiffy. Moyer Brand show halters for Dairy and Beef stock. Leather stable halters, neck straps, rope halters for cattle. Moyer Horse halter with new style hardware. Show bridles white or colored. Write for circular and price list. Moyer products are for sale by all leading Stockmen's Supply Houses and Dealers.

JOS. MOYER MFG. CO.
STOCKBRIDGE, WIS.

To keep them FIT



e animals
n your farm *need*
e *right* kind of salt

FOR the sake of their physical condition, it is essential that your farm animals be ed with the proper kind of alt. Else they may fail to neasure up to your ideas of roduction — whether it's in neat or milk or work.

Keep a plentiful supply of Diamond Crystal easily accessible — and they will take are of themselves. They will atisfy their requirements ecause Diamond Crystal is a nild salt, free from impuriies.

There is a Diamond Crystal Salt for every farm use — or table and for cooking, for anning, for butter and cheesemaking, for curing meats, for ivestock. Ask for Diamond Crystal at the store where ou trade.

"The Salt that's all Salt."

Diamond Crystal Salt



Free!

We should like to send you a generous ample of Diamond Crystal Shaker Salt nd the interesting booklet, "101 Uses or Diamond Crystal Salt," without ost or obligation to you.

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me_____
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markets fully equal to buyers' needs in spite of reduced production. Trade reports from the paint industry state that the rainy weather in many sections this spring has interfered with painting and this has doubtless had some effect upon fresh business in linseed oil.

Manufacturers of gluten feed were still largely out of the market and where even limited supplies of this feed could be secured the prices were determined by resellers and covered a material range. Demand has been active, particularly in the Northeast.

Hominy feed has moved largely in sympathy with corn prices which advanced sharply and then turned easier the last few days. Offerings have been limited and yellow feed was practically unobtainable at Buffalo.

Alfalfa meal has been irregular with important buyers largely awaiting the movement of new crop meal which has been increasing. Tankage prices were further reduced to $60 a ton at the principal markets.

Quoted June 9

Standard spring wheat bran: $28 at Minneapolis, $32.50 at Buffalo, $35.50 at Philadelphia, $30.25 at Chicago, and $27 at Chicago. Hard winter wheat bran: $27 at Omaha and Kansas City, $32 at Fort Worth. Soft winter wheat bran: $37 at Philadelphia, $34 at Cincinnati, $29.50 at St. Louis.

Standard wheat middlings: $33.50 at Buffalo, $37 at Philadelphia, $32.25 at Chicago, and $29.75 at Minneapolis. Soft wheat middlings: $45 at Philadelphia, $37.50 at Cincinnati, $34.25 at St. Louis. Gray shorts: $31.50 at Omaha, $30.50 at Kansas City.

Cottonseed meal (43%): $46 at Philadelphia, $42.25 at Cincinnati, $42.50 at Chicago, $41.80 at Kansas City, $33 at Fort Worth.

Linseed meal (34%): $48.50 at Buffalo, $50.50 at Cincinnati, $47.75 at Chicago, $46 at Minneapolis, $51.60 at Omaha.

Gluten feed: $41.50 at Buffalo. White hominy feed: $39.50 at Buffalo, $33.50 at St. Louis. Alfalfa meal: $26.50 at Chicago, $23.50 at Omaha, and $21 at Kansas City.

Wisconsin May Condensery Prices

Forty-four condenseries reported to the Wisconsin Department of Markets the prices paid in May per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $1.92 to $2.30, the average being $2.01.

Eighteen factories sent delayed reports for April, the average being $2.18. This is three cents above the previously reported average of $2.15 for 46 factories.

May Condensed Milk

(Report by U. S. Department of Agriculture)

Prices paid producers for 3.5% milk f. o. b. factory were as follows for May, covering those factories manufacturing both case and bulk goods:

Geographic sections	No. of factories	Price per cwt. Range	Ave.
New England	1	$2.20	$2.20
Middle Atlantic*	10	2.10—2.40	2.26
South Atlantic	1	2.15	2.15
E. North Central	75	1.92—2.31	2.00
W. North Central	6	1.62—2.20	1.96
South Central	1	1.90	1.90
North Western	6	1.75—1.79	1.76
South Western	10	1.75—2.10	1.90
United States	110	1.62—2.40	2.00

*Fifty-eight additional factories reported prices based in part on current month's wholesale butter quotation. Twenty-four factories reported prices not determined as yet and 20 reported factories closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for April:

	Range	Ave.
Condensed, per case	$5.26— 6.55	$ 5.92
Condensed, per cwt.	9.50—13.00	10.24
Evaporated, per case	3.65— 5.10	4.38
Evaporated, per cwt.	7.04— 9.42	8.49
Condensed skim, per cwt.	5.00— 8.50	5.87
Evaporated skim, per cwt.	2.75— 6.45	3.97

Philadelphia Milk Prices

The Inter-State Milk Producers' Association announces that the June basic price for milk will be $3.20 f. o. b. Philadelphia and $2.71 per hundred at receiving stations in 51—60-mile zone.

The May surplus prices were $2.25 first surplus and $1.90 second surplus f. o. b. Philadelphia. The May surplus prices at all receiving stations on railroads were $1.67 first surplus and $1.32 second surplus.

These are based on milk testing 3 per cent butterfat with a differential of 2 cents for each half point of test up and down.

Wisconsin April Butter

Wisconsin co-operative creameries paid producers a net price of 51.9 cents a pound for butterfat in April according to reports from 81 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 44.3 cents a pound for butter, making spread of 7.6 cents between the price received for butter and the price paid for fat.

The range in prices paid for fat was from 43.5 to 56 cents, with the price received for butter ranging from 44.5 to 49.6 cents. The overrun ranged from 21.1 to 23.9 per cent. Receipts of butterfat averaged 29,669 pounds per creamery.

Milwaukee May Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of May:

For the portion sold as fluid milk, $2.90 per cwt.; and for the portion manufactured, $1.76 per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Sixty-five per cent of the total receipts were sold as fluid.

Loudoun County (Va.) Guernsey Sale

The fifth annual spring sale of registered Guernsey cattle was held at Purcellville, Loudoun County, Virginia, May 20, under ideal weather conditions and with a large crowd present. The chief interest was centered in the very high class Langwater Farm consignment, Langwater Waldorf, a nine months' old son of Langwater Horatius and out of Imp. Slogan's Lady Astor of Langwater. This calf was purchased by Mr. Harper of the Massachusetts Guernsey Breeders' Association at $2,600 for Mr. C. E. Cotting of the Chedco Farm, Massachusetts. The six young bulls sold averaged $597.50. The 25 females sold, including a number of aged cows, averaged $225, the top being $340 for Fay of Pickering, a nine-year-old cow consigned by Whittig and Drew.

Fred Andrews of Ohio did the selling.

The Surge Milker
Pine Tree Milking Machine Co.

The Only Milker that

1 *gives the cow's teat the Real TUG of the calf—*
2 *and like the calf—TUGS harder and harder as the cow milks out—*
3 *and like the calf—gives EACH cow just the TUG she needs!*

Milks Like a Calf!



The Surge Milker does MORE than other milkers. The Surge *finishes* the job; other milkers only start it. Other milkers secure the milk by suction; some add a release or massaging action. The Surge does both! And then ADDS *The Real Tug of the Calf!* Yes, and like the calf—The Surge TUGS harder and harder as the cow milks out. AND—a quick, easy Surge Adjustment enables YOU to give *each* cow just the suck and TUG she needs to get ALL the milk. No other milker does or can do ALL THIS—which accounts for The Surge's well known ability to milk cows like no other machine has ever milked cows before.

6 Milkings FREE!

Right in Your Own Barn — With No Obligation to Buy

Mail coupon now for details of our amazing FREE Offer which gives you a chance to prove ALL THIS in your own barn, on your own cows—for 6 milkings FREE—and without the slightest obligation to buy! We also want you to see The Surge Milker milk out "that cow" you're ready now to bet can't be milked by machine. Our attractive price and Easy Terms will be another Surge feature you'll like.

Easy Terms
You can buy a Surge Milker on very easy terms. We'll figure to use any equipment you may have already in your barn. You'll be surprised how little it'll amount to. Mail coupon Now. It doesn't obligate you.

Mail Coupon for Free Book

We have just issued a NEW Surge catalog that tells you MORE about milking and milking machines than anything you've ever read. It's a very valuable book for any farmer milking cows to have. This coupon will bring it to you—FREE.

Mail It Today SURE!

PINE TREE MILKING MACHINE CO. Dept. A-985
2843 West 19th Street, Chicago, Illinois
Please send me without cost or obligation, Free Surge Catalog and tell me about your special Free Demonstration Offer on the SURGE Milker. **(Please give me this information)**

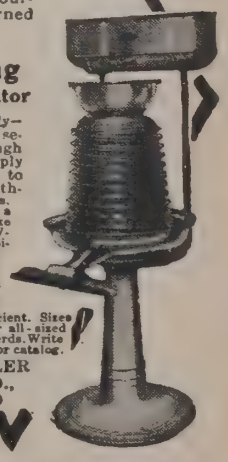
Number of cows milked_____ R. F. D._____
*Name*_____
*Address*_____ *State*_____

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film - like sheetcover V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



THE H. H. MILLER INDUSTRIES CO., CANTON, OHIO
successors to
Chas. Skidd Mfg. Co.
Janesville, Wis.



REICHERT'S
Anti-Suk Weaner

Double-hinged, the Reichert Weaner permits grazing, eating and drinking. Sharp-pronged, it discourages all contact with the udder. Strongly made, heavily tinned and easily applied. Made in two sizes—for calves and cows. Calf size, 45c; cow size, 50c. If your dealer can't supply you, we'll send direct.

Imperial Bit & Snap Co.
1410 14th St.
RACINE, WIS.

If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman— Ask Him Why!



Rules for Operating the "Human Automobile"

"It takes approximately 100 man-hours to make a flivver and 1,000 man-hours to make a limousine, but so many hours to build a 'human automobile' that we number it in years," says Miss Gladys Coon, Boys' and Girls' Club Leader of the National Dairy Council. "In fact, it takes a whole lifetime to build a human auto that really meets life's wear and tear."

Some persons look like this year's models and some old second-hand cars because they do not know the new laws for drivers of human motor vehicles. These laws which hold in every state, as given by Miss Coon, are:

"Pull your machine up alongside of a filling station regularly three times a day and put into it high-test fuel such as leafy green vegetables, fresh fruit, milk, dark bread, and real butter. Do not use substitutes.

"Run your human automobile into the garage each night for nine hours of rest. Remember to turn on the fan by opening the windows and getting plenty of free air. This will prevent flat tires.

"Run your automobile body onto the wash rack daily.

"Keep the chewing apparatus clean. Brush it morning and night.

"Give your human car plenty of water to prevent a dry radiator.

"Visit expert mechanics regularly (the doctor once a year and the dentist at least twice a year). They can help you overhaul your machine and discover a little knock in the engine before you even hear it.

"Put a self-starter on your flesh-and-blood vehicle. That is, remember the main facts about putting pep in your motor every day."

By following the rules Miss Coon supplies for expert drivers and owners of cars, anyone can take out a license for the most beautiful custom-built chariot or any of the most elaborate sport models with power and speed. The "time-payments" are easily met, and years of constant wear will keep the old machine "just as good as the day it was taken out."

Are You Too Old to Learn?

Mrs. Black was watching our demonstration agents make "quick breads." She turned away saying, "That don't interest me, my family likes the way I cook and I guess I am too old to learn new tricks." I wonder how many of us are satisfied with the old ways of doing things and feel too old or indolent to change. Perhaps in ten years when I shall be as old as Mrs. Black now is, I will feel as she now does but it seems to me that I know so little and there is so much to learn. I find every meeting I have with anyone teaches me something; often positively, sometimes negatively, No one is too humble or lowly to teach us if we are but willing to learn.

One day a nomad tinsmith stopped at our house and asked if I had any soldering to do. I gave him a couple of milk pails, one with a broken ear handle, the other with a tiny rusted hole in the bottom. He mended them with painstaking care. His calling, if we could call it that, was humble indeed but he had pride in doing it well. He told me never to let a bit of rust stay in the pails but scour it out at once and make them last a year longer. "Better buy a dollar's worth of fruit for the children than a new pail." How many of us think of spending the money we save through economizing to provide extra treats in the way of new books, magazines, pictures, or music instead of putting it into necessities?

If you feel too old to learn, don't read this letter for I am going to tell you of some of the things I have learned this past year and they will not be interesting nor useful to you if you are in a rut and are satisfied to stay there.

I was scouring a pan one day with steel wool, a neighbor watching me said, "Don't you use soap with it, I do." I never had but I tried and found that it worked far better than when used alone. Not so long ago I bought a couple of Chore Balls. They were knit of copper wool and I think they are far superior to steel wool, they do not rust nor break off; they are a godsend in the dairy. We never need to worry about milk rock, that deposit that ofttimes forms on the insides of milk cans. A scouring once a week with a Chore Ball keeps them shining like new.

A good many women have had trouble with rings and spots left on clothing when cleaned with gasoline. Our demonstration agent said if they would use a dry cleaner with the gasoline it would eliminate that trouble. The term "dry cleaning" is sometimes misunderstood. To dry-clean, the garment is washed in gasoline, benzine, or some other similar substance. The dry cleaner that was recommended to us is called "Putnam's Dry Cleaner." It is a powder that is put into the gasoline and makes the gasoline just as much more efficient as soap does water. It is very probable that it can be purchased anywhere.

When sewing on buttons, put a pin across the top of the button and sew over it. Before breaking off your thread wind it around several times under the button, pull out your pin and you will have a neck under the button that will make it button easier and stay on longer.

When making children's dresses or waists, plan for two of the same material. They may be trimmed differently. When they begin to wear out, the best parts of the two can be combined into one garment. I have found that by making my boys' waists with sport collars, full length sleeves with turn-back cuffs, and a waist band an inch or two too big around and fitted with a little pleat under each arm, they will fit the boys "growing like weeds" a much longer time than when made with regulation shirt collar styles. The sleeves I cut to the hand, put the cuff on and turn it back. When they get too short all I need to do is to turn them down and reverse the button.

A new salad, the Waldorf, was introduced at our community Thanksgiving dinner this past year. Several pronounced it the best they had ever tasted. Take equal amounts of diced sweetened raw apples and diced celery; add one-half amount broken walnut meats; mix well and serve on lettuce with boiled or mayonnaise dressing.

Delicious sandwiches are made from whole wheat bread buttered and spread with a filling of equal parts stewed and drained raisins and chopped nut meats moistened with mayonnaise.

Have you ever had trouble making your devil food cakes "red?" If you will use twice as much soda as is necessary to neutralize the sour milk and dissolve your cocoa in boiling water, not hot, but actually boiling, I think you will have no more trouble.

Before I close this I want to give you a recipe I have been planning to send you for a long time. It is as traditional of Virginia as Virginia baked ham and beaten biscuit. It is "Brunswick Stew."

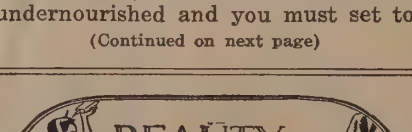
Take one gallon hot water; one large or two small chickens (cut up as for a stew); 2 large onions; 2 slices bacon; one pint corn; one pint tomatoes; one cup fine bread or cracker crumbs; one cup butter; one teaspoon salt; one-half pod red pepper; one-half teaspoon white pepper. Put into a large soup pot the chicken, tomatoes, onions, and the bacon. Pour on the water and let simmer until tender. Remove the chicken and when cool remove bones, tough skin, and gristle. Chop fine and return to the pot adding the corn; boil twenty minutes; add butter, salt, bread crumbs, and pepper. The stew should be quite thick, but if too thick add boiling water.—GRACE GORDON.

Child Welfare

A few weeks ago (the first week in May) was known as "Health Week for the Children." A campaign was put on throughout the entire United States to awaken the mothers and teach them the necessity of guarding the health of their children. And there is no reason why the country mothers cannot undertake this work just as intelligently as the city mothers are doing.

The first thing to do is to take an inventory of your child. First take its weight and its height and consider whether or not he is nervous. There are tables of weights, that may be easily obtained, which you may use to compute for yourself as to whether or not your child is the correct weight for his age. Unless he is a very great deal overweight, say 20 lbs. or more, you need not feel any concern along that line. But the chances are far more likely that he is underweight, which means that he is undernourished and you must set to

(Continued on next page)



In our new SUMMER Fashion Magazine there is a three-page article called the Beauty Shoppe containing very good advice regarding the care of the complexion, the hands, etc.

Of course, the book also shows all the styles being worn by the smartly dressed women of New York. It's a book you simply cannot afford to be without. Send 10 cents in stamps or silver for your copy right now. Address Fashion Dept., Hoard's Dairyman, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 2708—Straightline Sports Frock. in sizes 16, 18 years, 36, 38, 40, and 42 in bust measure. The 36-inch size requires yards of 36-inch material with ½ yard of inch contrasting.

No. 2845—Crepe Roma and Metal Embroidery. Cuts in sizes 18 years, 36, 38, 40, 44, and 46 inches bust measure. The 36-size requires 3¼ yards of 40-inch mat with ½ yard of 36-inch contrasting.

No. 2992—Unmistakably New. Cuts sizes 18 years, 36, 38, 40, 42, 44, and 46 in bust measure. The 36-inch size requires yards of 40-inch material. Emb. No. 72 15c extra.

No. 3045—Playtime. Cuts in sizes ½, and 3 years. The 1 year size requires yards of 40-inch material with 1½ yard binding.

No. 3010—Delightfully Girlish. Cuts sizes 6, 8, 10, 12, and 14 years. The 8-size requires 1⅞ yards of 36-inch mat with ¾ yard of 36-inch contrasting.

No. 2051—Attractive Apron. Cuts in small, medium, and large. The medium requires 2 yards of 36-inch material.

No. 3023—Smartly Simple. Cuts in 18 years, 36, 38, 40, 42, 44, and 46 in bust measure. The 36-inch size requires yards of 36-inch material with 1½ yard 27-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. your order to Fashion Department, Hoa Dairyman, Fort Atkinson, Wis. Every tern is seam-allowing and guaranteed to perfectly. Do not fail to state size.

Our patterns are made especially for us the leading fashion designers of New Y City. No stock of patterns is carried in office and, since all orders are forwarde the factory, kindly allow a reasonable for delivery of any pattern you order.

Mrs. Newlywed: Oh, George, I got to get the soap. Run over to grocer and get a couple of bars. want to wash the lettuce.—The P gressive Grocer.

o: to get your child up to normal
iving him the food that will build
is body and put on weight. The
ols in town, and some in the
try, are using milk for this pur-
s. Milk is one of the best foods.
] a town near us there were 89
rnourished children in school in
mber. At that time they start-
iving all of these children free
il; morning and afternoon each
i was given a bottle containing a
l pint of milk. By April first the
ber of undernourished children
decreased to 63. That alone tells
:ory.
'e must consider the matter of
c for our children very seriously.
would be surprised to learn how
ar children are given coffee to
i: at home. Why don't these
o ers make cocoa for their chil-
d s breakfasts instead? So many
i ren are allowed to eat entirely
o much candy. Children should
s whole wheat bread in the place
hite bread. Surely this is within
n power. If anyone has a chance
ve a child the right start, we on
e farm have this chance. The
i ren need plenty of milk, eggs,
d, and vegetables. Are your
i ren getting these things daily?
ie are all things that we can pro-
c at very little cost; we do not
e have to spend money to provide
n children with these foods.
(course, the schools in town have
e nurse look over the chil-
e periodically to see what physi-
l efects are present. Very often
e country you can secure a doc-
r rom the State Board of Health
h will give the children in your
h l a thorough physical examina-
n or, better yet, perhaps a doctor
c t dentist from a neighboring town
l donate his services and come
our schoolhouse. In this way
t children will be given a very
o ugh looking over, and a card
l be sent home to you telling you
at respects your child needs to
oked after, whether you need to
k him to a dentist or whether it
s visable to take him to your fam-
hysician to have his ears treated,
s yes tested, or his tonsils out. It
a be that he needs to have a goi-
r necked. It gives you a very fair
a e to check anything that might
t lead to serious trouble. Per-
l bad tonsils seem immaterial to
t but often diseased tonsils affect
e ntire health to such an extent
a it may cause rheumatism in one
s worst forms, or heart trouble of a serious nature may develop. If you cannot succeed in working up interest enough in your school for this work, you can at least take your children to your family physician and have him give them a thorough examination.

Let me stress this point, if your child needs attention in any way, take him to a first class physician for treatment; do not try to dose him up yourself with some patent medicine. No one can estimate the untold damage that is done each year, not alone to children but to adults, by taking doctor books for law and gospel, by making your own diagnosis, and then doping the family up with Somebody's Pain Relief. Why such a custom still prevails in this country of education and enlightenment is beyond my comprehension. It is a relic of ignorance. Your children need you to make a study of their health and their needs, but it must be done in a clear, level headed, sensible sort of way.—ETHEL MORRISON MARSDEN.

Summer Style Book Ready

It is Later Than Our Spring and Summer Book

Send today for our Summer Style Book. You will find it contains patterns for summer clothes which are fashionable and easy to make. Costs only 10c. Fashion Dept., Hoard's Dairyman, Ft. Atkinson, Wis.

The Food Value of Bananas

When I was a child my mother often used to say, "No, you may not have a banana. They are hard on little people's stomachs," and such, I believe, was the common opinion. But now we know that the banana is a very friendly food both for children and adults. The big thing to remember is that no person of any age should eat a banana that has a yellow skin and green tips. The skin must be thin and soft and flecked with brown spots before the banana is ready to eat. This is not only because the taste is improved but because certain chemical changes take place in the process of ripening that render the starch and sugar of the banana more digestible.

Most persons swallow a bite of banana practically whole which is another cause for their thinking them indigestible. Like all other food, bananas should be thoroughly chewed.

I can testify to the ability of the banana to put weight onto a thin adult. One of my family was thin to the danger point. You know some people are just naturally thin and we don't expect them to be anything else, just as we don't expect a race horse to have the weight of a draught horse. But there is a minimum of safety and something should be done to build the thin person up before this minimum is reached. In addition to having a good supply of milk, of sleep, and of nourishing food, this relative of mine took a middle-of-the-day nap (you can't recommend them too highly) and also ate slowly, either at meal time or between, a well ripened banana, being careful to chew it well. His gain, of course, was not due to the banana alone but it was a big factor.

Many persons with kidney trouble who are permitted very little in the way of sugars and starches can eat ripe banana with no disturbance whatever because of the easily assimilated sugar it contains.—LUCY THOMPSON.

Prices of Embroidery Articles on Color Page

We wish to call the attention of our farm women readers to the col- insert in this issue which displays beautiful stamped embroidery ar- cles. The designs are simple to work and reasonable in price and me stamped ready to embroider. Send in your order at once to Pat- rn Department, Hoard's Dairyman, Fort Atkinson, Wis.

The prices for these articles are as follows:

No. 1642—Kitchen Curtains come made up of striped dimity with lges bound in green binding. Price 59 cents.

No. 1092—Vanity Set comes stamped on fine embroidery cloth. rice 15 cents.

No. 1258—Child's dress comes made up stamped on fine voile in ach, yellow, or blue. Collar and cuffs edged with lace. Price $1.25.

No. 1581—Apron stamped on good quality of sheer checked batiste pink, blue, or gold. One size only. Price 75 cents.

No. 1011—Buffet Set stamped on good quality Indian head. Edges e hemstitched. Price 50 cents.

No. 1421—Luncheon Set stamped on Indian head, set consists of oth 36"x36" and four napkins 12"x12". Price 75 cents.

No. 1081—Apron stamped on unbleached muslin. Pockets of fast- olored blue chambray. One size only. Price 59 cents.

No. 1065—Runner stamped on white Indian head with edges hem- itched. Price 50 cents.

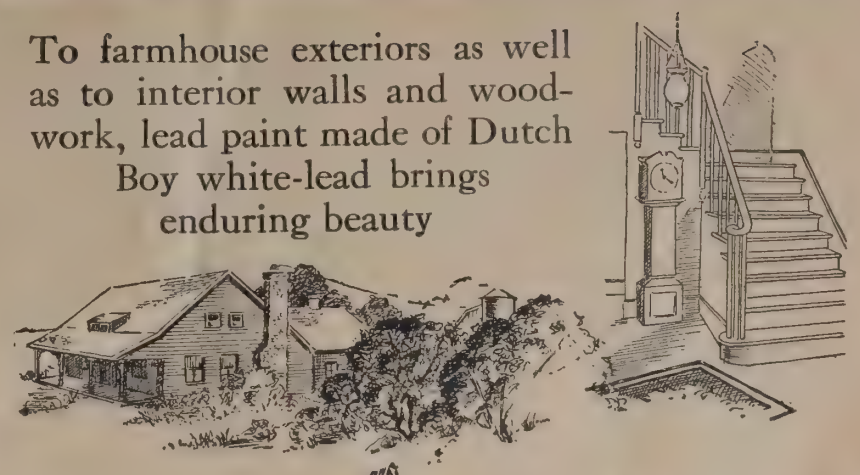
No. 1775—Pillow cases stamped on 42-inch tubing with edges hem- itched. Price 89 cents.

Send orders to Pattern Department, Hoard's Dairyman, Ft. Atkinson, /is. Be sure to enclose check or stamps.

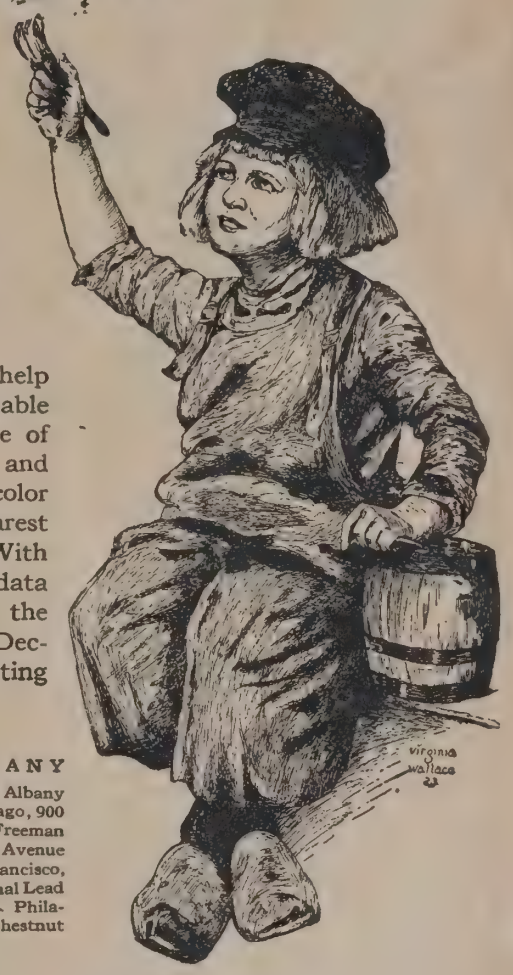
Husband: Mary, here's a hair in the pie crust.

Wife: Looks like one of yours, John. It must have come off the rolling-pin. —The Progressive Grocer.

To farmhouse exteriors as well as to interior walls and woodwork, lead paint made of Dutch Boy white-lead brings enduring beauty



HOW will you protect the exteriors of your farm buildings from the ravages of the weather? How will you decorate your farm house inside? Our booklets—"Handbook on Painting" and "Decorating the Home" (printed in color)—will help you decide. They give valuable information about the use of paint and the selection and application of distinctive color treatments. Write to our nearest branch for these booklets. With them you get a decorator's data form to use if you desire the help of our Department of Decoration on any special painting problem about the farm.



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New York, 111 Broadway ⁘ Boston, 800 Albany Street ⁘ Buffalo, 116 Oak Street ⁘ Chicago, 900 West 18th Street ⁘ Cincinnati, 659 Freeman Avenue ⁘ Cleveland, 820 West Superior Avenue St. Louis, 722 Chestnut Street ⁘ San Francisco, 485 California Street ⁘ Pittsburgh, National Lead & Oil Co. of Penna., 316 Fourth Avenue ⁘ Philadelphia, John T. Lewis & Bros. Co., 437 Chestnut Street.

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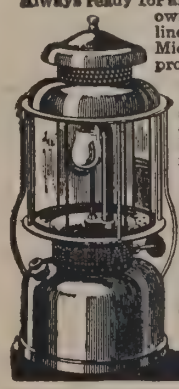
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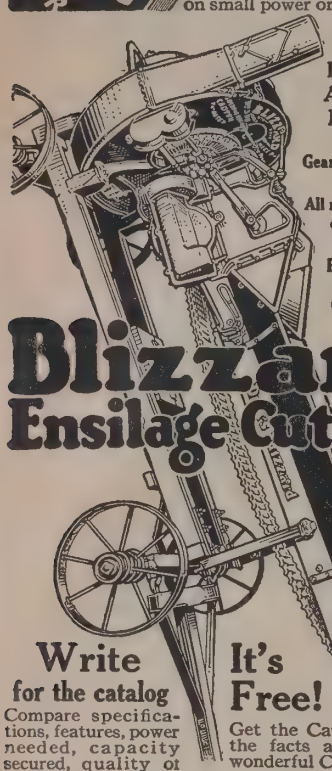
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Features such as the perfectly balanced, guaranteed-for-life flywheel, Hyatt roller bearings, end-thrust bearings, automatic feeder, non-clog blower and twist-proof frame make it the *preferred* silo filler among farmers who have used all makes.

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An all-steel machine, unbreakable steel fly wheel, built for years of hard service. Requires no man at feed table. Faster work at less cost. All sizes, fly-wheel and cylinder types. **Dealers everywhere**—Write for catalog and name of nearest dealer.

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Saves One Man's Time 3-27 *All Gears Running in Oil*



Preventing Disease and Promoting Growth

The illustration shown above is from the farm of Chalmer Miller, Indiana. These pigs are helping themselves to shelled corn, shorts, and tankage in separate self-feeders. They were farrowed early in clean quarters and when old enough were taken to a field free from worm eggs and disease germs. Here a temporary creep was made to give the pigs all they wanted and at the same time limit the feed of the sows.

Tuberculosis in Swine

According to the year book of the U. S. Department of Agriculture, 1924, the total number of hog carcasses condemned for all causes by the federal meat inspection service was 232,670, of which number 100,100 or 4.3 per cent were from tubercular hogs.

In 1907 the number of hogs retained because of tuberculosis by federal inspectors was 13.83 per thousand hogs slaughtered; in 1922 the number retained for a similar reason was 163.87 per thousand slaughtered. Within the same period the number of cattle carcasses retained because of this disease increased from 4.23 per thousand in 1907 to 27.05 in 1922.

As late as 1923 it was held by those in charge of tuberculosis eradication among cattle that this would eventually suffice to eliminate the disease from hogs. This view was put forward by Mohler, chief of the U. S. Bureau of Animal Industry in 1923, when he said in the annual report of the Department of Agriculture:

"It is believed that the area eradication work among cattle will eventually eliminate tuberculosis from swine, as the greatest source of infection in swine is known to be through following diseased cattle or drinking unpasteurized skimmilk from creameries."

Since 1923 post mortem examinations of hogs shipped to slaughter from modified accredited areas, those showing less than one-half of one per cent infection among all breeding cattle, have failed to show a corresponding and expected reduction in the number of hog carcasses retained. This situation lead investigators to inquire into the specific sources of infection affecting hogs.

In 1904 Weber and Bofinger demonstrated for the first time the presence of avian tubercle bacilli in the lymphnodes of a three-month-old pig. The actual susceptibility of swine to avian tuberculosis was first shown by De Jong in 1905. Since that time many investigators confirmed the findings of De Jong.

Prompted by the rapid increase in the number of hog carcasses retained because of tuberculosis and not satisfied with the assumption that most of the infections were of the bovine type of tubercle bacilli, Van Es and Martin of the Nebraska Experiment Station set up a thorough and exhaustive inquiry into the causes of tuberculosis of swine. The work is reported in Research Bulletin No. 30 of the Nebraska Station, issued in 1925.

This investigation included 250 Nebraska shipments of swine originating in 41 counties. The shipments represented 14,299 hogs of which not less than 2,781 or 19.5 per cent were retained on account of tuberculosis.

In slaughtering the hogs from each of these 250 consignments, laboratory samples were retained of the lymphnodes and these examined to determine whether the disease had been caused by bovine (mammalian) or avian (bird or chicken) or both of these organisms. Of the 250 lymphnode samples taken, 2 were discarded, 31 gave negative results, and 8 yielded results which made avian origin of infection highly probable. The number of consignments of hogs, the lymphnode samples of which yielded results permitting a definite interpretation, was 209.

To determine whether the organisms were of the avian, mammalian, or mixed type, guinea pigs and chickens known to be free from tuberculosis were inoculated with cultures prepared from the lymphnode samples taken from each of the 209 consignments of hogs. If the chickens developed tuberculosis and the guinea pigs did not, the type was classified as avian; if the reverse were found the type was mammalian, assumed to be bovine; if both the guinea pigs and chickens developed tuberculosis the type was classified as mixed avian and mammalian. The results of the investigation were as follows:

Type of infection	No. of consignments	% of consignments
Mammalian (bovine)	11	5.21
Avian (chicken)	185	88.51
Mixed (bovine and chicken)	13	6.22
Total	209	99.94

In a similar way investigations were made of 14 consignments of hogs from Hillsdale County, Michigan, a bovine accredited area. In 13 of these the avian type of tuberculosis was demonstrated and in one the mixed type was found.

Apparently, from the foregoing facts, the next step in the tuberculosis eradication program is with chickens if our hogs are to be made free from the disease.

Doing His Best

Not long ago Deacon Miller bought a horse and buggy and took his wife out one Sunday for a drive. They came to our neighboring town of Ossea and saw a sign which read, "Speed limit 15 miles per hour."

"Here, ma," said the deacon, excitedly, "you take the lines and drive, and I'll use the whip. Maybe we can make it."—Whiz Bang.



A TIP To Young FARMER-TOURISTS

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Splendid paved roads through beautiful scenery. Here is your opportunity to inspect the splendid farms which we will sell or lease on very easy terms if you own your farm implements.

These farms are ideally suited for dairying, growing of canning crops, alfalfa, timothy hay, and small grains, and raising sheep, stock and feeders. Nearby markets, railroad facilities, schools and churches make these farms most desirable. Write for details of our plan for helping finance ambitious farmers. Geneseo is located on two of Western New York's best paved highways; is only 95 miles from Niagara Falls, 80 miles from Buffalo and 30 miles from Rochester. See us this summer. Write or call upon

LEO M. ALLEN, Manager
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Cuts Corn Borer into ⅛ inch pieces



4 knives insure extermination

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Ensilage Cutter

All steel construction — no blow out or clog troubles — light running — low speed — better ensilage — lifetime service — sizes to suit your power. *A Michigan farmer writes: "Your 8-16 Ross Cutter is the easiest running machine I have ever used—lots of power to spare—filled five silos and only trouble was getting enough corn to cutter."* **Write for money saving plan. Agents wanted**

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THE appearance of farm buildings is the visible standard by which a farmer's customers and neighbors judge his good management. Your buildings, painted white or light colors with Eagle Pure White Lead in Oil, indicate careful attention to economy. They provide cheerful surroundings that add to the health and happiness of everyone on the farm.

Farmers who have painted with Eagle know its economy in first cost. When repainting time comes, they realize another economy of pure old paint. It wears away evenly, slowly. It is tough and elastic—does not crack or peel off—leaves a perfect, deep-anchored foundation for repainting.

Leading paint dealers sell Eagle. *The Eagle-Picher Lead Company, 140 North LaSalle Street—Chicago.*

You will appreciate the many helpful suggestions for mixing white lead paint contained in our "Tinting and Mixing Chart." Write today for your free copy.

EAGLE PURE WHITE LEAD

OLD DUTCH PROCESS



We are always pleased to receive suggestions in regard to every department of Hoard's Dairyman.

Holstein National Totals $27,975

(Continued from page 649)

Dell Lyons Model Korndyke that has a 5½-year-old record of 1,096 lbs. butter. D. D. Aitken, Michigan, purchased this calf for $1,200.

B. H. Decker bought the next top male when he paid $800 for Decreamco Bess Burke Fobes 5th, one of the Detroit Creamery consignment. The twelves bulls in the sale averaged $439.

One animal, a nice four-year-old daughter of 37th from Rewana Farms, Nevada, was purchased by A. M. Dunn, California. This heifer and two females purchased by Carter, Ohio, and Aitken's bull calf were the only animals sold outside of the eastern states.

The sale committee was composed of Thorne, chairman, and Merrill, Connecticut; Baker, New Hampshire; Coe, Maine; Peabody, Stockwell, and Cort, Massachusetts. The auctioneers were Haeger, Mack, and Granger with Jim Watson in the box.

Animals selling for more than $300 and their buyers are:

Quonquont Stock Farm, Massachusetts	
Wisconsin Bess Ormsby Johanna	$1,100
Burbank Sadie Beets Pietertje	700
Gwyneth of Grayfields	625
Onyx Lilith Colantha	320
Rosebud Pietertje Colantha	1,075
Winterthur Donsegis Ormsby Inka Et	470
Winterthur Best Segis Fander	330
Duchess Prudence Storrs	320
Osborndale Colantha Ruth	330
Howecrest Pauline Pontiac	390
Middleton Laura Korndyke	330
Valdessa Segis Beets De Kol	375
Canary Tidy De Kol	325
A. M. Dunn, California	
Burbank Minita Pietertje	$550
John G. Ellis, Massachusetts	
Retreat Alcartra Houwtje	460
Retreat Lizzie	500
Chloe Tweede of Berks	475
Waldo S. Kellogg, Connecticut	
Highlawn Sylvia Cornucopia	$350
Johanna Colantha Fobes De Kol	400
Lady Ormsby Educator	400
John Tuck, Massachusetts	
Cattaraugus Flora Colantha	$1,225
Bell Farm Buttermaid	300
B. H. Decker, New York	
Dutchland Creamelle Alice Belle	$425
Decreamco Bess Burke Fobes 5th	800
D. D. Aitken, Michigan	
Sir Bess Ormsby Fobes 63d	$1,200
Floyd H. Carter, Ohio	
Dutchland Colantha Butter Maid	$725
Choate School, Connecticut	
Count Colantha Echo Posch	$425
L. Breese & F. Williams, New York	
Robinsdale Hildegard Mead De Kol	$375
Prilly Adirondac 6th	625
Joseph W. Kirchner, Massachusetts	
Crystal Farm Prilly Copia Beryl	$365
K. O. Q. Jessie Alcartra	320
W. W. Carpenter, Rhode Island	
Pabst Prilly Creator Hartog	$360
L. Breese, New York	
Piebe Burke Homestead Oak	$750
K. O. Q. Belle De Kol	350
Frederick M. Peasley, Connecticut	
Baker Farm Maartje Cornucopia	$510
T. B. Kingsford, New York	
Osborndale King Piebe	$350
Leopold Beyer, New York	
Madam Pauline Sylvia Echo	$500
Maricopa Cry. Company, Arizona	
Bell Farm Cavalier	$625
Chas. B. Ellis, New York	
Winterthur Donsegis Inka Fajasme	$525
Aaggie Zilla Pauline Colantha	350
Thos. W. Wood, Connecticut	
Lyons Rag Apple	$400
Amos D. Bridges & Son, Connecticut	
Pabst Creator Alpha Segis	$350

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Get rid of flies NOW

IMPROVED Dairyman's "Fly-Kil" is the only fly spray guaranteed to protect cows all day from fly annoyance and it kills instantly every fly it hits. It is colorless, sweet smelling and will not burn the hide or taint milk.

It Pays to Use DAIRYMAN'S "FLY-KIL"

You'll find spraying "Fly-Kil" will pay big returns by increased milk production. Many successful dairymen have proved that, whether cows are in good pastures or are being fed in the barn, the daily use of Dairyman's "Fly-Kil" pays. Fly-pestered cows that don't eat don't produce.

HOUSEHOLD "FLY-KIL"

kills flies, mosquitoes and other insects in residences, camps and stores. Thousands of customers are finding it just as valuable in the house as Dairyman's "Fly-Kil" is in the barn.

Both kinds of "Fly-Kil" are sold only by our direct representatives who demonstrate on your own farm.

We need men who can put in full time selling "Fly-Kil." Write at once giving your age and name of your banker or other reference.

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Willhelm Oil Company Saint Paul, Minn.

Sole makers and distributors

Genuine "FLY-KIL"

New York Milk Consumption Increases

The annual milk consumption in New York increased from 74.1 quarts per capita in 1890 to 137.5 quarts in 1924, an increase of 85 per cent. During the same period the consumption of cream increased from 2.4 quarts per capita to 8 quarts, an increase of 233 per cent in 35 years. Reducing the cream to its milk equivalent the total milk consumption was 88 quarts in 1890 as compared with 183.5 quarts in 1924, an increase of over 100 per cent in 35 years.

This compares quite favorably with the federal report showing that the annual per capita consumption of milk and cream in terms of milk increased from 169.6 quarts per capita 1917 to 221.2 quarts in 1926, an increase of 30 per cent in ten years.

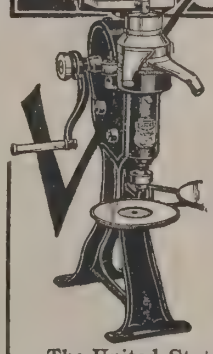
People and pins are useless when they lose their heads.



IOWA JUNIOR DAIRY CATTLE JUDGES VISIT PRESIDENT COOLIDGE

On their way to England to represent the United States in the International Junior Dairy Cattle Judging Contest, the party stopped off to see the sights in the nation's capitol. Here they are at the White House after having been received by President Coolidge. Left to right they are: Mrs. Kaiser; Professor Fordyce Ely, Iowa State College; Gertrude Kaiser; Lloyd Kaiser; Mrs. Ely; Kenneth Walter; Roy Combs, county agent and coach of team.

O.K.



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The United States has won the O.K. of dairymen by excelling in the three real points where one separator can be superior to another—close skimming, easy running, long life.

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Seven sizes—motor or gas engine attachments on larger sizes. Separators or repair parts available from eight warehouses.

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AGENTS: Some desirable territories open for live user-agents. Write for plan.

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How to Keep Milk Sweet

FREE Bulletin 928 about sterilizing dairy utensils with B-K

Write for this concise little bulletin crammed with information on the big important subject of sterilizing dairy utensils. Done quicker—better—cheaper with B-K. Address

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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

HOW TO FIT THE DAIRY CALF FOR THE SHOW RING

IF you are planning to show your calf at the fair or round-up, your preparations should start months before the time of showing. Fitting should begin on the inside of your calf—in other words, the calf should be properly fed.

Feeding—Skimmilk, if available, can be fed with profit to calves until a year of age. In addition, feed some silage, legume hay if possible, and a good concentrate mixture. There are several grain combinations—equal parts by weight of corn, barley, and oats with a small amount of oil meal is a suggested mixture. Linseed meal is a good conditioner, and a small handful may well be fed with every meal. The grains should be ground for calves over 6 months of age. Don't forget the water bucket and the salt lick for your calf.

Barn Care—Do you brush your calf every day? You should. Grooming is important if you want your calf to be in the best possible show condition. Do you keep your calf in a comfortable box stall? Do you clean out the stall daily and keep plenty of fresh bedding in it? Your calf appreciates attention of this sort. Does your calf get plenty of sunshine and fresh air in the barn? This is good health insurance.

Pasturing and Blanketing—It is not usually advisable to pasture young calves. Good showmen keep the stock they plan to show under cover and blanketed, beginning this practice some months before show time. Sunshine beating down on unblanketed animals in pasture or lot several hours a day tends to make their coats rough. Blanketing helps keep the flies off, helps keep the animals clean, sweats and conditions the hide, helps make the hair smooth. You can make a simple blanket for your calf from a couple of gunny sacks. Shape the neck and put on several tie straps.

Leading and Posing—Is your calf halter broke? No calf has good show ring manners until it has learned to lead quietly, neither running ahead of nor lagging unduly behind its master. It takes time and patience and ceaseless practice to teach your calf this important lesson. Take your calf out for a walk every day, fifteen or twenty minutes at least, and longer if you can. The exercise is good for both you and the calf. When your calf has become accustomed to being led, practice standing it in such a position that it will show well before the judge. This is called posing. The feet should be so placed under the animal that the calf's top line is as straight and its rump as level as possible. The calf should not be stretched out like a saddle horse.

Showman's Outfit—There are a few useful articles that every showman ought to have. An outfit might include a bar of soap, a pail, a scrub brush, a blanket, a halter, a sharp knife, a rasp (or a piece of glass will do), some strips of emery paper, clippers, flannel cloths, a pair of shears, a brush, some string, pumice stone, and sweet oil, a comb for the switch.

Clipping—It is sometimes well to clip your calf all over a couple of weeks before showing, particularly if its coat looks a little shaggy. At any rate, before you enter the show ring, be sure the tail is clipped and the head trimmed. Best results will be secured by clipping against the grain of the hair. In clipping the head, work from the outside to the center. The long hair in the ears can be trimmed out with scissors. Start at the switch and clip up on the tail. Either power or hand clippers may be used.

Washing—A bath with plenty of soap and elbow grease should be given your calf before showing. Select a warm day and use other precautions, such as blanketing, to prevent your calf from catching cold. Give especial attention to scrubbing thoroughly the tail switch. You may follow the suds treatment with a good rinsing, ending with a rinse in blueing water. To make the switch fluffy, braid it the night before show day in several small braids, tying each; then tie the switch up to keep it clean; unbraid just before entering the ring and comb it out.

Horns and Hoofs—The first step in polishing the horns is to scrape the surface. If you use a rasp, work it across and around the horn. If you use a small piece of glass, scrape the long way of the horn, beginning at the head and pushing out. Be careful not to scrape deep enough to draw blood. After scraping, take a strip of coarse sand paper or emery paper and rub around the horn vigorously. Follow this with a finer sa paper. Then apply a polish made powdered pumice stone and sweet procurable at the drug store, mix into a paste. Rub hard with a fl nel cloth. The hoofs should be th oughly cleaned, trimmed, and th polished in the same manner.

Grooming—It is hard to beat good hand rub after brushing, make the coat glossy. Put one ha over the other in wi mill fashion and rub w the grain of the hair. gentle rub-down with flannel cloth moister in sweet oil puts on finishing touches. Ol oil can also be used a rub-down. Be care not to use so much oil to leave the hair r greasy.

In the Show Ring—When showing on wh side of the calf sho you stand? Usually the left side, sometim in front, rarely on right. Stand on the l side in leading. Hold lead rope in the ha nearest the calf. Do use two hands to ho the lead rope. The tra rope should be ne ly coiled and held in same hand with wh you are leading. Ne stand between your c and the judge.

Every minute that are in the ring should give undivi attention to your job showing. There is time to talk to Joh Smith who is show the calf next to yo Nor is there time look around and see w is watching you. K one eye on the ju and the other eye your calf! Be ready move where the jud wants you to when wants you to.

Have your calf l its best all the time! posing your calf for judge avoid standing in holes or on unle ground. Don't let calf go to sleep, but the other hand, d work with it so m that you make it Ir- vous. Be courteous at all times. If the judge asks you a question, answ him to the best of your ability with proper respect.

Ask the judge! After the show is over and the awards have b made, if you want to know why judge did thus and so, ask him i courteous way. That's how learn. Asking a few intelligent qu tions may mean the differe between success and failure the ne time. Don't argue with the jud even if you think your calf sho have gone higher. Just remem that he is hired because of his ab ty to place the animals as he sees th



IMPORTANT STEPS IN FITTING THE DAIRY CALF FOR THE SHOW RING. THE TOP PICTURES SHOW HOW TO CLIP THE HEAD, FILE, SANDPAPER, AND POLISH THE HORNS. THE MIDDLE PICTURES ILLUSTRATE BLANKETING AND HOW TO CLIP THE TAIL. BRUSHING THE CALF REGULARLY AND GIVING A GOOD SOAP SUDS BATH BEFORE SHOWING ARE THE LESSONS TAUGHT IN THE TWO LOWER PICTURES.

Our Review Column

[Regular feature of the junior department, ing the contents of Hoard's Dairyman e previous issue. Let's talk it over.]

r further discussion of the fol- g, see the June 10th issue.

hat causes the fat test of milk to r? The season of the year, how e sampling is done, the stage of tion, the system of feeding, and e age of the animal. (See page

w can farmers help make the try roadside more beautiful? By ning and planting their home ds, by cutting the weeds, trim- objectionable brush, building fences, putting up a neat mail and by prohibiting the posting ly advertisements on their land. page 602.)

w did Frank M. Byers beat the problem in silo filling? By fill- without tramping, by taking off distributor pipe, and by using low wagons for hauling the corn, he down his labor for filling 4 silos 17 to 7 men. (See page 603.)

hat kind of a grain mixture may ed cows on pasture? One com- d of 200 lbs. each of ground , oats, and barley, or 300 lbs. of any two of these plus 100 of bran and 100 lbs. of either lin- meal, cottonseed meal, gluten , or soy bean meal is satisfactory. page 622.)

hat are some of the symptoms of ns in chicks? Light weight, un- tiness, drooping of the wings, leg weakness. (See page 622.)

ow can worms be treated in s? Mix 49 lbs. of the dry, grow- mash used with one pound of to- o dust. Feed two weeks, then for two weeks. This system may followed throughout the sum-

ow can more hogs be raised on average dairy farm? By grow- good pasture for them. One acre ape will carry about 20 pigs and alfalfa pasture will carry a few e. (See page 631.)

Junior Letters

A Prize Winning Club Girl

ard's Dairyman Juniors:—I am 12 years I live on a 70-acre farm. If I pass the y examinations this year, I am going gh school.

have been in the 4-H club work three t. The second year it was organized, I secretary. We named it "The Anti- Club," and an Anti-Can't Club it is for first year we organized, we had the second best club in Pierce County and the second year we got the first prize over 20 other organized clubs in the county. We received $10 given by the fair association and a banner, and our club leader was one of the best club leaders in the state.

This year I was in calf and sewing clubs. I had no previous experience in sewing at all. I exhibited 4 garments at the fair and got fourth prize on a sewing apron and first on a dress, first on my grade Guernsey calf, and first as the best cattle judge. I was the only girl entered in this contest. I would like to hear from some of the Juniors. My address is R. 1, Bay City, Wisconsin.

Helen Stogdill.

A Champion Baker

Hoard's Dairyman Juniors:—I have won many prizes in my three years of calf club work, winning first prize in the calf club at the Wisconsin Valley Fair and also a trip to the state fair. I was 13 last December. I also belong to three other clubs—sewing, baking, and thrift.

My team mate, Leona Sazama, and myself demonstrated in baking at the Wisconsin Valley Fair and won second place. In our demonstration at the state fair we had a score of 87. The name of our leader for baking, sewing, and thrift is Mrs. Carl Ryer. I also thank her for the help she has given us.



MADELINE WITTE, WISCONSIN, AND HER CALF

Our Achievement Day was held in Cherokee and was well attended. Our county club leader, C. J. McAleavy, announced that I was the champion baking girl of Marathon County for which I received the 50-lb. sack of flour and a free trip to the Minnesota State Fair from the Russell Miller Milling Company. Leona Sazama received 25 lbs. of sugar from the Menomonie Sugar Company. There are seven girls in our baking club and fifteen in sewing and thrift. My address is R. 3, Box 32, Colby, Wisconsin. Madeline Witte.

My Holstein Cow

Hoard's Dairyman Juniors:—Here is a little poem which I have written about my Holstein cow. She was given to me on my twelfth birthday. She freshened in October and gives about eleven quarts of milk twice a day. I am raising her calf on milk and oil meal:

Some boys may like their Guernseys
Others the Jerseys too,
Some talk much of the Shorthorns,
But mine is the Holstein true.

She is an ideal dairy cow,
Her milk is rich as wine;
I feed her but three times a day
And, boys, she's looking fine.

She is an easy keeper,
Pa says she has 'em all beat
In milking, feeding and in growing,
For she's always on her feet.

Now as I said before, boys,
She's the best, but I alone cannot bark
For you may love some others fair
But none can pass the Holstein's mark.

I will answer anybody who writes me that I may become better acquainted and do more for the club. My address is Box 203, West De Pere, Wisconsin. John M. Peters.

Trapping Mink

Hoard's Dairyman Juniors:—The thing which I like best on the junior page is Mr. Gurler's hunting trip in the north woods, because I like to hunt and trap. Every winter I go out and trap mink which I sell. They are the highest priced animals that I can catch here. I caught one big mink this winter which I sold for ten dollars. My address is Round Lake, Minnesota.

Frank de Boom.

Raising Pigs

Hoard's Dairyman Juniors:—Received the fob, pin, and the creed and was very glad to get them. Also received your letter and the membership blank and am sending it with this letter filled by my friend Howard. I am sure he will make a good club member because we ride to school together and we know each other pretty well.

Howard and I each raised a fat barrow last summer. Howard's pig weighed pretty nearly 200 lbs. at the end of the feeding season making a gain of 1¾ lbs. a day. Mine weighed 245 lbs. and gained 2½ lbs. a day. We showed at three fairs—one school fair and two county fairs. My pig took first at the school fair and Howard's took second. At the first county fair, I went way down taking fourth and Howard one less. At the last fair my barrow went down to fifth place and Howard's went up to third.

The pig that I raised fell down in its front feet after I took it to the school fair. We sold our pigs for 12½ cents a pound which was 2½ cents higher than city market. We are both going to raise pigs next year. My address is Dunnell, Minnesota. Lloyd Gee.

Boys and Girls

Join the Juniors. No costs to u. If some member of your mily is a subscriber to Hoard's airyman and you are under 20 ars of age use the coupon.

OARD'S DAIRYMAN
JUNIOR EDITOR
AT ATKINSON, WIS., U. S. A.
ear Sir:—
I hereby apply for membership in the OARD'S DAIRYMAN JUNIORS' CLUB. agree to read the Junior Department Hoard's Dairyman regularly and do I can to make the Juniors' Club a success. Please send me the atch Fob [ ] [mark (x) after your choice], cklace [ ] e Button, and the Hoard's Dairyman nior's Creed.

y name is .....
[Write distinctly or print]

y address is .....
[R. F. D.] [City]

..... I am ..... years old.
[State]

oard's Dairyman comes to my home ad- essed to .....

y favorite breed of dairy cattle is .....

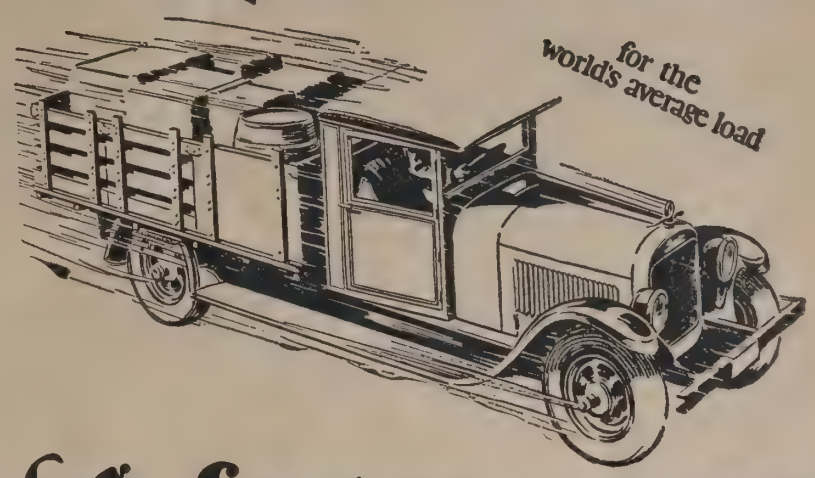
y father's name is .....

o you belong to a Boys' and Girls' 4-H arm Club? .....

so, what kind? .....

6-25-27

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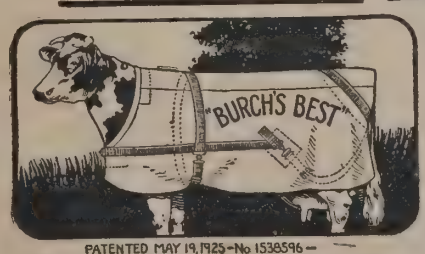
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Nine richly bred Holstein heifer calves, practically purebred. Tested and crated. $175.00. ALFAKORN FARM, Evansville, Wisconsin. 8-6

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Selling Five Registered Holstein Yearlings. Sire's dam made over 37 pounds butter 7 days and over 1,127 pounds in year. Official test. ALFAKORN FARM, Evansville, Wisconsin. 10-3

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Car-load of purebred Holstein cows, bulls, heifers and calves for sale. PHILIP LEHNER, Princeton, Wisconsin. 12-2

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

Registered Guernsey Bulls. Light fawn and white. Well bred. Record dams. Bargains. FRANK KLEMM, Baraboo, Wis. 11-2

Two registered Guernsey bulls, serviceable age. Your choice, $150.00 One younger, $100. Write EDWARD VAUGHN, Duluth, Minn. 11-2

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Six Registered Guernsey cows. One bull. May Rose breeding. Accredited herd. O. P. HUFFINE, Van Wert, Ohio. 12-2

Carload of Guernsey heifers for sale. WM. BRANDON, Wilton, Wis.

Registered Guernsey bull calves, $35 up. Good breeding. A. B. CLOSE, Taylorville, Illinois.

Bull Calves, Dots Cherub breeding from Dams with good A R records QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

Six Duroc bred gilts for sale. Holstein bulls, cows, and calves. PHILIP LEHNER, Princeton, Wisconsin. 11-2

Jersey cows, one and two-year-old heifers. Carload each. Practically pure-bred. ED. SHARP, Wolfe City, Texas. 12-3

Milk Strain Durham bulls, reds and roan. Sire's dam 654 lbs. butterfat. H. P. JARVIS, Maiden Rock, Wisconsin.

LIVE STOCK WANTED

Wanted—A number of purebred Guernsey heifer calves. T. B. tested. CLARENCE M. ROBERTS, Landover, Maryland.

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 75 cents for one cow, $2.50 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 12-2

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117 Shomont Kennels, Monticello, Iowa. 1-24

Pups—Satisfaction guaranteed. Registered Police females $15.00. English Bulls $10.00. Collie-Shepherds, males, spayed females $10.00. WILBUR DAY, Brighton, Iowa.

German Police pups, pedigrees furnished. ARPIN FOX RANCH, Arpin, Wis.

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

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Triple "C" Chicks—Lower prices. Big, husky, purebred, Cert-O-Culd, Smith-Hatched Chicks from farm-ranged, Hogan-Tested Flocks. Price per 100 delivered postpaid to you: Rocks, Barred, White, Buff; Reds; S. C. or R. C. Buff Orpingtons, $13. White Orpingtons, White Wyandottes, Black Minorcas, $14. Anconas, White or Brown Leghorns, $10. Jersey Black Giants, $19. Prompt shipment. Catalog free. C. C. C. HATCHERIES, Box 618, Centerville, Iowa. 9-*

Capper ships C. O. D. White, Brown Leghorns, heavy mixed 100 $8; English White, Buff Leghorns, Anconas $8.50; Reds, Barred, White Rocks, Black Minorcas $9; Buff Orpingtons, White Wyandottes $10; Assorted $7.50. CAPPER HATCHERIES, Elgin, Iowa. 11-14

HATCHING EGGS

Eggs from strictly purebred (267 egg strain) Barred Plymouth Rocks and (272 egg strain) White Leghorns $1.60 per 15; $6.50 per 100, postpaid. MISS MABLE HARDING, St. Peter, Minnesota. 6-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

TOBACCO

Better Tobacco! Fragrant, mellow! Five pounds smoking, 75c. Four pounds chewing, $1.00. FARMERS' CLUB, 250, Hazel, Kentucky. 10-8

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Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Ann Arbor Hay Presses bale more hay at lower cost and last longer than others. Write for complete catalog and prices. ANN ARBOR MACHINE COMPANY, Shelbyville, Illinois. 8-6

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Two unit Surge milker complete, together with small electric light plant, both nearly new, $275. EDWARD VANDERGON, Maple Lake, Minn.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, Ohio. 11-4

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10 H. P. motor, feed grinder, corn sheller. All in good condition and priced reasonable. J. P. McWILLIAMS, Bucklin, Missouri.

Two Single Unit Hinman milker good condition for $100.00. Address BOX 407, care Hoard's Dairyman.

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

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Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 12-2

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

LUMBER

Fir Lumber, Red Cedar Shingles, Fence Posts shipped direct from manufacturer to you. Send bill for delivered prices. LANSDOWN, Box 909S, Everett, Washington. 11-2

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-Spl

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Mattresses made any size, low factory prices. Catalog free. PEORIA BEDDING COMPANY, Peoria, Illinois. 3-10

BINDER TWINE

You can make a big saving with "Cricket" brand twine. During 27 years a reputation has been gained that it is the best twine money can buy. Farmer agents wanted to distribute our twine—profitable and easy to sell. Get our prices first. COOPER CORDAGE COMPANY, Transportation Building, Chicago, Illinois. 11-3

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

Highest prices paid for Burlap bags. Write us. PHILIP KRAVITZ BAG COMPANY, 660 Richard St., Dayton, Ohio. 11-2

SEEDS AND PLANTS

Fancy Quality White Blossom sweet clover seed. Carefully cleaned and scarified and free from noxious weeds. For best pasture next season sow more sweet clover. Price $10.00 cwt. Sacks free. SEBENS BROS., Milnor, North Dakota. 12-2

Alfalfa Seed—95% pure, $6.50 per bushel; Scarified sweet clover, 95% pure, $5.50; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

PRINTING

Coupon Milk Tickets, scale cards, tags, reports, statements, etc. E. F. WILKE & CO., 2424 N. Francisco Ave., Chicago, Ill. 11-2

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

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PARTNER WANTED

Wanted—Partnership position with reliable breeder or dealer in pure bred and grade cattle by herdsman; twelve years experience, single, very best references. R. B. DURHAM, Waveland, Indiana.

FARMS FOR SALE

Carolina Farms—Two hundred twenty acres best land in Rowan County, North Carolina, near Salisbury. Grows grain, cotton, clover. Wonderful for dairying. Good schools and churches. On highway. Perfectly healthy. Three hundred acres best land in Florence County, South Carolina, near Florence. Grows bright tobacco, cotton, grain. Wonderful for dairying or trucking. Accessible markets. Good schools and churches. On highway and railway. Perfectly healthy. Terms if wanted. KINGSBURG FARMS, INC., Timmonsville, South Carolina, 12-2

The Bank of North Dakota offers for 30 days, beginning June 15, to farmers of the right type—and farmers only—a splendid farm at a low price, with a guarantee of easy terms. Round trip Homeseekers' tickets, One Fare plus $2.00 every Tuesday. Write for Free North Dakota book and full information. E. C. LEEDY, Dept. 582, G. N. RY., St. Paul, Minnesota. 11-2

Farm of 480 acres, 3½ miles north of Peru, Indiana, on Federal road No. 31. Very desirable for stock or dairy purposes. Small cash payment, balance on very liberal terms. CITIZENS NATIONAL BANK, Peru, Indiana. 12-2

$1100.00 income per month. $1000.00 income per month. Stocked, fully equipped, close to New York markets. Also, two smaller farms. Deal with owner. Save commissions. PARSONS, 504 Press Building, Binghamton, New York. 12-2

Dairy Farm, close to Edmonton, Alberta, population sixty thousand, 30 acres, good land and buildings. Price $5500, $2000 cash, and the balance to suit. CANNAN FARM AGENCY, Macklin, Saskatchewan. 12-2

Dairy Farms—"Davidson Plan" 160 Acres or more with new house, new barn, new silo and 10 to 30 good Holstein cows; small cash payment, balance half cream check. Write 1315 PIONEER BUILDING, St. Paul, Minnesota. 9-4

Have you figured on moving your dairy? We offer 580 suitable acres. Twelve months' pasture possible. Florida imports millions in dairy products annually. For information write HILLS FRUIT FARM, Panama City, Florida. 11-2

160 acre improved farm. Complete buildings. Priced to sell. TARR BROS., New Auburn, Wisconsin. 11-*

MISCELLANEOUS LAND

The Great Northern Railway serves an agricultural empire in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Low round trip rates. Send for free books describing opportunities. Improved farms for rent. E. C. LEEDY, Dept. 282, G. N. Ry., St. Paul, Minn. 24-*

A Texas Snap. By prompt action you can secure Texas guaranteed Citrus Fruit land in the celebrated Rio Grande Valley at a great bargain on easy terms. G. H. KLINE, 105 So. Dearborn St., Chicago. 11-4

FOR RENT

Tenant wanted beginning 1928 for good diversified 640 acre farm in Red River Valley near Grand Forks, North Dakota. Farm equipped with modern dairy barn, silo and all necessary buildings for grain, hogs sheep and has ample alfalfa field, flowing well, machinery for potatoes and sugar beets, close to good market, packing plant and sugar beet factory. Want experienced dairyman with reasonable capital. Prefer man with grown boys. Rent only on partnership plan as to cows, sheep and hogs, share plan as to grain, sugar beets and potatoes. Favorable lease to right party. If interested write McINTYRE & BURTNESS, Grand Forks 11-2

Wanted—A dairy farmer, who understands feeding real dairy cows, to rent my half section farm on a 50-50 plan. Will make a real porposition to a young man wishing to get a start or one with own help, but renter must be able to buy horses and machinery. Owner will furnish a herd of high producing registered Holsteins with some grades. Possession given this fall. Address BOX 408, care Hoard's Dairyman.

Wanted—Practical farmer to become interested in operating fully equipped dairy farm on shares. Must have two to three thousand cash. R. E. AITKEN, 429 E. Broadway, Waukesha, Wis.

WANT TO RENT

Experienced dairyman with good grown help wants dairy, 50-50 basis. N. T. STEPHENS, Ullin, Ill.

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A large list appears in each issue, including Advertisements of Farm Property For Sale, Exchange or Rent, Dairy Cattle and Other Live Stock, Poultry, Farm Produce, Seeds, Machinery and Tools.

Whether You Buy or Sell — Here is Your Market !

The dairy farm wanting experienced dairy farm help will advertise here because on the farms where Hoard's Dairyman is read will be found the best dairy farm help. When the experienced man wants a position on dairy farm he advertises here because the men who have need of experienced help read Hoard's Dairyman.

Note the rates in announcement at head of this page and remit with copy, counting address.

Hoard's Dairyman
Fort Atkinson Wisconsin

FOR SALE OR LEASE

Well established dairy and sales business o Graham Livestock Company consisting of yards, s sheds, modern dairy barns equipped with milkin chines, milk house, trucks, etc. Plant capab handling 150 to 200 head of cows. Sales a 1,000 head of dairy cows per year. Milk sold good contract to distributor. 125 head of co hand at present. This is an unusual opportuni anyone who understands the cow business. P owner wishes to retire. For full information the GRAHAM LIVESTOCK COMPANY, 26 Broadway, Spokane, Washington.

FARMS WANTED

Want 160 to 300 acres improved and fully equ WALT MILLER, Carpenter Bldg., Milwaukee.

We believe we can sell your farm within 30 d auction. We have sold properties that have be sale for years, in one day at auction. Auction action. Let us sell for you. Write for detail. HALLMAN, 385 Broadway, Milwaukee.

MISCELLANEOUS

Hay Bale Ties—Tallman's bale ties are bette cost less. Write today for special price list. TALLMAN COMPANY, Shelbyville, Illinois.

For Sale—One 12x30 wood stave silo in ex condition; also one 14x30 stave silo in good tion; also four 36-inch James ventilators. TH BURY FARM, Libertyville, Ill.

For Sale—Cement Silo Forms, all steel, to 10, 12, 14, ft. in 6 ft. shifts, $350.00. JAM CASEY COMPANY, Watertown, Wis.

Buy one of our leather bound loose leaf pocke books and be able to give accurate informatio garding the animals you have for sale. Wil commodate 100 animals, (sketches, sire, dam, d birth, records, service date, etc.). Also service gestation table. Price $2.00, postpaid. HO DAIRYMAN, Fort Atkinson, Wis.

TESTERS WANTED

Iowa Cow Testing Associations need testers ary $900 per year and up, plus board. T courses offered. Give age, experience, reference letter. DAIRY EXTENSION, IOWA STATE LEGE, Ames.



Advertising in this department is 8c per w Remit in advance.

HELP WANTED

Wanted—An assistant herdsman who will be petent to advance to herdsman position Sep Best of living and working conditions with opp ties for advancement. Prefer young marrie with not more than one small child. No user bacco considered. Wages to start $70.00 per and modern apartment with heat, light, water. DOUGAN, Beloit, Wisconsin.

Wanted—Middle-aged married man (without children) and a relative for general dairy farm Wife to help milk. Modern equipment and new electric lights, etc. Good wages with big privil right parties. BEN J. MAY, Spring Grove, M County, Illinois. Phone 516 Richmond.

Wanted—Capable married couple on large Minnesota farm to act as field foreman and t crew of about twelve men. Man must be capable of leading field crew. Woman must to manage feeding of crew. References require dress BOX 406, care Hoard's Dairyman.

Wanted—A first class herdsman. Must be a feeder and A1 dry hand milker also be clea neat. Our plant produces Grade A milk but and modern, we milk from 30 to 40 Ayrshires. wages wanted and enclose copies of reference letter. SPINNEY RUN FARMS, Gurnee, Ill.

Wanted—Man and wife experienced in dairy Lady to work in milk room. Man must have ence in feeding and milking with results. sober, hustler and wide awake, do not apply. HILL DAIRY, R. 6, Humboldt, Tennessee.

Wanted—Strong, young, married man, no ch as working manager. Twenty-five head registere steins. Northwestern Illinois. Prefer college rienced man. ADVERTISER, 1433 Peoples Gas Chicago.

Wanted—Single men to work in up-to-date barn located in North Western Pennsylvania. M be clean, dry hand milkers and of good habits erences required. State age and wages ex DRAWER 29, Titusville, Pa.

Wanted—Reliable, experienced, single man f ry farm work. Machines used. Seventy a mon board and room. R. B. WENDELKEN, Belle Fr South Dakota.

Firemen, Brakemen, beginners $150—$250 m railroads everywhere (which position?). RAI ASSOCIATION, Desk M-10, Brooklyn, N. Y.

Help Wanted—Single dry hand milkers. Go ing conditions; chance for advancement. Can married men with small families. HARTMAN O FARM, Columbus, Ohio.

Wanted—Single men, good milkers and bar m Plenty of opportunity for sincere fellows. App LARSEN'S FERN-DELL FARM, Green Bay, V.

Wanted—Practical farmer, married, to operat farm near Waukesha. R. E. AITKEN, 429 E. way, Waukesha, Wis.

Working herdsman in certified dairy. Single experience. Guernsey breed. Good salary fo man. BELLE ALTO FARMS, Wernersville, Pa

Wanted—Single man for general farm work. STEVENSON, Streator, Illinois.

POSITION WANTED

Position wanted on stock or dairy farm. Rad an Ohio farm; had two years of college, and experience. Operated a dairy several years in M selling out in 1919 and buying a plantation Have been swept clean by the recent flood a place to work and support my family and obtain new start. For reference and further particulars V. B. POST, St. Joseph, La.

Position Wanted on a large dairy farm, b brothers, experienced, ages; 26, 24, 21. Olde ried—1 child. Do not use tobacco or liquor. place where good work is appreciated and cha advancement. Kindly state size of farm, nu stock, wages, and privileges first letter. JACK Route 1, Grindley Blvd., Dearborn, Michigan.

Wanted—Position as herdsman superintend modern dairy farm or estate. Age 40, marr children. Lifetime experience. P. O. BO Wickliffe, Ohio.

Middle aged, married couple with years of ence and finest references want year round farm, dairy preferred. G. CLAUSSEN, 205 W Ave., Watertown, So. Dak.

Position wanted as herdsman. Single man, experience A. R. O., certified work. A-1 fee calf raiser. Very best references. State wage dress BOX 410, care Hoard's Dairyman.

Wanted—Position as herdsman. Understan ing, calf raising and production of clean milk ried, no children. Wife to help with housework board men. Address BOX 404, care Hoard's Dairyman.

Single man wants position as helper with herd. No Jerseys wanted. Address BOX 40, c Hoard's Dairyman.

Wanted—Work on dairy farm by single, experi dry hand milker and feeder. THOMAS GUY, Wisconsin, R-2.

ews From Washington, D. C.

[Special to Hoard's Dairyman.]

shington, D. C., June 10—The dairy industry has, by reason e influence the 12-cent tariff has n the price of butter during the 12 months, a cause for real con- and great interest in the legal which has just been trans- d from the lower courts to the Supreme Court, involving the ty and constitutionality of the le Tariff Proviso (Section 315) e present tariff law. nslated into plain language, awsuit, if lost by the Attorney al, will result in all tariff in- es under the present Flexible law being put back where they in the Tariff Act,—butter from nts back to eight cents. If won e Attorney General it will end gument over a flexible proviso operated by the U. S. Tariff nission and the President.

became evident here last week the dairy husbandry is not the one which was peeved because overnment fiscal authorities—in words the Budget Bureau—had up the purse strings when re- h was asked for. A meeting was ll to make plans to ask for more ultural research, and thirteen nal organizations joined in the ment. These representatives ed to go in a body to the dent and ask for his support. President listened to their story half hour and promised to look the matter carefully. e dairy industry was represent- Charles W. Holman and A. M. is representing the Milk Produc- Federation and the American Federation. Other groups rep- ted included highway builders, implement manufacturers, beet producers, cane sugar growers, producers, vegetable growers, de and leather industry, the Na- Canners' Association, the com- n merchants, the lumber manu- rers, and the fertilizer manu- rers. Both the Grange and the ican Farm Bureau Federation also represented.

y good reports are being re- d at the Bureau of Dairy In- y, U. S. Department of Agricul- from the increased activity in proven sire campaigns." This in part by the speeding up of ork of checking and tabulating testing association records, so he result of the use of pure-bred can be checked up without loss me in handling records. The ss is long enough even with all le short cuts taken. In Michi- in particular, a special state project is being put on through xtension workers and the State ge Department of Dairying to rompt and complete reports on res used in the various associa- and having daughters who are is way or some other way on so the actual effect of the herd an be measured.

's' and girls' club representa- from every state will join in an pment and demonstration of work here the week of June 16. J. S. Army furnishes the tents, he club organizations and the rs in this part of the extension e in the U. S. Department of ulture take care of the rest of xpense and equipment. Those are coming are the winners of mpetition between the clubs in state for preeminent work. It novel affair, arranged entirely without expense to the government. Probably about 200 representatives of this great piece of educational work will take part.

Much interest is being shown here in the coming World Poultry Congress at Ottawa. The poultry workers in the Department of Agriculture and the representatives of the National Poultry Council expect to make a big showing of the American poultry industry and the work done by the government on behalf of that industry. A big government exhibit will be shown in the general exhibit to be staged by the Canadian organization in charge.

D. L. James, dairy and poultry marketing specialist of the Bureau of Agricultural Economics, has resigned and joined the agricultural staff of the U. S. Chamber of Commerce.

Spring Farm Cleaning

HOARD'S DAIRYMAN:—The pile of trash and rubbish shown in the accompanying illustration is the result of a couple of days cleaning up around the farmstead. The next thing immediately in order was a bonfire and the whole aspect of the place was improved for the season.

This bonfire was on a rented farm and the place has been kept much



AND THEN A BONFIRE

neater ever since. It is very easy to harbor junk and let old discarded gates rot where they were unhung or permit rotten rails and warped boards to stick around. Much of this rubbish was drawn forth from under buildings where it had been thrown out of the way or once laid aside for possible use and then permitted to become worthless with age and rotting.

With this cluttered accumulation out of the way, the dead trees and gaunt dead limbs were taken down and a second bonfire was burned in the same place. A widely scattered ash pile was hauled away from the back yard and the whole vicinity where it had been was ridded of this unsightly stuff.

A wet spring day is much worth while when it is employed in picking up rubbish and getting rid of junk that clutters the place and always in the way and harboring weeds one year after another.

Ohio. G. P. WILLIAMS.

National Dairy Exposition Judges

Judges of national reputation have been selected to place the ribbons on the leading dairy cattle of the country at the National Dairy Exhibition in Memphis next October. The judging will begin with Jerseys on Tuesday, October 18. J. B. Fitch, head of the dairy husbandry department of Kansas State Agricultural College, will make the awards.

On Wednesday, October 19, Ayrshires will be judged by John Cochrane, manager of Wendover Farm, New Jersey, and Brown Swiss placings will be made by H. H. Kildee, head of the dairy husbandry department of Iowa State College. Thursday, October 20, will be Guernsey day, and John S. Clark, manager of Caumsett Farm, Long Island, will place the ribbons. Holsteins will be judged Friday, October 21, by Ward W. Stevens, New York.

Early indications point to a good entry which will result in a show that will maintain the established high standards of the National as a dairy cattle exhibition. In addition to the exhibits of pure-bred animals of the five leading dairy breeds, there will be classes for grade cows having production records, and for calves owned by boys and girls in dairy club work.

The foreman looked him up and down. "Are you a mechanic?" he asked.

"No sorr," was the answer. "Oi'm a McCarthy."—Exchange.

SALE ANNOUNCEMENTS

Oct. 6—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
Oct. 8—Jerseys. First Annual Sale of Ravine Farm Jerseys at Prairie View, Ill. A. Lawrence Mills, Owner.
Nov. 8-9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H. Bird, Mgr.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.

McCormick-Deering Manure Spreader *and the* **FARMALL**



The Road to Farm Profit

The old-fashioned ways that made money in farming before the war have gone by the board. Everything is changed. The man who sticks to the old ideas has a hard time of it nowadays.

Yields must be increased, operations must be handled more efficiently, labor must be saved. Better equipment must produce bigger and better crops at lower costs—or there is little profit.

First, fertility must be put in the soil, and the scientific method is by McCormick-Deering Manure Spreader. The speed and ease with which fresh manure is handled and put evenly on the fields with this spreader encourages the full use of valuable fertility.

You will like the design and build of the McCormick-Deering. It is light of draft, simple and strong, and does everything a good spreader should do. Low for easy loading, with adjustments for different manures and light or heavy spreading. Built in two sizes. Note the features at right. Other machines *handle* crops; this machine *increases* them.

See this spreader at the McCormick-Deering dealer's store.

Note these features:
1. Auto Steer
2. Front Wheels Track with Rear
3. Two All-Steel Beaters
4. Wide-Spread Spiral
5. Narrow Tread
6. Self-Aligning Bearings
7. Steel Main Frame
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For healthier, happier bulls! For safer, surer breeding!

SAVES
— *Lives*
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Success in thousand dairies. No harsh feature; eat, drink, pasture and breed just the same. First all purpose control. 30 days' approval. Let us send you all facts.

SPENCER BROTHERS, Inc., Savona, N. Y.

FARM of 168 Acres
In Central New York
FOR SALE to Settle an Estate

Splendid buildings, well watered, has carried as high as 75 head of cattle. Last two years over 80 tons of hay were sold and 40 head of cattle carried each year, besides horses and other stock. Only ½ mile from church, school, depot, and milk plant. 20 miles from Syracuse on improved road.

SILAS GODFREY, (Administrator)
Pennellville, New York

Sell your surplus cows, poultry and other live stock with an ad on our Special Opportunities Page.

STERILAC

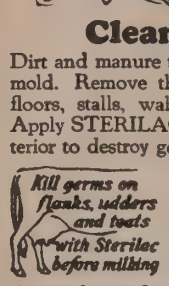
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An Ideal Disinfectant



Clean Barns

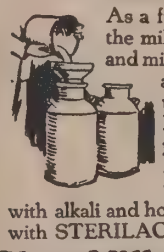
Dirt and manure teem with bacteria and mold. Remove the dirt and keep the floors, stalls, walls and ceiling clean. Apply STERILAC to all parts of the interior to destroy germs and to provide a suitable place to produce milk of low bacterial count.



Clean Cows

Wash the flanks, udders and teats first with water and then apply a solution of STERILAC to kill all bacteria. This practice is very important in the production of milk having a low bacterial count. It is a reliable procedure in the production of wholesome milk.

Clean Utensils



As a further precaution keep the milk cans, strainer, pails and milking machine and separator clean. Rinse these utensils with STERILAC solution before putting milk into them. After milking scrub thoroughly all utensils with alkali and hot water and then rinse with STERILAC solution.

Clean Milking Machines

In case the milking machine is used the metal parts should be thoroughly cleaned in alkali and hot water and then cleansed in a solution of STERILAC. The rubber tubing, rubber cups and other parts of the milking machine which are difficult to clean should soak in the STERILAC solution until ready to use. It is an easy way of keeping the machine clean.



Clean Bottling Machine and Bottles

STERILAC solution is ideal for use in bottling machines. After the bottling machine is cleaned with alkali and hot water let a solution of STERILAC run through outlets to destroy germs which may be present in the corners and other interior parts of the machine. STERILAC solution will also destroy germs inside bottles.



Sterilac for Dairy Factories

Dairymen, butter, cheese and ice cream makers will find STERILAC a most satisfactory disinfectant. It destroys the germs which produce off flavors and other forms of spoilage. Use STERILAC solution in milk vats, separators and anywhere in the factory where dairy products are produced. STERILAC destroys all kinds of bacteria which spoil milk and produce disease. STERILAC kills germs—*it does* not spoil milk which comes in contact with it. That is a very good reason why STERILAC is safe to use to produce milk that is safe to serve as human food.

Ideal to Handle

STERILAC comes in powder form—will keep its strength. Sunlight does not affect it. Special introductory offer of enough STERILAC to make 60 gallons of the strength used for ordinary sanitation $1.00. Complete directions enclosed.

Send a dollar bill today.
A trial will convince you.

The Sterilac Company
North Chicago, Illinois

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Controlling Bovine Abortion

Field work conducted for some two years by the Veterinary Department of the Wisconsin Experiment Station, in conjunction with a local veterinarian, has developed facts of interest relative to the control of the contagious abortion disease of cows. The work undertaken has involved the testing of blood from all of the cattle on three farms; removal of all reacting cattle to one of the farms; the maintenance of stable hygiene and sanitation; and the surgical treatment of animals needing such attention.

A report of the work says that in the herd where this work has been done the number of reacting cows gradually became fewer with each test, and large numbers of abortions such as were experienced in previous years did not occur. The groups of reacting cows proved profitable from the standpoint of milk production and reproduction. In the course of the work it was found that cows whose blood did not react to the agglutination test in such a way as to indicate positive infection eventually, on retests, gave positive reactions and most of them subsequently aborted. From this experience it has been concluded that in an infected herd all cows whose blood serum agglutinates in a dilution of 1—50, and ordinarily interpreted as a negative reaction, should be considered infected. From this and other studies Dr. F. B. Hadley and his co-workers are hopeful that infectious abortion in cattle ultimately can be controlled. They offer in Wisconsin Bulletin 388, the following suggestions as a guide to the management of infected herds:

Semi-annual Testing of the Herd—The first test is to establish the diagnosis; subsequent tests are to detect infection in the incipient stages. Best results follow the use of an agglutination test fluid prepared by pooling several strains of *Bacterium abortus* of bovine origin. Retests may well be made between 60 and 90 days, and continued until no new reactors to the test appear.

Removal of Reactors—All cattle that react should be immediately removed from the main herd to a separate barn, given special attendants, and provided with separate pasture and yard facilities. The calves from the reacting herd may be removed to the clean herd only after they have been weaned and are on a ration used as a substitute for milk. This precaution is taken to prevent the calves carrying the abortion organisms to the clean herd in the contents of their intestinal tracts. Reactors that eventually become non-reactors should never be returned to the clean herd, but retained in the reacting herd until they become unprofitable, when they should be sold for slaughter.

Stable Hygiene and Sanitation—Provision should be made for maternity stalls with tight walls to prevent all communication with other stalls so that each can be occupied as well as disinfected without disturbing the occupants of the others. The parturient cow should be placed in the disinfected maternity stall and left there until she has ceased to discharge and veterinary examination reveals a clean, normal genital tract.

The stall should be cleaned of all litter and disinfected before another cow is introduced. The litter should be taken to a field where cows have no access. Special rubber footwear and clothing should be worn by attendants when working about infected cattle, and this apparel removed before the person enters the barn where the clean cattle are stabled. The stable used for the clean cattle should be disinfected at frequent intervals to guard against any infection that may have been carried in from the maternity stable. Special sanitary precautions should be taken with reacting cows at the time of calving and with aborters. All virgin heifers and heifers carrying their first calves should be kept away from the rest of the herd until the time of freshening to prevent possible infection.

Vaccination—This is an additional preventive measure designed to increase the resistance of the body against infection with abortion bacilli. It should be decided upon only after a thorough study of the herd has been made by a competent veterinarian. Vaccination should be restricted to cattle in infected herds. Only unbred cows and heifers may be vaccinated with safety as the living abortion bacilli constituting the vaccine might induce abortion in pregnant animals. At least 60 days should pass after vaccination before the cattle are permitted service.

Abortion

Would like to have your advice regarding my cows? I have had heifers drop their calves about two weeks too soon and others that don't clean after calving now. I can take a blood test. What can I do if half the herd is infected? Can I sell the sick ones and be safe in keeping the rest?

Ethrick, Wis. E. D.

Have a sample of blood from each cow and heifer in the herd tested by the experts of the veterinary department of the state experiment station at Madison. The reactors and cows that have aborted may be isolated and fitted for the butcher, if you think that advisable, otherwise the only recourse will be to have them vaccinated. That, however, is not recommended as a general practice. The animals that do not react to the test may be retained if kept in new sanitary quarters that have not been infected by affected cows. Study a bulletin on the subject that you can obtain from the experiment station.

Retained Afterbirth

I was told by a dairyman here that he has been successful in removing the afterbirth from cows with a douche. I had the veterinarian remove one from my cow and she died 3 weeks later. I have another that seems to be going the same way. I hate to experiment. Which is best, a veterinarian or a wash-out?

Greenville, Miss. G. F. Z.

Douching will not remove a retained afterbirth. It has to be removed by hand for which a veterinarian should be employed. To prevent infection, which sometimes proves fatal, he will be careful to use disinfectants. A good plan is to insert in the womb, after removal of the afterbirth, a gelatin capsule containing one-half an ounce each of iodoform and boric acid. Isolate the cow and cleanse, disinfect, and whitewash the stall she has occupied, including the floor and gutter.

Buy a Vest Pocket Herd Book

COW-EASE



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Cow-Ease, sprayed on your c twice a day, drives flies away. actual test, cows protected by it, 3 more milk. Applied with a sprayer won't blister or gum.

One gallon sprays 200 cows. Our C Ease sprayer does the job. Cow-Ea repellent to cattle ticks, grubs, hen and mites. Equally effective on hors in hen houses.

Get the can with the blue Cow-E label. If your dealer hasn't it, send name and address and $1.50 ($1.75 of Missouri River) to Carpenter-Mo Co., Boston, Mass., and we will de one gallon prepaid. Sprayer 60c. ea

Satisfaction guaranteed.



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All Livestock and Poultry Heal

Kills Lice, Mites and Fleas. For Scratches, Wounds and common skin troubles.

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No. 151—**FARM SANITATION.** Describes and how to prevent diseases common to livestock.

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No. 160—**HOG BOOKLET.** Covers the prevent common hog diseases.

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No. 151—**SHEEP BOOKLET.** Methods for pr ing sheep diseases.

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ANIMAL INDUSTRY DEPARTMENT OF

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FREE BOOK on Dogs

Describes and tells h to treat every known d ailment.

H. CLAY GLOVER CO., Dept. J. N. 74, 119 Fifth Ave,



GLOVER'S IMPERIAL DOG MEDIC

NEWTON'S Compound



Heaves, Coughs, Colds or, Worms. Most Two cans satisfy Heaves or money b per can. Dealers or

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For Stock



How to Know Blood Diseases in Your Herd



Barrenness or Sterility, Slinking of Calves, Retained Afterbirth, Goiters in Calves, Scours in Calves, Infected Sire, Shortage of Mil

If your herd is afflicted with any of these ailments you will know they are n doing their best. You can stop these losses at small expense.

Ask for FREE copy of "The Cattle Specialist" and learn how to increase yo profits. Write Dr. David Roberts for free Veterinary Advice.

Dr. David Roberts Veterinary Co., Inc., 195 Grand Avenue, Waukesha, Wi

Poultry on the Dairy Farm



Rearing Chicks Indoors

chicks have to run out of in order to live, avoid leg-ess, and grow, has long been a g question. If a method of e and care can be found which omote the normal growth and ty of baby chicks indoors with-g-weakness and the other ills ted with confinement, certain of the poultry industry would olutionized.

Recent Investigations

ne effort to solve this problem ous experiments have been ted at the Ohio Station during st three years, all of which re- in varying degrees of failure the last year when cod oil was used in the ration. with albino rats, notably that Wisconsin Station, had previ- ndicated cod liver oil to be an onal source of vitamin A and ntirachitic factor. Since the n requirements of growing were known to be high, a con- ed form of the vitamins, such nd in cod liver oil, offered a ssibility. In the first test the er oil was used in connection synthetic ration composed of l foodstuffs but the usual fail- the chicks followed. When it ed at the rate of 5 per cent mple ration consisting of nat- eds, it proved highly success- growth without mortality or akness during the 12 weeks of eriment; whereas the group of receiving the same ration with lk and green sprouted oats in- of the cod liver oil failed as ore. The basal ration consist- equal parts of ground yellow nd standard wheat middlings) to which was added 16 per asein and 4 per cent mineral e (bone ash 60, calcium car- 20, and sodium chloride 20).

chicks were two weeks old at ginning of the experiment. iver oil in comparison with lk and sprouted oats in ration of 15 White Leghorn chicks shown by the results at the 12 weeks:

tion	Wt. per bird lbs.	Relative growth per cent	No. of chicks with leg-weakness	Mortality
liver	1.7	100	None	None
to d green oats	.8	44	All	2

h and other experiments in the dicate the failure of skimmilk en sprouted oats to meet the ments of young chicks for and prevention of leg-weak- nen confined indoors; whereas, er oil appears to be highly ef- in this respect.

recently, another experiment nducted with day-old White n chicks taken directly from ubator and placed on the ex- ntal rations. Again the cod l ration proved successful but case only 2½ per cent was the ration. Another group d the basal plus 15 per cent g yolk, which proved some- uperior even to cod liver oil.

The basal ration consisted of ground white corn, standard wheat middlings, casein, and mineral mixture (same as in the previous experiment).

The results from feeding the basal ration alone, with cod liver oil, and with raw-egg yolk to lots of 20 White Leghorn chicks in confinement:

	Average weight lbs. at 6 wks.	10 wks.	Relative growth in % at 10 wks.	No. with leg-weakness	Mortality
Basal ration alone	.24	(dead)		all	20
Basal ration plus 2½% cod liver oil	.60	1.42	100	0	0
Basal ration plus 15% raw-egg yolk	.75	1.59	112	0	0

It will be observed that the groups receiving the basal ration plus the cod liver oil or the raw-egg yolk made practically normal growth without mortality or leg-weakness, whereas the basal ration alone was a complete failure.

Suggestions for Poultry Raisers

While the evidence cited indicates that it is not impossible to raise chicks successfully indoors to three months of age and secure about normal growth without mortality or leg-weakness, much remains to be accomplished before it can be regarded as applicable for general practice by poultry raisers. In the first place, the available supply of cod liver oil or incubator eggs would be insufficient. Nevertheless it appears that a limited application of these valuable supplements to the chick ration may be advantageously made by a considerable number of poultry raisers.

If cod liver oil is to be used it can in most cases be secured in 1- or 5-gallon lots from the local druggist or from a wholesale druggist. In feeding, the cod liver oil is mixed with the dry mash at the rate of 2 per cent or 2 pounds (a quart) to each 100 lbs. of dry mash. To incorporate the oil with the mash the oil is first mixed with a small portion of the mash which is in turn mixed with the balance of the mash. For example, if it is desired to prepare 50 lbs. of the cod liver oil mash, 1 lb. (or 1 pint) of the oil is thoroughly mixed with 5 or 10 lbs. of the mash. Then this mixture is added to the remaining 40 or 45 lbs. of mash and carefully mixed. Since cod liver oil loses its valuable properties shortly after it is mixed with the mash, care should be taken not to prepare more of the cod liver oil mash than will be consumed within 5 or 6 days.

When it is desired to feed incubator eggs, the infertile and dead-germ eggs can often be secured in quantity from the local hatchery. To avoid any chance of infectious disease, especially bacilliary white diarrhea, the eggs should be boiled a half hour. After passing them through a food chopper or sausage mill they may be mixed at the rate of 20 to 30 per cent by weight with a dry mash composed of ground yellow corn, ground oats (sifted), standard wheat middlings (shorts), and bran, equal parts, to which is added 10 per cent meat scraps and 5 per cent fine bone meal.

The egg material mixed with the dry mash will make a slightly moistened crumbly mash, which may be fed the birds in open shallow troughs three times daily, being careful to feed only what will be cleaned up in 15 or 20 minutes. A very light feed of scratch grain may be scattered in the litter at 9 a. m. and 3 p. m., the scratch grain being fed sparingly for exercise so as to encourage a heavier consumption of the egg mash. The chicks may be given the egg mash after the third day in the brooder or just after they have learned to eat the scratch grain. Skimmilk, if available, may be given the chicks to drink, in which case the meat scraps may be omitted from the mash.

These suggestions relative to the use of cod liver oil or eggs apply particularly to early hatched chicks, which must be confined indoors on account of the weather or for any other cause. These agents may be regarded as specifics to be employed for meeting the emergency conditions arising from having to keep the chicks confined indoors. Later hatched chicks, that can be permitted out of doors after 2 or 3 weeks where they can get an abundance of green feed and sunshine, will have no need for cod liver oil, but in the case of feeding incubator eggs it would be advisable to continue their use until the chicks are 8 or 10 weeks old, especially if skimmilk is not available. —D. C. Kennard, Ohio Experiment Station.

"Is a chicken big enough to eat when it's three weeks old?"

"O' course not."

"Then how in the world does it live?"—Black & Blue Jay.

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Light Mixed, 50, $3.75; 100, $7; 500, $33; 1000, $62. White Pekin Ducklings, 20c each. We can ship your chicks C. O. D. You can pay the postman when you receive them plus the postage. Get our Free Catalog or order direct from this ad and save time. Reference—Commercial Bank.
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Wh. & Br. Leghorns	$2.50	$4.75	$ 8.50	$41.50
Bd. Rocks, Reds, Ancon	2.75	5.25	9.50	46.50
Wh. & Buff Rocks	3.00	5.75	10.50	51.50
Blk. Minor. Buff Orp.	3.25	6.00	11.00	53.50
S.L.Wyan.	3.50	6.50	12.00	56.50
Wh. Orp.	3.50	6.50	12.00	56.50
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HeavyAss'td	2.50	4.75	8.50	41.50
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There is still time to put in these FAMOUS NABOB 1SK CHICKS this season if you ACT QUICKLY. Get our Big, Illustrated 60-Page Catalog for further information on Rare Varieties, etc. Member International B. C. A. Bank Reference.
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SEND NO MONEY for SILVER LAKE CHICKS

Just mail your order. We ship C. O. D. and guarantee prepaid 100 Per Cent live delivery of sturdy, purebred Chicks from healthy bred-to-lay flocks: Wh. Br. & Buff Leghorns 8c; Bd. and Wh. Rocks, R. I. Reds, Anconas, Blk. Minorcas 10c; Buff Orpingtons, Wh. Wyandottes, Buff Rocks 11c; Mixed 7c; all heavies 9c. Orders for 50 chicks 1c more, 25 chicks 2c more.
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now half price. Thousands of eight-week-old pullets. Also baby chicks and eggs. Trapnested, pedigreed foundation stock, egg bred 27 years. Winners at 20 egg contests. Catalog and special price bulletin free. I ship C. O. D. and guarantee satisfaction.
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When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

Belswood Jersey Sale

A. F. Block of Waukesha, Wis., held the first annual sale of his Belswood Jerseys at the farm May 24. He offered 42 head of good cattle that were well fitted and were worth more than the average price they brought, $139. Inasmuch as Mr. Block plans to hold an annual sale, however, this fact should profit him in time, for buyers at the farm Friday should be well satisfied with their purchases.

Half of the offering went to out of state buyers, the largest number being purchased by Mr. Frank Astroth, field representative of the American Jersey Cattle Club, for a northern Minnesota community. Four animals went above $200, the top price, $255, being paid by Miss Clara Barker, Wisconsin, for a very good 5-year-old cow.

Andrews and Benjamin did the selling with Harry Jenkins in the box.

Following are the averages for cattle of the different age classes: three bulls averaged $155; 16 heifers under 2 years, $123; 7 two-year-olds $140; 1 three-year-old brought $135; 15 cows 4 years old or over averaged $139.

Liming Pays in Indiana

According to a report from the Indiana Agricultural Experiment Station, three-fourths of the cultivated lands of that state are acid. About 25 per cent are so acid that clover will fail almost every year. On another 25 per cent much clover fails when seasons are unfavorable.

On seven of the nine experiment fields where the effect of liming has been studied, the values of crop increases produced by the application of ground limestone have ranged from $6.06 to $32.08 per acre per rotation of corn, wheat, and clover, averaging $14.10 at crop prices prevailing in 1922.

In Scott County a total of 2½ tons of ground limestone has produced crop increases valued at $32.32 per acre during the last 16 years. In Jennings County, the value of crop increases has been $45 per acre from four tons of ground limestone applied in 1912. On two fields in Lawrence County, the average value of crop increases has been $13.62 per acre during five years from an application of 3.5 tons of ground limestone per acre at the beginning. In Greene County, two tons of ground limestone per acre applied in 1912 and two tons more in 1920 have produced crop increases valued at $33.50 per acre to the end of 1921. In Gibson County, three tons of ground limestone applied in 1915 produced crop increases valued at $31.32 in the first six years. In Laporte County four tons of ground limestone per acre applied in 1909 produced crop increases valued at $53.45 per acre in the following five years.

Land O' Lakes Leads Dairy Co-ops.

(Continued from page 647)

trated at Minneapolis, Duluth, and some other point where it could be properly inspected, graded, weighed, tested, branded, and made ready for uniform carload shipments. Warehousing and storage facilities were to be furnished at these places by the association. Railroad companies agree to co-operate in helping with the concentration program by improving shipping facilities.

Practices which enabled the creameries to produce the high quality Land O' Lakes butter and to build up the extensive merchandising program which places this butter on markets all over the world are very interesting. They will be discussed in the next article.

JERSEYS

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

FOR SALE
Junior Yearling Jersey Bull

Jolly Golden's Majesty Jap (Being registered) Tattoo 101. Dropped July 28, 1926. Solid (golden tan) color, black tongue and switch. Cowslip Jap's Maybelle 668843, the dam of this bull, is a granddaughter of the Imported Jap, the bull which had five daughters which each produced over 1000 lbs. of butter in 365 days. The dam of the sire of this bull is a heavy producing Register of Merit Cow and produced 1826.9 lbs. of milk in May, 1922.
PRICE $250 F. O. B. OUR STATION
Herd Accredited and Free of Abortion
Send for Pedigree
RAVINE FARM, Est 1913, PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle

"SYBILS and MAJESTYS"

Two heifers bred to freshen in September. One out of a Majesty bred dam, and sired by double grandson of Oxford Majesty. The other out of a Majesty bred dam, and sired by a grandson of both "Sybils Gamboge" and "Oxford You'll Do." Both solid fawn, well grown and good type. Write for particulars.
CEYLON COURT FARM.
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

Easton Farm
-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

JERSEY BULL

Dropped September 22, 1926, solid color, good type, sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.
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Belswood Jerseys
A. F. Block, Waukesha, Wis.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
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Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
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Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.
We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.
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BROWN SWISS
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Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

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Accredited Herd
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Choicely bred Cows and Heifers sale -- mostly sired by an A. R. s of that great cow Carston La Mary Stuart. These Cows and He ers are bred to Howie's King Hearts, Dunlop Sunspot and Cav lier's Sherry Redman, all Natio show winners.

We also have for sale some excelle bulls by these sires and from go A. R. cows. Write us today.

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Herd under Federal Supervision.
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A HIGHLY BRED AYRSHI

BULL born, Jan. 16, 1927. Color: nearly all Sire: Penshurst Rising Star, 20922, A. R. 26 38 daughters having 52 records averaging 10,1 milk, 440.72 lbs. fat, 4.04%, winners of 3 Cups, 1 Association Cup, 1 Gold Medal and Medals. Dam: Blanche Woodhull, 2nd, 46362, ceptionally typy daughter of Leto. She has t R. records averaging 11,857 lbs. milk, 462 lbs. three R. of H. records averaging 11,642 lbs 450 lbs. fat. Six World's Champions in six
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Accredited certificates recently renew both tuberculosis and abortion. 235 tested. Penshurst Man O' War hea herd. His dam is world's champion A producer and reproducer. Sire's da champion (their records average 24,0 milk.) His progeny is excellent. Wi for the best in Ayrshires.
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Present offering: Fresh cows—springs calf to our noted herd sires—yearling —heifer and bull calves.
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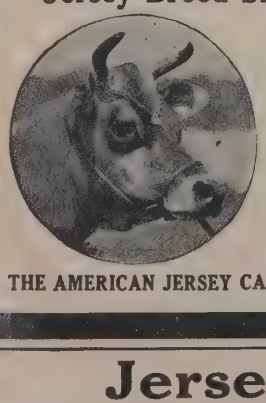
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We are offering for sale a number of young cows bred for fall freshening. are bred to Aldebaran Victor, he a son great cow, Highland Polly. Others are ters of "Victor" bred to a son of Bar Gay Cavalier. Priced from $175 up. under federal supervision.
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Herd headed by a full brother to our two-ar State Champion heifer, 13,280 lbs. milk, 475 in a year. Dam has 8 A. R. daughters.
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The growth of the Jersey breed has been steady and *certain* for over half a century. The average yearly increase in registration since 1904 is 9.7 per cent. The number of grades has also shown a great increase and government figures show that there are now over ten million grade Jerseys in the United States.

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Write now for a copy of the illustrated booklet "Jersey Facts".

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We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
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No bull is better qualified head your herd than an Ay shire. His daughters wi prove deep-milking cows tha are an improvement over the dams in both type and produ tion—and Ayrshire milk bring the high dollar.

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Write for free booklets and li of herds to visit near you.

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have for sale, bulls ready or service and bull calves.
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E. IVERSON, Herdsman,
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left of serviceable age. We are several calves of Cherub and May eeding at very conservative prices. r next sire young and save money. ts and descriptions sent on request.
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Y ROSE GOLDEN SECRET and NE ULTRA breeding. Write for descripand prices. Dams are official tested. ited herd.
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of pure breds or grades. Area tested county. herds to select from. Prices are right. rite.
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r trade one of our herd sires, his six nearaverage 775 lbs. fat, May Rose breeding. is 2 to 13 months old. Can also spare a few visit us or write.
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Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.
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Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to
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No Abortion



HERD SIRE

Offering TWO CHOICE TYPY BULLS sired by 1922 National Grand Champion and out of tested dams, born last August and November. Two choice senior heifer show calves out of tested dams and sired by son of National Grand Champion whose dam has just completed a record of over 700 lbs. fat, not yet verified. Boss' daughters on test are doing very well. One in A is going at 800-lb. clip, has made as high as 3.26 lbs. fat in one day and retest requirements her 4th, 5th, 6th mos.
TARR BROS., NEW AUBURN, WIS.

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Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.
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A Federal Accredited Herd

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Ask anyone who attended the State Guernsey picnic at Fern-Dell.
Guaranteed right. Priced right
FERN-DELL FARMS
A. W. Fox, Mgr., GREEN BAY, WIS.

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(SHERIDAN'S)
FOND DU LAC WISCONSIN
We have only a few Glenwood bull calves up to 3 months old for sale at present. They're priced to sell.

A SHOW BULL FOR $150

This 7-month-old calf is a fine show prospect. His dam produced 421.7 lbs. fat as senior yearling. The herd is clean. Write today for further information.
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Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to
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Geo. O. Hill, Sec. ROSENDALE, WIS.

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High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.
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Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

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LANGWATER HOLLISTON, our famous senior herd sire, now has 23 A. R. daughters and 7 A. R. sons. His daughters are unusually persistent milkers and have what many call the foundation type and character. Langwater Holliston is out of a superior daughter of Imp. King of the May and he is sired by Jethro's May King of Linda Vista.

NOW OFFERING FOR SALE TWO YOUNG BULL CALVES
that will be ready for service next winter. Dam of one now on test will make 600 lbs. fat. Dam of other made 583 lbs. fat in GG.

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FARMS AT SALEM, N. H., AND METHUEN, MASS.

SERVICEABLE BULL

A SHOW PROSPECT — A. R. DAM

Cherub's Monarch of Chippewa, a very typy yearling, is for sale. Dam produced 632 lbs. fat in Class AA. Sire: Proud Prince of the Prairie is a prize winning son of Cherub's Prince. He is priced to sell. Write today.
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Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

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OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.
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NINE COWS most all young, and fifteen HEIFERS and CALVES, from four months to past a year old, choice of registered bull calf, no relation, to go with them. The twenty-five head for $3,500. T. B. tested, f. o. b. car, all papers furnished. Must sell at once.
H. R. LOBDELL - - MUKWONAGO, Waukesha County, Wisconsin

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.
WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

HELENDALE GUERNSEYS

TYPY BULL CALVES

of best of breeding and from producing cows, for sale at moderate prices. Herd Federal Accredited and free of abortion.
HELENDALE FARM, Athens, Wisconsin

BULLS

A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.
GEO. E. LARSON,
Amherst Jct., Wisconsin.

MOUND CITY FARM

Offers For Sale — GUERNSEY BULL

ready for service. Sire, Prince Charming of Shuttlewick, a son of Shuttlewick Levity, record of 804 lbs. fat at two years of age and sold for $25,000, the record price for a female of the breed. Dam of calf is a daughter of Lone Pine Absolute A. R. whose three nearest dams' records average 890 lbs. fat.

Younger bulls sired by Lone Pine Absolute and Cinderella's Fame of Mound City whose dam's record is 909 lbs. fat.

Write your bull wants to
CHAS. A. WILKINS, PLATTEVILLE, WIS.

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address
EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

OUR GUERNSEY SIRES

Combine Type and Production

PRINCE CHARMING OF SHUTTLEWICK. Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 yrs. Sold for $22,000. Her dam, Langwater Levity, grand champion at 1923 National. CINDERELLA'S FAME OF MOUND CITY. Dam, Cinderella's Josephine, 909 lbs. fat. YOUNG BULLS for sale by these sires and from A. R. dams; also a few bred and open heifers. Accredited herd. Write.
LINWOOD GUERNSEY FARM
Homer Rundell, Owner, Livingston, Wis.

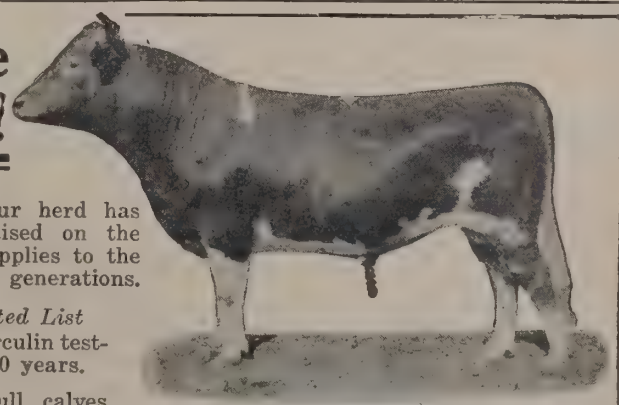
Need a Sire Next Fall?

Every female in our herd has been bred and raised on the farm. The same applies to the females for several generations.

Herd on Accredited List
Has also been tuberculin tested for more than 20 years.

We believe our bull calves are well worth your consideration if you want a bull calf that will improve your herd.

HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production. His first nineteen A. R. daughters average 8739.4 lbs. milk and 422.8 lbs. butterfat on two time milking and herd rations at the average age of three and one-nineteenth years.

Fond du Lac (Wis.) Guernsey Sale

At the annual Fond du Lac, Wis., Guernsey sale, held May 25, 74 animals, including 27 from the herd of A. M. Sisler & Son of Minnesota, sold for $13,240, an average of $179. Top price of the sale was $475 for a very good 4-year-old granddaughter of Ladysmith's Cherub consigned by A. W. Laurence, Wisconsin. She was purchased by Drew Ten Broeck of Illinois, as were three other good ones, for J. T. Sweeney of Pennsylvania.

Pohlman and Benjamin did the selling and the sale was managed by C. L. Hill & Son.

The averages for cattle of the different age classes are as follows: Nineteen heifers under 2 years averaged $121; 5 two-year-olds, $162; 9 three-year-olds, $201; 30 cows, $214; and 11 bulls, $175.

The scaffolding had broken, and with the hastily summoned doctor, Mike knelt at his fellow-workman's side. "Spake to me, Pat. Spake to me!" he cried, bending in anxiety over the victim of the accident.

"I'm sorry, my man," interposed the physician, "but Pat is dead."

"No, No, Pat, can't you spake to me?"

Pat, his eyes slowly opening, fixed on the questioner a look of injured dignity and slowly reproved—

"Be still, Mike! The doctor knows best!"—Success Magazine.

GUERNSEYS

Every Saturday Night Sees Forty More Tested Guernseys

Every seven days we add the names of forty more pure-bred Guernsey cows that have completed official records of milk and fat production.

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That means you can always buy Guernsey bulls out of tested dams,—a profit-winning combination. Find out for yourself.

Ask for
"The Story of the Guernsey"

—

The AMERICAN GUERNSEY CATTLE CLUB

8 Grove Street PETERBORO, N. H.

PENNCREST FARMS
ACCREDITED
WALTER SMEDLEY, OWNER
HERD SIRES—
Lancastrian—A son of Ne Plus Ultra.
Sunnybrook Ultra Noble—A grandson of Ne Plus Ultra out of a 920-lb. cow.
Fairmaid's May Royal—A son of Mixter May Royal out of a 920-lb. daughter of Langwater Demonstrator.
Penncrest's Starlight's Royal Master—Grandson of Langwater Royal Master out of 630-lb. granddaughter of Langwater Master Fred.
Stock sired by these bulls for sale. Address inquiries to Media, Pennsylvania.
WM. P. SMEDLEY, Manager

Bargains in Bull Calves
A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00
WRITE FOR SALES LIST—FINEST BLOOD
Lines—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.
WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, Pa.

BARGAIN BULLS *produce* CLASS LEADERS
Guernsey Breeders' Journal says in Feb. 1st issue—OUR NEW CLASS LEADERS—
Silverwood's Diana, 20,006 lbs. milk
Sire:—BROOKMEAD'S BANNER A. R.
Sold sight unseen as a youngster.
Write for Sales List
BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

HOLSTEINS

STATE and FEDERAL TESTED HOLSTEINS
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.
Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Dicmere Holsteins
30-LB. SHOW BULL
We are offering a very typy January calf from a 30-lb. 3-year-old dam. His sire, Walcowis Ollie Abbekirk, is a 968-lb. son of that grand champion, Iowana Sir Ollie. The herd is federal accredited. Write today if you want a good bull at a reasonable price.
H. E. DICKINSON, Oconomowoc, Wis.

Milford Meadows
Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.
Ask us about them.
W. W. KINYON, LAKE MILLS, WIS.

JEFFERSON COUNTY HOLSTEINS
Registered Heifers at Farmers' Prices
We have some very good bargains in heifers 9 to 18 months old. We also have registered and grade cows for sale. Area tested county. A full time fieldman at your service. All inquiries answered promptly.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
C. W. Clingan, Field Sec., Ft. Atkinson, Wis.

ORMSBYS and OLLIES
Three daughters of our two great herd bulls have just completed records of over 33 lbs. butter, 7 days, as three- and four-year-olds. Three are now milking over 100 lbs. milk a day, and are being continued on yearly work. Sons of those sired by either PIETERTJE ORMSBY MERCEDES DELLA, greatest producing son of 37th. sire of World's Champions or by Sir Ollie Mooie Watson, highest son of old Iowana Sir Ollie, both National Dairy Show champions, offered at prices that will make you money.
F. H. BOYLE, Prop., PEEBLES, WIS.
L. F. MURPHY, MGR.

SERVICEABLE BULLS
GRAND CHAMPION BREEDING
Two serviceable bulls for sale. Very typy. From 23-lb. Jr. 3-yr.-old and 24-lb. 4-yr.-old dams. One is by the All-American Johanna Rag Apple Pabst. The other by Walcowis Sir Ollie from a daughter of Johanna Rag Apple Pabst. Have also a few bull calves of the same breeding. Federal accredited herd. Write
JOS. E. PIEK, R. 5, HARTFORD, WIS.

SERVICEABLE BULLS—FOUNDATION HEIFERS
Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.
BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins
have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.
DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

YOUNG BULLS
sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association
can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

REGISTERED HEIFERS—COWS
Because our barn space is limited we offer 12 head, registered heifers or cows. You can select what you want from the herd at farmers' prices. All females sired by 1000-lb. Homestead bull. Accredited area tested county.
CHAS. HUGHES & SON, NEENAH, WIS.

Would You Invest $350 to $500 In A 3-Year-old BULL



Of Richest Breeding and Siring Good Type . .

WE have located two bulls, born in 1924, backed by 5 generations of the greatest producing cows of the Holstein breed, State and World champions.

We believe that when a great producing cow transmits great production to her daughters, granddaughters and great granddaughters—30-pound and 1000-pound production—the man who needs greater production will do well to buy a bull of this breeding.

These bulls are 100% healthy, easy to handle and sure breeders. The bulls themselves are not wonderful individuals but they are siring handsome calves that are in demand by good breeders.

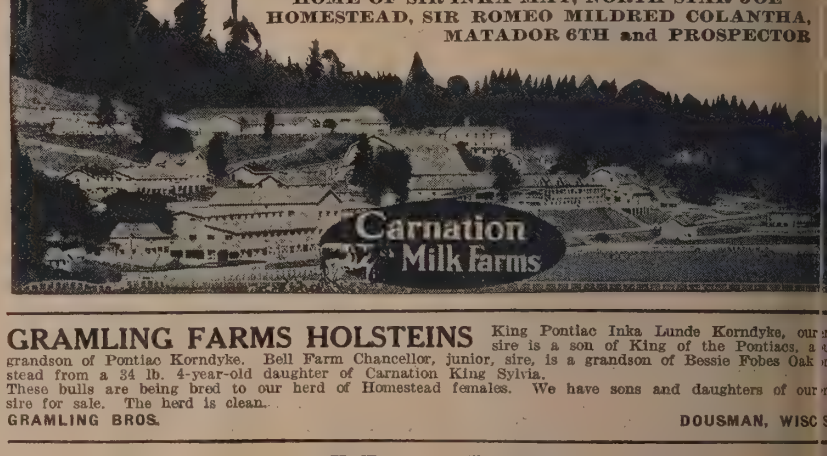
The owners of these bulls have finished with them and these bulls can be purchased for less than half their true value, namely $350 and $500.

We Will Gladly Furnish Full Particulars

Address all correspondence to

611-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



GRAMLING FARMS HOLSTEINS King Pontiac Inka Lunde Korndyke, our sire is a son of King of the Pontiacs, a grandson of Pontiac Korndyke. Bell Farm Chancellor, junior, sire, is a grandson of Bessie Fobes Oak stead from a 34 lb. 4-year-old daughter of Carnation King Sylvia.
These bulls are being bred to our herd of Homestead females. We have sons and daughters of our sire for sale. The herd is clean.
GRAMLING BROS. DOUSMAN, WISC

Sir Bess Ormsby Fobes

Head Your Herd With a "Sir Bess" Bu

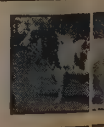
We have for sale a few very good young bulls b Bess or from Sir Bess daughters and by Creatio you want breeding, type, and long time productio are sure one of them will suit you. Write us or to the farms.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) DOUSMAN,
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

NORRIS FARMS *Now Offering* — a September '26 whose two nearest maternal dams over 31 lbs. Dam now on year test. Sire, a well-bred Creator-Prilly bull. for all details of a mighty good calf. NORRIS FARMS (Fully Accredited) Mukwonago

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Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Springers and Fresh Cows
HOLSTEINS and GUERNS
COME and make your own choi from a wide selection or wire write for prices.
O. G. CLARK & CO., WEST SALE

ABORTION FREE HOMESTEADS
We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.
T. B. under Federal Supervision.
MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager.

Sheboygan County For Holsteins
85% of all cattle in county are He Over 200 fine Federal tested herds t se from. Full time field man is at buy vice. Write or come if you want go steins.
SHEBOYGAN COUNTY HOLSTEIN AS
Arthur V. Jensen, Fieldman, Plymout

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20 years may be a long time, but —
74.4% of Hoard's Dairyman's live stock advertisers have been advertising regularly for from 2 to 20 years



Write for our booklet—
The Holstein-Friesian Cow"

HOLSTEINS

are producers of

BUTTERFAT

Holsteins lead the world in production of butterfat—the largest factor in dairy profit. Eighty per cent of the cows which have produced 1,000 lbs. or more of butterfat in a year are Holsteins.

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN

0 E. Ohio St. *Association of America* **CHICAGO**

ROOM 601

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ealthy Holsteins

e in the market for grade or registered Hol- m tested herds write us today.

LINOIS HOLSTEIN-FRIESIAN ASSN.
earborn, St., CHICAGO, ILL.

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msby-Homestead Bulls

e for sale 2 very good calves born nd Dec. 27, sired by Rawleigh Ormsby Posch, our 41-lb. Ormsby sire. They n 24- and 25-lb. 4-year-old Homestead ith good year records, one a state cow. Priced to sell. The herd is Write

E W. T. RAWLEIGH COMPANY
awleigh's Ideal Farm, FREEPORT, ILL.

TAKE TIME!!

are saving $50 to $100 by purchasing summer Holstein bull calves NOW. better. Every cow has C. T. A. Many have official records. Some ired by 1,138-lb. bull whose dam tested %. A card brings list.

k River Farms, Byron, Ill.

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llo Creek Farm Holsteins

offering BULL CALVES rich in breeding from tested dams. These m six to eleven months old. Some s low as $100.00. Write for pedigrees her information. Herd under federal ion.

AM BROS., Arlington Heights, Ill.

JLL

BORN SEPT. 23, '26

a 24-lb. two-year-old with 460 lbs. of is sired by a good proven bull. He is white and a real individual. Send gree and price.

ELLWOOD & NELSON
B ILLINOIS

DE PARK FARM

3 PARK, - ILLINOIS

Offers BULL CALVES

an outstanding 35-lb. son of Mata- n Fully Accredited Registered Yr. ith leading cow testing association $100.00 up for typy individuals.

. CARROLL WILLIAM EDGAR
wner Herdsman

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h Grade Holstein Springers

the market for big production cows will please you. Tuberculin 1. Address

MEADOW FARMS, Portlandville, N. Y.
S. Come and make selections.

LSTEIN BULLS

FOR SALE

Brook Bess Burke 2d - Ormsby

BREEDING

E FOR SALE LIST—JUST OUT

ler Federal and State supervision for sis- blood tested for abortion.

THUR FARMS, Winterthur, Del.

D STATES SOLDIERS HOME DAIRY

WASHINGTON, D. C.

FOR SALE at reasonable prices from the first herd in the United States, PURE BRED -FRIESIAN MALE CALVES from one seven months old, from yearly tested dams of General Piebe 323266 H. B. One of the d sons of the well known K. P. O. P. whose s have in the past eight seasons won no 553 first prizes. His five nearest dams, all lbs. butter in 265 days. Also sons of m Colantha Pauline Lad 297377 H. B.

When writing an advertiser tell you saw his ad in Hoard's man. He will appreciate ng it.

A SON OF

PRIDE OF SIR PIETS

FOR SALE

Born Jan. 12, 1927. A very typy calf, well marked and bred in the purple. If you will need a bull next winter buy this calf and save money.

His Sire:

PRIDE OF SIR PIETS, is a senior sire at Femco Farms. His dam is the highest record daughter of "37th" with 1327 pounds as a 3-year-old. His sire is a 42-lb. son of the famous sire, K. P. O. P. Eight 2-year-old daughters of Pride of Sir Piets have made from 20 to 33 lbs. His first 2-year-old to finish a year record made 908 lbs.

His Dam:

SOUTHSIDE CLARA ORMSBY, a splendid individual now making fine year record. Her sire is by a son of Pietertje Maid Ormsby and her dam is a 25-lb. 3-year-old daughter of a 31-lb. cow and a granddaughter of Oak De Kol Ollie Homestead, twice Grand Champion at the National Dairy Show.

Price for immediate sale.....$200.00

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

A GOOD BABY BULL

Sired by ST. OLAF ORMSBY SENSATION No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

Akona Holstein Farm

Two registered heifers. No. 1 born Oct. 6. No. 2 Nov. 5, 1926. Sire's dam's record 1016 lbs. butter in year. Dam's on yearly test. Price $85 each.

B. A. NORRIS, ANOKA, MINN.

STEELE COUNTY HOLSTEINS

are noted for their size, type and production. Pure-breds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

OHIO HOLSTEINS

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

K. P. O. P. Bulls

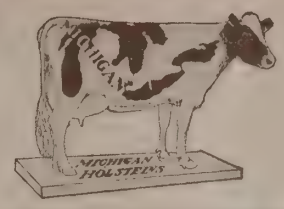
If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES

K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

L. E. FERGUSON, LAURENS, IOWA.



Come to Michigan for Holsteins

SUMMER BUYERS given every help to locate good PUREBRED Holsteins. Fifteen County Sales Managers eager to help you at no cost to you. Let me know what you want and I will ask these Sales Managers to quote you.

J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

SERRADELLA FARM *Offers* —

A SON OF SIR DUTCHLAND COLANTHA DENVER,
whose dam is a 36—1300-lb. cow

The dam of this bull is a 27-lb. 4-year-old. She has 2 A. R. O. daughters. He is evenly marked, well built, straight topped youngster. Born July 9, 1926.

SERRADELLA FARM, (Federal Accredited Herd), **Oscoda, Michigan**



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

A Grandson of "Fobes 6th"

A DARK COLORED CALF OF EXCELLENT QUALITY AND THE BEST OF BREEDING. BORN SEPTEMBER 10, 1926

Sire—Marathon Bess Burke 32d, son of the famous "Fobes 6th," a 38-lb. cow with 1105 lbs. butter in a year and one of the best specimens of the breed.

Dam—Traverse Walker Maid Sylvia, a 24.7-lb. 4-year-old daughter of a 30-lb. cow with a 365-day record of 1254.9 lbs. butter and 25,751.6 lbs. milk.

Send for pedigree of Tag No. 672

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of
Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.
"The Herd With Straight Top Lines and Perfect Udders"

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. **We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.**

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. **This bull will put type and production in your herd and is high class in every respect.**

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

---

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA



Mobiloil flies with Lindbergh

3700-mile flight gives lubrication its greatest test in history

Capt. Lindbergh has cabled us as follows:

"Vacuum Oil Company
New York

In my flight from New York to Paris my engine was lubricated with Gargoyle Mobiloil "B" and I am happy to say that it gave me every satisfaction. My engine functioned perfectly.

Charles A. Lindbergh"

NEVER before have the skill and daring of a single man gripped the world as did Captain Charles Lindbergh in his flight from New York to Paris.

In 33½ hours he flew 3700 miles—alone in a single-motored plane—through fair weather, storm and sleet—straight to his goal and to fame.

Success!

Gargoyle Mobiloil "B" lubricated the engine of Captain Lindbergh's plane, "The Spirit of St. Louis." And what a test of lubrication! That single engine must function perfectly. The slightest mishap meant instant danger, perhaps the end of the flight in the waters of the Atlantic.

The engine did function perfectly. The flight was a success.

Thus another great adventure is written into the vivid history of American aviation in which Gargoyle Mobiloil has played its part.

When Commander Byrd flew to the North Pole—he used Mobiloil "B."

When the U. S. Army fliers flew around the World in 1924—they used Mobiloil "B."

When Lieutenant Maughan flew across the United States "from dawn-to-dusk"—he used Mobiloil "B."

When Capt. Lindbergh flew from San Diego to New York—he used Mobiloil "B."

And now when Capt. Lindbergh flies from New York to Paris he uses Mobiloil "B."

In a press interview shortly after his arrival in Paris, Lindbergh said, "We had the worst possible weather for over 1000 miles over the open sea. I cannot say too much for the way the ship and the motor stood up under all this punishment."

Science wins!

The Gargoyle Mobiloil Engineers are co stantly and directly associated with ae nautic developments just as they have be with automobile developments from the ginning. Their Chart of Automobile Reco mendations is approved by 609 manufact ers of automobiles, farm tractors, mo trucks and other automotive equipment.

The Mobiloil "B" used by Lindbergh *not a special oil.* It was the same Mobili "B" which is used today by thousands farmers in their tractors and trucks. It the same Mobiloil "B" which, with other grades of Mobiloil, is for sale by go dealers everywhere.

Put this scientific margin of safety into lubrication of your own motor. You v find Mobiloil the most economical as wel the safest oil to use.

GARGOYLE
Mobiloil
Make the chart your guide

VACUUM OIL COMPANY MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas*

Other branches and distributing warehouses throughout the country

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



olume 72, No. 13 Fort Atkinson, Wisconsin July 10, 1927



Mr. Dave Fitzpatrick, of Tillamook County, Oregon, and his grade Jersey, "Daisy." Mr. Fitzpatrick's splendid Jersey herd was high herd (20 cows or over) in the Tillamook County Cow Testing Association.

Aside from this fine achievement, a number of Mr. Fitzpatrick's individual cows made exceptional records in their various classes. This herd is milked entirely with the De Laval Milker.

Famous Tillamook Record-Making Cows Milked with De Laval Milker

Summary of 1927 *Annual Report* of Tillamook County (Oregon) Cow Testing Association

High Herds Over 20 Cows

Name	Address	No. of cows	Breed	Av. lbs. milk	Av. lbs. fat
*Dave Fitzpatrick	Tillamook	25	GJ	9,250	488
*Geo. W. Durrer	Tillamook	24	GG	9,937	452
*Paul Edmunds	Cloverdale	26	GJ&H	9,689	409

Of the 3 high herds of over 12 and under 20 cows, Ernest Leonnig's *17 Guernseys and Jerseys (milked with De Laval Milker) made an average of 9,603 lbs. of milk and 442 lbs. of fat.

Mature Cows Producing Over 575 Pounds

Owner	Cow	Lbs. milk	Lbs. fat	Breed
*Dave Fitzpatrick	Rose	15,085	803	GJ
*Dave Fitzpatrick	Daisy	19,235	712	GJ
*E. Leonnig	Blackie	13,954	669	GJ
*Joe Kagi	No. 70	13,846	634	GJ
*Stasek & Aufdermauer	Minnie	9,215	558	GJ
Paul Edgar	Allie	10,229	576	GJ

Four-Year-Old Cows Producing Over 500 Lbs.

Paul Edgar	Anita	11,715	694	GJ
*E. Leonnig	Flower	11,461	597	GG
Learned Bros.	Trouble	13,455	585	GH
*Geo. Durrer	Rose	10,911	563	GJ
*Crenshaw Bros.	Nellie	9,036	554	GJ
*E. Leonnig	Blanche	9,355	522	GJ
*D. Fitzpatrick	Daffadil	9,721	521	GJ
*Paul Edmunds	Molly	10,465	518	GJ

Ten High Three-Year-Olds Producing Over 400 Lbs.

*G. W. Durrer	Holly	16,250	569	GH
*G. W. Durrer	Pearl	9,950	543	GJ
*G. W. Durrer	Goldie	10,017	494	GG
*Joe Kagi	No. 39	9,879	494	GJ
*T. B. Hyder	Snoop	8,567	493	GJ
Stephen Steiner	No. 12	10,255	483	GJ
Bohren & Kiger	Lillie	13,305	464	RH
W. B. Vaughan	Bess	12,792	462	GH
L. S. Hushbeck	Crisket	8,442	452	GJ
Ben Jacobs	Dot	7,739	438	GJ

Ten High Two-Year-Olds Producing Over 350 Lbs.

A. Leuthold	Linda	9,461	537	GG
*D. Fitzpatrick	Pansy	9,206	526	RJ
*D. Fitzpatrick	Pearl	8,829	477	GJ
*E. J. Gienger	Pet	10,430	468	GG
Leo Sanders	Red	10,031	448	GG
*Tom Hyder	Burbank	9,314	445	GG
L. S. Hushbeck	Brownie	7,990	442	GG
Frank Blaser	St. Mawes Pansy	9,037	440	RJ
*E. J. Gienger	Katie	8,411	423	GG
L. S. Hushbeck	Star	7,711	414	GJ

***All cows marked with star were milked by the De Laval Milker.**

Report Shows that High Record Makers Use the De Laval Milker

☞ **All of the high herds of 20 cows or over were milked wi the De Laval Milker.**

☞ **Five out of six of the mature cows producing over 575 lb. of fat were milked with the De Laval Milker.**

☞ **Six out of eight of the 4-year-olds producing over 500 lb. of fat were milked with the De Laval Milker.**

☞ **Five out of ten of the 3-year-olds producing over 400 lb. of fat were milked with the De Laval Milker.**

☞ **Five out of ten of the 2-year-olds producing over 350 lb. of fat were milked with the De Laval Milker.**

☞ **The average production of the 1,306 cows tested duri the year was 8,388 lbs. of milk and 359.39 lbs. of butter-fat.**

Could stronger, more convincing evidence than th be offered of the superiority of the De Laval Milker?

Tillamook County, Ore., has the well-merited repu tation of being one of the finest and most progressiv dairy sections in the world. The fact that De Lava Milkers are aiding its best cows to establish greate records is an argument that should not be overlooke by a single dairyman.

Write to the office listed below that is nearest to yo or ask your local agent for complete informatio concerning the De Laval Milker—truly the "Bette Way of Milking."

The De Laval Separator Company

New York 165 Broadway
Chicago 600 Jackson Blvd.
San Francisco 61 Beale St.

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

at Fort Atkinson, second class matter.

Semi-monthly

Three Years $1.00

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TEACHING AGRICULTURE SELF-RELIANCE

D. D. BRUBAKER, MINNESOTA

'HEN I was a kid, our gang used to go down to the old swimming hole every day. We had an unwelcome little snipe, name of Wallie, tagging along us. Wallie's mother had told ot to go near the water as he drown, but he had to go along he rest of the boys or he have died of lonesomeness. of us used to get him to his clothes off with the e that we would teach him m. Then someone would him into the water and ne else would pull him out. would stand on the bank y and put on his clothes, g that we didn't play fair at he would tell his moth- ut he only went far enough o be safe until we started and then he would tag behind again. He couldn't lone, and it was hard ex- with anyone else. Poor had a tough time, and the us hated him.

day it happened that he m were the only ones that d the swimming hole. Sam n to take off his clothes on omise he would teach him n, as this was a good time he rest of the gang were ere, and he could surprise nch tomorrow and he could ll his mother there was no of drowning anymore. Sam threw him in. Wallie ed to struggle out, crying reaming and full of wa- Sam threw him in again gain. He said afterwards e intended to drown the at or make him learn to He did learn to swim that nd before frost came he e first one in and the last t, and turned out the best er in the gang.

agriculture is in a great e same situation that Wal- in. It runs along behind business gang of ours. It cked in as it did in 1920 he government price was off of wheat, or as it does we import cocoanut oil to e with peanut oil and lin- il and butter, or when one invents a refrigerator bring beef from Argen- t is always crying for some- pull it out on the bank where dry off in the sun, before get- cked in again.

dealing with Wallie Farmer g question for the rest of the r. Would it be a good thing agriculture stay in the swim rn to dive and duck like the siness boys, with the possible of drowning, or should we supporting hand under his nd hold him up, say a little nal tariff, or a government equalization fee plank so he could lie on it and splash his arms and legs, without having to learn to swim? Or, would it be better for Uncle Sam to take him over into the shallow water and teach him some of the strokes and help him learn?

C'MON, THE WATER'S FINE



Possibly the answer may be found in the Division of Co-operation, in our U. S. Department of Agriculture at Washington. The law creating the Division of Co-operation gives that body plenty of authority to go ahead with co-operative organization, aid, and advice. All that is needed is the necessary funds. The $500,000 provided for one year's expense in the McNary—Haugen Bill would make a wonderful start in putting a farm marketing program on its feet.

The personnel of the group for doing this work should be the leaders of our present successful co-operatives. This isn't an academic problem or a matter of statistical analysis, but of constructive business procedure. Get the most capable co-operative evangelists in the country. Conscript them if necessary and pay them enough, regardless of what that is. Back them up with the attorneys, accountants, and organizers who have helped build present successful co-operatives. Those men would be better off and we would be immeasurably benefited if they should spend their time and energies for American agriculture as a whole, rather than staying with their well established concerns.

During the development of this great mechanical age, which has been coming on us for the last seventy-five years, the farmer has learned to use the most wonderful set of new tools, and has been supplied, by our agricultural investigators, with the greatest fund of production knowledge the world has ever known. It has made a producing machine of him, while the fellow in town has very obligingly relieved him of the marketing, the money making end of his affairs.

What the farmer needs to do now is take over this marketing, at least to the extent of regulating and stabilizing it. That doesn't mean owning all the elevators, warehouses, creameries, and packing plants in the country. It does mean, however, the control of farm products up to the time of marketing, storage, or shipments and a voice in the determination of prices. This can be done most satisfactorily by farmers owning primary receiving plants. These will have to unite in state associations which in turn must combine nationally.

Legislation like the McNary—Haugen Bill is simply an invitation to dump crops as soon as harvested. It relieves the farmer of any possible voice in marketing and in effect says, "Come on with your crops, your big Uncle Sam with his millions will take care of you." It would be like giving Wallie a plank to paddle around on.

It is going to take a long time to build these national co-operative marketing concerns. It means saving m o n e y, training men, making some mistakes and correcting them. It is going to cost a lot in money and brains. Everything does. What do you think it will cost if something isn't done to improve the farmers' financial condition? If our efficient production and uncontrolled marketing continue to run wild, they will wipe the American farmer out of existence. Then we can pay some other race of men, some other nation for the raw material we use.

That statement doesn't need a livid scare head, because agriculture isn't going out of business all at once in the near future, but if farmers can't make a decent living we are going to have a declining agriculture, and you can do your own guessing about the cost of that. Co-operation is on the way. You can't stop it.

It was late when Pat reached home. Not wishing to disturb his wife, he crept in on his hands and knees, but Fate intervened. He struck the bedpost. His wife, sleepily, putting out her hand, touched his head, and thinking it was the dog, began patting it. In telling this story, Pat said: "And the saints be praised! I had the presence of mind to lick her hand."

LIFE AND WORK OF T. L. HAECKER

Biography

[Theophilus Levi Haecker, professor emeritus of dairying at the University of Minnesota since 1918, and now 81 years old, is known as the father of dairying in the Gopher State. His pioneer efforts for co-operation in the dairy industry are well known.

He was born in a little log cabin in Medina County, Ohio, the fourth child in a family of twelve, on May 4, 1846. In the autumn of 1853 the Haecker family moved to Wisconsin where they settled on a farm at Cottage Grove. Young Haecker attended country school, first in a deserted log cabin, then in a frame building.

In 1860 his father sold the farm and rented another on the east shore of Lake Monona, four miles from Madison. It was in these early days in Wisconsin that young Haecker received his first lessons in dairying—from his mother.

In the autumn of 1863 he entered the University of Wisconsin "in sight of Camp Randall." The following March he enlisted and served his country faithfully throughout the Civil War. This chapter is a personal account of the succeeding period written by Professor Haecker himself. There are four chapters to follow on the life and work of this great dairy investigator.]

No. 1

UPON my return to Madison after the war, I worked a short time harvesting and stacking among our neighbors in Cottage Grove, then joined our family in Franklin County, Iowa, where they had moved while I was in the army. I did farm work, and in the early autumn of 1866 engaged in threshing and ran the machine during the winter, and in March, '67, returned to the Wisconsin University until the fall of 1868. In the winter I taught school and a short term in the summer.

During the years 1871—73, I was engaged in newspaper work and in February, 1874, returned to Cottage Grove and early in March commenced farming on my own account in the immediate neighborhood where father first located.

The farmer who was our nearest neighbor, residing just across the road, had a large farm and no boys, while father had a small farm with boys to spare, so we were often called to help our neighbor, Mr. W. R. Taylor. He had been elected governor of Wisconsin in November, 1873. Saturdays he used to come home and remain over Sunday. One Saturday early in March he sent word to me he wished to see me at his home. I sent word that I was busy but would call on him in the evening. He was a Democrat while we were Republicans and Temperance people. (He generally kept a barrel of Spirits Fermenti in his cellar to cheer his friends.)

When I called on him that Saturday evening, he greeted me heartily. We talked old times over for a while,



THEOPHILUS LEVI HAECKER TODAY

as I had not seen him for nearly a decade. Approaching the object of my call, he remarked, "I know you are a young Shanghai, but I remember when you used to work for me you put everything in its place. You did your work well, were dependable and industrious. I need such a person in my office."

I told the governor that I had made other plans and needed time to consider the proposition. He gave me a week, and the Saturday following I accepted, provided I had a few weeks' time to adjust my affairs. The result was that on May 11, 1874, I reported for duty in the governor's office and retained the position seventeen years, though each succeeding governor had intended another person for that position.

I concluded to continue developing my farming enterprise, as I considered tenure in a political position uncertain. I bought a team of horses, a few cows claimed to be good milking Shorthorns, two good sow pigs, and a few chickens. My father-in-law lived on an adjoining farm and had three boys old enough to do farm work. All three worked for me in turn for years. The cows were disposed of the second year, all but one, and dairy grades substituted.

I gave special attention to making a very high grade of butter by the gravity Cooley can process, improving the herd, and providing comfortable housing. A business man in Madison had a Jersey cow that dropped twin heifer calves. Seeing a notice in the paper noting the fact, I called to see them. They were beauties. Later the twins were brought to my farm to be kept on shares. One was a light fawn and white and specially handsome. The other was dark orange, fawn and white, a little pot-bellied, cat-hammed, and ewe-necked. They were exhibited at two fairs and the former took first prize each time as yearling and two-year-old. Flora, the former, was very refined, had level top and bottom lines and carried considerable flesh, while the latter, Ruby, was spare, sway-backed, and plain looking. In time she became the most profitable cow in the herd, both as a breeder and producer, while Flora was a shy breeder and poor producer. Yet she was always admired by visitors to the farm. Ruby was in the herd eighteen years, gave us three pairs of twins, and was carrying a pair when she was fatally hooked by a Guernsey.

By this time the Silver Spring Dairy had become noted; the state officials, judges of the supreme court, and prominent citizens of Madis ing supplied weekly by the Jerse ter from our dairy.

When the Board of Regents University of Wisconsin decid put some full-blooded dairy st the University farm, the exe committee asked the governor would consent to excuse me a of weeks as they wished to secu services in visiting noted dairy with a view of selecting son foundation stock for the Univ dairy herd. In a short time authorized to make a general i tion of some of the best herds i England and to make such pur as I thought advisable and wa vided with certified checks fo purpose.

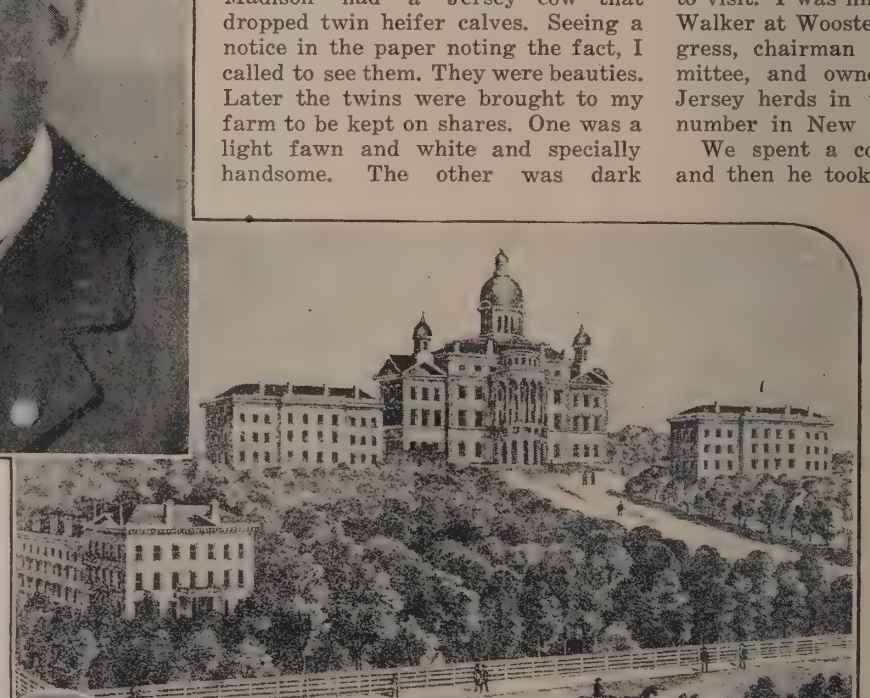
The breeders certainly treat generously. I first visited the wood Farm, South Framingha Bouditch's. The next morning inspecting the herd, he inform that he was in business in Bost would be away from home most time, but a team and coa would be at my service for the and he suggested several herds to visit. I was finally taken to Walker at Wooster, a member o gress, chairman of the financ mittee, and owner of a num Jersey herds in that section number in New Hampshire.

We spent a couple of days and then he took me to New shire whe had plac number of h among the ers. He show many famou mostly of t sey Belle of ate strain, lier's, and E It was the r structive s had ever se those famo were point especially t uate strain, always ed me of Ruby. I this day, e outstanding these co upon my mi returned to and I proc Milton to dro in his prime; then retu Millwood Farm and bought a of cows, mostly of Scituate sta

The bargain the regents ma me before I left Madison wa might choose one first. Pr Henry was to select as man wanted for the University fa I was to take the rest. I sel two-year-old heifer. Henry or eight, and the balance of t tion proved very satisfactory two-year-old heifer chos proved the best in the lot.

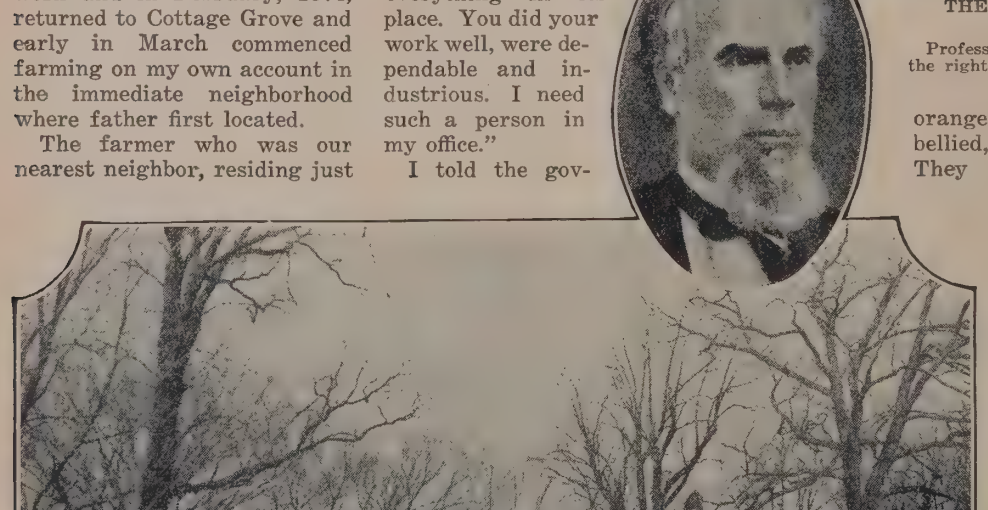
Every milking of all t was weighed on my fa a churning of one week's mi was made in the middle f quarter; and when the he completed her third quart formed Professor Henry that going to do better than 50 butter in the year. He cou lieve it. I said he might have ing the balance of the year fy himself. I sent her to t with the proviso that she m good pasture, light, grain ra not be turned out with the ot

(Continued on page 708)



THE UNIVERSITY OF WISCONSIN AS IT APPEARED IN HAECKER'S DAY A HALF CENTURY AGO

Professor Haecker roomed in the north dormitory, the building at the right.



GOVERNOR WILLIAM R. TAYLOR'S FARM AT COTTAGE GROVE

The Haeckers lived directly across the road. Originally there were 500 acres in the Taylor farm. The oval is a picture of Governor Taylor.

IVE YEARS OF DAIRY FARM BOOKKEEPING

CLAUDE H. HORMEL, IOWA

OTE your request for farm busi-ness statements and I am pleased o give a complete summary of cost accounts of Sunnydale Stock from Feb. 1, 1922, when I d farming, to Feb. 1, 1927, when completed five years of records. urse we balance the books and up a statement at the end of



JARTETTE OF 400-LB. COWS IN THE SUNNYDALE HERD

ear's business but we find this ary covering five years' busi-ery interesting and even more le as a basis of comparison ny single year's report. It has dvantage of striking an aver-etween high and low prices on e different enterprises on the as well as good and poor sea-ith the crops.

operate a 240-acre farm main-g an average herd of 40 head of Guernseys, half of which are, ule, in milk and the balance stock. We raise and market an-150 to 200 head of hogs. two live stock enterprises con-ractically all of the feed raised farm and in turn practically the feed is raised. The past ears since getting our rota-established we employed sweet for pasture, alfalfa for hay g pasture, soy beans for emer-hay crop, as well as protein nent for the other grains fed s and cows. Corn, oats, and comprise the other feed crops

past three years of the 5-year we have kept daily milk rec-ords, tested for butterfat monthly, and kept complete feed and production records on each cow in the herd. The first year these records were kept the herd showed an average annual production per cow of 293 lbs. fat. The third year ended with an average annual production per cow of 369 lbs. fat. Furthermore, the feed cost per pound fat was reduced from 22.2c for the first year of records down to 18.5c for the third year. It was necessary to do this work ourselves as there is no C. T. A. in the community. Just as the testing records for the last three years show marked improvement in the dairy enterprise of the farm, so the complete cost accounts have shown improvement in the farm business as a whole with each new annual statement. In fact the net profit for the last year of the five was nearly double that for the first year, although the crop season was hardly as satisfactory.

A brief resume of our system of accounting will no doubt be a desirable preface to the statements that follow. An annual inventory is the first essential and must be done both conservatively and consistently one year with another so as to guard against temporary inflations which might only cause one year to show a large profit and the following year a large loss. Our farm which is highly improved with large barns, silo, electricity, and water system has always been inventoried at $60,000. The average inventory for feed, stock, and equipment runs at about $8,000. Accounts are kept with each crop and stock enterprise on the farm as well as cash, interest, manure, labor, equipment, and general farm account. Each cash or trade transaction on the farm thus requires a double entry on the books. Likewise record of hours of labor spent with each enterprise is kept at all times.

This no doubt sounds very complicated to the person who has never tried it but after five years' experience we find it very simple and we think gives a higher return for effort put forth than anything else we do.

What follows now is our general summary for the past five years:

Live Stock Account

Dairy Cattle: An average herd of 17 cows and young stock maintained.

During the period 25,423.5 lbs. fat were sold at an average price of 43½c per pound. The total feed cost for the cows producing this fat was $6,988.73, or 23½c per pound fat. Note here that we were evidently producing fat at a much higher cost before we started keeping production records on our cows which showed the cost of production cheaper for the last 3 years. The cash return for $1 spent in feed on the entire dairy herd was $1.91.

The total net profit over all expenses for the 5 years was $1,767.22 or an average annual net return of $353.25. Expenses include all feed, labor which amounts to about $750 annually, annual charges for following of about: Interest, $175; building rental, $200; veterinary, insurance, etc., $200.

Hogs: During the first three years of the five, hog production showed a loss and all the profit recorded plus recuperation for the losses of the first three years was made in the last two years. This is due to observance of sanitary methods the last two years along with good hog prices and cheap corn. During the period, 720 head of hogs were sold for a total of $14,811.58. The returns per $1 expended in feed were $1.48; total net profit for 5-year period $1,773.06, or an annual net return of $354.61.

Poultry: An average flock of 150 hens has been maintained, returning an annual net profit over all expenses of $105.38.

Farm Crops

Practically all farm crops are fed on the farm; in fact, as an average over the 5 years more feeds have been bought than sold. All crops are sold to the stock at prevailing market prices.

Corn: An average of 15 acres of corn goes in the silo each year and with the exception of the final net profit, is not included in the figures

(Continued on page 709)



SUNNYDALE STOCK FARM

This photograph was taken five years ago when Mr. Hormel took charge and changed it from a beef and hog farm to a dairy and hog farm.

SEEN AT RECENT AYRSHIRE GATHERINGS



UDGE AND GILBERT McMILLAN, OF CANADA, ATTENDED THE ONAL AYRSHIRE ACTIVITIES



MR. AND MRS. A. H. SAGENDORPH WHO ENTERTAINED THE AYRSHIRE BREEDERS' ASSOCIATION AT THEIR ALTA CREST FARMS



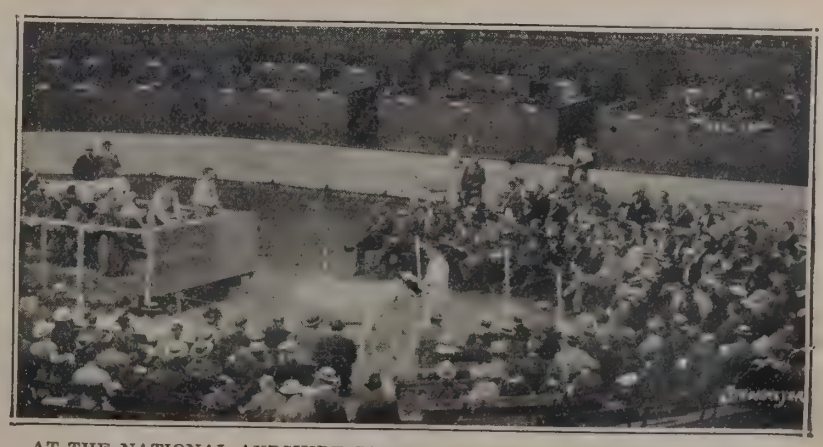
JOHN A. NESS, VICE-PRESIDENT AYRSHIRE BREEDERS' ASSOCIATION, AND JOHN COCHRANE



DAVID PAGE OF KANSAS AND LEONARD TUFTS, NEWLY ELECTED PRESIDENT OF THE AYRSHIRE BREEDERS' ASSOCIATION



XHIBITING THE AYRSHIRE BULLS ON ALTA CREST FARMS FOR THE GUESTS OF MR. AND MRS. SAGENDORPH



AT THE NATIONAL AYRSHIRE SALE RING, JUNE 9, SPRINGFIELD, MASS., WHERE 58 ANIMALS AVERAGED $240

A Dairy Herd for a Purpose

F. F. GILMORE, KENTUCKY



SUPERINTENDENT GEORGE COLVIN AND CHAS. TACHAU (RIGHT), MEMBER OF THE BOARD AND RESPONSIBLE FOR THE PURE-BREDS

"Every child a healthy child, and every child a happy child."

THE Louisville and Jefferson County Children's Home is a child caring and child placing institution. It is owned and supported by the city and county and is situated at Ormsby station, 12 miles from Louisville, Kentucky. It is a farm of 400 acres of good land, well watered, all tillable but 120 acres of pasture. One interesting point about these pastures is that the liquid manure from the dairy barn is distributed on them with a tank sprinkler. Part of the farm is given to gardens, orchards, corn for silage, oats for hay, cowpeas, soy beans, and alfalfa. Ninety acres are kept in legumes with about half of this being turned under for soil betterment.

The Home grounds, with four girls' cottages, seven boys' cottages, and the one for colored boys, superintendent's home, school and service buildings, lawns, recreation grounds, and dairy barn take up many acres.

Formerly the institution was within the city of Louisville and the delinquent children were hedged around by a wall, really a juvenile penitentiary. During those years the run-a-ways averaged thirty a month. Now, under Superintendent George Colvin, on this large farm with no baracades, the escapes do not run twelve a year.

A Home, Not a Penal Institution

The boys and girls in this Home, averaging 450, are sent here by the Juvenile Court. They can be kept until they are 21 years old, but few of them are kept so long, as foster homes are found for many and others are sent to work-homes where the Home pays their board. Some of the bright boys and girls are sent to high school and a few to the university, the Home paying their expense. Supervision is maintained over them wherever placed. Every child in the Home attends the graded school, which is conducted equal to the city schools, the teachers being college graduates. A visit among the boys and girls at school verifies the Home motto, "Every Child a Healthy Child and Every Child a Happy Child." All children have their hours of work, study, and recreation.

In addition to the regular academic subjects, agriculture and manual training are taught the boys and domestic science to the girls. Several industries are carried on the campus, and there is a close relation between the work done in the shops and the subjects taught in the school. All the children get instruction in music, either vocal or instrumental.

Pure Milk is the Foundation of Health

When the superintendent was asked what was the foundation of the health of his children he replied, "pure, fresh milk." After showing me through the service buildings where the kitchen, bake shop, store rooms, dining room, and cold storage room were, he said: "Now let's go over to the dairy barn." The barn has a gambrel roof, is 133 feet long by 36 feet wide, with concrete floors, troughs, and gutters, and is equipped with steel stanchions and drinking cups, with stalls for 40 cows having cork brick under foot. The building is well lighted and has King ventilation. It is electric lighted, and the barn, like every building on the place, has a complete sprinkler system. This was put in that in case of fire the flames would be retarded so that the valuable cows could be gotten out. The herd of cows in milk number 38, all are registered except about seven and they will be replaced as soon as young stock comes in.

The average production is 100 gallons a day. The milk of each cow is weighed and a record kept of every one. It is then taken to the milk room, aerated, and cooled and sent over to the service building. The milking is done by seven of the older boys under a trained dairyman. The liquid manure is drained off through underground pipes to a tank down the hill, 75 yards away. The solid manure is taken out by carriers to a shed 50 feet from the barn. The cows are kept well groomed.

Two 100-ton silos furnish the silage the year round. The hay, consisting of alfalfa, oats cut green, clover, and soy beans, is thrown down from the loft. Concentrated feed is composed of ground corn and oats, linseed and cottonseed meal, and fed after the formula of the College of Agriculture. Professor J. J. Hooper visits the Home dairy regularly and now has four cows under official test.

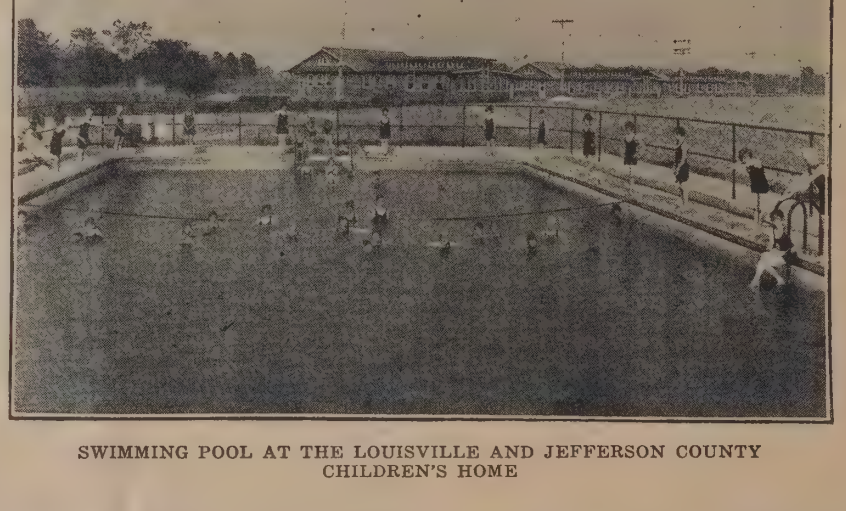
The herd bull is a twin, Segis Butter Boy, by King Segis Pontiac. This aged bull is considered the best bred in the state. His heifers, some being in milk, are great performers and his young bulls sell readily.

When asked why the Home goes in for registered cattle, the Superintendent replied, "Charles Tachau, a business man of Louisville and a member of the Board, is a graduate of Wisconsin, had a fine dairy herd, sold out and served in the war, loves good cows, and this herd and dairy are his pet—and he is making a great success of it. Mr. Tachau is a genius for registered cattle and production."

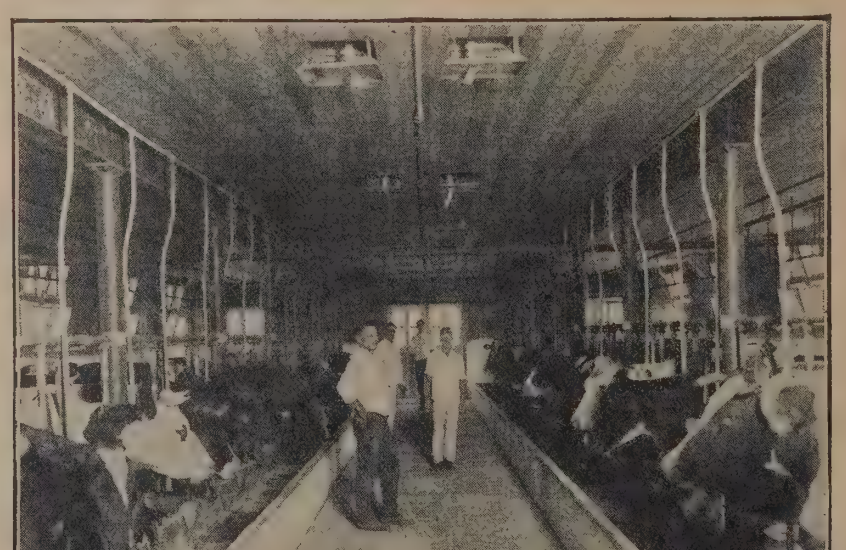
The barn has four maternity pens, one calf pen for eight, and a bull pen. The barn is spotlessly clean. The boys in the dairy are credited with regular wages according to hours of work and, when released, are fitted to enter any dairy and have some money saved up. About a half dozen healthy young dairymen are turned out each year, every one going to the country. Professor Colvin says there is no better vocational training than through the dairy.

On the grounds is a concrete wading pool for little children and a sanitary swimming pool for the larger ones, 80 by 40 feet, costing $12,000. Filtered water is piped out from the city, and for pressure a stand pipe and tank stands 108 feet high, which supplies every building on the farm.

Professor George Colvin, the superintendent, is a highly educated man, was superintendent of education of the state for four years it is a pleasure to see the bo lute him and hail him as a f He calls these hundreds of boy girls his children. He has just selected as president of the U sity of Kentucky.



SWIMMING POOL AT THE LOUISVILLE AND JEFFERSON COUNTY CHILDREN'S HOME



INTERIOR OF DAIRY BARN WITH AUTOMATIC SPRINKLERS IN CASE OF FIRE



ONE OF THE FOURTEEN COTTA AT THE HOME

Forty acres of truck garden worked by the boys, under an gardener, as part of their tra These, like those in the dairy paid regular wages accordi hours of work.

Some one facetiously rem "Why educate and train hu of young crooks?" Professor replied, "The answer is in your tion. Education and training healthy home surroundings good citizens of them."

Easier to Prevent Crime

Chapel is held each day in c tion with the school, and the maintains an organized S School with competent teachers older children have develop Christian Endeavor Society, a big boys are in scout troup t under a regular scout master. tary discipline, which was u one time, has been abolished a children are taught to control selves and think for themselve Home is conducted on the p of recognizing the rights of c —the right to a home, not as ter of charity but of inherent, cratic right; the right to pla right to study and be taugh right to live in an atmosphere clean and wholesome; the righ believed and trusted. It is that it is easier and more econ to prevent crime than to crime.

Chemistry in Agricult

The poet, Tennyson, admiri beauty of a flower growing crannies of a wall, remarked ir "If I could understand what y root and all, and all in all, I h know what God and man is."

The chemist has been diggin for centuries to discover kn of Nature's secrets. Witho knowledge from his laboratory a and the equally interesting ad portant observations of his co-o the bacteriologist, we would k tle more about Nature's behavi our ancestors knew 2,000 yea

The part the chemist plays n folding new knowledge in agr is very interestingly told in book, published by The Ca Foundation, Inc., containing i chapters, each written by a sci in his line of investigation. the part chemistry plays in th opment of the great agricultra dustry. A chapter is includeco chemistry of milk and its proc well as one on vitamins.

Copies of this book may be ec from Hoard's Dairyman Bk partment, Fort Atkinson, W price is $1.00 per copy, postpid.

A young man about to be ma went to see the clergyma having the banns published. intended wife a spinster?" th man asked. The man thoug moment; then he replied, 'So, she's a dressmaker!"

Seasonable Live Stock Notes

VE know how hard it is to persuade a farmer to steal time from grain harvesting to look live stock. There is only one real time to put a crop of oats, barley, heat in the shock and that is when just ripe enough and not too Besides cutting grain when it is y, there is corn to be laid by and e some late hay to be cut. Some- s the second cutting of alfalfa s a bid for attention. With all of there are a few things concern- ive stock that may need atten- They could be done early in the oon when it is frequently too o get into the field. They could ne if one thinks of them.

Flies

iry cows are unusually respon- o comfortable surroundings. We no comprehensive data to prove cows well protected from flies give more milk than the same would when continually pestered flies, but we are strongly in- l to the opinion that the thor- use of a good fly spray is not good business but also a good to even the temper of the man does the milking. Who wants to cows made restless by a few and flies?

Shade for Calves

are told that direct sunshine is ent stimulus in the growth of animals and poultry. Too much e direct scorching kind of sunshine does not seem to be exactly the right thing to subject dairy calves to and this suggests shade for them during July and August. Again, as with the flies on cows, we do not have experimental data proving that calves subjected all day to scorching sunshine are seriously damaged but we judge calves just a little by what we would tend to do on a hot day if we had opportunity. We would lean toward the shade and we are convinced that dairy calves should have shade provided.

Must Help Hogs Keep Cool

The hog has a poor way to regulate its body temperature. At least we can say it is rather slow acting and many a hog owner can testify to the costs of hurrying a fat hog in hot weather. The main reason the hog may have some difficulty in meeting emergencies that affect body temperature is that it has very few sweat glands. When exercise is set up in the body heat is generated. The horse, in order to dispose of surplus heat, perspires profusely and the breathing is more rapid. Heat is carried to the surface and there discharged from the body through these processes. The hog, having very few sweat glands, can only discharge surplus heat through water or vapor expelled at the mouth and nose. It is, therefore, important to provide shade and water for hogs in hot weather. Caution must also be exercised in moving fat hogs to market as also in driving them about on the farm.

Watch the Radiator of the Horse

While we are on the subject of sweat glands a word of caution needs to be sounded concerning horses at heavy work in hot weather. Everyone knows that if the fan belt breaks or goes off on the tractor or if the water runs low in the radiator the engine will soon become too hot to operate. Sweat glands are a part of the cooling system of the horse—the radiator, so to speak. If for any reason this cooling system ceases to function on hot days when horses are being pushed right along there is grave danger of serious damage to the engine. The neighborhood gossip will have a new subject to talk about and it will sound about like the following: "Jim Jones lost a good horse yesterday from the heat." On hot days as long as horses are sweating profusely they are getting rid of the excess heat generated by exercise but when the hair dries it's time to think about pulling for the shade.

To Control Lice in Poultry

Two weeks ago we said something in this column about culling poultry in July. It may be that some are moved to action by our suggestion. In this issue we take up the subject of treating poultry for lice at the time the flock is being culled. The writer knows from the experience of having culled many flocks in July that lice are frequently encountered and that the treatment for lice is easily applied as the birds are handled in the culling examination. Two very good preparations are here suggested. The cull hens that are to be sold immediately need not be treated. For the hens that are to be retained in the flock, before each is released after examination dust a pinch of sodium fluoride under each wing and around the vent. Another good louse killer is made from two-thirds blue ointment mixed thoroughly with one-third vaseline. Rub an amount of this mixture the size of a garden pea thoroughly into the area beneath the vent.

IE grain that was
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d not threshed,
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Every Case owner
we heard from
saved his crop.

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and damage to harvested crops.
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G32

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Pine Tree Milking Machine Co.

The Only Milker that

1 *gives the cow's teat the Real TUG of the calf—*
2 *and like the calf—TUGS harder and harder as the cow milks out—*
3 *and like the calf—gives EACH cow just the TUG she needs!*

Milks Like a Calf!



The Surge Milker does MORE than other milkers. The Surge *finishes* the job; other milkers only start it. Other milkers secure the milk by suction; some add a release or massaging action. The Surge does both! And then ADDS *The Real Tug of the Calf!* Yes, and like the calf—The Surge TUGS harder and harder as the cow milks out. AND—a quick, easy Surge Adjustment enables YOU to give *each* cow just the suck and TUG she needs to get ALL the milk. No other milker does or can do ALL THIS—which accounts for The Surge's well known ability to milk cows like no other machine has ever milked cows before.

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Right in Your Own Barn — With No Obligation to Buy

Mail coupon now for details of our amazing FREE Offer which gives you a chance to prove ALL THIS in your own barn, on your own cows—for 6 milkings FREE—and without the slightest obligation to buy! We also want you to see The Surge Milker milk out "that cow" you're ready now to bet can't be milked by machine. Our attractive price and Easy Terms will be another Surge feature you'll like.

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2843 West 19th Street, Chicago, Illinois
Please send me without cost or obligation, Free Surge Catalog and tell me about your special Free Demonstration Offer on the SURGE Milker. **(Please give me this information)**

Number of cows milked..... R. F. D.....
Name.....
Address..... *State*.....

A Toast to the Cow

The cow is a wonderful creature,
No other to man more worth while.
To serve, her life's work,
No intentions to shirk
Show in her honest old face without guile.

As an artist, no coloratura,
Her voice has a quality strange,
A liquid contralto,
Or sweet, limpid alto,
But shows a sad lacking in range.

Her tail has a joint universal,
To hasten departure of flies.
Of stomachs she's four,
The one on the ground floor
Is a cache for lunch. She is wise.

Her "Home Brew" is life to the infant,
It's health, growth, and strength to the lad.
As a "bracer" for father
And a "night cap" for mother,
A "kick" but no "kick back" is had.

For the girls it is nature's cosmetic,
A "School Girl Complexion" ensures,
When applied from within,
Nature's beauty they win,
A beauty entrancing to wooers.

Her "here" is a life filled with service,
Her "hereafter" a fate oft deplored.
She serves man on earth,
From the day of his birth
Yet a "filler" for hash, her reward.

Then a toast to the world's Foster Mother.
With her own "brew" that Volstead won't ban,
Let us now glasses fill
And drink with a will
To God's richest blessing to man.

Arkansas. W. H. Woodley.

Mike: "Phwat are cranberries?"

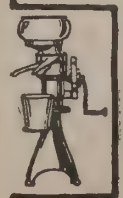
Pat: "Cranberries? Don't you know what they are?"

Mike: "Yis, but do you?"

Pat: "Cranberries are like watermelons, neither fruit nor vegetables; but if you cook them they make better applesauce than whut prunes does."

Keeping Milk Sweet with the aid of B-K Rinse

Keeping milk sweet means preventing bacterial growth. 85% of such bacteria result from contact with non-sterile utensils and cans. 95% can be destroyed by just using the cheap, quick B-K final rinse. Send for our milk can bulletin 928.



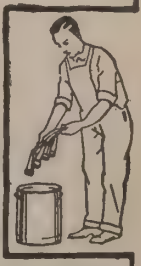
Separators

Every part touched by milk is coated by an invisible film of casein and other matter on which germs breed, and which ordinary washing does not remove. B-K dissolves the film and destroys 95% of the bacteria. Send for our separator bulletin 112.

Milking Machines

After each milking, wash milking machine parts and keep in dilution of B-K and water. Then to prevent possible spread of infection from cow to cow while milking, rinse cups and tubes in a pail of B-K dilution after milking *each cow.*

Send for our milking machine bulletin 124



Write for Free Bulletins Described Above

FREE They give a few simple rules that will enable you to produce milk of much lower bacteria, with less cost and effort. Write today.

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Department 101G Madison, Wis.

it's good B-K and it's cheap

When buying mention Hoard's Dairyman to your merchant or dealer—it helps us!

FREE 25 Gals. Enough Diversol To Make of Sterilizing Solution

Destroys The Bacteria That Cause Milk Trouble

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See What Diversol Will Do for YOU

If mailed today—this coupon entitles you to enough Diversol—FREE—(Sent Free and Postpaid)—to make 25 gallons of Sterilizing Solution.

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Address .....





"Better than Barrels of Hot Water"

Avoid Hot Weather Milk Troubles

DIVERSOL

destroys the bacteria that cause:

Sour Milk, "Ropy Milk" | "off flavors" foul odors

NOW! You Can Be Sure of Premium Priced Milk

Diversol now makes it *easy* for you to keep bacteria under control and *economically* produce clean, low bacteria count "premium-priced" milk. 85% of bacterial contamination comes from milk utensils and equipment. Diversol now makes it EASY for you to keep them fresh and clean and free of the bacteria that spoil your product.

MORE—*than a washing compound.*
—*than a sterilizer.* It's both!

Diversol does *more* than any washing compound or sterilizer—it destroys bacteria as it cleans, and removes foul odors—instantly with ONE operation. You don't need steam. One warm or cold water rinse with Diversol—and you're through! You make your own solution—easily and quickly with cold water. *Very economical!* One pound makes 100 gallons of sterilizing solution. Keeps forever. Never deteriorates. Non-poisonous. Never injures hands.

Mail Coupon for FREE Supply

Every man producing or handling milk, cream, butter, cheese or ice cream should investigate this great NEW dairy discovery. The coupon above entitles you to enough Diversol—FREE—to make 25 gallons of sterilizing solution. Send for this liberal FREE supply—mail coupon now—SEE what Diversol will do for YOU.

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"Always Dependable"

Say Ziegler Bros., Oakley, Kansas "It has never failed us in any particular. Its capacity is far greater than is claimed It delivers a quality of product never equalled by any other mill."



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Dairymen

YOU can *now* get a Hinman Milker in a PORTABLE GAS ENGINE UNIT. Power and milker complete in one compact, simple little machine.

Uses the same Hinman System—*proved right by 19 years of success in every good dairy county!*

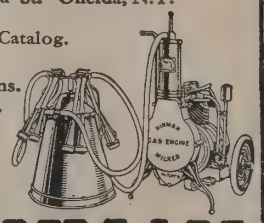
Real simplicity that does better work and costs less to buy and operate. Milks three hours on one quart of gas. Takes little space. Rolls easily anywhere.

It's a little beauty you want to know! Hundreds already in use. See one! Get facts about one of the greatest time, hard-work, and money savers that ever worked for a dairyman.

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MORE POWER

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Princeton, Dept. H, Minnesota

Wayside Musings — Old Fashioned Religi

JOSEPH S. MORRIS, WISCONSIN

ONE often hears people express the wish that we might return to the old fashioned religion. Was there something in the old fashioned religion that is lacking in the religion of today or is there something lacking in us that was present in men and women of other days? I am inclined to think that the lack is in us.

The purpose of religion is the interpretation of the meanings of things. Much new knowledge has been added to our human store of knowledge and it is possible that this new knowledge has sometimes been confusing. Our confusion is due to confusing what we know with what we believe.

In our faith, as in the faith of our fathers and our grandfathers, there is and was the confidence that our world is a world in which there is present everywhere the spirit and power of God. Our fathers were no more capable of answering all questions and solving all problems than are we. Indeed there may be some questions that we can answer and some problems that have been solved in our day that were impossible to them. Faith doesn't wait for the solution of every problem and the answer to every question. If it did there would be no faith.

The temper and spirit of our age is expressed in fullest and freest investigation everywhere. To the man of a living faith there can be no fears nor misgivings. This is God's world! No fact, no truth, discoverable in this world of God's can possibly do us harm. The only thing we need to fear is that men may attempt to make half truths whole truths; may attempt to make the partial seem complete. Truth and fact in this world of God we need not fear.

There was manifested in old fashioned religion an intensity, a sincerity, an enthusiasm, and an abiding satisfaction that many people say they cannot feel in their religion today. They long for the old fashioned religion and yet they have that religion today, minus the qualities of enthusiasm and intensity. Perhaps the way out is to find the way to that very enthusiasm that is lacking.

God was very real to our fathers, to the men and women of other days. They felt that they could talk with God and that God could talk with men. They were afraid that wrong living would break their communion with God and bring them punishment. Their lives were aglow with enthusiastic faith in Jesus. Sunday was a great day to them. The church was a city set on a hill, toward which all the days of the week pointed. They were sure that the Spirit of God was with them every day. In many respects their faith was simple, beautiful, and satisfying. In i there was a great comfort.

Let us be reminded that the fashioned religion was what it in the lives of the believers be they made the venture of faith. find the enthusiasm, the sincerity intensity, and the abiding satisfa that we desire, we too shall ha make the venture of faith. We have to start right where we with what we know, and what w and what we hope, and go on there.

We shall, in our day, if we wise, submit many questions problems to their appropriate p in the exact sciences. Reli business is to give an answer t meaning of it all, to find caus hope, and optimism, and courag bring comfort to the human l We still have the God of th fashioned religion.

We know, as men never kne fore, the consequences of the tion of Divine laws, all laws. know that the centering of a li a great affection for a heroic pe age such as Jesus results in the ing out of low motives and th throning of high and holy moti

We have knowledge that the is an orderly world; that law i versal; that man's way to things is to discover the laws being and obey them. Ther laws of religion, laws of biology of chemistry, laws everywhere call for men's obedience if they be happy.

We still have need for a re tive power that redeems us fro sins of sordidness and brutis and low aim, and lifts us up to er and nobler ways of life.

We do not gain very much b ing notice of the failures and takes of other men. Our best parisons are always the compa upward rather than downward very people whom we term hyp may be more keenly consci their failures than we are. P the way back to the best fashioned religion is to begin where we are to make use things that will help us tow enthusiastic religious life.

We need knowledge, and fait prayers, and the use of religiou ature, and the habit of worshi the performance of brotherly and love for little childre respect for the mothers of th and a clean thought about our to create life; we need poetr music, and pictures, and th things of art to build our These are all here, ready at Begin right where we are. Us is available. Satisfying religi matter of growth and develo



SOME OF THE FYFFE-WAY CALVES OUT FOR A MARCH SUNNING AT OHIO STATE UNIVERSITY

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., June 25—The eau of Dairy Industry, co-operat- with the various dairy state au- ities under whose jurisdiction the l cow testing work is being done, rging as careful and complete t as possible this year on the ven sire" projects. J. C. Mc- ell is in charge of this work. e leaders are urged to see that cow testing association report at one proven sire. This means at least one sire having five hters on test from five dams, of h there is an authentic milk and erfat production record, be re- d so that the record of the five hters can be compared with the d of the five dams, and results own to indicate whether the sire ences production up or down. rds were shown at the recent pilgrimage to indicate that the ionship in blood lines between and dam had very little to do fixing inheritance for high pro- on but that mating animals with production records was a pretty in way of fixing high producing itance. The trouble is that the must be better than the dam in heritance characteristics in order ake this work. Hence the cam- for proven sires. Should the be reached this year, of one n sire from each cow testing iation, a good start would be toward building up a list of n sires in the dairy states.



little flurry has been caused g those interested in butter stor- y the story sent out recently Washington, raising a question the stability of the 12 cent but- tariff. Should this tariff be out, it is felt that enough for- utter might be imported in the r to seriously affect the profits cold storage deal. Such a pos- y was said to be involved in the l to the U. S. Supreme Court in -called Hampton case, involving onstitutionality of the Flexible Act, questioned in this case by up of importers in New York Since the publication of the your correspondent has made quiry to find out how quickly ase may be decided, and finds t is not expected, by the De- ent of Justice, that the case e heard before the first of January. This precludes any ffect on this winter's storage y any change in tariff rates this case. It is most likely e decision will be handed down oner than March 1, 1928. The tment of Justice holds that the constitutional and has won a n in each of the lower courts.



effort to secure more adequate ition for agricultural research l up last month by rep- atives of farm and other zations here, a late devel- t being a conference with Sec- of Agriculture Jardine, led by r Gray of the Farm Bureau ed Brenckman of The Grange rticipated in by representatives or twelve other organizations ng the American Dairy Feder- The secretary was told that eturn of agricultural prosperi- be definitely helped by practi- thods for the elimination of and loss in every phase of ag- ral production and market- nd he was asked to give his al to a new, enlarged, and ag- e program of research for urposes. Since this large rep- resentation of organizations placed their request before the President several weeks ago, there has been a notable increase in interest and effort to get proper provision made for research work in the Department.



The capable shoulders of Dr. John R. Mohler, Chief of the Bureau of Animal Industry, received another and very substantial load, effective July 1, when the Packer and Stock Yard Administration is abolished and all of the work of administering the Packer and Stock Yards Act is transferred to the Bureau of Animal Industry. Officers and employees of the P. & S. Administration become a part of the Bureau of Animal Industry by this change. There are some good reasons for the change, as the great bulk of the experience of the department in dealing with and handling the problems of marketing live stock had previously been in the B. A. I. Dr. Mohler, however, has a tremendous load to carry, and it may be wondered if the new duties will serve to distract his attention from other no less important ones, specifically the eradication of bovine tuberculosis. This change, however, is in a direction which many have been advocating, toward the organization of the Department in industry bureaus, along industry lines. It also calls attention again to the large volume of regulatory and service work in the Bureau, as compared with research work, for which the Department was primarily instituted.

Colored Woman: "Doctah, Ah's come to see ef yo am gwine order Rastus one o' dem mustard plasters ag'in today?"

Doctor: "I think perhaps he better have one more."

Colored Woman: "Well, he says to ax yo' kin he have a slice o' hame wid it, 'count of it's a mighty pow'fui perscription to take alone."



ESTABLISHED REX 1896

Here Is The Answer to Hundreds of Questions

The famous qualities of FLY-TOX and RAT-TOX and Rex Agricultural Insecticides have brought persistent demands for a *thoroughly scientific* animal spray.

Here it is . . . STOCKAID . . . a typical Rex product. Has all the qualities of an ideal spray . . . pleasant odor . . . stainless . . will not burn, blister or irritate the hide.

STOCKAID does not taint milk.

This animal spray serves a *two-fold purpose.* It *kills* flies, mosquitoes, lice and fleas. STOCKAID *also repels flies,* mosquitoes, lice and fleas. As a repellant, it proves effective from 6 to 8 hours according to amount sprayed and atmospheric conditions. STOCKAID is fatal only to insects. It is harmless to mankind and animals. It is non-poisonous. Animals may lick hide after STOCKAID has been sprayed without harmful results.

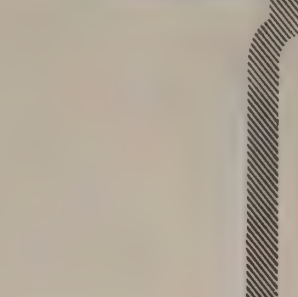
It does not gum the hair—this marvelous spray leaves the coat fine and glossy. Does not clog the sprayer.

Like all Rex products, STOCKAID is backed by a money-back guarantee to kill and repel insects. Those who have used Rex insecticides and fungicides need no urging to try STOCKAID . . . the mere announcement of an animal spray developed by Rex, produced by Rex and backed by Rex, is sufficient.

Your retailer sells Stockaid.

FOUR SIZES

1 Gallon Cans 30 Gallon Drums
5 Gallon Cans 50 Gallon Drums



The Toledo Rex Spray Co. - - - Toledo, Ohio
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California Rex Spray Co. - - - Benecia, Calif.
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ESTABLISHED REX 1896

STOCKAID ANIMAL SPRAY

***KILLS and REPELS* FLIES, LICE *and* MOSQUITOES**

"Trade in"

For a Power-Equipped Sharples SEPARATOR

You can trade in your old separator for a power-driven Sharples Tubular—you can trade it in on one of **larger capacity,** at very little cost. A power-driven separator costs only a little more than a hand-driven separator, and $20 allowance will be made on your old machine. If your separator is too small for your needs, if it is worn, out of balance and losing cream, if you value the time you spend every day turning it by hand and want to be free from the drudgery of it all, write today for the Sharples offer, telling us what capacity you need.

$20 allowance on your old Separator

SHARPLES SEPARATOR CO., Dept. N, West Chester, Pa.

When buying mention Hoard's Dairyman to your merchant or dealer—it helps us!

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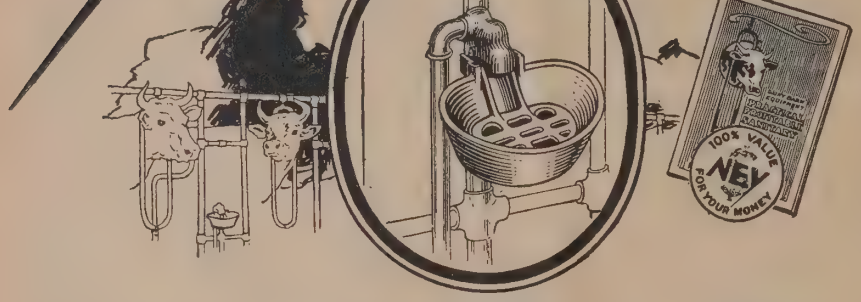
Help Your Cows Earn You More Profits

TO help your cows produce more milk, richer milk—and bigger milk profits for you—these three factors are most important:

1. Good water
2. Good housing
3. Sanitary dairy barn equipment.

Ney Water Bowls and other Dairy Barn Equipment has aided thousands of farmers the country over in getting more milk and richer milk from their cows. These satisfied farmers paid for their equipment in a few months time from the added milk-profits they received.

Save time and labor in keeping your dairy barn clean by installing Ney Equipment. Sold by reputable dealers everywhere. Write us today for your copy of the Ney Catalog No. 54 and name of dealer ready to serve you.



THE NEY MANUFACTURING COMPANY . CANTON, OHIO
Established 1879 *Minneapolis, Minn ; Council Bluffs, Iowa* Established 1879

Complete Dairy Barn Equipment including stalls, stanchions, water bowls, pens, litter carriers, "King" ventilators, etc.
Complete line of Haying tools including hay carriers, hay forks, hay knives, etc.



Milk Keeps Longer when cooled with the CP Conical Cooler and Aerator

THIS practical Cooler and Aerator cools the milk in one minute, prevents growth of bacteria and removes all stable and other odors. The milk or cream is poured in at the top through a gauze strainer and it comes out a minute later at a low temperature.

The U. S. Department of Agriculture recommends that milk be cooled quickly, as milk cooled as fast as milked keeps sweet longer and gives a bigger cream line.

The *CP* CONICAL COOLER is substantially made. Uses ice or running water — as easily cleaned as a common milk pail.

PRICES (East of Rockies)

Size	Capacity	Suitable for	Prices
2	18 qt.	25 cows or less	$8.00
3	34 qt.	25 to 50 cows	9.60
4	48 qt.	50 to 100 cows	12.00

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1245 W. Washington Blvd. CHICAGO, ILLINOIS
Sale Branches in Principal Cities

Mention Hoard's Dairyman to Your Dealer — It Helps Us



COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk Lbs.	Ass'n. Report Ave. fat Lbs.	High Herd Breed	High Herd No. of cows	High Herd Ave. milk Lbs.	High Herd Ave. fat Lbs.	Owner
Colo.	Mesa Co.	May	359	675	26.8	G. J.	11	791	37.1	G. N. Pond
Nebr.	Lancaster*	"	498	827	31.0	H.	5	1320	49.8	C. H. Becker &
Iowa	Pocahontas*	"	356	710	26.2	H.	23	1209	42.0	Allen & Watso
Ohio	Ashtabula Co.	"	377	896	32.3	R. H.	13	1244	42.9	F. A. Faerber
"	Wayne Co.*	"	301	913	36.2	R. H.	8	1571	58.8	O. L. Thomas
"	Licking Co.	"	294	798	33.8	R. H.	8	1508	49.8	D. R. Best
Conn.	Middlesex Co.	"	520			H.	15	1051	37.6	C. W. Kelsey
Mo.	Jackson Co. 1	Apr.	240	748	29.7	J.-H.	7	1031	37.5	M. W. Kurgwe
"	Jackson Co. 2	"	1039	837	31.6	H.-G.	89	960	39.7	Wolfermon Da
Tenn.	Hamilton Co.	May	643	619	27.6	G. J.	22	866	36.6	A. A. Little
Mont.	Cascade Co.*	"	565	865	30.7	H.	10	1202	40.5	C. G. McDerm
Tex.	Wise Co.	"	361	532	25.3	J.	6	884	47.3	Kelly & Sons
N. D.	Burleigh Co.*	"	423	759	26.9	R. H.	16	1018	34.8	F. J. Splonsko
Ore.	Cen. Oregon	"	510	660	29.9	J.	9	775	43.5	R. L. Brewster
"	Tillamook	"	1574	1210	47.3	G. J.	15	1310	62.4	W. Hare
Ariz.	Snowflake*	"	7	606	29.4	G. J.	1	600	39.0	J. M. Smith
Wash.	Cowlitz Co.	"	540	863	34.7	R. J.	5	1125	66.9	A. L. Lewis
"	King Co.	"	729	829	31.2	J.	15	943	44.8	E. W. Trezise
Utah	Cen. Cache Co.	"	572	913	32.3	H.	9	1643	57.4	F. Reese
Va.	Prince William	"	638	706	25.6		20	921	36.3	Harvey & Klin
"	Loudoun 2	"	575	619	27.8	H.-G.	25	1000	41.7	H. C. Rogers
"	Loudoun Valley 3	"	708	650	27.6	G.-H.	19	922	42.7	M. A. Aukers
Ind.	Elkhart Co.	"	289	735	29.7	A.	12	1254	42.0	I. Eby
"	Randolph*	"	249	693	33.0	R. J.	8	907	41.7	Abel & Hartze
Penn.	Allegheny Co.	"	452	811	30.5	R. H.	74	1356	43.8	Bell Farm
Kan.	Dickinson*	"	323	810	29.5	A.-H.	12	1092	40.8	W. C. Ainswor
"	Reno	"	307	690	27.0	R. H.	16	1182	41.9	H. E. Hostetle
"	Harvey	"	139	871	31.7	H.	21	844	31.7	L. W. Dreier
Minn.	Pope Co.*	"	331	651	28.5	G. G.	13	700	36.6	W. M. Pennie
"	Howard Lake*	"	419	731	34.3	R. J.	18	885	53.5	W. H. Eddy
"	Winona Co. 4*	"	452	722	27.3	H.	12	1573	47.8	H. Brown
"	Watonwan*	"	389	790	32.3	J.	20	786	43.1	Brogger & Kn
"	Barnum*	"	335	691	30.3	G. G.	11	1020	47.8	A. Dahlman
Ida.	Gooding-Jerome	"	390	784	34.2	H.	14	1314	50.5	F. W. Houston
Mich.	Midland Co.*	"	290	755	28.0	R. J.	18	735	37.8	R. P. Smith
"	Mecosta-Remus*	"	206	696	32.8	J.	6	959	48.7	H. Wheeler
"	Kent-Alto*	"	191	765	34.8	R. J.	7	828	44.5	D. J. Densin
"	Van Buren 2*	"	250	676	26.8	H.	20	881	28.2	C. Billsbarrow
"	N. Newaygo*	"	211	680	30.0	M.	6	820	41.3	F. Boucher
"	Hillsdale 2*	"	262	830	35.1	R. J.	6	936	47.5	W. R. Haywar
"	Ionia-Belding*	"	370	934	35.6	H.-J.	4	1065	48.1	N. Wright
"	So. Kent Co.*	"	249	752	30.5	J.	9	858	41.4	C. Kenyon
"	E. Oceana	"				J.	5	1140	50.0	C. Chase
"	Ott.-Jamestown*	"	230	798	33.0	G. J.	8	997	49.4	C. Hollis
"	Lansing-Ingham*	"	272	844	34.0	H.-G.	6	1279	54.9	O. J. Becker
"	Barry Co. 1*	"	232	779	28.8	G. S.	5	936	39.4	R. Bryant
"	Chippewa*	"	313	772	27.2	G. G.	10	1121	45.8	O. Johnson
"	Missaukee 2*	"	259	753	29.1	M.	16	861	38.9	A. L. Davis &
"	Wash.-Saline*	"	271	779	26.6	H.	11	1179	44.5	Wilsey & Lipt
"	Oscoda Co. 1*	"	172	685	31.4	G. G.	8	872	47.2	E. Hendrich
"	Ott.-Coopersville*	"	294	859	34.1	M.	8	1329	50.9	J. Kishman
"	Ott.-Allensdale*	"	262	807	30.6	R. G.	8	690	38.6	J. Ebels
"	Lenawee 2*	"	280	903	28.4	H.	4	1325	42.1	W. Kindschy
"	No. Berrien*	"	256	740	31.5	G. H.	7	1194	52.7	
"	Charlevoix*	"	345	856	33.6	R. H.	21	1537	49.2	Orchard Bay F
"	So. Newaygo*	"	223	823	34.3	H.	5	1326	53.0	J. Meyer
"	Leelanau Co.*	"	208	560	22.8	J.	8	729	38.6	C. H. Eltzen
"	Mason Co. *	"	281	674	28.8	M.	7	1119	44.8	J. Peterson
Wis.	Thiens.-Lakefield*	"	404	805	31.5	H.	12	1324	44.3	G. P. Anschau
"	Glenwood	"	537		32.1	G. H.	15	1303	48.5	M. Olson
"	Union-Waupaca Co.*	"	342	932	33.9	H.	10	1420	47.6	L. P. Much
"	Sparta*	"	430	791	32.9	G. H.	21	1000	40.0	E. Hohn
"	Cleghorn-Eleva	"	434		32.1	H.	14	1220	42.9	J. Blodgett
"	York-Jackson	"	214	851	31.6	G. H.	13	1114	39.5	J. Thomley
"	Rock.-Mequon*	"	362	852	32.3	H.	9	1288	49.7	A. Bruess

*Retest rules followed

Remarkable Production

The Ionia—Belding Cow Testing Association of Michigan has completed three years of testing activities. The cow tester, Jens Hansen, who has served this association for the greater share of the three years, reports that the 389 cows averaged 8,991 lbs. milk and 351 lbs. fat.

The feature of this year's testing is the remarkable production record established by the pure-bred Holstein herd owned by the Michigan Reformatory. The 51.6 cow years reported in this herd averaged 15,023 lbs. milk and 501.4 lbs. butterfat.

During 1926 all members fed grain with pasture except two. The reports that the grain ration balanced during the year ac to the roughages on hand a production of the cows.

All members except two hav Six of the members have d cups and three members mad first seedings of alfalfa thi Every member either owns or pure-bred sire. During the year 54 cows were sold as un ble and unprofitable cows. were 51 cows sold for breedi poses. Sixteen new pure-bre were purchased by the meml gether with 37 other grade

A. C. BALZER, Michigan.



THE ALLENTON—KOHLSVILLE ASSOCIATION

Thirty-one Wisconsin cow testing associations reported an average production o 300 pounds fat per cow in 1926. The Allenton—Kohlsville Association headed t with an average of 10,344 pounds milk containing 372 pounds fat. The herds i association are relatively small, are well selected for production, and are adequat and cared for. The members average seven acres in alfalfa and all of them feed on pasture. The association started its ninth year on April 1, 1927, with 15 charter members still testing and it has a waiting list of farmers who want to joi

Work With the Tester

HOARD'S DAIRYMAN:—How often you heard similar remarks to one, and what did you think it? "That cow tester of ours is punk. The other day I asked to figure out a grain ration. You t to have seen it! A few pounds is, a few of that, and a lot of thing else. I absolutely know it not have balanced, and most of would have to have bought!" and by these remarks come . Mr. Cow Tester picks up a here, a little there, and finally issing link. It disheartens him. eels that all that he tried to as in vain. Although he grins bears it, it does not heal the d.

w, dear members, before giving uch reports and giving up the esting work, try another method. ose that the first thing in the ing you sit down with your test- d figure out the ration with him ad of leaving it up to him alone. out the cow requirements and find out how near this your nt feed comes. Maybe you are eeding, maybe underfeeding. the tester the price on feeds and d list of what you have on hand. possibly could afford to sell some you have and buy other kinds eds.

ke your own pencil and figure it or yourself along with him. Ask ions concerning your cloudy s. You surely will not begrudge ime spent this way and I be- that you will discover that cow g is not such an idiotic idea if ake the advantage you are pay- or.

WALTER G. KIRKPATRICK, Tester.

o Dairymen Compared

ARD'S DAIRYMAN:—The Den- C. T. A. of Wisconsin com- l the May test work, the aver- ow producing 6.5 lbs. fat more the previous month.

re are figures to help substan- the claim that higher producing are a necessity to insure the st profit. Herd Numbers 1 and e been enrolled in a cow testing ation for five years. Herd No. l 18 cows averaging 303.6 lbs. alued at $161.70. The average ost was $68.82 per cow, leaving profit of $92.88. Herd No. 2 2 cows averaging 408.1 lbs. fat, d at $221.09. The average feed as $76.22 per cow, leaving a net of $144.87 for each cow. Herd exceeded Herd No. 1 by 105.1 at, and an increased profit of er cow for the year. Herd No. rned 55 cents more for every 's worth of feed consumed.

re are some reasons why Herd was superior. The better sires used in Herd No. 2 and for years than in Herd No. 1. Herd has over half pure-bred cows of ancestry and Herd No. 1 con- all grades. Probably better ient was used in the care and g of Herd No. 2, and it found me in a better stable. Owner erd No. 2 was a short course ate, whereas owner of Herd No. not. Owner of Herd No. 2 read farm bulletins and farm papers considerably more than did owner of Herd No. 1. Feeds were of same quality.

MANNING H. NELSON, Tester.

Grain on Spring Pasture

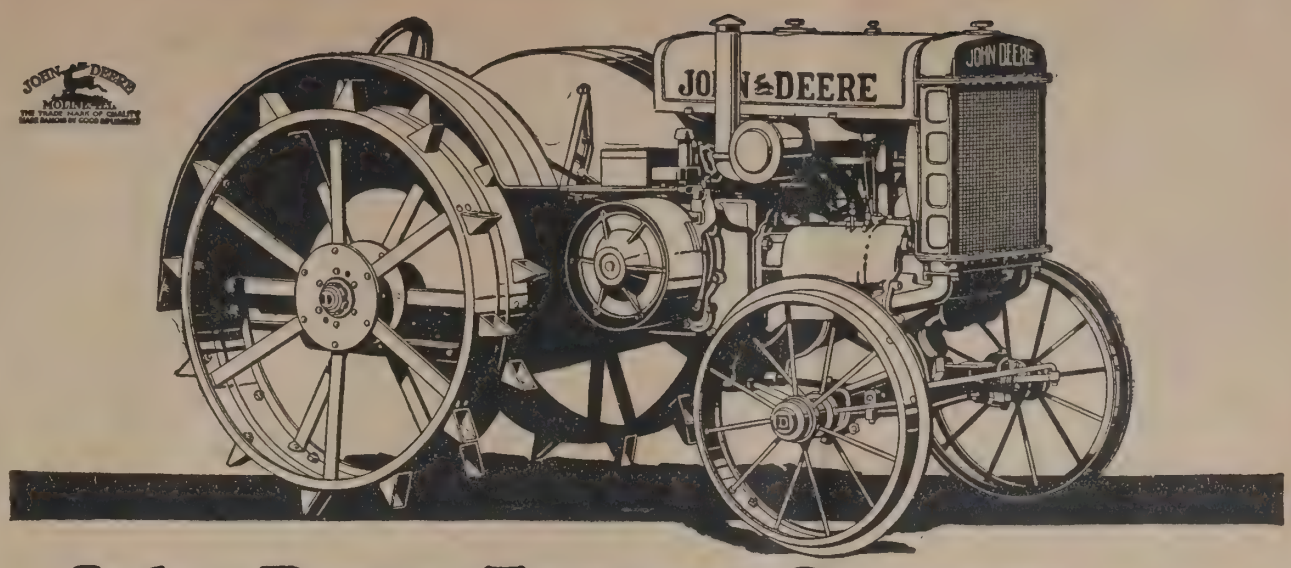
HOARD'S DAIRYMAN:—In the South Newaygo, Michigan, C. T. A., 26 of the 28 members are feeding grain with pasture. One member's excuse for not feeding was that he "ran out of money." But the net returns in his pocket will be much less by fall or by the time another year rolls around than if he had borrowed money to buy the grain. This member's herd has been without grain now for two months. The first month there was very little difference in production compared with the previous month because the grain had only recently been taken away and the cows were taking a reserve off their bodies to hold the milk flow. The second month—May—the production was somewhat lower but due to good pasture it was higher than was expected.

The big difference between the first and second months was the much poorer condition of the cows. The fresh pasture, being largely a stimulant, did not contain enough nutrients for the cows' production so the cows were using the remainder of their reserve body fat to put in the milk pail. When they get all their body fat used up, then they will slump badly in production and it will be at a time when pasture is poorest. Not only will this hurt production and lower profits this summer but all of next winter as well, for the cows will be in no condition to do their best. CLARENCE PRENTICE, Tester.

Monthly State Summary Table

	Month	No. of ass'ns. Operating	No. of ass'ns. Reporting	No. of cows*	Ave. fat per cow* All cows	Ave. fat per cow* High ass'n.	Ave. fat per cow* High herd	High cow fat	No. of separators Tested	No. of separators Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
n	April	106	78	20,310	27.5	37.0	†54.2	111.2			228
t	"	18	18	8,908	26.1	31.2	47.3	114.1	21	2	78
ota	May	8	8	2,580	25.5	†28.0	†47.7	†89.4			21
in	"	165	141	60,605	31.2	†39.0	†52.6	†121.6	1300	116	904
	"	84	82			34.6	54.3				459
	"	5	5	2,527	31.2	32.3	57.4	104.2			10
t	April	22	21	10,415	25.3	29.8	54.0	97.7			

*Includes dry cows. †Retest rules followed.



John Deere Tractor Owners Do Their Work at Less Cost

On thousands of farms this powerful, light-weight John Deere 15-27 Tractor not only solves the farm help problem by doubling and tripling the daily earning capacity of its users, but it also produces farm power at costs surprisingly low.

Mr. W. Larson, of Culbertson, Montana, writes:

"Last spring I plowed and disked 250 acres with my John Deere Tractor at a cost of 67 cents per acre. If that is not cheaper than horses I can't figure, for I know what it costs to feed them. I can plow five acres with my John Deere while my neighbors take care of their 12-horse outfits."

The above is an example of hundreds of letters on file from all agricultural sections, which testify to the economy of this farm-power producer.

The John Deere produces more power with less weight; does more work with less fuel and oil; gives more years of satisfactory service at lower expense for upkeep and repairs.

The John Deere weighs only 4,000 lbs. There is no excess weight to drag around—to steal power away from the drawbar.

Light weight, extreme simplicity, fewer moving parts, and a specially designed, heavy-duty engine have made possible great power with minimum consumption of fuel and oil.

The sturdy, long-lived working parts of this tractor are completely enclosed in a dust-proof case and operate in a bath of clean oil. There are few adjustments necessary, and you can make them all on the farm. The John Deere is giving its users remarkable service at costs astonishingly low.

The John Deere combines everything you want in a farm tractor—**power, speed, durability, adaptability** and **economy.**

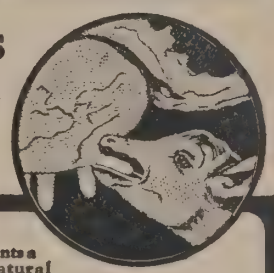
Right near you, at your John Deere dealer's, this real farm tractor is on display. See it. Ask for a demonstration. Have your John Deere dealer prove its merits.

Know What Users Think About Their John Deeres

We will gladly send you, free, a copy of booklet entitled "101 Farmer Judges Write Their Opinions." This is composed of 101 letters taken from the hundreds received from enthusiastic users. The experience of these farmers is worth money to you. We will also send you a folder that tells all about the John Deere Tractor. Write to John Deere, Moline, Ill., and ask for Booklets TW 214.

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MOLINE, ILL
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

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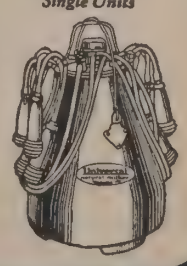


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Waukesha, Wis.
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Two types: Double and Single Units



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Entered at Fort Atkinson, Wis., as second class matter.

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Phosphate in Indiana

That Indiana soils respond to phosphate is shown by a summary of soil experiment tests reported by the Indiana Experiment Station. The average of 16 tests running from 3 to 16 years on 7 different types of soil where acid and rock phosphates have been compared shows that acid phosphate costing $3.81 per acre per rotation returned $9.51 per acre per rotation in increased crop values, while rock phosphate produced an increase of $4.98 per acre per rotation at a cost of $4.29. The net profit from acid phosphate has been over eight times as large as that from rock phosphate.

On the Francisco field in 1919, manure alone gave 2,180 lbs. of clover per acre, manure and lime gave 3,740 lbs., while manure, lime, and acid phosphate gave 4,700 lbs.

Better Hay—Less Labor

Better hay and less man labor are the objective of a series of demonstrations now being given in Michigan by the extension service of Michigan State College. We attended one of these demonstrations on the Kalamazoo County Farm on June 17th.

In this issue, we mention briefly the method demonstrated; later, with photographs and more detailed description, we want to tell about "hay day" as it is done in Michigan.

It is not necessary here to explain why better methods of making hay were sought and are now being demonstrated. The interests of our readers are now mainly in "how" can better hay be made with a minimum of man labor. The making of alfalfa hay is chiefly concerned, although the practice applies equally well to other legumes.

The objects are to save the leaves, retain the green color, put the hay in the barn in better condition, and do most of the work with horse or power drawn implements.

The mowing is done in the normal manner. A left-hand side delivery rake is preferred, although a right-hand rake will serve the same purpose. The rake is started immediately or within two hours after the hay is cut and is driven in the same direction as when mowing. Two-swath windrows are made. The object in raking in this manner is to turn a large percentage of the leaves to the inside of the windrow and leave the stems on the outside. Furthermore, if the rake is properly operated, a loose windrow is made, thus getting most of the hay off the ground up where the air can get through. An hour or so before the loader started the rake is driven in the s direction as before, and in a mar to give the windrow a half-turn so that the hay at the bottom of windrow is turned on top.

The curing is all done in the drow. In the case of rain, when weather afterwards becomes fit, windrows are given a half-turn as scribed above. Leave the hay righ the windrow until it is fit to go in barn, turning it with the rake a necessary. In turning the windr always drive in the same direction when mowing and raking the time. In using the loader one dr in the same direction as when rak

We urge our readers to try method, at least in a small way.

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ıspection of Canadian Export Milk

ARD'S DIARYMAN:—There are ated to be from 15,000 to 17,- lairy farmers in the provinces ıtario and Quebec affected by peration of the Lenroot bill, the Jnited States act governing the tation of milk and cream. While ederal Department at Ottawa is uarantor, so to speak, to the rities at Washington that sani- and other regulations will be rly enforced, a division of in- on work in which the Dairy De- ents of the Provinces con- l will have some part has been ged. The Provincial Dairy hes will take over the inspec- of plants shipping milk and and the Federal Department, gh the Veterinary Director, will are of the inspection of herds, s, and other equipment on dairy . In the latter case it will mean erd and farm inspection will be by accredited veterinarians.

the Ottawa conference it was d, at least tentatively, that a ent charge should be made for ıspection to cover the cost. So the large concerns, such as con- ries and the like shipping milk ream, there is little doubt but hey will be willing to pay for st of inspection of their plants. ıdividual farmer may not be so g. A farmer shipping to a con- ry, which in turn exports sweet mmercial cream, may hesitate an outlay of $10 to $12 a year erd and farm inspection when ı direct his milk supply to some y creamery or cheese factory. ncy, therefore, that many farm- ay change over to the domestic t unless the export price for and milk can be made suffi- y attractive to warrant pay- of the annual inspection fee.

operation of the Lenroot bill ikely shut off the shipping of ing cream to the United States ther and confine the business to ıipping of fluid milk for city and sweet or commercial cream. ng of churning cream to the l States has been carried on or less extensively for some

ng up the new regulations gov- shipments of cream and milk United States, they are not ered any more drastic than now in force in shipping milk am to many Canadian cities or Toronto, for example, is ed with having the best milk of any city on the continent, l from a health standpoint. The tions governing this supply are exacting and in some respects e more exacting than the new tions governing the export in milk and cream.

ario. J. W. WHEATON.

England Co-operative School

lers of co-operative market as- ons, agricultural specialists, ss men, and farmers will have ortunity this summer to attend st School and Institute of Co- ive Marketing ever held in the astern part of the United The institute will be conduct- and by the Connecticut Agricul- College at Storrs from August 9 with the Division of Co-oper- Bureau of Agricultural Eco- , United States Department of lture, and the co-operative as- ons of Connecticut co-operating. e who are planning to attend hool and institute should com- ıte with the Director of Short s, Connecticut Agricultural College, Storrs, Connecticut, for accommodations during the session. Rooms will be available at the college dormitories. Meals will be had at the college dining hall. The entire expense including regular meals, banquets, and dormitory rooms will be $7.75. Arrangements for this special rate are to be made in advance.—NATHAN KOENIG.

Keeping Bulls from Killing Trees

HOARD'S DAIRYMAN:—At the Kentucky Experiment Station we run our bulls in large grass paddocks. As usual they butt the shade trees in their lots and in summer use the trees for rubbing posts, thus destroying the bark and finally killed many trees. Many suggestions for prevent- this trouble proved worthless. But I found one successful method. I wrapped barbed wire around the trees and the bulls did not molest them further. However, it is well to place a strong post in the lot for the bull to rub against.

Kentucky. J. J. HOOPER.





International 3-ton Truck in the dairy business, owned by Harry Marsh of Carlisle, Ia.



Eighteen farmers at Swift Current, Sask., Canada, are using International Speed Trucks, with grain bodies, as above.

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EDITORIAL COMMENT



JERSEYS WANTED IN THE SOUTH

At the annual meeting of the American Jersey Cattle Club a resolution was passed recognizing the heavy loss sustained by Louisiana farmers by the unprecedented flood and the need of live stock to replenish their farms. Many parishes of that state lost their live stock and farmers are deprived of their homes. The American Jersey Cattle Club extended its profound sympathy to the sufferers of this state and assured them of co-operation in helping to rehabilitate the devastated area. The Club appealed to the Jersey breeders throughout the country to contribute both Jersey cows and heifers as a direct means of assisting in a speedy rehabilitation of this flood stricken area. The following men constitute a committee to receive the animals contributed: Professor C. H. Staples, Baton Rouge; A. H. Henderson, Ruston; and W. R. Hirsch, Shreveport, all of Louisiana. The committee has agreed to assume the responsibility of properly distributing the animals in the areas now tick free. The American Jersey Cattle Club earnestly appeals to all Jersey breeders throughout the United States to send to the committee the names of the animal or animals they are willing to give to those who have suffered heavy losses due to the unprecedented flood.

We are pleased to have the opportunity to make this announcement and hope that the Jersey breeders who are financially able will contribute one or more animals to this worthy cause. We can little appreciate the tremendous loss and the severe hardships which the people in the flood area of our country have suffered.

FOR TRUE CO-OPERATION

In his address before the American Institute of Co-operation, W. M. Jardine, Secretary of Agriculture, made a few statements concerning co-operation that should be given more than passing attention. He defines co-operative marketing, as the term is used in agriculture, as marketing by and for the farmers; he gives the essential principles as, first, is it operated solely to render service to the producers at cost and, secondly, is it controlled by the producers?

"Co-operative marketing implies democratic control. An organization is not co-operative if controlled by a few men representing only a minority of the patrons, whether these men are producers or nonproducers. It would not be co-operative if it were controlled by an agency of the government. It would not be co-operative if it were set up and operated by a semi-philanthropic organization."

The secretary further states, "The weakness of an organization set up and operated for the farmers by others involves more than a mere failure to place control in the hands of the men for whom the business is conducted. Whether the business is carried on efficiently or inefficiently, the ultimate effect is to smother rural initiative and self help. On the other hand, what the farmers accomplish through co-operation is a permanent contribution to better farm conditions. In developing their own organizations they gain experience and confidence. In acquiring knowledge of marketing problems, they learn to make needed improvements and adjustments in production. Dependence on the government or on other agencies for direction of so-called co-operative organizations, to my mind, can have but one consequence—deterioration of the business capacity and morale of the producers."

We never expect to see the time when all business of the farm is conducted on a co-operative basis. This is not necessary to make co-operation an effective agent in improving farm conditions. We do not know that it is desirable for agriculture that all farm products be handled co-operatively, but we do know that the products prepared for the market and marketed co-operatively should be done by the producers. The organizations should be formed by them and operated by them. One of the great benefits of co-operation is to teach the producer what the market demands, to give him an understanding of what must be done to meet this demand. No person ever becomes strong unless he has an opportunity to do things. It requires struggle, thinking, planning, and work to become well developed and resourceful. When a co-operative organization is formed upon the right basis, and that means in the hands of the producers, then all these things so desired for human progress follow.

SUNLIGHT AND FRESH AIR

The value of cow testing associations does not lie wholly in determining the production of each cow in the herd; much other information is obtained by those who belong to cow testing associations. The tester in charge comes to the farm once each month and if he is wide awake and observing, he brings information and very often makes suggestions which are most helpful. The contact made between the tester and herd owners is extremely valuable. Notes pertaining to dairy practices gathered by the testers and disseminated by leaflets and otherwise is another way of making cow testing associations valuable. We find in the Iowa Cow Testing Association News the following paragraph written by John Sivesand, tester, which discusses the importance of sunlight and fresh air as factors for growing calves:

"Next to the proper kind of feed, sunlight and fresh air are probably the most important for the growth and health of the calves. Calves kept in reasonably clean quarters, where sunlight and fresh air can get to them, never need to be fed high priced tonics or powders to keep them healthy. Direct sunlight is the best disinfectant in the world. It kills germs, prevents rickets, helps stimulate growth and development. To keep calves healthy and growing—rinse and sun dry all feeding utensils. Milk fed from dirty utensils and also cold and foamy milk causes scours. The milk should be fed while it is warm and with the foam removed. It is a good plan to stanchion the calves when feeding, because it saves time and labor and each calf can be fed its share. A little grain should be fed after each milk feeding."

TOP-DRESSING ALFALFA

"Considerable alfalfa was winter-killed by the long ice covering. The alfalfa that seemed to stand the ice best was that covered by a top-dressing of manure. This covering held the ice up and allowed more air space for the plants."

This quotation is taken from a letter from Clarence Prentice, tester for the South Newaygo Cow Testing Association of Michigan. We quote it for two reasons. First, it does indicate a new practice of safe alfalfa culture; and secondly, it shows how an observant cow tester can carry information to his members that will be of immeasurable value to them. It illustrates one side of cow testing work that has received too little publicity. The good tester is always building better farm practices, and often not directly connected with his work in keeping records on the cows.

Some five years ago we manured an old and partly run-out alfalfa field during the fall and early winter, expecting to plow it up for corn. The following spring saw our new seeding of alfalfa in poor shape and a promise of a short hay crop. We raked off the surplus straw from this old alfalfa field and got a better yield of hay than the previous year. The alfalfa plants grew with new vigor and the June grass grew tall and luscious. This spring we are met with the same condition of the new seeding almost a total loss, and the same alfalfa field again was manured for corn but will be saved for hay.

Many farmers have practiced manuring their clover the year before it is turned under for corn. They report increased yields of clover and as good results with corn as when the corn directly follows the application of the manure without an intervening crop of hay. We would like rep from farmers who may have followed this p tice with alfalfa. It may mean safe and inex sive insurance against shortage of hay follo the occasional winter-killing of alfalfa.

AS IN OTHER DAYS

Delve into the history of people a cen or more ago and we find they had problems struggles the same as we have now. When fessor O. E. Reed of the Michigan College of riculture was in Scotland a year or two ag took occasion to peruse some of the agricultura ports of that country and came upon a letter ten by Robert Burns to his cousin, James Bur The original name of Burns was Burness but changed to Burns. This letter was writte Lochlea, June 21, 1783. The following paragr are taken from it:

"I shall only trouble you with a few partic relative to the wretched state of this country. markets are exceedingly high; oatmeal, 17d 18d, per peck, and not to be got even at that p We have indeed been pretty well supplied quantities of white pease from England and where, but that resource is likely to fail us, what will become of us then, particularly the poorest sort, Heaven only knows. This cou till of late, was flourishing incredibly in the n facture of silk, lawn, and carpet weaving; an are still carrying on a good deal in that way much reduced from what it was. We had also trade in the shoe way, but now entirely ruined hundreds driven to a starving condition on ac of it. Farming is also at a very low ebb wit Our lands, generally speaking, are mounta and barren; and our landholders full of ide farming, gathered from the English and the l ans and other rich soils in Scotland, make lowance for the odds of the quality of land consequently stretch us much beyond what i event we will be found able to pay. We ar much at a loss for want of proper methods i improvements of farming. Necessity compels leave our old schemes, and few of us have o tunities of being well informed in new ones short, my dear sir, since the unfortunate l ning of this American war, and its as unfort conclusion, this country has been, and still i caying very fast. Even in higher life, a cou Ayrshire noblemen and the major part o knights and squires are all insolvent. A mis job of a Dougles, Heron, & Co.'s bank, whi doubt you heard of, has undone numbers of and imitating English and French, and othe eign luxuries and fopperies, has ruined as more. There is a great trade of smuggling c on along our coasts which, however destruct the interests of the kingdom at large, certain riches this corner of it, but too often at t pense of our morals. However, it enables in uals to make, at least for a time, a splendi pearance; but Fortune, as is usual with her she is uncommonly lavish of her favours, is ally even with them at the last; and happy w for numbers of them if she would leave th worse than when she found them.

"My mother sends you a small present cheese; 'tis but a very little one, as our last stock is sold off; but if you could fix on an respondent in Edinburgh or Glasgow, we send you a proper one in the season. Mrs. promises to take the cheese under her care and then to send it to you by the Stirling car

"I shall conclude this long letter with as you that I shall be very happy to hear fron or any of our friends in your country, wh portunity serves.

"My father sends you, probably for the last in this world, his warmest wishes for your w and happiness; and my mother and the rest family desire to enclose their kind compli you, Mrs. Burness, and the rest of your f with those of, dear sir, your affectionate co

Wheat for Silage

e have a nice piece of wheat that we want
it in our silo but have never used wheat for
age before. At what stage should the grain
hen cut? How short should it be cut with
nsilage cutter? Is it any harder to keep than
Should we run water along with it? How
protein will this carry as compared to corn
age?
lford, Va. J. D. H.

ensiled when the kernels are just past the
stage or slightly earlier, wheat and other
ls will make silage of a fair to good quality.
rop should be run through a silage cutter and
ual care taken in tramping down the mass to
as much air as possible out of the hollow
i.

would prefer to have the silage cut into
alf to three-quarter inch lengths, as this will
somewhat in packing. If moisture appears
deficient, it might be well to add water as
ilo is being filled.

mixture of cereals and legumes is quite large-
ed on the western coast, both for hay and
ilage. Wheat and vetch is one of the more
ion silage crops in Oregon and in some of
ther western states.

ere are no analyses available as to the pro-
content of wheat silage, although we would
t this to be normally about double that of
silage, with the total digestible nutrients
two to three pounds less for one hundred
is of silage. The decrease in total nutrients
e to the lesser amount of carbohydrates in
heat plant as compared with the corn plant.

Spontaneous Combustion

lost a hay and cattle shed by spontaneous
ustion last year. This building was 84 by 86,
hrough the center and a shed on each side.
ave rebuilt this year and it will soon be time
with hay again. It was filled last year with
ay that was very dry and with alfalfa hay.
s our first experience with alfalfa and we left
ay to cure a day longer than recommended
ur farm adviser. The hay was thoroughly
l as it was put in. Does salting help keep
or does it tend to draw moisture and cause
ng? Is it better to fill or partly fill the full
h with each cutting or should one take a
of the shed and fill it up? Some say spread
t to the full length so that you have just a
eet of hay at each cutting and some say take
rter length and fill up to the top. We had
of fog and mists after the hay was in the
Would this affect hay already up?
w Windsor, Ill. (MRS.) A. P. STREETER.

ile spontaneous combustion of hay is doubt-
he cause of a considerable number of farm
yet a number of fires are attributed to this
they may be caused in some other manner.
nly may the fire be due to careless smokers
imilar causes, but not infrequently lightning
be the direct cause of the fire if the building
t properly protected by lightning rods. No
r under what condition hay may be cured,
is likely to be more or less fermentation in
ow, which will give off some gases. If these
are enclosed in a barn, there is a tendency
hem to accumulate in such a manner that if
arn is struck by lightning, the gas is readily
d and the fire spreads very rapidly, almost in
ature of an explosion. For this reason our
suggestion would be to have the barn proper-
otected by lightning rods.

ere is no definite and scientific method of
g hay so as to provide complete insurance
st spontaneous combustion. While it is of
rge comfort to the person who suffers from
a fire, it is, however, comforting to know that
loes not frequently occur when consideration
en to the number of barns in which hay is
d. Much of the danger can be avoided if the
s thoroughly cured in the swath, but this pro-
a hay of low quality and is undesirable as
ter feed for cattle. The next best practical
od is to follow the system of haying in which
ay is properly cured in the windrow or in the
where it has been given an opportunity to
ut to a reasonable degree and possibly pass
gh an original fermentation. Such hay will
eat up badly when put into the mow, par-
rly if it has not been wet by rain and is not
when it is put away.

spite the danger of spontaneous combustion,
are a number of farmers who make it a
ice to put their hay in the barn in a fairly
condition, being careful however to avoid,
far as possible, moisture on the hay as a re-
sult of rain or dew. Such hay will heat up in the mow and may even turn black and become almost charred. It is believed, however, that if the hay is well distributed over the mow and is thoroughly compacted so as to exclude the air, there is small danger that this heated mass will burst into a flame. This is based on the theory that if the air does not have access to the heated material, a flame cannot result. To produce combustion, it is necessary to have oxygen. Many who follow this practice of curing hay, prefer to spread the hay from one cutting throughout the entire length of the barn rather than filling up one mow at a time. They believe they avoid some of the dangers of superheating through this method.

The use of salt and lime on hay has been advocated on the assumption that they tend to prevent fermentation and check the growth of molds, while salt will also render the hay somewhat more palatable. These materials are not essential but are helpful especially when storing partly cured hay during bad weather. According to such information as is available, the use of salt would decrease the dangers of spontaneous combustion, but this is a subject that has not been very thoroughly investigated. Indeed, the whole subject of spontaneous combustion, its causes and its avoidances, seems to be largely a matter of opinion rather than the result of knowledge based on thorough investigation and experimentation. It would be highly desirable if we had available more accurate information on this subject.

It is extremely doubtful whether foggy, moist weather after the hay is in the barn would be a predisposing cause for spontaneous combustion. If this condition of the atmosphere prevailed while the hay was being put into the barn, it would be rather reasonable to suppose that it might cause greater fermentation, with the possibility of spontaneous combustion.

While we have seen no definite statement concerning it, it would be our opinion that the provision for ventilation at the roof of the barn might be helpful in controlling the danger of spontaneous combustion. It would also be desirable to avoid moving the hay or otherwise admitting air to it in such a manner that the heated material might break into flame.

As a matter of comfort to the one who fears spontaneous combustion, we offer the consolation that in the many years in which we have handled clover and alfalfa hay, there is scarcely a season but what the mow heats up and we notice large volumes of steam or moist air escaping from the top of the mow. The hay will be very hot and frequently when this hay is removed for winter feed, we find it a very dark brown color. In all these years, we have never had a case of spontaneous combustion, and we have noted the same condition existed on a great many other farms. While this is no assurance that we may not suffer from this, yet our own experience leads us to believe that the dangers of spontaneous combustion are somewhat overexaggerated and that probably many fires ascribed to this cause are actually due to some other cause.

The Light or Dark of the Moon

Does it make any difference whether potatoes are planted in the light or the dark of the moon? Some of the older people believe it does. Have the signs of the zodiac any effect on the castrating of colts or steers?

Mt. Vernon, Wash. F. K.

The particular phase of the moon in which potatoes or any other crop is planted has no effect upon its subsequent growth. The reason for the superstition as to planting in the light or dark of the moon doubtless is due to the fact that changes in the weather follow one another at rather short and seemingly irregular intervals while the changes of the moon's phases occur at short but regular intervals. These changes may frequently occur at the same time and humanity is apt to notice these and forget the failures of the two to coincide and which are just as numerous if not more so. The point to consider in planting potatoes is the question of proper growth and the avoidance of insect pests according to the section in which they are growing.

The same statement may be made as to the effect of the signs of zodiac on the castration of animals. There is no association between these other than castrating should be done when the weather is neither very hot nor very cold. It should also be avoided when flies are bad or when conditions that would bring about infection are likely to occur. Possibly the best season of the year occurs in the spring when the weather is cool and pastures are good. Consideration should also be given to the condition of the animals and the operation should be avoided when they are not in good health.

Are Silage Measuring Tables Correct?

Due to the short corn crop last year, we were forced to buy considerable silage. We used the usual silo tables for estimating the value of the contents of these silos, but were quite disappointed in some of the results obtained. We found on the whole that the actual weight of silage was about thirty-five per cent under the table. As an instance of this, last week we purchased 33 feet of silage in a 12-foot silo that weighed out 36½ tons over our scales.

I give below a list of the silos purchased on which I have records of size of silo and actual weights as they went over our scales in January and February of this year:

Silo	Year filled	Height of silo	Height of silage	Diameter	Tons
		Feet	Feet	Feet	
A	1925	40	21	12	52
B	1925	40	25	14	71
C	1926	38	17	14	40½
D	1926	36	21	12	30
E	1926	40	21½	14	44½
F	1926	38	20½	14½	45
G	1925	40	24	12	44
H	1925	40	25	14	77
I	1926	36	11	12	13
J	1926	36	33	12	36

As a result of this experience we believe all silo tables should be investigated carefully. There appears to be a great deal of misinformation going out on this subject.

Wisconsin. HOWARD T. GREENE.

The facts here disclosed would indicate the desirability of further investigation as to the capacities of silos. By use of the usual estimates, we have made the following comparisons with the figures as reported by Mr. Greene:

Comparing Actual and Estimated Contents of Greene Silos

Silo no.	Actual wt. Total	Actual wt. Per cu. ft.	Estimated wt.* Total	Estimated wt.* Per cu. ft.	Estimate over or under actual weight Total	Per cu. ft.	Per cent
	Tons	Lbs.	Tons	Lbs.	Tons	Lbs.	%
A	52.0	43.8	45.0	37.6	−7.0	−6.2	−13.5
B	71.0	36.6	74.0	38.3	+3.0	+1.7	+4.2
C	40.5	31.0	48.0	36.9	+7.5	+5.9	+18.5
D	30.0	25.3	45.0	37.6	+15.0	+12.3	+50.0
E	44.5	27.2	62.0	37.7	+17.5	+10.5	+39.3
F	45.0	26.6	63.0	37.5	+18.0	+10.9	+40.0
G	44.0	32.4	52.0	38.1	+8.0	+5.7	+18.2
H	77.0	40.0	74.0	38.3	−3.0	−1.7	−3.9
I	13.0	20.9	22.0	35.3	+9.0	+14.4	+69.2
J	36.0	19.3	73.0	39.3	+36.0	+20.0	+102.8
Total	453.0		558.0		+105.0		+23.2
Ave.		30.8		37.9		+7.1	+23.2

*Estimated as though "Height of Silage" column in Mr. Greene's table is the total height of silage in silo 30 days after filling and before any silage was removed.

The silo measuring table used in making these estimates was constructed some ten years ago as a result of investigations by Professors Eckles, Reed, and Fitch at the Missouri and Kansas Agricultural Experiment Stations. These estimates are more conservative than what have generally been used and were based on actual weights of some twenty-five silos.

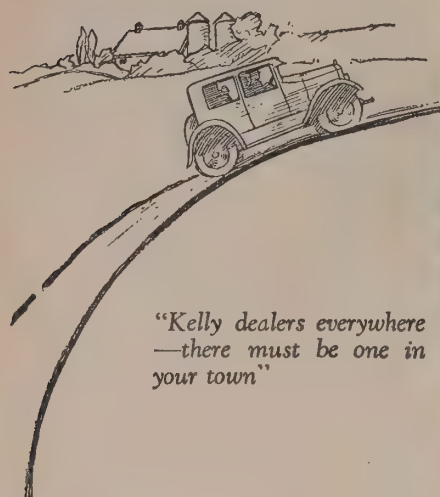
The weights given by Mr. Greene show a radical difference and can not be explained on the basis of a lower water or grain content, as this would not make a difference of more than 10 to 15 per cent. The differences in all except two cases are much more than this, and we are unable to offer any reasonable explanation.

The estimates of weight overran the actual weights from 4 to 103 per cent, the average overrun being 23 per cent. In only two out of ten of the cases did the estimates show less weight than was shown by the scales.

We would appreciate reports from others who have had occasion to weigh silage either when put into the silo or when taken out. Give the size of the silo, the depth of the silage, and if possible the condition of the corn when ensiled.

Mr. Greene's report indicates the desirability of further investigation as to the weight of a given quantity of silage. The constant and increasing requests received each year for our silage measuring table and for estimates of weight of silage in silos indicate that there is much more silage bought and sold on measure than one would believe.

Kellys are built to deliver service





"Kelly dealers everywhere —there must be one in your town"

When you go into a store and put down your money for a tire, what you really are buying is not merely a given amount of rubber and cord but the expectation of a certain number of miles of service.

Whether you get it or not depends upon whether the tire you buy is of a reliable make.

Kelly-Springfield tires always have been built to deliver the kind of service you hope to get. They always *will* be built to deliver that kind of service.

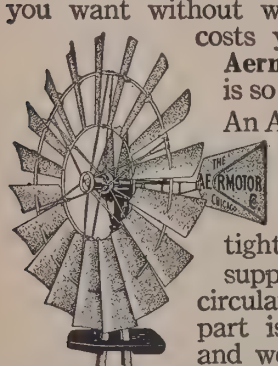
Kellys cost *no more* than other good tires.

KELLY-SPRINGFIELD TIRE CO.
General Motors Bldg. New York

KELLY SPRINGFIELD PNEUMATIC TIRES

RUNNING WATER WITHOUT WORK

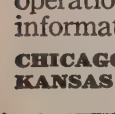
With a good Well and a good Windmill you can have all the water you want without work, worry or expense. Water from a well costs you nothing. The cost of an **Auto-Oiled Aermotor** is moderate. The expense for maintenance is so small that it need never be given a thought. An Aermotor runs in the lightest breeze. It will also work safely and steadily in the heavy winds.



The **Auto-Oiled Aermotor** is completely self-oiling. The double gears run in oil in a tightly enclosed gear case which holds a year's supply of oil. When the mill is running the oil circulates through every bearing. Every moving part is constantly and completely oiled. Friction and wear are practically eliminated.

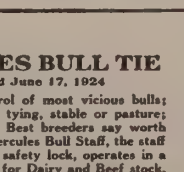
Auto-Oiled Aermotors have behind them a long record of successful operation. Their merits are known the world over. For further information write

AERMOTOR CO.
CHICAGO DES MOINES OAKLAND DALLAS
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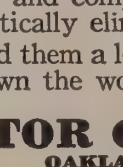


HERCULES BULL TIE
Patented June 17, 1924

For positive control of most vicious bulls; safe leading; firm tying, stable or pasture; ideal show halter. Best breeders say worth twice the price. Hercules Bull Staff, the staff without a spring. Has a safety lock, operates in a jiffy. Moyer Brand show halters for Dairy and Beef stock. Leather stable halters, neck straps, rope halters for cattle. Moyer Horse halter with new style hardware. Show bridles white or colored. Write for circular and price list. Moyer products are for sale by all leading Stockmen's Supply Houses and Dealers.



JOS. MOYER MFG. CO.
STOCKBRIDGE, WIS.



Summer Planting of GRIMM ALFALFA

Do not hesitate to plant a field of Grimm Alfalfa in mid-summer! This earliest-maturing variety bears 3 and 4 crops in a season. Individual plants larger, leafier and of higher feeding value than ordinary varieties. Pure, pedigreed seed -- guaranteed Genuine Grimm. All seed scarified for highest germination.

A. B. LYMAN, Grimm Alfalfa Introducer
Box 290 Excelsior, Minn.

LYMAN'S GENUINE GRIMM

Opinions, Brickbats, and Bouque

These columns are open to the readers of Hoard's Dairyman for the expression o their opinion on any subject, whether radical or conservative, destructive or constructiv wise or foolish. It may be cows or crops, religion or politics, or what at the time mos interests you. It may be critical or commendatory, but it should be your opinion. It i your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyma assumes no responsibility for opinions expressed.

A Corn Borer Remedy

HOARD'S DAIRYMAN:—At a farmers' institute, about 25 years ago, the question was discussed how to fight the June bug and grub worms. I suggested it might be a good plan to have a light placed over a tub filled with water; the bugs flying against the light might drop into the water and drown.

The "wise" conductor remarked: "You got a long head on you," to which the whole house joined in a "laugh me out," as the German would say.

Now I will propose the same remedy for the corn borer, running the risk of being "laughed out" once more. Would not the same remedy kill a good number of corn borer moths by having lights placed in the field?

Wisconsin. HENRY A. OCHSNER.

Where is the Gain

HOARD'S DAIRYMAN:—In your editorial, "Blind Condemnation," you take exception to certain resolutions coming before the Land O' Lakes Creameries, Inc., which demanded the same tariff protection enjoyed by the eastern industrialists. I think it is a healthy sign when we find agriculturists even so much as questioning the "sacredness" of protection. Protection is built on the assumption that the producer must be allowed to charge a higher price to the consumer than the article is worth in an open or free market. Neither agriculturists nor industrialists can in any sense of fairness demand that any one of the two enjoy all the protection, but that both shall enjoy the privilege of robbing the consumer.

Let us suppose the impossible is accomplished and a tariff is established that satisfies both of them. Where is the gain when the extra price charged by the producer is paid by the consumer—who composes 100 per cent of both the agriculturists and industrialists? It seems to me our main trouble is that in the desire of both to grab all they can, they have forgotten their own interests as consumers. Protection cannot be made to work except at the enforced expense of the consumer. Agriculturists can not become speculators in land except at the expense of the consumer. When high tariffs and boosted farm land values make the cost of the consumers' living higher than it ought to be, the consumer is compelled to curtail his demand, so I repeat—where is the gain?

Maryland. OLIVER MCKNIGHT.

Want More Milk

HOARD'S DAIRYMAN:—In the May 25 issue of your paper there is an article in the editorial comments entitled "More Milk Wanted." That hits this section as reported.

For the month of February, 1922, the Sheffield Farms Co., Inc., paid the Dairymen's League Association to pooler account for 3% milk $2.42 per cwt. and the League paid back to producers $1.77 per cwt. or a difference of $.65; March following a difference of $.50. This was the last month the Sheffield Farms Co., Inc. purchased through the Pool and March has been considered one of the four months of the surplus season and the principal reason advanced by Mr. Slocum or his associates for not paying more was that they were deluged with a surp

Now, we find five years later a of local shortage and a wes menace from these same promo and they appeal to the Commissio Health for support and appear i rant and forgetful of the fact th low price to producers and a rev ing fund are responsible. The issue of certificates is due this and if there is any virtue i promise, these certificates will to be met annually from this on the League has not been able to other dealers' prices and the c sponding prices for cheese during past five years, considering there no certificates to meet, what pect have producers to encou them to a higher production of and meet a double deduction for tificates.

The experience and expense revolving fund in the six states nishing milk for New York City the hardship it works on the producers and all farmers is in i sufficient reason to condemn any of the McNary—Haugen sort or asks for a revolvng fund for pro ers to manipulate with and Pres Coolidge showed a high standar manhood and respect for his oat office when he vetoed the bill an posed such a lottery with the u public funds as the McNary—Ha bill asked for. Farmers are entl to more of the consumer's dollar they get for milk and need money to produce it. But to g is another question.

New York. F. M. JON

The Farmer Must Hel Himself

HOARD'S DAIRYMAN:—It seem me that your position in referen helping the dairy farmer is s We are making splendid progre organizing co-operatively and i can continue, our industry will l a good basis. Our own organizao now are handling a sufficient qun ty of products to have an influen prices and are fast learning ho keep surplus from depressing p

We need to bear in mind th working out our own destiny w developing ourselves and lea how business is done. It does no peal to me to turn over our prol to some one else to solve. This r be the easy way for the present b it would surely unfit us to cope wi those who are constantly dire their own business.

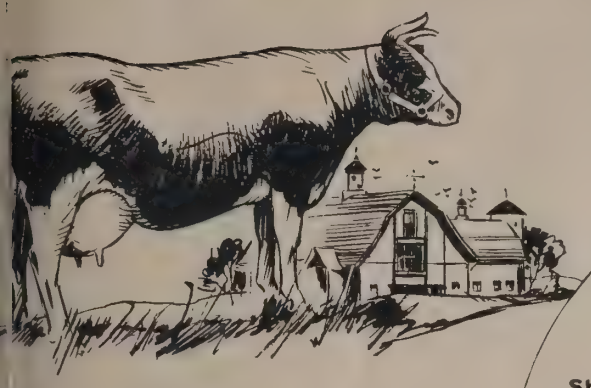
If we farmers are to retain t freedom we now enjoy we mu willing to do for ourselves. No son develops by watching some o else work; he must work himsel is struggle that develops us an loafing.

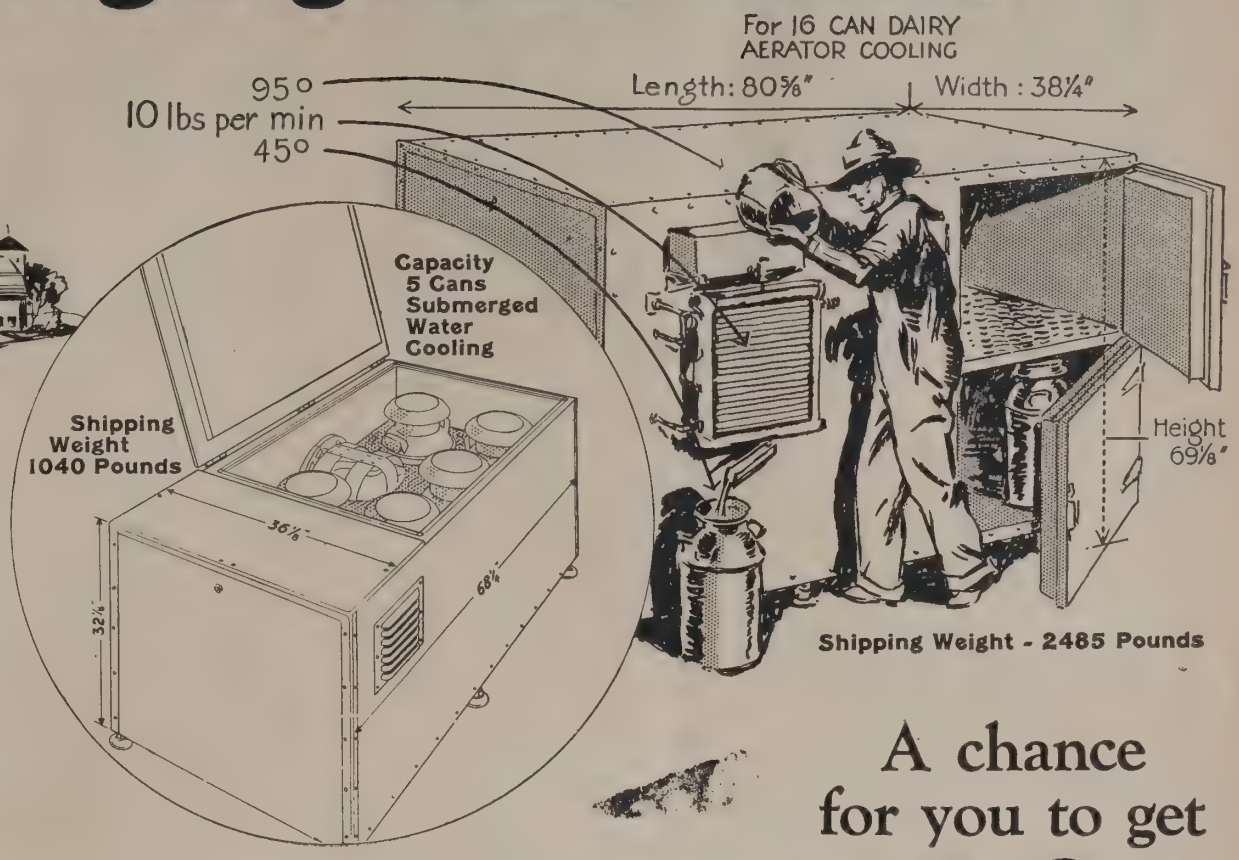
As you have stated, our go ment should enact laws that giv industry an equal opportunity wi all other industries and it shoul ercise care to have the law pro enforced, but I am not ready to a the government run my business

If we can become sufficientl ganized to influence producti would be of benefit to our indu We cannot hope to continue to produce and still receive fair pri for our stuff. We should be in po tion to handle seasonable surpl and to limit production when ces sary.

Minnesota. R. M.

As Important as Pure-breds for High-grade Milk



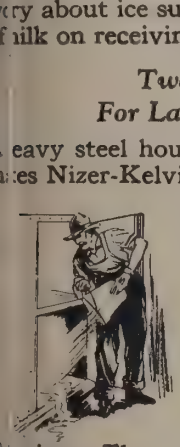


Nizer-Kelvinator Electric Milk Coolers mean as much to you in the production of high-grade milk as pure-bred stock. They bring rich, healthful milk rich and healthful. They check the growth of bacteria—assure a lower bacteria count. They quickly and safely cool milk by electric cold from 98° to below 50° F. And keep it a temperature where bacteria cannot develop up to the moment of shipping.

Nizer-Kelvinator Milk Coolers offer definite day-to-day economies, too. Save all the time and labor of cooling by old-fashioned methods. Save you the cost of ice. No troublesome ice harvesting. No worry about ice supply. No more rejection of milk on receiving station platforms.

Two Sizes and Types For Large and Small Herds

Heavy steel housing with protecting steel bands makes Nizer-Kelvinator Electric Milk Coolers rugged and durable. Strong as a battleship. Lined with galvanized iron. The larger, aerator-type cooler, has removable shelves and flooring of heavy subway grating and adjustable standards which allow easy cleaning underneath. You can flush them out with water.



Two sizes. The aerator type takes care of the output of a 16-can dairy. You can instantly cool eight 10-gallon cans of the night's milking and store it until morning in the storage compartment. In the morning cool the eight morning cans and put it all together to the station—at a temperature below 50°. The smaller is of the submersion type, which will accommodate 5 cans.

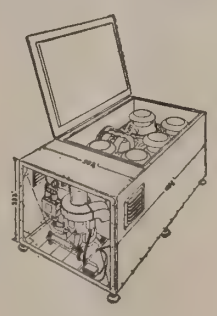


For Use With or Without Water

The larger cooler has a 16-tube 18-inch return tubular aerator. Complete cooling by brine, without water, is provided for. Or, if there is plenty of water available, the milk may be precooled at a saving of 40% to 60% in operating costs.

Surprisingly Low Operating Cost

The Nizer Compressors have proved their efficiency for years in ice cream cooling installations. Model I, used with the larger cooler, has a $^{4}/_{10}$-h.p. Universal motor run by 110-volt A.C. or D.C. It has ½-ton ice melting capacity and, on a 5¢ K. W. hour rate, produces cold equivalent to 100 lbs. of ice at a cost of only 10½¢. Model A Compressor, used with the smaller cooler, has ¼-ton ice melting capacity and operates on a ¼-h. p. motor, furnished for 110-volt A.C. or D.C. or for a 32-volt farm lighting system.



Thoroughly Tested and Proved Efficient

The compressors used have proved their worth during years of use in Nizer Electric Ice Cream Cabinets, the most efficient known and the most widely used. And, although Nizer-Kelvinator Electric Milk Coolers were completed more than six months ago, they have been under the most rigid test and examination right on dairy farms up to this time. So trustworthy, durable, efficient and economical have they proved themselves that you can be sure of a satisfactory installation. Saving you money, gaining you money.

Your Milk Dealer Will Help You Get It

In order to give farmers the convenience of direct dealing, through already established contacts, it has been arranged to sell the Electric Milk Coolers to or through Milk Dealers or through most Kelvinator Dealers. Ask one of them about it at once. Or, if you prefer, write direct to the nearest Nizer branch for a complete description.

A chance for you to get $500.00 free for a name

Nizer-Kelvinator will pay $500.00 in gold for an appropriate name. It must be a good name—a real dairy farm name that any dairy farmer would recognize as describing practical electric dairy coolers.

Beautiful Kelvinator for Second Prize



The famous "Sealtite" Cabinet Kelvinator Model 272—gray, steel-clad, white enamel lined, two inches corkboard insulation. Equipped with the oldest domestic electric refrigeration. Just the thing for the farm kitchen. Ample food storage space, light, clean. Gives "cold that keeps" without attention. Sells for $210.00 ordinarily and is the outstanding household value in electric refrigeration today.

Write for a Descriptive Folder

The name you submit will have a better chance if you know all you can about Nizer-Kelvinator Electric Milk Coolers. Send for a folder today. Clip the coupon and send in your name. You can send in as many as you wish. No restrictions except that you are in some way connected with a dairy farm and fill in the coupon.

A fair and square contest, judged by men you know: Harry A. Sieck, General Salesmanager of Nizer and Vice-President of Kelvinator, Inc.; W. A. Schreyer, Business Manager of Dairymen's League News; W. C. D'Arcy, D'Arcy Advertising Company, and Gordon Muir, Advertising Manager of Nizer.

All names must be in the offices of Nizer Division, Electric Refrigeration Corporation, Detroit, Michigan, by noon Monday, August 15th. The names of the winners will be published in this publication by September 15th.



NIZER Kelvinator

Clip the Coupon Now!

Consult this Expert on Milk Cooling

Nizer Kelvinator offers free of charge the counsel and advice of one of the foremost dairy authorities in the country, to dairy farmers who have questions on milk cooling. Harry A. Sieck, formerly Chief Engineer of the Dairymen's League, Dairy Engineer and Consultant of note, and now General Salesmanager of Nizer and Vice-President of Kelvinator, Inc., will be glad to help you. Merely write to Harry A. Sieck, Nizer Division, Electric Refrigeration Corporation, Detroit, Michigan.

REG. U. S. PATENT OFFICE

THE PRACTICAL ELECTRIC MILK COOLER

Sold to or through milk dealers by Nizer Division, Electric Refrigeration Corporation, also by most Kelvinator Dealers, and in Canada by Kelvinator of Canada, Ltd., London, Ont.

Nizer Sales and Service

14210 Plymouth Road, Detroit
816 Sharples Bldg., Chicago
603 Spring St., Atlanta, Ga.
620 S. Delaware Ave., Philadelphia
1 West Forty-seventh St., New York
164-166 Manassas St., Memphis, Tenn.
4003 Wentworth Ave., Minneapolis, Minn.
1911 Washington Ave., St. Louis
701 Pacific Bldg., San Francisco
171 Sidney St., Cambridge, Mass.
1916 Gorman Ave., Waco, Texas
208 Third Avenue, South, Seattle, Wash.
910 Pacific National Bank Bldg., Los Angeles, Cal.

Nizer Division, Electric Refrigeration Corp., Detroit, Michigan.

Gentlemen: I submit the following name for your Electric Milk Coolers.....

Following the rules of your contest, I have answered the following questions correctly:

Name.....Address.....

Size of dairy herd.....Name of Milk Company

I sell to.....



The Dairy Farm Home

Wearing the Trousers

I'll admit in the beginning that plenty of women exceed the limit in the matter of scanty clothes, but did we ever see the time when women's clothing was, on the whole, such a joy! It's good looking, and it's comfortable, and best of all it's easy to get into.

I laughed the other day at a cartoon I saw in a newspaper. Across the top the man and wife of 25 years ago were shown getting ready to go out for the evening. The man, all dressed, waited for his wife to put the finishing touches to her tight corset-bustle-long skirt costume while she twisted and pulled and gasped for breath. Below were shown the man and wife of today. While he struggled with collar buttons and necktie, she dropped a one-piece dress down over her simple bloomer outfit of underwear, put on her hat, and said, "I'll wait for you in the living room, John," while he glared at her in envious despair.

The simplicity and good looks of women's clothing are things they struggled for decades to attain, but now that we have them I do hope to goodness that we are not going to overdo the thing.

Last summer for a period of weeks I had occasion to be in a city, doing some work in a building which was so located that practically all the tourist visitors to the place passed it. What I saw first made me want to laugh, then weep, and finally to go out and shout something from the house tops about women in trousers. I'm not the fussy sort and I believe in letting people do pretty much as they please without interfering just because they don't happen to suit me, but this time I almost lost my principles and went out campaigning.

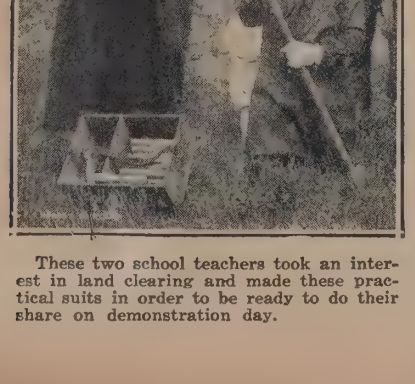
In the first place, my conviction is that downtown streets are no place for trousers on women. Secondly, I believe that the feelings of the onlookers should be considered some and if a woman's figure is just too out of joint she should have a heart and stick to skirts; and thirdly, I believe that when women put on trousers and parade with the obvious wish to attract attention they should be asked by somebody—anyone from the chief of police up or down—to fade out of the picture.

Oh, the sights I saw! Two young women on parade in long white sailor trousers, their eyes self-consciously stealing a look here and there to see if they were noticed; a large woman pregnant at least seven or eight months, in khaki knickers, walking defiantly along as much as to say, "I have a perfect right to do this;" a pinched little child-mother in a cheap, soiled trouser outfit, opening her shirt to nurse her baby; weary looking mothers of families going on vacation sight-seeing trips dressed in any sort of knickers and sweaters, desiring only to save work and be comfortable; a few school teachers out for a summer lark, feeling and looking very self-conscious in their new outfits; young girls, straight and slim, at ease, out for a day of fun and freedom in tweeds. For all except these last it would have been a hard job to find anything more unbecoming and, if they would admit it, not really half as comfortable as a good, short skirt with enough pleated fullness to make walking easy.

Only the girl with the boyish figure, straight up and down both front and back, ever need delude herself with the idea that trousers add any charm to her appearance. Thousands have taken to them under the impression that there is something "cute" about them—and there is, but only when on the right person and when in the right place. An evening dress, however lovely, looks silly at a picnic but no more so than do trousers that are worn in the wrong place.

In the old days when women's waists, to be ideal, must be no larger than the span of a man's hand, when skirts were floor length in front and trailed a yard behind, such women as Mrs. Amelia Bloomer—mother of the now-common bloomer—had a real cause but that was 75 years ago. Today the freedom allowed by any dress of good style is such that trousers are not needed for comfort except in a few instances. I don't see how anyone could object to them for horseback riding, for tramping in brushy places, for certain outdoor sports and games, and even for some kinds of work, but how any woman can put them on with the idea of improving her appearance, beats me.

But, then, my last summer's experience may have affected my brain.—LUCY THOMPSON.



These two school teachers took an interest in land clearing and made these practical suits in order to be ready to do their share on demonstration day.

Flies

Old Mother Hubbard
Went to her cupboard
To get her children some food.
No flies were there
It was dusted with care
And all things were wholesome and good.

Every rose has its thorn, they say, and I sometimes think that the biggest thorn of summer is the flies it brings; flies to goad and make the horses nervous, flies to make the gentle old cow kick the bucket over, flies to spoil the noon time nap, and flies to get into the food.

Flies are worse some places than others and an ounce of prevention in their case is surely worth the pound of cure. They are the filthiest possible creatures and love nothing so much as all sorts of dirty places. They will breed in other places but they don't like to and one of the best things you can do if you want to diminish the number of flies around your place is to keep away from your house and barns all accumulation of manure so far as possible.

Professor G. W. Herrick of the State College at Ithaca, New York, says this about flies:

"Flies tend to gather around an outside door that leads directly into a kitchen because of the warm air and odor of cooking food. For this reason it is wise to have a screened-in porch over the back door with a well screened door to the porch. The flies do not gather so thickly about the porch screening and this lessens the possibility of their getting into the house.

"Flies and food are not a safe combination. They breed in filth and they almost invariably carry disease germs with them in their search for food. If breeding places cannot wholly be eliminated the next best thing is to keep the flies from food.

"For those that manage to get past the screens, sticky fly paper is an effective means of destruction. Pyrethrum powder (you can get it at the drug store) sprinkled on door and window sills at night is another trap but it should be swept up and burned early in the morning before any animal or child has a chance to get into it.

"For rooms where there is little food, a weak solution of formaldehyde will attract and kill many flies. A teaspoonful of a forty per cent mixture of this poison in a cupful of milk or water sweetened with a little brown sugar will catch a great many, especially if you put a piece of bread in the saucer. This is poison, however, and great care should be taken about leaving it around."—LUCY THOMPSON.

"My Husband Doesn't Like It"

Don't women just love to get together and tell what their husbands do and don't like! The men would certainly feel flattered and important if they could hear almost any group of women at almost any afternoon gathering.

"My husband simply won't eat anything with nutmeg in it," says Mrs. A. "Why, if I just put in one grain he could tell it," she adds proudly.

"I have an awful time with my husband about new dishes," puts in Mrs. B. quickly, not to be outdone. "Jim always says, 'You can eat the frills, but give me good old meat and potatoes' and I do have such a time trying to make any changes in our meals."

All the other wives, then, tell what their husbands "simply won't eat" and finally they—I feel guilty for I really should be saying "we" all this time instead of trying to pretend that I don't do this, too—finally *we* get around to the subject of salads. It used to end in uniform agreement that no husband would eat any salad but now that constant dripping has worn the stone away a little and food experts have educated us as to the value of salads, we occasionally find a man who will tackle almost any kind and rarely do we find one that doesn't like fruit salad. Men are like children in that they all have a sweet tooth and anything that appeals to this is sure to win them in the end.

Summer is the time for educating people to eat fruit salads for it is then that we can have the greatest variety of them. I almost believe that we need salads more in summer than

(Continued on next page)

Miscellaneous Fashions



No. 2741—Smart Daytime Frock. C sizes 36, 38, 40, 42, 44, 46, 48, and 50 bust measure. The 36-inch size requ yards of 40-inch material with 1½ ya 20-inch contrasting.

No. 2805—Smart for Many Occasions in sizes 16, 18 years, 36, 38, 40, and 42 bust measure. The 36-inch size requir yards of 40-inch material with ⅝ yd 40-inch contrasting.

No. 2847—Youthful Interpretation. C sizes 16, 18 years, 36, 38, 40, 42, and 44 bust measure. The 36-inch size requir yards of 40-inch material with ½ yard inch contrasting.

No. 3032—Charmingly Simple. Cuts in 16, 18 years, 36, 38, 40, and 42 inche measure. The 36-inch size requires 2⅞ a of 40-inch material with 3½ yards of i ribbon.

No. 3082—Travel or Sports Dress. C sizes 16, 18 years, 36, 38, 40, 42, a inches bust measure. The 36-inch si quires 2⅞ yards of 40-inch material w yard of 36-inch contrasting.

No. 3073—Dainty Shirring. Cuts in 6, 8, 10, 12, and 14 years. The 8-ye requires 1¾ yards of 40-inch material.

No. 2786—Dainty Frock. Cuts in size 10, and 12 years. The 8-year size r 1⅞ yards of 32- or 36-inch material.

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Enclose 10c in stamps or coins (wra carefully) for each pattern ordered. your order to Fashion Department, Fa Dairyman, Fort Atkinson, Wis. Ever tern is seam-allowing and guaranteed perfectly. Do not fail to state size.

Our patterns are made especially for the leading fashion designers of New City. No stock of patterns is carried office and, since all orders are forward the factory, kindly allow a reasonable for delivery of any pattern you order.

The first sandwich was said to have been made in the seventeenth cen Replicas of the original are exhibited in glass cases at all railway sta

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rfect for capping machines or for hand pping.
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d anywhere, DAISY FLY KILLER attracts and all flies. Neat, clean, ornamental, convenient and cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed.

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from your dealer.
OLD SOMERS Brooklyn N. Y.

We are always pleased to receive suggestions in regard to every department of Hoard's Dairyman.

at any other time, too, for their acids, minerals, and vitamins do fit in so well with sizzling, torrid days and heavy, hot nights. People should be taught to eat the lettuce leaf from under the salad for with new knowledge of the food value that is in it, the old idea has disappeared that it is not genteel to eat the lettuce.

Of course, there are endless fruit salads that require buying something from the store but anyone who has a garden or orchard can concoct a salad that is just as wholesome and practically as tasty as if the ingredients were bought. Ripe apples sliced with the skins on on a lettuce leaf, peeled peaches, unpeeled pears—any of these alone or with chopped nuts make a delicious summer salad. My favorite dressing for fruit salad is either sweetened whipped cream or else French dressing made with oil and vinegar shaken up in a bottle with a little salt and sugar.

Cottage cheese makes a good base for summer salads and mixed with bits of pineapple and dressed with whipped cream it is delicious. Another way to use it is to take several of your choice, smooth sweet peppers and stuff them tight with the cottage or cream cheese, chill thoroughly, and then slice. Arrange the slices on a lettuce leaf and serve with French dressing. By the way, if your garden gives out so that you don't have lettuce for a time, you can serve salad very attractively on a large, fresh grape leaf.—LUCY THOMPSON.

How to Fold Them

I was doing my first ironing as a bride when the neighbor whom everybody called "Old Lady M—" dropped in. I don't know just why they did it and I know that as children we were forbidden ever to "old lady" or "old man" anybody, but nevertheless I had grown up on "Old Lady M—." She was the kind who insisted on managing everything for everybody yet I doubt if in her life she ever had a mean thought; she was simply brusque.

I set her down in the kitchen and went on with my ironing, taking special pains now that her eagle eye was on me.

"Don't ever iron napkins that way," she suddenly roared at me. "Hasn't your mother told you that if you iron the creases of a linen napkin down flat they will soon break through? Give me the iron....Now see here, iron your napkin nice and even and then just crease it with your hands....Another thing—when you're doing your big napkins fold them into threes one washing and into fours the next and that way you keep your creases coming in a different place. Oh, you'll know a thing or two," said "Old Lady M—" witheringly, "after you have been married as long as I have."

Her ideas were both good and she could probably have told me a good deal more I didn't know about folding clothes. Shirts, for instance, used to be the bane of my life but now I find them as easy to do as the next thing. If you want to be very precise, button them first, then lay them out flat with the buttons down and fold the side seams over to the center back, laying the sleeves lengthwise. Double the bosom back and you have a compact arrangement. Often, however, I do not fold shirts at all but simply put them on hangers in the closet as I always do dresses.

The best way to fold towels and pillow cases is in threes lengthwise; tablecloths are folded in either three or four lengthwise folds—four is easier—and sheets are best done the same way. As to handkerchiefs I never bother putting them into the compact little squares we used to think necessary; two folds make them look just as well and much time is saved.—LUCY THOMPSON.

Cold Pack for Picnic

Keeping milk and butter cold for picnic use and supplying the cake of ice for iced tea or cold drinks has always been a problem for the picnic hostess. She will be delighted with a home-made portable refrigerator suggested by Miss Helen Andres of the National Dairy Council.

This little ice-box is made by lining a firmly woven market basket with asbestos and then with zinc. A wicker cover also lined with asbestos and zinc should fit firmly. If possible, a market basket with a cover in two parts should be secured, as a zinc partition should divide the ice itself from the portion where the butter or other cold foods are kept. If it is necessary to open the side where the foods are the ice will not melt so quickly with the double-topped basket. Such a portable refrigerator could be easily made by a tinsmith if the right kind of basket cannot be purchased.

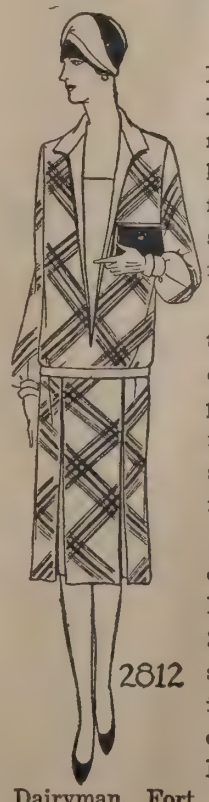
"Think of the pleasure of having really cold food on a hot day out-of-doors," says Miss Andres. "If one is going on an all-day motor trip with children, the portable refrigerator is particularly convenient for keeping baby's milk."—Household Nutrition.

Hat Boxes

If you are thinking of buying a small piece of hand luggage for a short trip and are undecided as to what it shall be, may I suggest that you at least look at the hat boxes. These useful articles are round with a handle at the side and come in several sizes; they are moderate in price and there seems to be no limit to the amount of clothing they will hold. A friend of mine made a two weeks' trip to New York with nothing more than one of these and carried enough clothing of several visits. The soft, collapsible boxes are not only cheaper but they are lighter and easier to carry though, of course, they will not stand so much wear.

Most of them have in the bottom a sort of hollow dome that may be taken out and packed full and then replaced for a support for the extra hat. Clothing fits around this nicely and if you are not taking an extra hat or are carrying the modern kind that folds or rolls, you can leave this dome out entirely.—LUCY THOMPSON.

Lines That Slenderize



In our SUMMER Fashion Magazine, appear many styles that help to make the figure appear more slender and youthful.

In addition to these are a hundred or more especially suitable for the Miss and some cute styles for children.

Also articles devoted to Beauty, Millinery, etc. Send 10 cents in stamps or silver for your copy, addressing Fashion Dept., Hoard's Dairyman, Fort Atkinson, Wis.

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by using pure, mild

Diamond Crystal

THE fruits and vegetables you "put up" can be as delicious and full of flavor next winter as the day you picked them. They need lose none of their flavor and goodness in the canning.

Simply use Diamond Crystal where your canning recipe calls for salt — immediately you have made certain of the flavor. Diamond Crystal is a pure, mild salt that dissolves quickly and completely, and thoroughly blends with the fruits and vegetables. It brings out all the fine, delightful flavors and makes them more enjoyable to the taste.

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There is a Diamond Crystal Salt for every farm use—for canning, for table and for cooking, for butter and cheese-making, for livestock, for curing meats. Ask for Diamond Crystal at the store where you trade.

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We should like to send you a generous sample of Diamond Crystal Shaker Salt and the interesting booklet, "101 Uses for Diamond Crystal Salt," without cost or obligation to you.

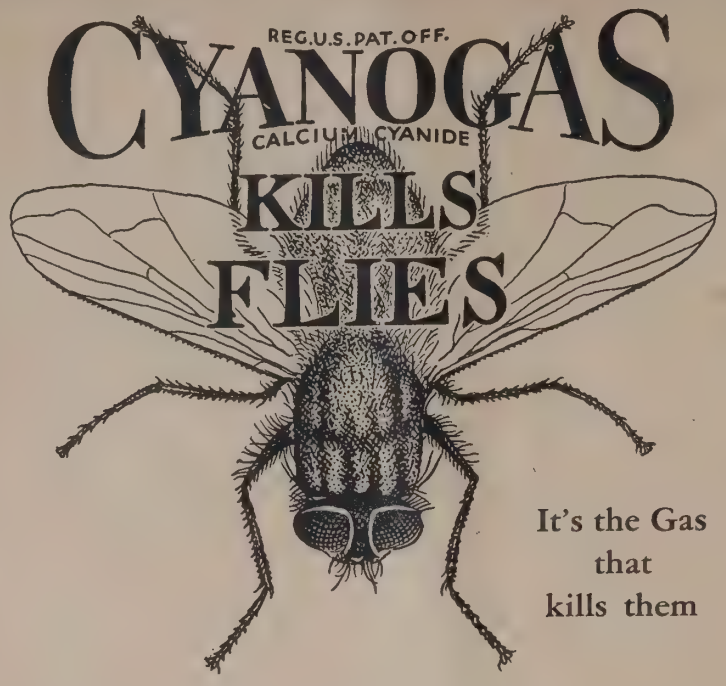
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Please send me, free, trial package and booklet, "101 Uses for Diamond Crystal Salt."
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HERE is a material that will keep your dairy barns free of flies at about one-fifth the cost of other methods—and without the necessity of using dusters or other cumbersome equipment.

All you need is an old spoon or piece of cardboard with which to apply the Cyanogas A-Dust. Turn the cattle out of the barn, scatter the dust and then close the barn tightly for two hours. That's all there is to it. Cyanogas gives off a gas that kills the flies. One or two fumigations a week will keep them under control.

Cyanogas A-Dust can also be used for control of house flies in Laboratories, Packing Houses, Feed Stores, Restaurants, etc.

Ask your dealer for Cyanogas A-Dust, or we will send you a five pound tin for $2.50, express collect. This is enough Cyanogas to fumigate an average-sized barn ten times.

Write for leaflet 171 which gives full particulars.

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DAIRY MARKET NEWS

The Feed Market Situation

(By Grain, Hay, and Feed Market News Service, U. S. Bureau of Agricultural Economics.)

Feed prices in general made a long expected decline in mid-June although continued strength in coarse grain prices imparted some firmness to feed markets. Bran and shorts declined $.50—$3 a ton for the period but moderate offerings of flour middlings and red dog were readily absorbed and held practically steady at most markets. Eastern demand for the lighter wheat feeds became quiet and trade reports indicated that very little hard winter wheat bran has recently been working to eastern markets. Mills at Buffalo were beginning to press sales of feed and some feed in transit could be bought at slightly less than going quotations. Bran and shorts were generally easier in central western markets while quotations declined markedly in the Northwest. Southwestern markets, however, were relatively firm for bran while prices of shorts showed an advance. Central states feed mixers and nearby jobbers were inquiring for the heavier feeds at Kansas City while red dog was in fair request by southern and Pacific Coast dealers. Mill feed prices were generally easier in the Southeast.

Linseed meal worked lower with wheat feeds, particularly in eastern markets where prices had been well maintained. Production of this feed has not been large but demand recently has become small.

Cottonseed meal quotations were fractionally advanced at some distributing markets, although eastern and central western points report only scattered demand for limited quantities while at Buffalo resellers were unable to make sales even at material discounts under current quotations.

Gluten feed shared in the general market weakness although manufacturers' quotations ruled unchanged. However, it was becoming more easy to secure shipments of this feed from manufacturers and the substantial premiums which had been secured by retailers for immediate shipment were materially reduced. Only limited amounts were available from the manufacturers for immediate shipment but consuming demand for this feed was hardly equal to those offerings.

Hominy feed was also more plentiful but the tendency to declining prices was largely checked by the strength recently displayed by the corn market. Prices declined about $1.25 a ton at Buffalo but held practically steady at central western markets.

Quoted June 23

Standard spring wheat bran: $30.50 at Buffalo, $32.50 at Philadelphia, $28 at Chicago, $25 at Minneapolis. Hard winter wheat bran: $34 at Philadelphia, $26.50 at Omaha, and $26 at Kansas City. Soft winter wheat bran: $32 at Cincinnati, $28.50 at St. Louis, $30.50 at Chicago.

Standard wheat middlings: $32.50 at Buffalo, $35 at Philadelphia, $30.50 at Chicago, $28 at Minneapolis. Soft wheat middlings: $37.50 at Cincinnati, $33.50 at St. Louis. Gray shorts: $32.50 at Omaha, $32.50 at Kansas City.

Cottonseed meal (43%): $45 at Buffalo, $47 at Philadelphia, $42.75 at Cincinnati, $43.25 at Chicago, $41.50 at Kansas City.

Linseed meal (34%): $46.50 at Buffalo, $49 at Cincinnati, $46 at Chicago, $45.50 at Minneapolis, $49.60 at Omaha.

Gluten feed: $39 at Buffalo. White hominy feed: $38.25 at Buffalo, $40.25 at Philadelphia, $37.50 at Chicago. Alfalfa meal: $25.50 at St. Louis, $26 at Chicago, $23.50 at Omaha, $22 at Kansas City.

Butter and Cheese in June

Butter averaged 42.5 cents in New York for the first 25 days of June, a decline of one cent from May. This is 1.3 cents above a year ago and is the same as the June average for 1925. Market reports show more butter going into storage, with receivers reluctant to take heavy purchases at any advance in price.

Cheese prices held steady during the month averaging 22.6 cents on the Wisconsin B... This is slightly above the May average nearly three cents above June of last year and a tenth of a cent higher than two years ago.

June Milk Prices

(From Report by U. S. Dept. of Agricu...

Table I represents a comparison of the prices received by producers in 104 local markets, for fluid milk (test 3.5%) f. o. b. shipping point or distributors' country ...

Table I—June Producers' Prices by Geograp... Sections

Sections	Range of prices per cwt.	Comparis... average p... 1927 June	1927 May
New England	$2.73—3.95	$3.33	$3.33
Middle Atlantic	2.20—3.00	2.76	2.78
E. No. Central	1.57—3.10	2.45	2.51
W. No. Central	1.40—3.10	2.11	2.12
South Atlantic	2.55—5.00	3.46	3.48
E. So. Central	1.78—3.39	2.22	2.25
W. So. Central	1.70—2.70	2.20	2.25
Mountain	1.70—3.20	2.39	2.42
Pacific	1.46—3.16	2.47	2.48
United States	1.40—5.00	2.63	2.67

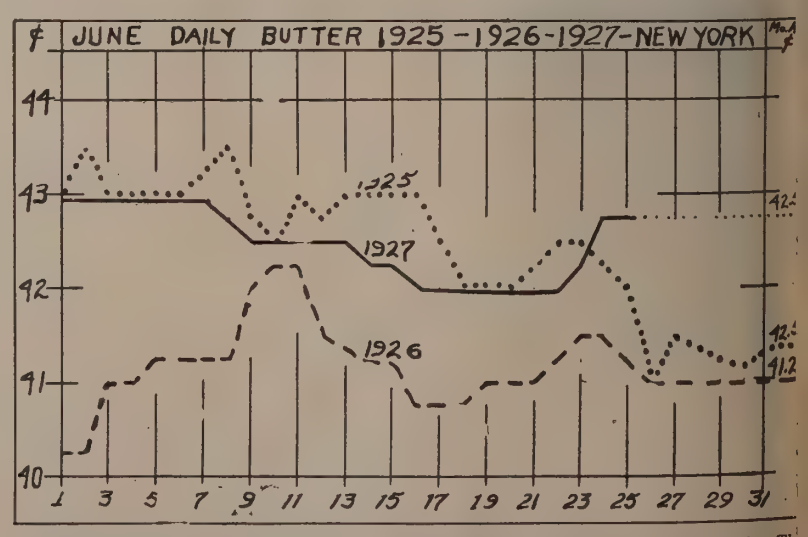
Table II shows for certain represen... city markets the prices of standard grade ... (Grade B, test 3.5%) received by pro... f. o. b. city and paid by consumers.

Table II—June Producers' Prices F. O. B. Cl... Consumers' Prices

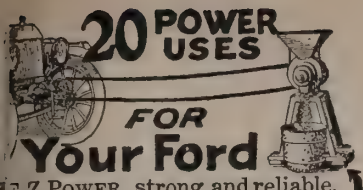
	Producer received per cwt.	Con... p... pe...
		C
Birmingham, Ala.	$3.49—3.91	
Phoenix, Ariz.		10-
San Diego, Calif.		
San Francisco, Calif.	3.11—3.21	
Denver, Colo.	1.92	
Hartford, Conn.	4.22*	
Washington, D. C.	3.37*	
Jacksonville, Fla.	3.37*	17-
Chicago, Ill.	2.93	
Indianapolis, Ind.	1.92—2.10	
Des Moines, Ia.	2.55*	
Topeka, Kans.	2.00—2.10	10-
Louisville, Ky.	1.96—2.01	
New Orleans, La.	2.81*	
Baltimore, Md.	3.55*	
Boston, Mass.	3.64*	
Detroit, Mich.	3.00*	
St. Paul, Minn.	2.60*	
St. Louis, Mo.	2.20	
Butte, Mont.	2.60	
Lincoln, Nebr.	1.75	
Trenton, N. J.	3.41*	
New York, N. Y.		
Cleveland, O.	3.24*	13-
Tulsa, Okla.	2.10—2.45	12-
Portland, Ore.	2.00	
Philadelphia, Pa.	3.49*—3.52*	
Pittsburgh, Pa.	3.45*	
Providence, R. I.	3.64*	15
Sioux Falls, So. Dak.	2.50*	
Dallas, Tex.	2.60	
Richmond, Va.	3.93*—4.05*	
Seattle, Wash.	2.49	
Spokane, Wash.	2.15*	
Milwaukee, Wis.	2.85*—2.90*	

*Basic prices for fluid milk.

Prices paid per hundred pounds for ... ard grade milk (Grade B, 3.5%) at the ... ers' country receiving stations or at the...



Butter prices in June ruled steady, averaging 42.5 cts. a pound in New York. Th... market toward the close of the month strengthened to nearly its opening price of 43 cts



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E-Z POWER, strong and reliable, runs directly off the crank shaft. No side pull on bearings, to wear engine and tires; no holes to drill. Attach in few minutes. Many users never remove it. Doesn't affect steering. Does all the work of any separate farm engine. Portable, powerful, convenient—backed by the dependability of your Ford engine. Fits any model. None need to do without power now because of cost.



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Write today—for NEW Witte Engine Book telling how you can now buy a WITTE Engine for ONLY $5 down, balance small EASY Payments. No interest. Absolutely the greatest engine ever made. Used all over the world. Guaranteed for a lifetime. Runs on All fuels. Increase your farm profits $500.00 to $1000.00 a year. 1½ to 30 h. p. Also 3-in-1 Saw Rigs and Pumpers.

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If you know that you can cut milk costs in half by adopting the "minimum milk method," using dry skim milk? Hundreds of dairymen who sell all their whole milk are making this big saving. They simply mix a pound of dry skim milk with a gallon of water, making a money-saving mixture which young calves will thrive on. And they buy a pound of dry skim milk for half or less of what they receive for a gallon of whole milk. (1 gallon whole milk contains 1-pound milk solids.)

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FREE Write today for "Better Calves" giving successful feeding methods. State number of calves you feed. We'll tell you where to get dry skim milk.

Mixed—1 pound dry skim milk to 1 gallon of water—is also good for pigs and poultry. It is splendid also for baking.

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TIMONIUM, MARYLAND
Three Miles from Baltimore City Limits
SEPTEMBER 4, 5, 6, 7, 8, 9 and 10

Cattle Department Entries close August 20, 1927	Premiums	$8,480
Swine Department Entries close August 24, 1927	Premiums	5,122
Sheep Department Entries close August 22, 1927	Premiums	1,500

Additional Special Premiums for Cattle, Swine and Sheep. Liberal Premiums in all other Departments. Penna. R. R. tracks running into Fair Grounds. When making your arrangements to show, include us in your list.

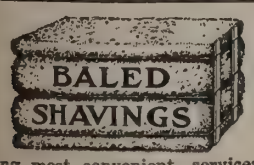
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Know what they are producing. Such knowledge pays big dividends in cash.

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For bedding most convenient, serviceable and sanitary. Write for prices.
Peterson Fuel Company, Neenah, Wis.

Buy from Hoard's Dairyman advertisers and tell them you saw their ad in Hoard's Dairyman.

ducers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III—June Prices at Country Stations

Cities	At country stations	Freight zone to which prices apply
New Haven	$3.70*	28c rate
Washington	2.79*	35c 10-gal. can
Chicago	2.40	All
Baltimore	2.97*	35c rate
Boston	2.88*	181—200-mile zone
St. Louis	1.70	34c rate
Trenton	2.85*	41—50-mile zone
Buffalo	2.62*	28c rate
New York	2.95*—3.00*	201—210-mile zone†
Cleveland	2.86*—2.93*	All
Philadelphia	2.91*—2.95*	51—60-mile zone
Pittsburgh	2.70*	All
Scranton	2.55	30c rate
Dallas	1.90—2.10	All

*Basic prices for fluid milk. †53c rate.

The following net prices were reported paid to members of producers' associations supplying the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and "Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade, and the latter applying to that portion classed as "Surplus," which is used for manufacturing purposes:

Table IV—Net Prices Paid Members of Producers' Associations for 3.5% Milk

Cities	Paid*	Period	Previously announced price for same period Basic	Surplus
Hartford	$3.76	Apr.	$4.22	Butter markets
Des Moines	2.25	May	2.65	$2.10
Baltimore	3.38	Apr.	3.55	Butter markets
Boston	2.42‡	Apr.	2.86	Butter markets
Detroit	2.84	Apr.	3.00	Butter markets
St. Paul	2.50	Apr.	2.70	All milk pooled
New York	2.44†	Apr.	2.95	$2.31—2.52
Akron	2.79	May	3.20	$2.00
Cleveland	2.75	May	3.24	Butter markets
Pittsburgh	3.035	Apr.	3.45	Butter markets
Milwaukee	2.49	May	2.90	Butter markets
Duluth	2.22	May	2.58	All milk pooled

*f. o. b. city unless otherwise indicated. ‡181—200-mile zone. †201—210-mile zone.

Table V gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat:

Table V—June Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Akron	15—18	20	8	10	16
Asheville	19	25			20
Baltimore		30	14	15*	16
Boston	18½	26	10		
Buffalo	14	26	10	15	22
Chicago	17—18	25	10—20	15*	16
Cleveland	19—20	25	12—13	10—16	17—22
Columbus	17		7	10*—20*	14
Denver	14		8	10*	14
Des Moines	14—20		9	14*	13—14
Detroit		25	35		16
Duluth	14	25	8		16—17
El Paso	17		10	20*	14—17
Hartford	20—25	25—35			13—18
Indianapolis	16		10—12	15*	13
Jacksonville	25		10—12	30	20—30
Kansas City		25	10	20	10—15
Lincoln	13	15	9	15	9
Los Angeles		28—30	10		17
Louisville	16	24	13		15
Miami	30	25—35	15—18	20—28	25—35
Milwaukee	14—18	25	6	9—10	12—14
Minneapolis		22	13	12*	15
New Orleans	18	31	14		17
New York	30	28			
Omaha	15	15	10		10
Philadelphia	15—16	30	9—13		17
Pittsburgh		25	10		17
Portland	14—15		12	15	15
San Diego	20	30	9	15	15
San Francisco		25	14	20	20
Seattle		20	20—25	15*	14—15
Sioux City		25	6	10*	10
St. Louis	18	25	10—18	15	17
Trenton	14	26	13		15—16
Washington	18—20	30	15	15—20	16
Wilmington	20		10	13*	17

* 12-oz. package. †18—25% fat.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on June 1, figures being given in thousands of pounds (000 omitted):

	June 1 5-yr. av.	June 1 1926	June 1 1927
	lbs.	lbs.	lbs.
Butter, creamery	17,852	30,561	25,340
Cheese, American	25,811	39,346	35,780
Cheese, Swiss	4,136	4,741	5,322
Cheese, Brick	1,466	1,931	1,808
Cheese, Limburger	634	1,068	1,313
Cheese, All other	5,553	5,081	6,635

These holdings include stocks in both cold storage warehouses and packing house plants.

Twin City May Milk

The Twin City Milk Producers' Association of Minnesota paid $2.35 a hundred for 3.5 per cent milk delivered in St. Paul during

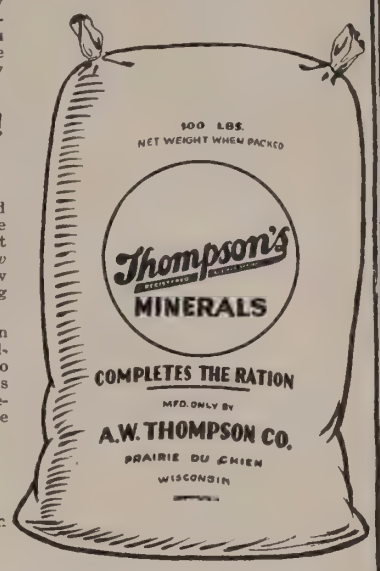
(Continued on page 710)

ANNOUNCING Thompson's MINERAL FEEDS

The Pioneer Mineral Feeds of the Leading Dairy State

A balanced blend of the purest and choicest mineral ingredients obtainable; developed by practical veterinarians, chemists, and feeders to supply the exact elements needed to correct specific weaknesses, aid in assimilation, build bone and blood, and maintain the vigorous health that means livestock profits.

Thompson Minerals have been successfully used for many years. They are easily digested and appetizing; and are sold under a positive guarantee to immediately refund the price if their purchaser is not completely satisfied with results.



100% Pure — NO FILLER!

Experiment Stations Recommend Them. Good Feeders Feed Them

Mineral feeds are most readily assimilated by cattle in summer, when pastures are fresh and green and there is plenty of direct sunshine. Start feeding Thompson's *now* and reap your profits in greater milk flow from your cows and faster gains in feeding cattle.

Dairy, Swine and Poultry Brands, put up in leakproof, fibre-lined sacks and sold by leading dealers at moderate prices. If unable to secure them from your dealer, send us his name. When you are convinced of the remarkable benefits of Thompson Minerals we will see that you are supplied.

Valuable literature on feeding free

A. W. THOMPSON CO.,
Prairie du Chien Wisconsin
The Oldest Wisconsin Manufacturers of Mineral Feeds

☞ This is the first of a series of advertisements telling about the Mineral Feeds it pays to feed. Hoard's Dairyman has been selected as the first medium in which to advertise, because we know that its readers have an intelligent interest in mineral feeding and are in the habit of buying Quality Products.

KEEP TAB ON YOUR COWS!

Send 5c in stamps for samples and prices of our weekly and monthly MILK RECORD SHEETS

Hoard's Dairyman Fort Atkinson, Wisconsin

Fords Milker

Electric or Gas Engine

$90



Single Unit Complete

Save Milking Drudgery

Send for our FREE booklet No. 20

Fords Milker is used by thousands of farmers who are getting more and premium-priced milk with it. Cows like it. Used on prize herds. Saves time and hard work, easy to operate and clean. Designed by men who have spent a lifetime in the business. Made with heavy aluminum pails, and best materials throughout. Does better work, lasts longer, and costs less.

You owe it to yourself to investigate. Send for Booklet No. 20

Distributers: Write for open territory.

Myers-Sherman Company
213-15 N. Desplaines Street, Chicago, Ill.

New! A JUNIOR Pasteurizer *and* Cooling Unit

An ideal outfit for the dairyman--a complete unit for pasteurizing and cooling that is just as efficient as larger and more expensive units. Keeps bacteria down and milk sweet for a longer period of time Designed for the dairyman--and priced for the dairyman. Write for information.

THE SHARPLES SEPARATOR CO.,
West Chester, Pennsylvania
Dept. L.

Sharples

Watch our Special Opportunities Page for real farmers' bargains.

Three ways to Cleaner milk..

and clean milk pays!

1—Put Johnson's Filter Cloth over your pail at milking time, and keep out hairs and flying bits of dirt.

2—Transfer the milk each time through Johnson's Filter Cloth.

3—Use Johnson's Cotton Discs when you strain milk into cans for market.

In appearance and in bacteria count you'll have cleaner milk—and clean milk pays!

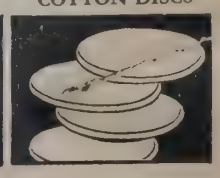
Ask your dealer to show you these Johnson aids to cleaner milk—in sizes to fit *your* needs. Or fill out this coupon and mail it *today!*

JOHNSON & JOHNSON, Dept. H 525
New Brunswick, N. J.
Please send me FREE samples and booklet on your Filter Cloth and Cotton Discs.
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Address_____

Johnson & Johnson

FILTER CLOTH COTTON DISCS







HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

National Dairy Show Club Camp at Memphis

Tennessee 4-H club members and leaders will be hosts for the junior department of the National Dairy Exposition at Memphis, October 15—22.

G. L. Herrington, Tennessee State Club Leader, says that the dairy club events will include a cattle judging contest, demonstration contest, showmen's contest, and exhibition of club calves. A total of $3,000 in club premiums is offered in group and individual classes for Holsteins, Jerseys, Guernseys, Ayrshires, and Brown Swiss.

A club camp accommodating 300 members will be held on the exposition ground. A ride down the Mississippi and visits to Delta cotton plantations are program features.

Dairy club activities will be under the supervision of a committee of state club leaders consisting of T. A. Erickson, Minnesota; E. G. Jenkins, Maryland; and G. L. Herrington, Tennessee.

A Junior Makes Money With Cows

HOARD'S DAIRYMAN JUNIORS:—Lawrence Fleming, a student in the Troy High School, Bradford County, Pennsylvania, has demonstrated his ability as a progressive dairyman by making a net profit of $704.04 in one year from his care and management of two pure-bred Holstein cows.

Lawrence selected dairying as his project because, as he explains it, "very early in my life it was my duty to have charge of feeding the Holstein calves on our farm. As I grew older, the calves became splendid cows and the more I worked with them, the better I liked them."

Lawrence tells an interesting story of his work during the first year: On November 15, 1924, he purchased two pure-bred Holstein cows for $200 each. They were due to freshen in November. He made arrangements to buy from his father hay, silage, and straw and to pay for them out of the monthly milk check. Stable rental and other expenses were also charged.

Lawrence followed scientific methods in feeding his cows. Each cow received from 30 to 35 pounds of silage daily, 10 pounds of mixed hay, and one pound of grain to each four pounds of milk. He changed his grain ration several times during the year and no apparent difference was noted in the milk flow due to the change. One ration included the following: 60 pounds oil meal, 100 pounds wheat bran, 200 pounds corn and oats chop, 40 pounds wheat middlings, and 100 pounds gluten meal. The second grain mixture which was fed a portion of the time included 300 pounds gluten meal, 200 pounds hominy, 200 pounds wheat bran, 100 pounds oil meal. The cows were fed and milked twice daily. In no case did they receive more than general farm care.

Lawrence purchased and mixed his own concentrates. The milk was marketed, along with the other milk produced on the farm, through the Dairymen's League Co-operative Association, and Lawrence was credited according to the quantity produced by his cows and the test as reported by the Association.

One of the cows, Dean Segis Alcartra, averaged about 50 pounds of milk per day for the first three months after freshening. Lawrence sold her for $300 at the end of the project. During the time Lawrence owned her, she dropped two bull calves.

The other cow, Gertrude Segis Alcartra DeKol, freshened in December, 1924, with a heifer calf and was soon producing 60 pounds of milk a day. In May, 1925, Lawrence was offered $320 for her, so he made the sale and then rented a cow for $10 per month to complete the project.

Lawrence kept careful records and accounts of his business and found that he had made a labor income of $704.04 during the year from his dairy work. He has invested a part of his earnings in pure-bred Holsteins.

The valuable part of Lawrence's work is not the financial side, however. He is building a foundation for a profitable dairy herd under his own management in the very near future. As he explains it, "the financial profit was not the only gain I made. I now feel quite confident that I can feed and manage dairy cows with at least a fair degree of success."

In speaking of the success of Lawrence's project, L. R. Guillaume, the agricultural supervisor of the Troy school, says: "Lawrence did all the work on his project. In addition he had a 9-acre buckwheat project which was a success. He is one of the best boys to help at home that can be found. His health is not the best but he does not use that as an excuse for neglecting his work."

Pennsylvania. GEORGE F. JOHNSON.

Harmonicas in Club Work

"Several clubs have already discovered that the harmonica offers the simplest and most usable means for bringing instrumental music into the club meetings," reports Lorenzo F. Kinney, Jr., Rhode Island state club leader.

"It is inexpensive, convenient to carry around, and any boy or girl with any interest at all in music can learn to play it."

Harmonica contests were a part of the musical program at Camp ... wards, Kingston, Rhode Island, ... month.

Calf Club Changes Coun...

One hundred fifty boys and gi... members of the largest dairy ... club in South Dakota, are slo... changing the agriculture of a wh... county.

Until 1924, Marshall County ... almost entirely a small grain proc... ing section having more than ... share of crop failures. Then Cou... Agent L. D. Nichols organized a ... ry calf club. As a direct result of ... calf club a cow testing associa... was organized. Says Mr. Nich... "The cow testing association and ... calf club are working hand in han... make successful dairymen out ... farmers who have heretofore depe... ed on grain for their main income

In organizing the calf club, ... Nichols and H. M. Jones, now st... club leader and formerly dairy ... cialist, enlisted the support of part... and business men. Bankers bac... the work with loans for the purch... of calves. Eighty-six boys and gi... signed up.

Calves from cows producing ... lbs. of butterfat or more, sired ... pure-breds, and tuberculin te... were purchased for the club mem... at a cost of from $30 to $50 a hea...

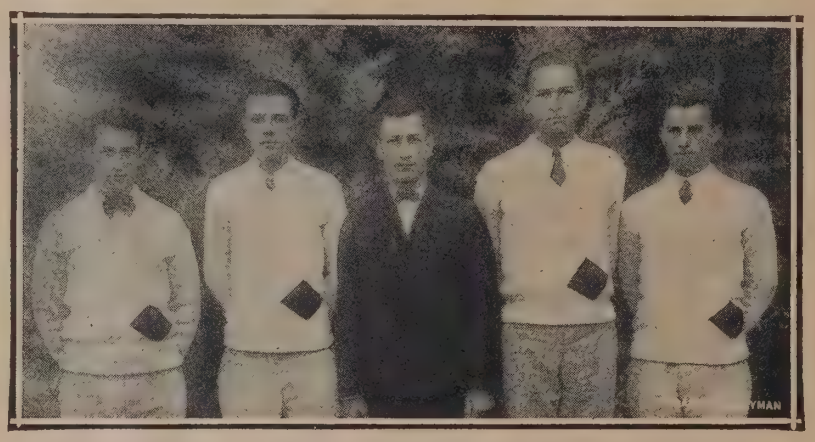
Club meetings were held ... month. The study program inclu... lessons in caring for the dairy ... feeding, dairy judging, and mak... rope halters.

For the last two years Mars... County has sent a carload of ... calves to the South Dakota St... Fair; winning first and second ... pure-bred Holsteins and second ... third on grade Guernseys in 1925, ... in 1926 taking first, second, and th... in both breeds. The county judg... team won second at the state fai... 1926, and Ethel Johnson, a membe... the club, was state champion da... calf club member.

Cow testing association records ... heifers owned by club members s... an average of 24.2 lbs. of butte... a month at first calving as compa... to the average of cows in the assoc... tion, 20.1 lbs.

"The testing association has ... plied the proof of production, and ... dairy club is introducing the foun... tion records to give dairying a s... in the community," says Mr. Nich...

No man can ever rise above tha... which he aims.



CHAMPIONS IN VOCATIONAL JUDGING CONTEST, 1926 NATIONAL DAIRY SHOW, DETROIT

Modesto, California, high school team, left to right—Eugene Boone, Leslie Lollich H. F. Chappell, coach, Earl Presnell, Ernest Sparks, alternate.



WINS $90.00 WITH CALF

Sara Wright, 11-year-old Jersey calf club girl of South Carolina, and her calf won first in club and junior champion at the state fair last year, and three firsts at county fair held at Spartanberg, totaling about $90.00.



EVELYN HARLEY, AN ALL AROUND 4-H CLUB GIRL OF CHEROKEE COUNTY, KANSAS

Evelyn is pictured above wearing the wool dress on which she won first prize at the Kansas State Fair. She is standing beside her pure-bred cow which she purchased as a calf. The cow produced enough butterfat to make 1½ lbs. of butter daily which Evelyn made and sold at 50c a pound, paying for the cow. Evelyn has the foundation of a good Jersey herd.



DO YOU KNOW BEANS?

Wallace Leeke, Indiana, says. "I am ... years old and wonder if you know bea... when you see them. I raised these T... mania beans which were 4 feet long ... weighed 8½ lbs. each."

Our Review Column

egular feature of the junior department, ing the contents of Hoard's Dairyman previous issue. Let's talk it over.]

he Land O' Lakes Creameries, oday stands as the leading suc- ul co-operative butter market- rganization in America," says L. Richardson in the June 25th of Hoard's Dairyman, begin- a discussion of the history and ods of this organization.

hen was the first co-operative nery established in Minnesota? 89 in McLeod County.

1921 how many co-operative neries were there? Six hundred forty-five producing 67.1 per of the total output of butter in esota.

hen was the Minnesota Co-oper- Creameries Association organ- On the call of A. J. McGuire, Extension Specialist of the esota Agricultural College, rep- tatives of over 300 co-operative neries met in St. Paul and per- d an organization on June 7,

hat is the Land 'O Lakes Cream- Inc.? This is an outgrowth of innesota Co-operative Creamer- ssociation and is a typical fed- d form of co-operative enter- with approximately 475 local neries, 26 of which are in Wis- n, as stockholders.

hat does this organization do? gers in each of the 16 districts in quality improvement. The ization has developed a plan eby the butter is assembled at a al storage plant where it is in- ed, graded, and shipped to mar- n uniform carload lots.

y has this organization been ssful? Because incorporated in y-laws of the first co-operative neries in Minnesota were three nal principles of co-operative ef- These were: one vote per mem- paying only the going rate of in- on money invested by stock- rs; and prorating the profits of usiness among the patrons in rtion to the business furnished e association.

w does Pendleton County farm lls? Limestone abounds in the of this Kentucky county making aradise for sweet clover and al- Honey bees and cows make land of milk and honey. (See 648.)

hat was the most popular meth- beauty culture among the Ro- ? Rubbing the face with pieces ead soaked in milk. (See page

hat is raised on a general farm lland? Dr. R. J. Mansholt oper- 140-acre general farm on which uises wheat, barley, oats, peas, , rape, mustard, caraway, flax, clover, red clover, sugar beets, es (for oil), and potatoes. He 14 head of dairy cattle, 20 , 60 chickens, and 9 horses. page 650.)

Junior Letters

A State Champion

d's Dairyman Juniors:—Three years hen they got the first bunch of dairy in here, I got a grade Guernsey calf. care of her all summer and in the fall er to the county fair. I did not get a nd, of course, was disappointed. next year I did not take her. That fall d a little heifer calf, and from her aid for herself.

spring I got a pure-bred Guernsey I took the heifer and the cow both to nty fair. The cow, Pansy, took third open class and cow and calf class. premiums amounted to $6.00.

heifer, Topsy of Out Look Hill, took and went to the state fair. Topsy out second down there and the two ms amounted to $14.00.

is on the dairy judging team and the ree highest got a trip to the National Show in Detroit. I was second. I ird in judging Jerseys at Detroit and warded a bronze medal by the American Jersey Cattle Club. The Blue Valley Creamery gave a trip to Detroit for the champion dairy calf club number. I was selected for that so I got two of the same trip.

When I got back, I had another little Guernsey heifer. I am going to let my sister have her to get a start with. My address is Britton, South Dakota.

Ethel Johnson.

Dairying in Missouri

Hoard's Dairyman Juniors:—I live in Lawrence County, in southwestern Missouri. Probably many of you juniors get the idea that we don't have snow and ice this far south, but that is wrong. We have snow quite often, sometimes as early as October and we have some very deep snows. And we have ice, so youngsters in Missouri enjoy skating as well as you do in the North.



EULA HILLHOUSE

I think when I wrote before (1924) I stated that the Carnation Milk Condensery had located at Mt. Vernon. Many changes have taken place since that time. More and better herds of Jerseys and Holsteins have been obtained. The farmers now are using sweet clover for pasture and are growing alfalfa for hay.

When the condensery first opened there were 267 patrons, they now have 1,065. It maintains 42 truck routes.

Lawrence County farms are being rebuilt, 5,500 tons of ground limestone were applied last year. There are three cow testing associations in this county. We belong to one of them.

I believe I told you in my other letter we were milking Jerseys. Well, we still are, we are milking eleven at the present time. I milk four and five night and morning. My address is Verona, Missouri.

Eula M. Hillhouse.

Juniors—Here's Some Record

Hoard's Dairyman Juniors:—April 6, 1926, I joined the Saline County Calf Club. There were 32 members. Each of us wanted a pure-bred Guernsey calf. We all chose bred heifers which made it better but making them cost each of us around $200.

A committee went to Wisconsin and purchased the 32 bred heifers, and had them shipped to this city.

May 6, 1926, was calf club day in Harrisburg, Saline County, Illinois. We drew our calves by lot. I was very lucky and drew a beautiful heifer named Daisy's Bessie, although a sad accident happened. As she and some of the other club members' calves were being trucked out to our farms mine fell out of the truck and dislocated one of her hips. This later caused her to lose her calf.

I was very discouraged at this but still had patience. I still thought as much of her as I did. I took good care of her. I kept her in the barn in the daytime and out in the pasture at night, so the flies would not bother her. During the day when I kept her in the stable I curried and brushed her several times a day. She was very particular and wouldn't drink anything except good, cold well water, and that is what she always got. Every Saturday she never failed to get her weekly bath. I kept her hair fine and her skin thin and loose.

In October, 1926, at the Farmers' Institute, the club members showed their calves. My calf took fourth place with her hip dislocated. They also had an individual judging contest of all the club members and I won second place, and I won second place on my record book.

In January, 1927, the Illinois State Dairymen's Association meeting was held here at Harrisburg. They put on a state wide contest to secure memberships to the association at one dollar each. There were two representing our county. I was one out of the many boys and girls who were chosen and backed by the Harrisburg Kiwanis Club. The boy representing our county was backed by the Rotary Club. It surely was a hot race. We did not know what the other counties were doing but were working for ourselves. There were six prizes. The first prize was a pure-bred heifer calf of any breed and a pure-bred bull as a grand prize. The other five prizes were just a pure-bred heifer calf. Inasmuch as this meeting was to be held here I wanted to send in a winning report. When the contest closed I had secured 531 memberships.

During the meeting the winners were all announced and present. Our county took first and second place. I was winner of first place and received the grand prize. I was very proud that I won and received congratulations from all over the state. Therefore this 51st annual convention was a great success.

I chose Guerseys as the breed I wanted, so I received the male Guernsey during the meeting and received my heifer last month.

My greatest ambition now is to take the best care of them and develop a wonderful herd.

My address is R. R. 4, Saline Co., Harrisburg, Illinois.

Wanda Ivaline Thomas.

Vacation time is Kodak time!



Attention, Juniors!

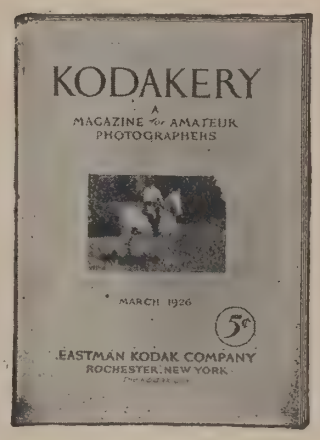
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EASTMAN CAMERA

and twelve issues of the magazine

"KODAKERY"

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With this fine little camera you can easily make good pictures of all your good times, your family and your friends. You'll have fun making them—and they will be priceless in years to come. Club members will want pictures of their livestock to show development. There's no end of chances for interesting snapshots. And **Kodakery**, with its stories, articles, picture-making hints and profuse illustrations, will help you enjoy your camera to the fullest extent.

Just get three 3-year subscriptions to **Hoard's Dairyman** at $1 each. You can get them easily from your friends and neighbors. Begin **now**—send them to us—and the camera and **Kodakery** for a year are yours.

HOARD'S DAIRYMAN JUNIORS

FORT ATKINSON WISCONSIN

Show Blankets Our Specialty



Pat. Nov. 23, 1909 Nov. 29, 1921

Try a Sample Order Today

Prices F.O.B. Milwaukee

Where Quality Determines Choice

KANT-KOM-OFF Blankets Predominate

A check-up of blankets seen on prize cattle at one of the Fairs last summer showed KANT-KOM-OFFS on 663—next nearest 284, next 142. This is Typical of the Preference Shown for Laacke's KANT-KOM-OFF Blankets everywhere.

Order From This Adv. Satisfaction or Money Back

STYLE	To 48 in.	50-68 in.	70in.up
12oz. Satin Finish Burlap	$2.90	$3.20	$ 4.40
Khaki or Gray Duck	3.40	4.10	5.60
Wool Felt (all colors)	8.90	10.90	13.90
Lining (extra, each)	1.40	1.75	3.00

Lettering, Stenciling, Trimming, Extra. Discounts for Quantity.

R. LAACKE COMPANY, 553 Third Street, MILWAUKEE, WIS.

DeMOIN Kow Kloz



All Purpose **Cow Blankets**

Thousands in use thru-out the world. Stays in place. Comfortable fit (no straps) Built for hard service.

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Cover your stock with "Burch's Best," the blanket endorsed by leading herd owners everywhere. Combine beauty, practicability and low price. Special patented design—fit perfectly.

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Prevent Disease

from cutting down your profits

Use Lewis' Lye. It is the proven method of keeping hogs, cattle and poultry healthy—and that means bigger profits for you.

DAIRYMEN, hograisers, and poultrymen are using Lewis' Lye to keep their herds and flocks free from disease and to make their dairy barns, hog houses, and poultry yards sanitary. Everywhere they report amazing results at extremely low cost. Germs of disease simply can't live where Lewis' Lye is used.

In the famous McLean County System of Hog Sanitation, Lewis' Lye is used exclusively.

And there are hundreds of other uses for Lewis' Lye. Use it for soap-making—it has gained a marvelous reputation for fine quality, economical soap because of its absolute purity. Discriminating soap-makers insist on Lewis' Lye. It makes prize soap at a cost of only a cent a bar.

Use Lewis' Lye in outside toilets to prevent disease and the spread of typhoid fever by flies. To keep drain pipes open use Lewis' Lye once a week.

Lewis' Lye is sold by reliable grocers. If you are unable to secure Lewis' Lye from your neighborhood grocer, send us a postoffice money order for $1.80 and we will send you by express one dozen cans.

In any case, fill out the coupon below and we will send you our book on "Secrets of Soap-Making" giving valuable recipes; also the booklet on Hog Cholera Prevention and a trial package of Pensal—the new cleanser and water softener.

THE PENNSYLVANIA SALT MFG. COMPANY
Philadelphia, Pa.

You can't be sure of success unless you use

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Send For FREE Books

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Dept. 119, Philadelphia, Pa.

Please send me free books on "Secrets of Soap-Making" and Hog Cholera Prevention; also a trial package of PENSAL.

Name.....

Address.....

Town.....*State*.....

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BY THE RATIN SYSTEM, a scientific method of extermination, used the world over, universally endorsed.

Non-poisonous, safe, sanitary, economical, easy to use, harmless to domestic animals and bird life.

Mr. Frederic P. Warfield, New York, says: "You are responsible for ridding my farm of rats. I thought that I had tried all the available methods, none of which had been successful. I am very much in your debt accordingly."

Juhl Bros., Shadeland Farm, Luverne, Minn., say: "We heartily recommend Ratin to any farmer as it can be used with utmost safety around livestock."

Send for descriptive circular, address

THE RATIN SYSTEM, 921 WolframSt., Chicago, Ill.



Origin of Breeds of Swine

There are two distinct classes of swine in this country represented by breeds of the lard type and breeds of the bacon type. The lard type hog predominates, but has been modified within the past decade and is beginning to approach what might be termed a meat type hog. The principal lard type breeds are the Duroc-Jersey, Poland-China, Chester White, Berkshire, Hampshire, and Spotted Poland-China. The bacon breeds are represented by the Tamworth and the Yorkshire. The origin of these breeds as given briefly by Russell of the U. S. Bureau of Animal Industry is as follows:

Duroc-Jersey

The Duroc-Jersey breed originated in the northeastern section of the United States. It was derived from mating strains of red hogs developed in sections of New York and New Jersey. Those in New Jersey were originally called Jersey Reds; those in New York are said to have been developed by a man who owned the noted stallion, "Duroc," and people in that vicinity called the red hogs which this man was breeding "Duroc" hogs. Some years after the independent breeding of Durocs and Jersey Reds, these hogs were intermingled in breeding, with the result that there was formed the breed known at the present time as Duroc-Jersey. This breed is red in color, without admixture of any other colors. The popular color is referred to as cherry red; some animals, however, are quite dark, while others are quite light.

Poland-China

The Poland-China hog originated in Butler and Warren Counties, Ohio. This breed undoubtedly was derived from the crossing of several breeds. In the seventies, two farmers—A. C. Moore of Canton, Ohio, and D. M. Magie of Oxford, Ohio—developed a widespread reputation for their hogs and advertised them quite extensively. Their hogs were known at that time, respectively, as the Moore hogs and the Magie hogs. From the Moore and Magie hogs was developed the breed now known as the Poland-China.

Chester White

The Chester White breed had its origin in Chester County, Pennsylvania. The large, coarse hogs found in the eastern states, especially in Pennsylvania, early in the nineteenth century, were a mixture of the Yorkshire, Lincolnshire, and Cheshire hogs, all of which were of English origin. In Pennsylvania these hogs were crossed on smaller-type hogs, but the most successful cross was by using an imported hog from Bedfordshire, England. This crossing was continuously improved up to 1848, when the breed reached such a degree of purity that it could be relied upon to reproduce its desirable qualities. It was named "Chester County White" in 1848, but the word "County" was soon dropped and the present name became established.

Berkshire

The Berkshire is one of the oldest of the improved breeds of swine. It was originated and developed in England and is still raised quite extensively in that country. Many animals of this breed have been imported into the United States and Canada from English herds. Mention is made of the Berkshire hogs in England and Scotland as early as 1789, large specimens being compared with those of other breeds, one animal said to weigh 1,130 pounds and another being still larger.

Hampshire

The Hampshire breed originated in the English county of the same name and was introduced into the United States during the first half of the last century. When the Hampshire hog first began to be popular in the United States it was often referred to as the Thin Rind hog and was classed as a bacon breed. It is now recognized as one of the lard breeds. Hampshires have made rapid progress in popularity during the last 10 or 15 years. Sows of the breed are prolific. The mothers are good sucklers and make good use of grass in pastures.

Spotted Poland-China

The Spotted Poland-China in many ways is very much like the Poland-China, but there is much more white on the body of the former. The appearance is rather that of a black hog with numerous white spots. The standard requirement of the present record associations for the breed is that at least 20 per cent of the body be white. These hogs began to be noticed more during the time when there was a tendency throughout the country to get away from the "hot-blood" Poland-Chinas. The Spotted Poland-China hog, having more length and greater size than the "hot bloods," attracted the attention of farmers who were looking for larger hogs. The first record association of this breed, known as the National Spotted Poland-China Record Association, was organized January 1, 1914.

Tamworth

The Tamworth is one of the oldest and probably one of the purest of all breeds of hogs. There is no evidence of its having been crossed with other modern breeds. On the other hand, there is evidence of pure breeding dating back more than 100 years. The name of the breed is derived from the town of Tamworth, located on the River Tame, in Staffordshire, near the north border of Warwickshire, England. Sir Robert Peel is credited with having introduced these hogs into England from Ireland about 1812, though their real origin is obscure. The first record of any of this breed having been brought to America appears to have been in 1881.

Yorkshire

There are three distinct types of the Yorkshire breed, known as Large, Middle, and Small Yorkshires. ... originated in England, where ... Middle and Small Yorkshires ... known as Middle and Small Whi... The Large Yorkshire greatly ... numbers the others, and is the t... raised by practically all Yorksh... breeders in the United States.

Cost of Producing Pork ... Terms of Feed and Labo...

The cost of producing a gi... amount of live pork under given c... ditions may be easily found by ke... ing a record of the necessary data ... these figures, while interesting, ... likely to be somewhat out of d... shortly after they are completed ... not before. If one knew the appro... mate amount of feed and labor ... quired to produce 100 lbs. of live p... he could easily convert these data ... dollars and thereby determine ... cost of producing live pork at ... time.

Cavert and Pond of the Minnes... Station supply these data from s... records kept on 20 farms in t... state.

On the basis of averages for ... farms it required 457 lbs. of gr... 269 lbs. of skimmilk, 40 days of p... ture, 5 hours of man labor, and ... hour of horse labor to produce ... lbs. of live pork.

The record shows that one far... produced 100 lbs. of live pork f... 308 lbs. of grain, 203 lbs. of skimm... 30 days of pasture, 2½ hours of ... labor, and ¼ hour of horse labor ...

The record further shows that ... farmer required 787 lbs. of grain, ... lbs. of skimmilk, 30 days pastur... hours of man labor, and ¼ hour ... horse labor to produce 100 lbs. of ... pork.

Here we have not only the aver... feed and labor requirements of ... farmers but also for the one who p... duced pork cheapest and for the ... whose costs were very high.

In this survey the factors that ... tributed most to producing p... cheaply were: (1) rations that ... cluded a sufficient amount of mu... and bone building nutrients furnis... by skimmilk, legume pastures, ... tankage; (2) liberal feeding of ... balanced rations; (3) raising a fa... large number of pigs per sow b... (4) an abundance of suitable ... ture; (5) an abundance of clean ... ter available at all times; (6) sel... hogs at moderate weights; (7) gu... ing the health of hogs so as to h... the least possible loss from dise... and parasites; (8) avoiding as fa... possible high priced feeds.

Barrows Versus Gilts

It is commonly thought that ... rows will make more rapid ga... than gilts due to the periodic oestr... of the latter but there is no exp... mental evidence to support this ... tention.

In trials including 601 barrows ... 469 gilts at the Wisconsin Stat... the barrows averaged 1.28 lbs. ... head daily, the gilts averaged ... lbs. It is thought that the fact ... usually selecting from the herd ... number of the better gilts for bre... ing purposes, has had an influe... in leading farmers to believe that ... barrows make considerably more r... id gains. Where all the gilts ... rowed are compared with all th... barrow mates there is no appreci... difference in rate of gain, at le... up to 200—225 lbs. weight.

When we look into the long ave... of the future and see the good th... is for each one of us to do, we rea... after all what a beautiful thing i... to work, and to live to be happy—Stevenson.

Dairymen's League Meets

H. H. LYON, NEW YORK

EW YORK claims one of the largest and most important co-operative enterprises in the ry in its New York Dairymen's ue. It some time ago passed n-year anniversary and under vised form as a marketing co-tive it has passed its fifth year. e last five years in its efforts rketing, as well as during the ous five in bargaining, it has nany of the most serious diffi-s of a co-operative enterprise. no League member would that all serious difficulties are it is now in the strongest and position that it has known. It under these conditions that it in its annual convention the e of June, with some three and attending its sessions, near-third of whom were accredited ates.

haps the outstanding feature of meeting was the presence and address of former Governor en of Illinois. His stress was l largely on co-operation but ought out clearly the disadvan-of overproduction and the dif-es of adjusting production to eeds of the consumer. In addi-e ventured somewhat into a dis-n of a topic with which eastern men have been rather unsym-tic, the plan for stabilizing ts by use of price control and qualization fee. He did this in y diplomatic way and rather d his hearers with him, al-h not probably to a point of ing their support for such bills ve been thus far presented.

sident Slocum reviewed the and showed the healthy growth e organization. He dwelt con-bly on the advantage to dairy-ast and west, both, if our east-airymen put themselves in po-to supply our own local mar-cutting our summer surplus so t to compete considerably with engaged in the production of factured goods and not calling e West for aid during about two hs in the shortage season.

other strong point was in rela-to the saving of what he calcu-to be an eleven million dollar ach year by the maintenance of cate plants with small quantity ed and less than car load ship-s, together with unnecessary ng. A united organization l eliminate these serious losses. "unity" committee is working on this problem and its report at a state wide meeting within about a week has been announced. It is a subject of greatest importance but it was instigated and has been carried on by influences outside the official League group. The measure of the success of this committee has not yet been made and Mr. Slocum made no comment upon it.

The dairy industry of the New York milk shed is of immense importance. It has 1,500,000 cows and supplies milk to fifteen per cent of our entire population, or 13,000,000 people. Of this production of milk the League pools about two and a quarter billion pounds. This organization has improved its handling since 1922 when it put 38 per cent of the milk into class one, while last year it had 61 per cent in that class. The association has become strong enough and is now well enough organized so that it can and does take a hand in helping other agricultural and organization activities. Legislative enactments and administration difficulties in many lines are aided by it. Tariff rates get their attention where affecting agriculture and legal battles of co-operatives are sometimes aided. Railroad freights receive attention, and the establishment of a bureau of statistics for the metropolitan area got its support. It tries to co-operate with other co-operatives in forward looking effort.

Perhaps one of the finest results that has been accomplished is that of bringing the average business man to understand more clearly that it is for his interest to encourage farmers' co-operative effort. That lack of sympathy between business and agriculture is on the decrease, and I believe the same may be said, to some degree, between the groups of dairymen.

The same officers and the same executive committee were reelected for the current year.

A commercial traveler, visiting a large insurance office, boasted to the manager that he could pick out all the married men among the employees. Accordingly he stationed himself at the door, as they returned from dinner, and mentioned all those he believed to be married. In almost every case he was right.

"How do you do it?" asked the manager.

"The married men wipe their feet on the mat; the single ones don't."—Western Christian Advocate.



HOLSTEIN COW, BEAUTY GIRL GERBEN RE-BECKY

The University of Nebraska, North Platte Substation, has a right to be proud of his unusual producer, bred and owned by it. After finishing a 365-day record of 2,173 lbs. milk, 1,106 lbs. fat (1,383 lbs. butter), not long since, she gave birth to win calves and has since completed another good 7-day record—26.29 lbs. fat (35.36 bs. butter.) This is her fifth consecutive 7-day record above 30 lbs. During her last hree lactation periods Beauty Girl has produced 2,902.196 lbs. fat (3,627.87 lbs. utter), an average of 967.4 lbs. fat (1,209 lbs. butter) per year.

Directions For Increasing Your Dairy Profits 10%

Spray your cows morning and evening with Bovinol, using the compressed air type of sprayer in which the oil is forced out by air pressure and is further atomized by an air blast. Every square inch of the hide should be covered. It is best to spray against the direction of the hair, so that Bovinol will penetrate the coat.

BOVINOL
REG U.S PAT OFF

should be applied freely the first two or three times to build up a protective film of oil on the hair. After the first two or three applications a lighter coating may be used.



Follow these directions and you'll make more money from your cows. Agricultural experiments and practical dairy tests have shown that milk production is increased *at least 10%* by the consistent use of Bovinol.

You'll notice a difference immediately in the behavior of your cows. Twitching, tortured animals become quiet and restful when they are sprayed with Bovinol. Flies light on them but they cannot sting. Cows sprayed with Bovinol are able to produce more milk because they are not wasting energy in fighting flies.

Bovinol is not poisonous. It has no taste or odor. It cannot discolor the hair and therefore is ideal for use on show animals.

If you want to increase your dairy profits, spray your cows night and morning with Bovinol.

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Tasteless • Odorless • Colorless

A Scientific Product Characterized By All the Efficiency Customary in Products of the

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(*Indiana*)
910 South Michigan Avenue, Chicago

Ask the Nearest Standard Oil Agent

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PAPEC "The Cutter That Does Not Clog"

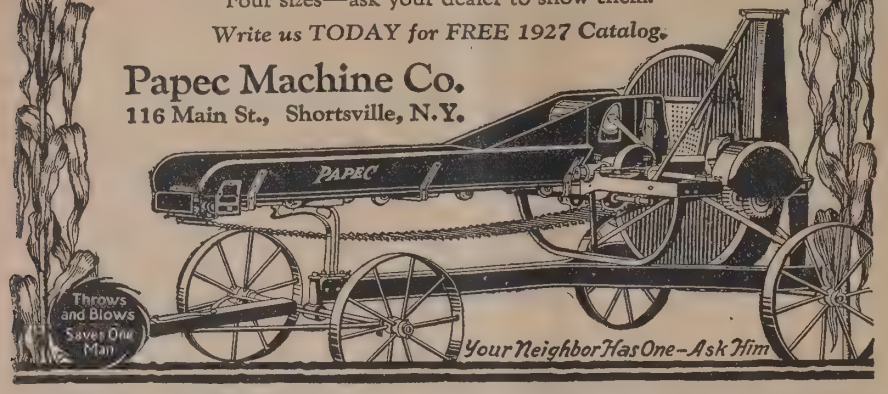
"Quality and Quantity of Cutting"

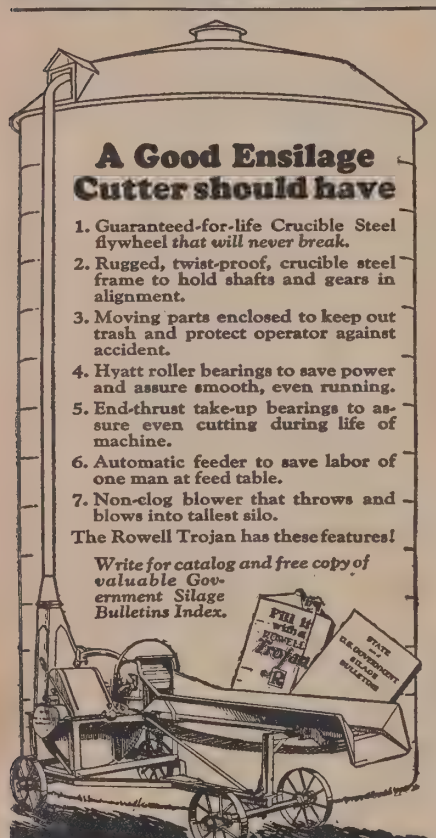
are the Papec features that most appeal to J. Smith Brundage, Superintendent of the Steuben County (N.Y.) Farms. The Papec cuts ensilage fine and even, so that it will pack firmly. It "eats up corn" as fast as a man can throw it from the wagon. Needs no man at the feeding table, thanks to the Third Roll. Fills the highest silo without stress or strain. Operates at low cost.

Four sizes—ask your dealer to show them.

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Papec Machine Co.
116 Main St., Shortsville, N.Y.





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1. Guaranteed-for-life Crucible Steel flywheel *that will never break.*
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3. Moving parts enclosed to keep out trash and protect operator against accident.
4. Hyatt roller bearings to save power and assure smooth, even running.
5. End-thrust take-up bearings to assure even cutting during life of machine.
6. Automatic feeder to save labor of one man at feed table.
7. Non-clog blower that throws and blows into tallest silo.

The Rowell Trojan has these features!

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NO OPERATING COST

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Allen Multi-Vane Turbine Ventilator

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ROSS METAL SILO

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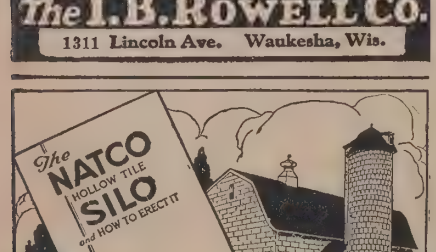
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Makers of Brooder Houses—Silos—Cribs—Bins—Cutters—Mills—Garages



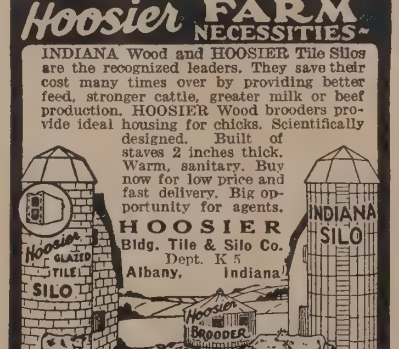
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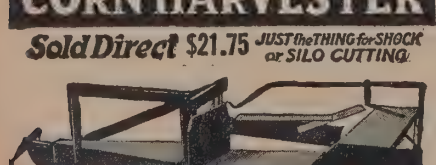
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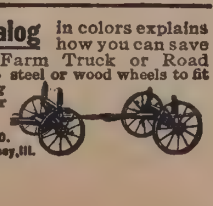


Works in any kind of soil. Cuts stalks; does'nt pull them. **ABSOLUTELY NO DANGER.** Cuts 4 to 7 acres a day with one man and horse. Great labor saver. Sold direct to farmers. Get your catalog NOW—Be prepared. Write:

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Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.



Electric Wheel Co.
31 Elm St., Quincy, Ill.

Life and Work of T. L. Haecker

(Continued from page 686)

I do not remember exactly how much she made but know it exceeded the above estimate, approximately 500 lbs.

Later Governor Hoard, Mr. Doyon, and myself bought a number of Jerseys at a Chicago sale, and as we kept a record of the yield of milk of each cow from 1882, I could study the relation of type to production.

Later, Mr. Sedgwick of Lenox, Massachusetts, came to the farm and wanted to send me his herd of Guernseys and divide the offspring, each having half as yearlings. It proved a satisfactory arrangement and broadened my experience. I exhibited both breeds at state fairs and one inter-state fair.

We had a Cottage Grove Grange to which I belonged, and during the time I was expanding my dairy enterprise I became interested in the welfare of the community. The rear of my farm abutted on the direct road from Madison to Milwaukee. From old Cottage Grove Corners a road branched off running southeast. This diagonal road ran in front of our house with the barn across the road. So the rear of the farm was only half a mile from Governor Taylor and where father lived from the time we moved to Wisconsin until we moved to a farm nearer Madison, so I knew everybody in the old neighborhood where I was raised.

The Grange meetings used to be held in the school which was small and inconvenient, so we concluded to build a Grange hall on the rear of my place. Each one helped the best way they could; some would bring lumber, some do carpenter work, some contributed money, and so a fine, two-story, large hall was built without any indebtedness. The neighborhood physician who owned a farm across the way acted as superintendent of construction. Above was a large auditorium; below a dining room with a fully equipped kitchen where we used to meet and have a good ti

I got interested in the Eng Roachdale Co-operative Associati and got a printed copy of their stitution and by-laws, so we had stock or shares—it all belonged to community. We pooled our orders groceries and bought in quan from a wholesale house which



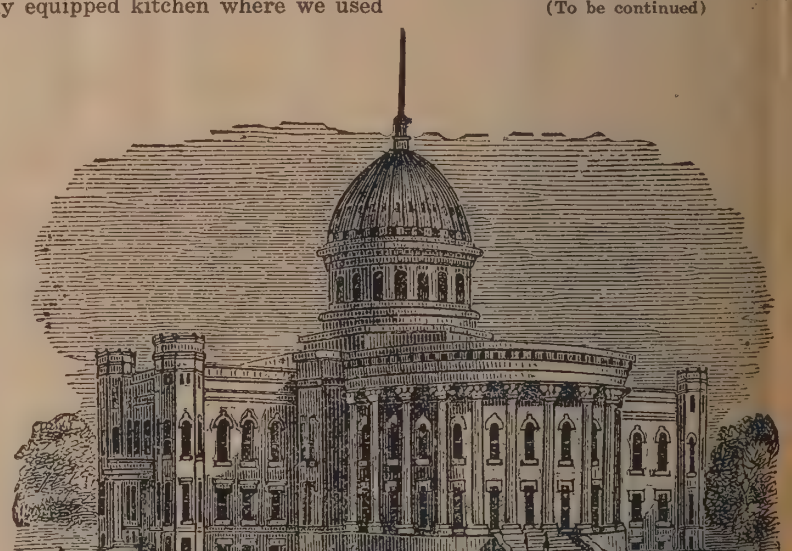
FERDINAND UPHOFF AND HIS WI

Mr. Uphoff is 76 years old, a lifelo resident of Cottage Grove, and dr W. R. Taylor with horse and buggy Madison for his inauguration as gover of the state of Wisconsin.

longed to a governor under who served as executive clerk for years. We also marketed some of farm products the same way. bought my wagon, harness, and o farm utensils at wholesale. I bo the wagon from the Northwes Manufacturing Co., Fort Atkir Wis., for $50 in which Geo. W. chard had an interest. We organ a co-operative creamery three-fou of a mile from my place, also a munity affair.

The Cottage Grove Co-opera fire insurance was an outstan success from the start. It expa until it embraced a large part Dane County. I was secretary of local Grange and also secretary the county council.

(To be continued)



THE STATE CAPITOL AT MADISON WHERE T. L. HAECKER WORKED FOR 17 YEARS AS SECRETARY TO THE GOVERNOR OF WISCONSIN DURING THAT PERIOD BEGINNING WITH TAYLOR AND ENDING WITH HOARD

Oregon Jersey Shows

Jersey breeders in the Willamette Valley in Oregon have for years been known for the exceptionally heavy producing Jerseys they have bred and developed. That section is one that has many enthusiastic Jersey breeders and beginning in 1919 they annually held a series of late spring meetings known as their Jersey Jubilee. In 1925 these meetings were changed to county Jersey cattle shows.

Their series of 1927 shows hel in May in Linn, Polk, Yamhill, Ma and Clackamas Counties were successful and were followed state challenge show at Salem, on May 28 with the first prize ners from the five county shows peting. In addition to several fi Polk County showed the grand c pion bull, La Creole Select's Rod owned by S. H. Robinson.

Such a series of county shows s to us a splendid idea. They sh be both entertaining and educati

...e Years of Dairy Farm Bookkeeping

(Continued from page 687)

...w, which are only for that part ...e crop harvested as grain.

...uring the 5 years 327 acres pro...d 14,523 bushels of corn at a ... cost of production of $8,341.84. ...age yield per acre was 45 bush... Average cost of production per ...el was 57½c. Average price ...rn on Feb. 1 for the 5 years was ...c. Total net profit for the 5 ...s over cost of production was ...44, or an average annual net ...m of $134.90.

...ats: During the five years 201 ...s produced a total of 10,944 ...els of oats at a total cost of ...71.17. Average yield per acre ... 54½ bushels; average cost of ...uction, 39c; average price of ... on Feb. 1 for the 5 years, 37c. ...l net loss over cost of production ... the 5 years was $333.72, or an ...age annual net loss of $66.74.

...arley: Barley has been raised ... the last three years and made ...h better showing than oats until ... year when severe drought cut ... yield for a big loss.

...uring the three years 42 acres ...luced 1,297 bushels at a total ... of $895.98. Average yield, 31 ...els per acre; average cost of ...luction, 96c; average price Feb. ...r 3 years, 58c. Total net loss ... cost of production for three ...s was $89.53, or annual net loss ...29.84.

...oy Beans: During the past four ...rs 66 acres of soy beans were ...ed. From 26 of these acres 41 ... of excellent hay were cut. From ... remaining 40 acres 605 bushels ...seed beans were harvested; total ... of raising the 66 acres, ...375.53.

...ome beans were sold for seed but ... majority were fed as protein sup...nent. Figuring the feeding value ...c per pound, the total net profit ...r cost of production for the four ...rs was $169.07, or an annual net ...fit of $42.26.

...lfalfa: Alfalfa hay has been ...ed for the past four years with ...e profits the first two years but ... such good results the last two, ... to very severe drought.

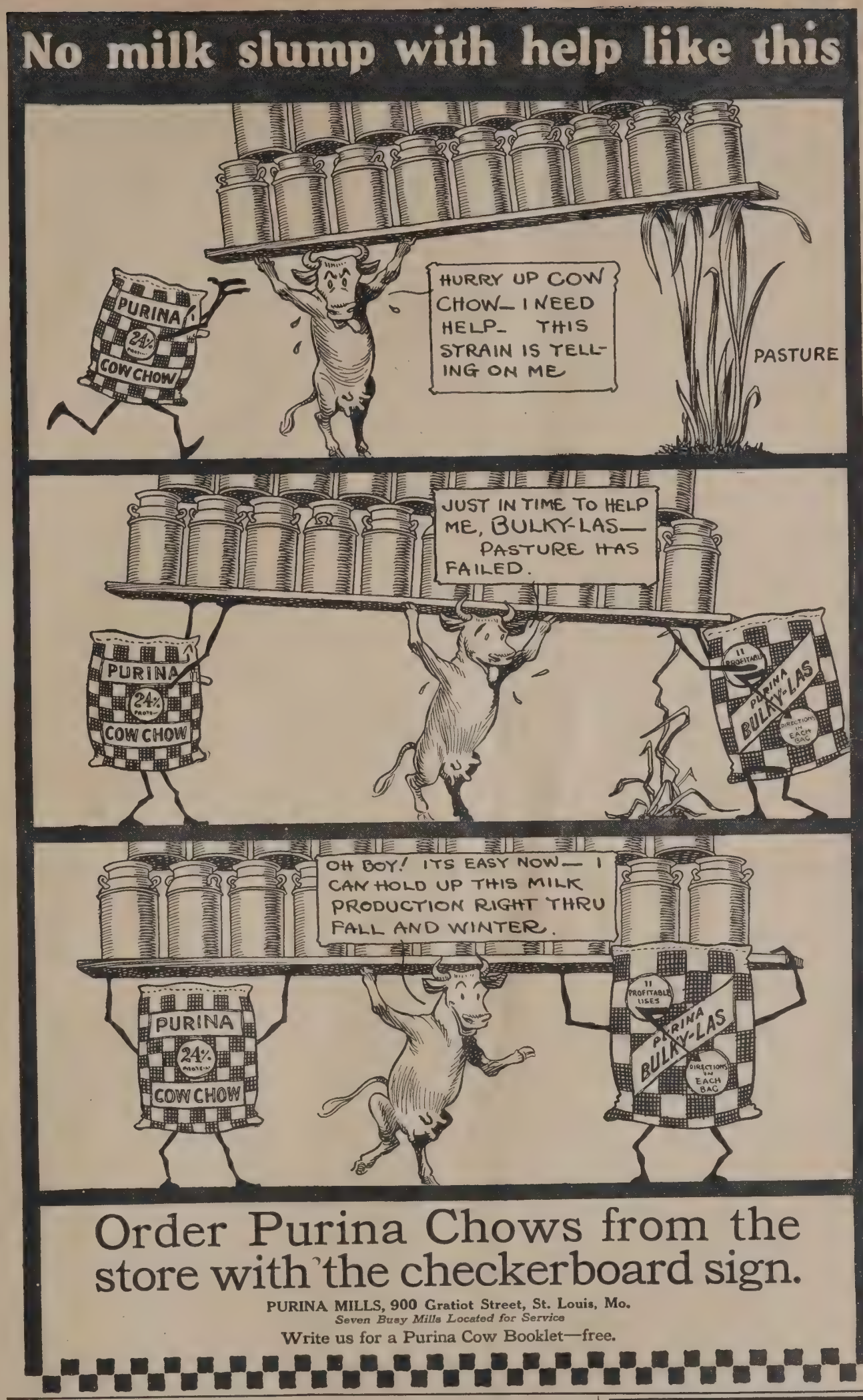
...During the four years a 17-acre ...d produced 127 tons of hay at a ...l cost of $1,633; total net profit ... the four years, $611.68; or an ...ual net return of $152.92.

Farm Business as Unit

...mprovements made to the perma...nt farm equipment and for soil ...provement during the five years ...ounted to $1,376.81. This includ...e a new well, paint and fencing, ...estone, and clover seed. These ...re deducted from the farm income ...fore any profit could be declared. ...Each year I have credited myself ...h an operator's salary of approxi...tely $90 per month on an average. ...is is charged as farm labor the ...ne as hired help. In turn, the ...m is given credit for any com...dities we use therefrom.

...The total net profits on the entire ...terprise for the five years after all ...penses have been deducted are ...472.45. The average annual net ...fit is thus $1,694.49. Since the ...m's personally invested capital is ...out $40,000, this gives us an annu...return on our investment, after we ...ve been paid for our labor, of ...%. You will note that you can...t arrive at this figure by adding ...e profits and losses shown in the ...ceding statements as there are still ...ner accounts to reckon with as pas...re, interest, farm, etc. We have ...ly given the summary of those ac...counts that would be of general interest.

We have not only found the accounts very interesting to us but extremely valuable as a guide in our work. I sincerely believe that with the aid of our accounts and production records we have made more progress in the first five years of our work than we could possibly have made in ten years without them. We make no boasts for our results other than that they show steady progress toward the better. We do not think them extraordinary as we know that they contain the record of possibly as many mistakes as they do of successes; but we do know they help to point out the mistakes and give us proof of the value of the good practices we have discovered and adopted.



"Shure"

Two Irishmen were excavating for a proposed building, when an interested spectator inquired: "How is it, Pat, although you and Mike started work together, he has a bigger pile of dirt than you?"

"Shure," was the quick retort, "he's diggin' a bigger hole."





The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

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Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Car-load of purebred Holstein cows, bulls, heifers and calves for sale. PHILIP LEHNER, Princeton, Wisconsin. 12-2

Choice grade Holsteins, Guernseys and Jerseys. Heavy producers from accredited area. GREENDALE STOCK FARMS, Elsie, Mich. 13-2

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 6-12

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

22 fine grade Guernseys; 18 cows, large, well marked, heavy producers; 4 two-year-old heifers; some fresh, all to freshen soon. J. McNULTY, Box 28, Mukwonago, Wisconsin.

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Six Registered Guernsey cows. One bull, May Rose breeding. Accredited herd. O. P. HUFFINE, Van Wert, Ohio. 12-2

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

For Sale—Guernsey cows and heifers. Federal accredited. FRED SY, R. 4, Kiel, Wis. 13-2

Jersey cows, one- and two-year-old heifers. Carload each. Practically pure-bred. ED. SHARP, Wolfe City, Texas. 12-3

For Sale—10 Majesty bred Jersey heifers, nice type, in good condition, some are bred. Accredited herd. W. M. KNIGHT, Eagle, Wis.

Registered Brown Swiss bulls. C. J. COGGINS & SON, Oregon, Wisconsin.

LIVE STOCK WANTED

Wanted—Guernseys. About fifty head coming fresh from August on, registered or grades; also year old bull. T. B. tested. State full particulars. A. G. FOLDESSY, 24734 Euclid Ave., Euclid, Ohio.

Wanted—One carload choice yearling grade or registered Guernsey heifers, immediate or fall delivery. L. B. PATTERSON, Statesville, N. C. 13-2

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 75 cents for one cow, $2.50 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 12-3

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Pedigreed English bull pups with undershot jaw. Males $40.00, females $25.00. Will trade for registered Guernsey heifers. DANIEL GRUNZ, Owatonna, Minn.

BABY CHICKS

Capper ships C. O. D. White, Brown Leghorns, heavy mixed 100 $8; English White, Buff Leghorns, Anconas $8.50; Reds, Barred, White Rocks, Black Minorcas $9; Buff Orpingtons, White Wyandottes $10; Assorted $7.50. CAPPER HATCHERIES, Elgin, Iowa. 11-14

HATCHING EGGS

Eggs from strictly purebred (267 egg strain) Barred Plymouth Rocks and (272 egg strain) White Leghorns $1.60 per 15; $6.50 per 100, postpaid. MISS MABLE HARDING, St. Peter, Minnesota. 6-*

POULTRY HOUSES

Poultry Houses on easy terms as low as $10 per month. Also barns, garages, homes. Write for Big Free Catalog, Dept. 50, FRANK HARRIS SONS CO., 2330 South Springfield Ave., Chicago, Ill.

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

TOBACCO

Better Tobacco! Fragrant, mellow! Five pounds smoking, 75c. Four pounds chewing, $1.00. FARMERS' CLUB, 250, Hazel, Kentucky. 10-3

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

MACHINERY

For Sale—Late model 17 De Laval separator, first class condition with Universal Power drive, price $80. This machine replaced with a larger one, reason for selling. C. SKIPWORTH, Johnson City, Tenn., De Laval Dealer.

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Ann Arbor Hay Presses bale more hay at lower cost and last longer than others. Write for complete catalog and prices. ANN ARBOR MACHINE COMPANY, Shelbyville, Illinois. 8-6

For Sale—3 unit Hinman milker used 6 months; extra pail; 30 cow equipment; enclosed jack. A-1 condition. $110. Address BOX 413, care Hoard's Dairyman.

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—De Laval 2 unit No. 43 milker complete with pipe; first class except rubber. $125.00. Address BOX 414, care Hoard's Dairyman.

For Sale—Hinman Valve Chambers and pumps and parts, at a very reasonable price. JOSEPH HAAG, No. 813, W. Harris Street, Appleton, Wis. 13-*

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, Ohio. 11-4

For Sale—Blue Ribbon 32 V. electric milker like new. Price $75.00. Address BOX 415, care Hoard's Dairyman.

For Sale—Used Hinman milker in good condition. Address BOX 430, care Hoard's Dairyman.

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

For Sale—Empire 2 double unit milker, $120.00. A bargain. Address BOX 412, care Hoard's Dairyman.

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 12-2

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

DAIRY BARN EQUIPMENT

For Sale—17 Louden drinking cups and pipe good as new. Address BOX 427, care Hoard's Dairyman.

LUMBER

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

LIGHTNING RODS

Reliable agents to sell the "Diddie-Blitzen" rods in your own territory. Lightning damage can be prevented by our system. Write today for our proposition. L. T. DIDDIE CO., Marshfield, Wis. 13-6

BINDER TWINE

You can make a big saving with "Cricket" brand twine. During 27 years a reputation has been gained that it is the best twine money can buy. Farmer agents wanted to distribute our twine—profitable and easy to sell. Get our prices first. COOPER CORDAGE COMPANY, Transportation Building, Chicago, Illinois. 11-3

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

SEEDS AND PLANTS

Fancy Quality White Blossom sweet clover seed. Carefully cleaned and scarified and free from noxious weeds. For best pasture next season sow more sweet clover. Price $10.00 cwt. Sacks free. SEBENS BROS., Milnor, North Dakota. 12-2

Alfalfa Seed—95% pure, $6.50 per bushel; Scarified sweet clover, 95% pure, $5.50; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

PARTNER WANTED

Partner Wanted—Must be grade "A" dairyman of sterling character and good business ability with family to match. Prefer protestant American but no fanatics. Fine opportunity for two workers to make good. Lots of room for expansion. No farming. Buy all feed. Have 40 grade Jersey cow strictly modern dairy in the making with a well-established select retail trade. Top prices. Located in small valley among the hills two miles from town of 8,000. Altitude 5,000 feet. Mild year around climate. No floods or cyclones. Deep well water. Good roads. Half mile from good grade school. High school in town. Present gross income $1,200 to $1,500 per month. Few thousand will buy half interest by assuming share of indebtedness. There is no catch in this deal. It is a real money maker. Address T. P. MORGAN, P. O. Box 643, Prescott, Arizona.

Wanted—Working partner to operate hundred cow dairy. Expect to have it going by October. MAYBANK FARM, Hattiesburg, Mississippi. 13-3

WANT TO RENT

Wanted—Modernly equipped Holstein dairy on profit sharing basis. Understand the dairy business thoroughly, and production of high grade milk. Have been in retail business for years. Married. Middle aged. Best references as to character and ability. Prefer Southwest. Address BOX 419, care Hoard's Dairyman.

FARMS FOR SALE

Carolina Farms—Two hundred twenty acres best land in Rowan County, North Carolina, near Salisbury. Grows grain, cotton, clover. Wonderful for dairying. Good schools and churches. On highway. Perfectly healthy. Three hundred acres best land in Florence County, South Carolina, near Florence. Grows bright tobacco, cotton, grain. Wonderful for dairying or trucking. Accessible markets. Good schools and churches. On highway and railway. Perfectly healthy. Terms if wanted. KINGSBURG FARMS, INC., Timmonsville, South Carolina, 12-2

Farm of 168 acres in Central New York for sale to settle an estate. Splendid buildings, well watered, has carried as high as 75 head of cattle. Last two years over 80 tons of hay were sold and 40 head of cattle carried each year, besides horses and other stock. Only ½ mile from church, school, depot, and milk plant. 20 miles from Syracuse on improved road. SILAS GODFREY (Administrator), Pennellville, New York. 13-7

Section dairy farm for sale, prosperous community, James River Valley, Brown County, South Dakota. Fenced hog tight, good buildings, artesian well, 400 acres cultivated, balance hay and pasture, close to school and town. Good opportunity for family with own help. A. BROOKS, 916 South Lincoln Street, Aberdeen, South Dakota.

For Sale—480 acres, highly improved dairy farm; 400 acres cultivated; woven wire fenced; on State Highway, 2 miles Aitkin; fifteen thousand dollars; new buildings; $90 per acre. Can sell with 60 Holsteins and machinery. HUDSON LAND AGENCY, Aitkin, Minnesota.

Farm of 480 acres, 3½ miles north of Peru, Indiana, on Federal road No. 31. Very desirable for stock or dairy purposes. Small cash payment, balance on very liberal terms. CITIZENS NATIONAL BANK, Peru, Indiana. 12-2

$1100.00 income per month. $1000.00 income per month. Stocked, fully equipped, close to New York markets. Also, two smaller farms. Deal with owner. Save commissions. PARSONS, 504 Press Building, Binghamton, New York. 12-2

Dairy Farm, close to Edmonton, Alberta, population sixty thousand, 30 acres, good land and buildings. Price $5500, $2000 cash, and the balance to suit. CANNAN FARM AGENCY, Macklin, Saskatchewan. 12-2

160 acre improved farm. Complete buildings. Priced to sell. TARR BROS., New Auburn, Wisconsin. 11-*

For Sale—2000 acres second growth timberland. Bargain. BOX 32, Freeport, Ill. 11-spl

MISCELLANEOUS LAND

A Texas Snap. By prompt action you can secure Texas guaranteed Citrus Fruit land in the celebrated Rio Grande Valley at a great bargain on easy terms. G. H. KLINE, 105 So. Dearborn St., Chicago. 11-4

FARMS FOR EXCHANGE

Have several farms for exchange for Eastern farms. Some for Western. WALTER MILLER, Carpenter Bldg., Milwaukee.

FOR SALE OR LEASE

Well established dairy and sales business of the Graham Livestock Company consisting of yards, shelter sheds, modern dairy barns equipped with milking machines, milk house, trucks, etc. Plant capable of handling 150 to 200 head of cows. Sales average 1,000 head of dairy cows per year. Milk sold under good contract to distributor. 125 head of cows on hand at present. This is an unusual opportunity for anyone who understands the cow business. Present owner wishes to retire. For full information write the GRAHAM LIVESTOCK COMPANY, 2616 E. Broadway, Spokane, Washington. 10-4

FOR RENT

Improved farms for rent in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Make a trip and see the growing crops. Cheap round-trip homeseekers' tickets. Write for Free books. E. C. LEEDY, Dept. 982, Great Northern Railway, St. Paul, Minn. 13-*

Dairyman Wanted—Want communicate with dependable experienced dairyman with sufficient capital to buy small herd with view partnership or rent. Trade already established. Ideal dairy farm two miles from prosperous growing town four thousand. References exchanged. E. D. NALL, Sanford, N. C.

Dairy farm for rent, cash, cheap. September possession. 115 acres, Indiana. JESSE CRIPE, Peru, Indiana.

DAIRIES FOR SALE

Village dairy and acreage. New, modern buildings near paving. Ideal home. Good income. WM. FISCHER, Hinton, Iowa.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

MISCELLANEOUS

Hay Bale Ties—Tallman's bale ties are better and cost less. Write today for special price list. THE TALLMAN COMPANY, Shelbyville, Illinois. 8-6

For Sale—Cement Silo Forms, all steel, to build 10, 12, 14, ft. in 6 ft. shifts, $350.00. JAMES D. CASEY COMPANY, Watertown, Wis. 11-3

Edison Diamond Disc Phonograph, nearly new, with 48 selections. Cost $145.00. Will sell for $60.00 prepaid. B. F. ESTES, Box 20, R. 2, Jewell, Iowa.

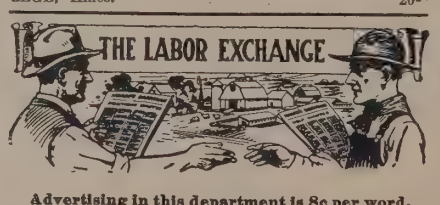
Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

CREAMERY MAN WANTED

Wanted—Experienced creamery man to take charge of my creamery. Must have experience in pasteurizing, testing, making cottage cheese and butter. Do not apply unless you can give good references. This is a splendid position for the right man. Address BOX 418, care Hoard's Dairyman.

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*



Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Wanted—Experienced herdsman for well-bred Holstein herd. Must have experience in A. R. O. and S. O. work, handle men and produce grade A. milk. Include references and wages wanted in first letter. Address BOX 429, care Hoard's Dairyman.

Wanted at Once—Steady, reliable farm hand. Good milker, of good habits, good at machinery. Over 25 years old. Also can act as assistant foreman. Give reference and wages expected. ADOLPH SCHLEY, Waupun, Wisconsin.

Wanted—Reliable experienced single man to work on small dairy. Must be able to produce Grade A milk. $60.00 per month, board and room. BOX 562, Two Harbors, Minnesota.

HELP WANTED

Prominent Eastern Holstein breeder wants a herdsman to milk test cows. Good opportun learn. Prefer man from Minnesota or Wis Wages $55—$60. Address BOX 420, care Dairyman.

Wanted—Empire machine milker to milk for and help with dairy room work. Must be stea good milker. $75.00 per month with room and a $100.00 bonus at end of year. STANDARD COMPANY, Wallace, Idaho.

Wanted—Middle aged single man, Hollander, Dane, or German preferred. Must like dairy work. Machine used. $60.00 and board. Com on cows sold. Fine fellow to work for. O. WE HEIDE, New Douglas, Illinois.

Wanted—Capable man who understands Dors Oxford sheep and help in dairy. Must be able sheep for show. Good opportunity for right ADVERTISER, 26 Davidow Bldg., Scranton, P

Help Wanted—Single dry hand milkers. Go ing conditions; chance for advancement. Can u married men with small families. HARTMAN S FARM, Columbus, Ohio.

Wanted—Single men, good milkers and barn Plenty of opportunity for sincere fellows. Appl LARSEN'S FERN-DELL FARM, Green Bay, W

Working herdsman in certified dairy. Single. experience. Guernsey breed. Good salary for man. BELLE ALTO FARMS, Wernersville, Pa.

Wanted—Woman housekeeper, age 22 to 32 single, and good cook. Address BOX 422, Hoard's Dairyman.

Wanted—Married man to milk and care for 30 Surge milker, $65 per month, house, garden and JAMES TUDHOPE, Linwood, Kans.

Wanted—Married man with one or two boys with general farm work. State wages expected letter. WALTER JACOBS, Walworth, Wis.

Wanted—Single, experienced man for dairy Chicago. Good wages. References. Address BO care Hoard's Dairyman.

Firemen, brakemen, beginners $150—$250 mo railroads everywhere. Which position? Address 426, care Hoard's Dairyman.

Wanted at Once—Good, reliable girl or woma general house work in modern home. Good Address MRS. Wm. H. Tyrrell, Delavan, Wis

Boy to work on dairy farm. State age, wage experience. Address BOX 411, care Hoard's Dai

POSITION WANTED

Competent agricultural college graduate, with ily, desires position as manager of large farm o man's estate where practical farming with da dominates. Now located in Michigan. Will go where. Only high class situations with good e capacity considered. Will consider salary or basis. Address Box 416, care Hoard's Dairyman

Married man wants position on a dairy fa dairy at once. Experienced tester. Life experie dairy farm and twenty months' experience in No bad habits. Best of references. Address SCHIED, Ferryville, Wis.

Position Wanted—American 32 years old, e enced, and college trained, in dairy and general management. Best of reference. C. T. ENRI Wieboldt Hall, 7th floor, Northwestern Univ 337 East Chicago Avenue, Chicago, Ill.

Position wanted with show herd or in modern barn. Age 26, single, 12 years' experience with stein cattle and test cows, best of references. able any time. Address BOX 423, care H Dairyman.

Wanted—Permanent position as manager of dairy or poultry farm; willing worker, no bad small family, references furnished. State CHESTER RADEMACKER, Box 249, Winn Minnesota.

Wanted—Position as working foreman on dairy in Illinois, Iowa, or Wisconsin. Married, 33 year small family, experienced in all lines of farming. college training. References furnished. Address 421, care Hoard's Dairyman.

Wanted—Work on farm. Lifelong experien dairying. Also experienced with tractor and te and two years threshing grain. Address BOX 424 Hoard's Dairyman.

Single man, age 35, wishes job as herdsm manager of up-to-date dairy. Have very best perience. Will answer all inquiries at once. A BOX 425, care Hoard's Dairyman.

Single, experienced man, age 28, wants job as er in up-to-date dairy, certified or grade A. Ca reference. Address DAIRYMAN, 585 E. Buchtel Akron, Ohio.

Position Wanted on large dairy farm by exper young farmer aged 19. Address BOX 417, Hoard's Dairyman.

Position wanted as farm manager or ren equipped dairy farm. Owner furnish everything labor, on percentage. M. C. COLE, Barrington.

Dairy Market News

(Continued from page 703)

May. The Association handled 30,820,710 milk, of which 60 per cent was surplus. spite the largest production in its hi there was a spread of only 25 cents bet the price received from distributors and price paid members. The association asc this because the prices for butter, cheese, condensed milk are bringing more than in comparison to market milk and be it has increased the efficiency with which handling its surplus. The making of milk powder has increased the net pri this product from 17 cents to 40 cents a dred after all costs are considered.

Cream patrons were paid 50 cents a p for butterfat in first grade cream during This is 6 5 cents above the average pri 92-score butter on the New York mark.

Connecticut June Mill

The Connecticut Milk Producers' Associ announces the following prices for Gra milk delivered during June at market centers:

All milk sold in fluid form, 9.5 cents quart for 4 per cent milk, and 4 cents point allowed for other tests; all milk into cream that is sold in fluid form. 2 cents per pound fat above the average mon price of 92-score butter on the Boston ket; all milk made into butter, at a price pound fat equal to the month's averag 92-score butter in Boston.

Sheffield Price

The cash price for May, 1927, paid She producers for three per cent Grade B in the 201—210 mile zone is $2.30 per hun pounds with the usual freight and butt differentials. This is equivalent to $2.50 3.5 milk and is an increase of 10c per dred pounds over May, 1926. —C. W. Hi day, Secretary.

Poultry on the Dairy Farm



Summer Suggestions

idsummer is the slump season. the farm work is rushing, the of eggs is not particularly at- ive, range conditions almost sat- the hens' wants, and they are naturally supposed to lay during season without much care. In all his we lose sight of the fact that ofitable year is a long laying year a correspondingly high produc-

rst, foremost, and all the time we t bear in mind that a complete ra- during the summer is required. tendency toward dropping the mash when range becomes avail- has been the cause of most of the summer production, early molt, resulting low summer profits.

his dry mash mixture cannot be a titute or attempt at disguise. It t be complete which means the tion of animal protein feed from e source. This may be meat scrap, ster tankage, meat and bone meal, t meal, or some form of milk.

n experiment conducted at the Station at Wooster some years showed very clearly that when dry mash was dropped from the on in the late spring there was a in production in about three ks. The hen, apparently, can blish a body reserve while on a plete ration which enables her to inue producing for about that th of time after the dry mash is oved. After this period, the re- e is exhausted and the hen must end upon what the ration carries. his is deficient the production will n proportion.

n the same test a pen kept on a h that was made up in the same of ground grain and by-products, n the exception of animal protein, e the same results as that with no h. If one does not give a complete ture it is unnecessary to grind the ls, since the hen can do that her- and save that part of the bill for

was commonly thought that a h was required. Some Kentucky k showed that when the flock was t on a grain feed and had access nilk and no water, the cost of pro- ing a dozen eggs was just about same as another flock on dry sh.

During the winter, with a flock in finement, with proper control and wed to drink only milk and no wa- this is practical. During the sum- on free range one finds another blem. A hen can only drink a cer- n amount. If part of this liquid is er from pools, pans, troughs, or ks, the milk consumption will be ited in proportion. If a certain per t of the entire feed must be animal tein, for best results one will find t the production will suffer when t amount is decreased.

n mixing a home mash the most monly used and recommended sists of equal parts by weight of und corn, ground oats, wheat n, standard wheat middlings, meat ap, and 1% or 1 lb. to the 100 . of mixture of fine table salt. This be placed in an open hopper and t available for the flock at all nes. With the usual range and an average farm flock it is advisable to cut out the morning grain feed, keep mash before them constantly, and give only the amount of grain required to fill them up as an evening feed.

In this mixture one will find that the animal protein constitutes 20% of the mash mixture or 10% of the entire intake based on a consumption of equal parts by weight of grain and mash.

When milk is available it should be fed since the addition of it to the ration improves results. At the same time about 5—10% of meat scrap or similar product should be added to the dry mash. The addition of it improves both the palatability of the mash and production.

Broody Hens

Everyone these days likes to refer to the "good old days." Back in that time we can remember all of the devices by which broody hens were "broken up." That statement was true in that they were broken up so that they never did come back as good producers after 24 hours in a tub of water, a few days without feed, hung up in a gunny sack, or maltreated in some other way. Any idea of production they ever did have was gone after such treatment.

Every broody hen should be collected every night just as religiously as one collects the eggs. At this time she should be given either a colored celluloid leg band, a hog ring, or some other identification.

The hens should be placed in some shady, protected place in a slat bottomed coop on regular ration. They should have constant access to dry mash and all other materials. When kept on a good ration and collected as soon as broody, there will be less yolk absorption and consequently a shorter resting period before again starting production. A broody period should not require a rest of more than a week or ten days.

When making the first cull all of those hens that are well marked as a result of several broody periods should go to market. There is undoubtedly a close connection between broodiness and production. If the average production of the heavier breeds were raised there would be no more broodiness than there is in the Leghorns. Production and not name controls broody tendencies. Some of the most persistent sitters were White Leghorns. Along in midsummer one gets the idea that the entire flock is broody. In most instances just a few hens that are broody time after time give the entire flock a bad reputation.

Summer Eggs

About June 1 there is usually a National Swat the Rooster Week. The necessity for removing the males is evident. Eggs from flocks without males will never develop into rots. In this, as in most other "Weeks," it is necessary to use judgment. If one has just an ordinary bunch of males it is advisable to dispose of them and buy a better grade the following year.

When one has a bunch of males from real producing lines or are pedigrees, they should not be sold. They can be carried on a separate range away from the rest of the flock, with a wire covered front to the house and hopper fed to reduce labor. The production of infertile eggs is especially advised when one caters to a fancy market.

Egg collections can be helped by keeping the flock confined to the house until noon or shortly after. This will discourage stealing nests in the mow, machine shed, tall weeds, or other isolated spots. With good ventilation the house will be about as satisfactory as an outdoor range with practically no additional labor. Under farm conditions, this plan is followed in a great many instances.

An infertile egg cannot rot, but evaporation can take place. Regular collections, with the eggs held for marketing in a cool place, will prevent a lower classification from this cause.

Confining the flock for a few days after heavy rains will also result in an improved appearance to the egg. Some litter on the floor even during the summer will allow the hens to keep their feet cleaner and produce a better appearing egg.

Some of these things may seem trivial, but they all count up as a part, and oftentimes an important part, of the activities for the year.—J. B. HAYES.

Effect of Sunlight on Growing Chicks

Nine lots of chicks were selected for studying the effect of exposure to sunlight and supplementing the ration with crude and refined cod liver oil at the Canada Experiment Farms. The birds not being exposed to sunlight were in pens having the windows covered with heavy brown paper and light was supplied by electricity. The results showed that the highest mortality occurred in the pens having no sunlight, while the mortality was lowest in those having direct access to sunlight. The former group, however, made the greatest percentage gains in weights.

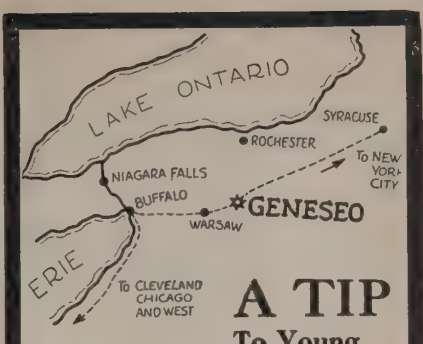
World's Poultry Congress

A treat is in store for those who attend the World's Poultry Congress to be held at Ottawa, Ontario, Canada, July 27 to August 4, 1927. The program of lectures and addresses is the most comprehensive one ever given by the poultry industry of the world and presents a unique opportunity for producers, distributors, and consumers to learn a great deal about practically every phase of the poultry industry.

"Waiter! Take this egg away!" roared the elderly diner. "Take it away."

"Yes, sir," said the waiter, as he glanced wistfully at the offending article. "And—and what shall I do with it, sir?"

"Do with it?" the outraged customer rose menacingly from his chair. "Do with it?" he bellowed, fiercely. "Why, wring its neck."—White Mule.



A TIP
To Young
FARMER-TOURISTS
Combine Business With Pleasure . .
DRIVE THROUGH THE FERTILE
GENESEE VALLEY
(Livingston County)
WESTERN NEW YORK

Splendid paved roads through beautiful scenery. Here is your opportunity to inspect the splendid farms which we will sell or lease on very easy terms if you own your farm implements.

These farms are ideally suited for dairying, growing of canning crops, alfalfa, timothy hay, and small grains, and raising sheep, stock and feeders. Nearby markets, railroad facilities, schools and churches make these farms most desirable. Write for details of our plan for helping finance ambitious farmers. Geneseo is located on two of Western New York's best paved highways; is only 95 miles from Niagara Falls, 80 miles from Buffalo, and 30 miles from Rochester. See us this summer. Write or call upon

LEO M. ALLEN, Manager
Farm Department
LIVINGSTON COUNTY TRUST COMPANY
GENESEO, N.Y.

Feed
ARCADY
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Feeds
If your dealer can't supply you write
ARCADY FARMS MILLING COMPANY
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Send for free dairy and poultry books today.

NABOB JUST-RITE Baby Chicks
ONE MILLION—AMERICAN—INSPECTED—QUALITY, Egg Production and Exhibition Chicks. 40 Popular and Rare Breeds. Chicks in Quality Matings as follows, 100% Live Delivery—Postpaid Summer Prices:
White, Brown, Buff, Black Leghorns.....$ 9.00
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Heavy Assorted Chicks, $10 per 100 straight. Light Assorted, $8 per 100. There is still time to put in these FAMOUS NABOB 18K CHICKS this season if you ACT QUICKLY. Get our Big, Illustrated 60-Page Catalog for further information on Rare Varieties, etc. Member International B. C. A. Bank Reference.
NABOB HATCHERIES, Box G5, GAMBIER, OHIO

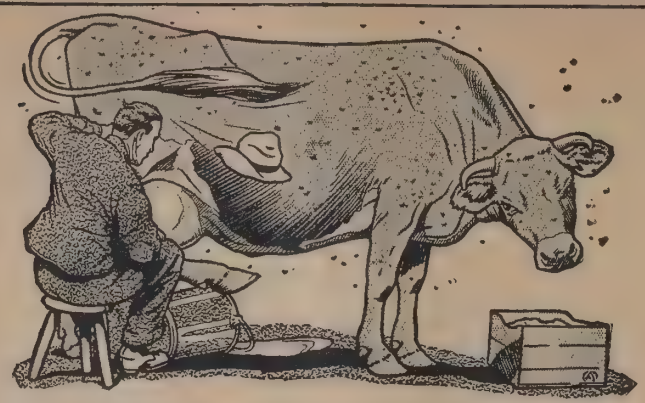
The Christensen Oval Double Cone Mop Wringer saves backache and sore, scalded hands. By gently twirling mop handle you wring the mop and the deep corrugations of the wringer remove all dirt and grit. Hands never touch water -- no splashing. Fits any pail. No cogs -- the most Normal Mop Wringer made. We'll send you one of these great labor savers for $2.20 prepaid -- money back if you are not satisfied. Agents wanted. Circulars Free.
H. K. CHRISTENSEN MANUFACTURING CO.
Fort Atkinson Wisconsin
IT RUBS AND SCRUBS AND CLEANS THE MOP

DE SOTO CONDENSED BUTTERMILK
4¢ lb
A pound of De Soto Condensed Buttermilk mixed with water makes 4 gals. of pig slop. For poultry feed, use one lb. to 3 gals water. Satisfaction guaranteed.
10 Pound Trial Pail For 30c In Stamps.
125 lb KEGS
De Soto Creamery & Prod Co. Minneapolis Minn
500 lb BBLS 3¢ lb

FARROW CHIX FOR SUCCESS
Successful Poultry Raisers everywhere Proclaim Them the Leading Chix of America. FARROW CHIX will be available again in February, 1928. Write for price list in January.
D. T. FARROW CHICKERIES, Dept. 18, PEORIA, ILLINOIS

WHITE LEGHORN HENS AND MALES
now half price. Thousands of eight-week-old pullets. Also Baby Chicks and Eggs. Trapnested, pedigreed foundation stock, egg bred 27 years. Winners at 20 egg contests. Catalog and special price bulletin free. I ship c. o. d. and guarantee satisfaction.
GEORGE B. FERRIS, 965 Union, Grand Rapids, Mich.

A Vest Pocket Herd Book is a good investment



Dr. Hess Fly Chaser

makes cows milkable

They relax. They let down. You get the last drop. It is long lasting.

Dr. Hess Fly Chaser has the odor of the pines. Because of this odor it serves a threefold purpose:

First—It is the most effective fly and mosquito repellent known to science—quick in action, long lasting.

Second—It is an excellent disinfectant. Therefore, while it is keeping the flies away, it is also destroying the disease germs that attack your cow's body—disinfecting your barns, and injecting into the atmosphere a most healthful odor.

Third—No herd sprayed with Dr. Hess Fly Chaser ever suffers from warbles, which cause a great annual loss to dairymen and farmers.

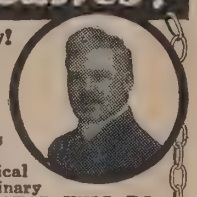
It does not blister—does not stain the hair—does not taint milk. Applied to the hands and face, it keeps the mosquitoes away.

If Dr. Hess Fly Chaser does not prevent the milk slump, make your cows milkable in fly-time, save your horse-flesh all summer long, it will not cost you one cent.

DR. HESS & CLARK, Inc., Ashland, Ohio



Are Your Cows Losing Their Calves?



If they are, you are losing money!
You can stop this loss yourself
AT SMALL COST

Write for FREE copy of "The Cattle Specialist," our cattle paper. Answers all questions asked during the past thirty years about this trouble in cows. Let us tell you how to get the "Practical Home Veterinarian", a Live Stock Doctor Book, without cost. Veterinary advice FREE. Write us tonight about your live stock ailments. A POSTAL WILL DO.

Dr. David Roberts Veterinary Co., Inc., 195 Grand Ave., Waukesha, Wis.

CLEAN OFF A BOG SPAVIN



or thoroughpin promptly with Absorbine. It is penetrating but does not blister nor remove the hair. You can work the horse at the same time. $2.50 at druggists, or postpaid. Describe your case for special instructions. Write for valuable horse book 4-S free.

A user writes: "Had one horse with bog spavin on both hind legs. One bottle Absorbine cleaned them off. Horse now going sound and well."

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.
W. F. YOUNG, Inc. 454 Lyman St., Springfield, Mass.



COW-EASE

Keeps flies away···
Makes cows *PAY!*

Turn your cows' comfort into cash. Spray them with Cow-Ease twice a day and you will get more milk, better milk. Tests prove this. Cow-Ease, applied with a sprayer, won't injure a cow's skin--but it *does* keep flies off. Equally effective on horses or in hen houses.



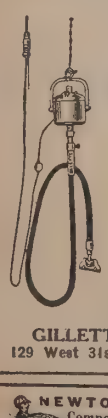


One gallon sprays 200 cows. Get the can with the blue Cow-Ease label. If your dealer hasn't it, send his name and address and $1.50 ($1.75 west of Missouri River), to Carpenter-Morton Co., Boston, Mass., and we will deliver one gallon, prepaid. Sprayer 60c. extra.

Satisfaction guaranteed.

CLIP YOUR COWS IT MEANS MORE--

Cleaner and Better Milk.



Easier to keep them clean, make them feel more comfortable and keep dirt out of the milk pail.

CLIPPING improves the health of CATTLE, HORSES, MULES, etc. Use a GILLETTE PORTABLE ELECTRIC CLIPPING MACHINE. Also furnished with GROOMING ATTACHMENTS for cleaning. Operates on the light circuit furnished by any Electric Light & Power Co. or on any make of Farm Lighting Plant.

Price list free on request.

GILLETTE CLIPPING MACHINE CO.
129 West 31st St. Dept. M. New York, N. Y.

Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.
The Newton Remedy Co. Toledo, Ohio.

A Vest Pocket Herd Book is a good investment

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Sudden Blindness

It sometimes happens that a farm animal suddenly becomes blind, although the eyes appear to be even "brighter" than normal and the owner is at a loss to account for the trouble. He is acquainted with the symptoms of "pink eye" which, he knows, cause the eyeball to bulge from its socket and take on an opaque or porcelain appearance; but in the case to which we refer there is no cloudiness or discoloration of the eye and the animal does not appear to be sick or "fevered." In other instances the report comes to us that a calf or foal is born blind, yet its eyes appear to be "all right." The cause of this form of blindness always is a puzzle and we are asked if there is a chance of recovery.

The disease in these cases technically is called amaurosis or, popularly, "palsy of the sight." It is a paralysis of the retina of the eye and the optic nerve and that usually proves incurable. In the horse it is also called "glass eye," which should not be confused with "watch eye" or "wall eye" in which the sight is unimpaired but coloring or pigmentation absent. The eyes, when affected with amaurosis, appear usually brilliant and open. That is due to the fact that the pupil is widely dilated and permanently so, for there is no power of contraction of the pupil. The animal is "stone blind."

This disease of the eye suddenly may be caused by a blow on the head, or fracture of a bone over the eye so that pressure, or injury, of the nerve is caused. It may also result from loss of blood following castration, dehorning, or some other wound, or when "flooding" occurs after calving. Any severe shock possibly may cause it, or it may result from debility of the system following an attack of any serious disease. It has been known to result from lightning shock. Another peculiarity of the disease or condition is that it may affect an animal at birth, without apparent cause; but in these cases it is to be suspected that bruising, during passage of the head through the pelvic opening, may be the cause.

Recovery may, in time, occur in those cases of amaurosis that are caused by loss of blood, or debility following an attack of disease. Treatment, in such cases, consists in administration of tonics, such as iron sulphate, nux vomica, and gentian, under direction of the veterinarian and along with generous feeding. When it has been caused by a blow on the head, application of soothing remedies, at first, and of a blister eventually, may possibly do some good; but the disease, as a rule, proves incurable. It may be spontaneously recovered from when present at birth, but that is rare.

Fouls

My cows get sore or split in hoof up next to hair. Gets odor. I disinfect barn and gutter with crude carbolic acid. I have lived on this farm 3 years. The cows got it the first year and have been bothered ever since.
St. Elmo, Ill. J. P. C.

The cows are affected with "fouls" or "foul in-the-foot," sometimes called "foot rot." It is caused by foreign matters such as grit, bits of corn cobs and manure, etc., lodging between the toes and lacerating the fine skin. Standing in mud, wet, and filth in the yard or stable is an inducing cause. Do away with all such conditions. Keep the cows in a clean

Pipe Smoker Te of Risking Life Finding His Ca of Favorite Tobac

Rescued from dangerous c in Virginia he goes back find can of tobacco he dropp on the way out

Over a period of years, we heard of many ways in which smokers prove their devotion to favorite tobacco.

But the medal certainly goe Joseph P. Fink of Darby, Pa., wh the risk of his life went back int very cave from which he had been rescued, to find the can of E worth that he had dropped s where in the darkness.

His letter follows:

Darby, Pa.
November 12, 19

Larus & Bro. Co.
Richmond, Va.
Gentlemen:

I take the liberty of writing yo concerning a little incident that ha pened to me in the Shenandoah Va ley of Virginia.

I have a mania for crawlin through a number of unexplored ca erns between the towns of Woodsto and Mt. Jackson. One cave was e ceedingly dangerous with its tig passages, etc. I spent three hours i this cavity, groping blindly with "dead" flashlight and a severed gui ing string.

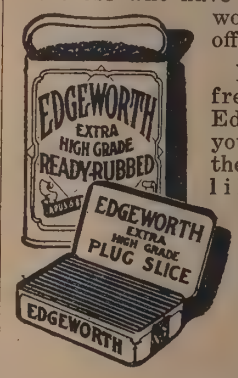
To cut my story short, I was final rescued by a searching party after terrible experience. It was a wonde ful feeling as I sat at the mouth the cavern telling my friends that would not go back in there for lo nor money. I meant it—until reached for my can of Edgeworth. was gone, and I recalled droppin something during the excitement i the cave.

It is queer what a man will when his favorite tobacco is co cerned. I realized that without my t bacco it would be as bad as being lo in the cavity—so I crawled back.

It was a grand and glorious feelin as my hand came in contact with t Aristocrat of Tobacco.

Yours very truly,
(signed) Joseph P. Fink, Jr.

To those who have never tried E worth we make h offer:



Let us send free sample: Edgeworth so you may put i the pipe test. If like the same you'll like Ed worth wher and whene you buy it, f never change quality.

Write y name and a dress to Larus & Brother Compa 15 S. 21st Street, Richmond, Va.

We'll be grateful for the name address of your tobacco dealer, if you care to add them.

Edgeworth is sold in various s to suit the needs and means of purchasers. Both Edgeworth Slice and Edgeworth Ready-Rub are packed in small, pocket-size p ages, in handsome humidors hol a pound, and also in several handy between sizes.

To Retail Tobacco Merchants: your jobber cannot supply you Edgeworth, Larus & Brother C pany will gladly send you prepaid parcel post a one- or two-dozen ton of any size of Edgeworth Slice or Edgeworth Ready-Rubbed the same price you would pay jobber.

On your radio—tune in on WRVA, Richmond, —the Edgeworth Station. Wave length 256 met

while under treatment. Per-
cleanse the hoof, remove all
n matters, and cut away all
or rotten horn from the sole
ll, then immerse the hoof for 5
es in hot water containing 2
s of bluestone per pint. After-
wrap the foot with absorbent
, kept in place with a bandage,
nen keep the cotton and ban-
saturated with a mixture of 5
of carbolic acid, 3 parts of for-
and 100 parts of boiled water
about well, then apply pine tar.

Mastitis

e been having considerable trouble this
drying up my cows and would like to
at you consider the best way of drying
le. The way I do I cut out the grain ra-
tirely and give them nothing but dry
l then skip one milking, then two, and
and the first thing I know I have a
th garget in one or more quarters and
y case this winter they have freshened
rget in those quarters. Some of them
been able to clear up and others not,
n writing for information as to what
uld advise me to do to correct my trou-

oose, Ore. L. A. J.

ablished streptococcic mastitis
rable and the affected cows are
ace in the herd as the infection
be carried from them to other
by the milker's hands or cups of
ilking machine. It may also be
acted by the teats coming in
ct with a floor or ground on
fluid from a diseased udder has
allowed to fall. Incurably af-
d cows should be isolated and
for the butcher. Then cleanse,
ect, and whitewash the stable,
ling the floors and gutters.
se and disinfect the udder and
of each cow before and after
milking and milk with clean
s. Keep the floor clean and
ected and keep cows out of filth
mud. Have your veterinarian
starting cases hypodermic treat-
with anti-mastitis serum or
rin.

ur method of "drying off" cows
at commonly practiced, but if a
of garget appears at once milk
ow clean once an hour until the
becomes normal and then aban-
he attempt to dry her off. Grad-
lengthen the intervals between
ngs, until a considerable shrink
s before omitting one milking.

Warts

ve a mule three years old that has a
of small warts on the outside of one
How can they be removed?
erts, Wis. E. P. L.

the warts have slim necks they
at once be snipped off with
r blunt scissors, then apply tinc-
of iodine when bleeding has
d. If the warts cannot be re-
d in that way apply castor oil
and they should, in time, come
On account of the location of
warts, irritating applications of
ng medicine cannot safely be
e.

JERSEYS

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

FOR SALE
Junior Yearling Jersey Bull

Jolly Golden's Majesty Jap (Being registered) Tattoo 101. Dropped July 28, 1926. Solid (golden tan) color, black tongue and switch. Cowslip Jap's Maybelle 668843, the dam of this bull, is a granddaughter of the Imported Jap, the bull which had five daughters which each produced over 1000 lbs. of butter in 365 days. The dam of the sire of this bull is a heavy producing Register of Merit Cow and produced 1826.9 lbs. of milk in May, 1922.
PRICE $250 F. O. B. OUR STATION
Herd Accredited and Free of Abortion
Send for Pedigree
RAVINE FARM, Est. 1913, PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle

Jersey Bull For Sale

Name: Tiddledywink's Conqueror No. 246602.
Sire: Tiddledywink's Admiral No. 235190.
Dam: Tiddledywink's Favor No. 634096.
Dropped October 20, 1924. Registered September 1, 1925.
Markings—Stifles, belly, left hind and both fore legs, and tongue white. Write
C. O. DICKERSON, R. F. D. No. 1, Fonda, Iowa

"SYBILS and MAJESTYS"

Offering a few choice bred heifers due to freshen in the fall. The right combination of Sybil and Majesty breeding predominating. Moderately priced. Write for particulars.

CEYLON COURT FARM
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

Easton Farm
-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

JERSEY BULL

Dropped Feb. 18, 1927, solid color, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.
AMBERG FARM, HILLSBORO, WIS.

Belswood Jerseys
H. F. Block, Waukesha, Wis.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

Robertson Jersey Sale

The dispersion of the R. D. Robertson Jersey herd in Barron County, Wisconsin, recently was strictly a farm sale. It had been advertised only locally, and by no means all of the cattle were in sale condition, particularly the younger heifers. The entire 40 head of all ages averaged $108, the price on the pure-breds being below that for the grades. Seventeen registered animals, four of them heifer calves, averaged $103.50.
Wisconsin. G. W. VERGERONT.

A Tree

I think that I shall never see
A poem as lovely as a tree.

A tree whose hungry mouth is prest
Against the earth's sweet flowing breast.

A tree that looks at God all day
And lifts her leafy arms to pray.

A tree that may in summer wear
A nest of robins in her hair.

Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me
But only God can make a tree.
—JOYCE KILMER.

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM
MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

AYRSHIRES

AYRSHIRE COWS
FULLY ACCREDITED
300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

Spring Valley AYRSHIRES
Accredited Herd
Foundation FEMALES - BULLS
For Sale At All Times!

Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.

We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.

L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL
AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, write us. Herd under Federal Supervision.
SYCAMORE FARMS, Douglassville, Berks Co., Pa.

A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.
GLEN FOERD FARMS TORRESDALE, PA.

PENSHURST AYRSHIRES

Accredited certificates recently renewed for both tuberculosis and abortion. 235 head tested. Penshurst Man O' War heads the herd. His dam is world's champion Ayrshire producer and reproducer. Sire's dam ex-champion (their records average 24,025 lbs. milk.) His progeny is excellent. Write us for the best in Ayrshires.
PENSHURST FARM, Narberth, Pa.

Choice Ayrshire Bull
Born November, 1926

Color mostly white. Sired by CAVALIER'S LORD MESSALLIANCE. 1st prize Waterloo Dairy Congress, 1926. Whose 5 A. R. sisters with records averaging 11,187 lbs. milk, 444.56 lbs. fat. Write for photo and price.
GREENFIELD FARMS,
R. 5, West Allis, Wisconsin

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 3 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.
ALDEBARAN FARM, E. J. Nelson, Mgr., Racine, Wis.

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

Buy that herd bull from a Hoard's Dairyman advertiser. You'll be better satisfied.



One Million Registered Jerseys

A few weeks ago the millionth Jersey was registered by the American Jersey Cattle Club. This event marks the beginning of a new era in the growth of this great breed. The number of pure-bred Jerseys registered almost doubles every ten years showing the *healthy, sure* growth of this breed.

For information about Jerseys or assistance in locating stock write

THE AMERICAN JERSEY CATTLE CLUB, Dept. B
324 West 23d St., NEW YORK, N. Y.

Jersey Bull Calves

re offering at reasonable prices a few bull calves sired by Vive La France's Darling Son out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. rfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by ng's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. s Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, irst Jersey cow to make 1000 lbs. butterfat.
E GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

A Fitting Head for Your Herd



No bull is better qualified to head your herd than an Ayrshire. His daughters will prove deep-milking cows that are an improvement over their dams in both type and production—and Ayrshire milk brings the high dollar.

Even the calves of an Ayrshire bull make market-topping veal.

Herd Improvement Begins When the First Ayrshire Steps on Your Farm.

Write for free booklets and list of herds to visit near you.

AYRSHIRE BREEDERS' ASSOCIATION
10 Center St., BRANDON, VT.

"A Bottle of Milk and a Bath!"

—Lindbergh's first request on the completion of his epochal trip is destined to become historically famous. It is an unsolicited testimonial to the value of milk as a refreshing food.

—

The Guernsey cow is an economical producer of the world's most vital food product—and her milk is considerably above the average in quality. Farmers who want profits choose Guernseys.

Ask for "The Story of the Guernsey"

—

The AMERICAN GUERNSEY CATTLE CLUB

8 Grove Street PETERBORO, N. H.

Your Next Herd Sire Need Not Be Expensive

But he must improve your Production and Individuality

WRITE FOR OUR LIST OF BULL CALVES

They will interest you!

LOMA FARMS
W. W. Blake Arkcoll, Mgr.
MARQUETTE MICHIGAN

FOREMOST GUERNSEYS

We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Heifers FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

Bonnie Brae Guernseys

Herd Sire—Itchen King 49803 A. R. Sire of 8 A. R. Daughters that will average 640 lbs. fat. Sons of Itchen King for sale out of A. R. Dams of popular breeding. Priced reasonable.

BONNIE BRAE FARM, Clinton, N. Y.

Tell the advertiser you saw his advertisement in Hoard's Dairyman.

PENNCREST FARMS

ACCREDITED
WALTER SMEDLEY, OWNER
HERD SIRES—

Lancastrian—A son of Ne Plus Ultra.
Sunnybrook Ultra Noble—A grandson of Ne Plus Ultra out of a 920-lb. cow.
Fairmaid's May Royal—A son of Mixter May Royal out of a 920-lb. daughter of Langwater Demonstrator.
Penncrest's Starlight's Royal Master—Grandson of Langwater Royal Master out of 630-lb. Class G daughter of Langwater Master Fred.

Stock sired by these bulls for sale. Address inquiries to Media, Pennsylvania.

WM. P. SMEDLEY, Manager

Bargains in Bull Calves

A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD

Lines—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, Pa.

BARGAIN BULLS *produce* CLASS LEADERS

Guernsey Breeders' Journal says in Feb. 1st issue—OUR NEW CLASS LEADERS—Silverwood's Diana, 20,006 lbs. milk Sire:—BROOKMEAD'S BANNER A. R.

Sold sight unseen as a youngster.

Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

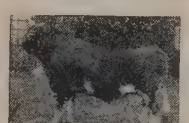
GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

BUTTERGOLD GUERNSEYS

Federal Accredited
No Abortion



HERD SIRE

Offering TWO CHOICE TYPY BULLS sired by 1922 National Grand Champion and out of tested dams, born last August and November. Two choice senior heifer show calves out of tested dams and sired by son of National Grand Champion whose dam has just completed a record of over 700 lbs. fat, not yet verified. Boss' daughters on test are doing very well. One in A is going at 800-lb. clip, has made as high as 3.26 lbs. fat in one day and retest requirements her 4th, 5th, 6th mos.

TARR BROS., NEW AUBURN, WIS.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

A High Class Bull

A. R. DAM—PRICED TO SELL

CHERUB'S SPLENDOR OF CHIPPEWA is for sale. Born Aug. 15, '26. Growthy, good type. Sire: Proud Prince of the Prairie is a prize winning son of Cherub's Prince. Dam, a Glenwood cow with 415 lbs. fat in F. F. Priced right. Write today.

L. P. MARTINY, Chippewa Falls, Wis.

Springers and Fresh Cows

HOLSTEINS and GUERNSEYS

COME and make your own choice from a wide selection or wire or write for prices.

O. G. CLARK & CO., WEST SALEM, WIS.

Luxerin GUERNSEYS

(SHERIDAN'S)

FOND DU LAC WISCONSIN

We have only a few Glenwood bull calves up to 3 months old for sale at present. They're priced to sell.

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

MARSH FARM GUERNSEYS

Founded upon CHERUB combining modern show with production. At the la National Dairy Exposition out of 78 championships been awarded to cattle fron

farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Cla to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOW

BUY HOLLISTON SIRES

LANGWATER HOLLISTON, our famous senior herd sire, now has 23 A. R. daughters 7 A. R. sons. His daughters are unusually persistent milkers and have what many cal foundation type and character. Langwater Holliston is out of a superior daughte Imp. King of the May and he is sired by Jethro's May King of Linda Vista.

NOW OFFERING FOR SALE TWO YOUNG BULL CALVES that will be ready for service next winter. Dam of one now on test will make 600 lbs. fat. Dam of other made 583 lbs. fat in GG.

D. G. TENNEY, 15 West Fourth St., NEW YORK C
FARMS AT SALEM, N. H., AND METHUEN, MASS.

Watch Fern-Dell!

Follow Our 1927 Show Herd —Beginning at

Northwest Fair, Minot, N. D., July 4—9
North Dakota State Fair, Grand Forks N July 11—16.
North Dakota State Fair, Fargo, N. July 18—23
Other fairs announced later

Write for Bull Sales List — Good Bulls as low as $150.00

LARSEN'S FERN-DELL FARMS, A. W. Fox, Manager, GREEN BAY, W

CORIUM GUERNSEYS

Health, vigor, production and repro tion control the profit of the produ dairy herd.

A son of Langwater Ultimas, the pr production sire, sired by a proven pro tion sire, will improve your herd.

Write for price list of our offerings

CORIUM FARM, Inc. - - - FOND DU LAC, WISCON

OAKLAND GUERNSEY FARMS (SINCE 189

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING FRESH. Heifers all ages. Registered bul's. Large T. B. tested herd to select from. five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO,

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy produ Write or come and see us. Carloads furnished on short notice. Prices reasonable. S faction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO,

Special Offer of Registered GUERNSEYS

NINE COWS most all young, and fifteen HEI and CALVES, from four months to past a year choice of registered bull calf, no relation, to go them. The twenty-five head for $3,500. T. B. t f. o. b. car, all papers furnished. Must sell at

H. R. LOBDELL - - MUKWONAGO, Waukesha County, Wisco

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

HELENDALE GUERNSEYS

TYPY BULL CALVES

of best of breeding and from producing cows, for sale at moderate prices. Herd Federal Accredited and free of abortion.

HELENDALE FARM, Athens, Wisconsin

HERD SIRE FOR SALE

Valentine's Count of Four Pines, my 4-year-old, line bred grandson of King of Chilmark, is for sale. A splendid bull with good type and backed by excellent production. Guaranteed right. Clean herd.

J. M. HARVEY, R. 2, WAUKESHA, WIS.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

FOR SALE — Yearling Purebre GUERNSEY BULL

Also several young bull calves. Dam with records exceeding 500 lbs. Price and particulars on request. Address

EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wi

OUR GUERNSEY SIR

Combine Type and Product

PRINCE CHARMING OF SHUTTLEWICK. Shuttlewick Levity, 804.44 lbs. fat at 2 yrs. Sol $22,000. Her dam, Langwater Levity, grand chan at 1923 National. CINDERELLA'S FAME MOUND CITY. Dam, Cinderella's Josephine, 90 fat. YOUNG BULLS for sale by these sires and A. R. dams; also a few bred and open heifers. credited herd. Write.

LINWOOD GUERNSEY FARM
Homer Rundell, Owner, Livingston,

Registered Females

Foundation females are offered at v reasonable prices. If you want a f good heifers or cows, Glenwood bred, wr us today. Our cows have A. R. records to 933.80 lbs. butterfat. The herd is cle

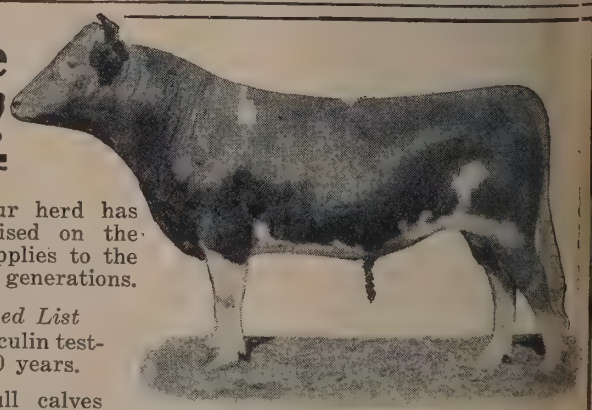
GEO. E. LARSON, AMHERST JCT., W.

HOMESTEAD FARM GUERNSE

Will sell or trade one of our herd sires, his six est dams average 775 lbs. fat, May Rose bre Young bulls 2 to 13 months old. Can also spare females. Visit us or write.

JAMISON BROS. APPLETON, WISCO

Need a Sire Next Fall?



Every female in our herd has been bred and raised on the farm. The same applies to the females for several generations.

Herd on Accredited List
Has also been tuberculin tested for more than 20 years.

We believe our bull calves are well worth your consideration if you want a bull calf that will improve your herd.

HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN

ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Che Confidence who has a two year old record of 511.82 lbs. bu terfat and a junior four year old record of 764 lbs. butterf Ma Chere Confidence is one of the outstanding daughters the famous Jardinier's Masher. A. K. C. sires excellent u ders, long deep bodies, straight top lines, and real productio His first nineteen A. R. daughters average 8739.4 lbs. mi and 422.8 lbs. butterfat on two time milking and herd r tions at the average age of three and one-nineteenth yea

ational Ormsby Sale

e first National Ormsby Sale, June 15—16, at the Minnesota Fair Ground under the man-ent of the Melin—Petersen Co., uccessful. It included animals rmsby breeding only, consigned eeders in Iowa, Minnesota, Wis-n, and North Dakota, and while y very ordinary animals were the consignments generally good and brought fair prices.

e hundred nineteen head were or $35,855, an average of $301 yers from California, Missouri, Minnesota, Wisconsin, Illinois, Ohio. Four animals brought a figure price, the highest selling 2,375 to Shore Acres Farm, Min-a. This was an 11-week-old son iune Ormsby Piebe from an lb. 3-year-old daughter of K. P., consigned by Hargrove & d of Iowa.

e other three high priced ani-each brought $1,000. One was ear-old daughter of Wisconsin . 5th consigned by C. S. Sutton urchased by the Detroit Cream-o.; the second was a 5-year-old ter of Marathon Aaggie con-d by Milford Meadows Stock , Wisconsin, and purchased by F. E. Murphy, Minnesota; and ird was an 11-month-old 31-lb. son of Creator consigned by C. paulding, Minnesota, and pur-d by the Pevely Dairy Co. of uri. Mr. Shields, representing evely Dairy Co., was the heavi-yer, taking 22 head for $7,815. ck, Thompson, and Hanson did elling with G. R. Melin of the —Petersen Co. in the box.

e following list includes those als selling for $300 or more and s:

Maytag, Iowa	
llyhock Wellington Fobes	$500
wayside Tritomia Eda	300
nin Eichorst, Minnesota	
Pride Superba	$475
Irwin, Minnesota	
dy Oak Ormsby Colantha	$370
nary Homestead Mercedes Alice	360
chess Mercedes Homstead	500
incess Aaggie Polkadot De Kol 3d	795
Dairy Company, Missouri	
lie Ormsby Segis	$600
liana Mudcura Mixture	325
ldenrod Segis De Kol Ormsby	1,000
kota Mercedes Banostine	660
unt Pietertje Mercedes Canary	460
ggie Sensation Pontiac	350
Bess Mercedes Sensation	500
lle Hazeltine Ormsby 2d	300
ss Tritomia Nina Pontiac	360
ss Ormsby Mercedes Maid	300
rcedes Ormsby Fobes Lady	300
. E. Murphy, Minnesota	
amsell Johanna Bess	$700
ilford Bonheur Bess Burke Ormsby	1,000
uline Fobes Ormsby Lad	310
Acres Farm, Minnesota	
iune Piebe Papoose	$2,375
Driessen, Wisconsin	
rum Lulu Ormsby	$395
Jensen, Minnesota	
lenvale Hartog Ormsby Fobes	300
oud Holstein Farm, Minnesota	
rmsby Pietertje Inka May	$425
G. Thompson, California	
r Inka May Pietertje	$615
Schlager, Minnesota	
ara Pietertje Inka May	$325
Sulton, Minnesota	
ancy Skylark 3d	$325
Arnold, Iowa	
ankato Ruby Marathon Ormsby	$650
mholm Farm, Minnesota	
iver Falls Fedora	$975
Hunter Bros. and Carleton College, Minnesota	
Sir Susie Beets Ormsby	$310
Detroit Creamery Co., Michigan	
M. B. B. Fobes Marathon	$1,000
John E. Smith, Ohio	
Man O' War 19th	$375
J. C. Marlow, Minnesota	
De Kol Pontiac Ormsby Beets	$300

Michigan Plans Big Dairy Days

The Michigan State College, Michigan State Department of Agriculture, and the Michigan State Holstein Association are co-operating in a series of dairy meetings to be held as follows: Tuesday, July 26, Pontiac State Hospital, Pontiac; Wednesday, July 27, Kalamazoo State Hospital, Kalamazoo; Thursday, July 28, morning, Michigan Reformatory, Ionia; afternoon, Ionia State Hospital, Ionia; Friday, July 29, Traverse City State Hospital, Traverse City.

The program will be similar at each meeting, starting at 10:00 a. m. with a dairy judging demonstration by Professor J. E. Burnett of Michigan State College. At noon there will be a basket picnic with free ice cream and lemonade.

At 1:30 p. m. each day there will be short talks by Professor R. S. Shaw and Professor O. E. Reed of Michigan State College, E. J. Cooper of the Holstein-Friesian Association of America, and D. D. Aitken, ex-president Holstein-Friesian Association of America.—J. G. HAYS, Secretary.

Free to Calf Raisers

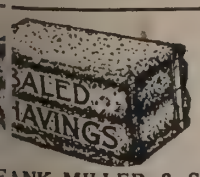
If you sell all your whole milk, write today for our new free pamphlet. It tells how you can raise heifer calves from your best cows with greatest success and least cost. Explains feeding practice as endorsed by the U. S. Department of Agriculture and state animal husbandry authorities. Learn of the profits offered by the "minimum milk method." Simply ask for Bulletin 301, stating number of calves you feed.

Write today to Room 716, 160 N. La Salle St., Chicago, Ill.

WHITE COLLIES For Sale!

Litter of eleven, born May 31. Strong, lively white Collie puppies. A few left with only a spot or two of coloring. Mother and father registered and work on our herd daily. Prices: males $15.00, females $10.00, F. O. B. Fort Atkinson.

Hoard's Dairyman Farm
Fort Atkinson, Wisconsin
Will furnish papers for registering.



Now is the Time **All wise Dairymen get their orders placed for Baled Shavings.** They are plentiful now and can be bought at a reasonable price. Don't wait until they are scarce and high and be left without them. Write us today and reserve a shipping date and it will save you money.

FRANK MILLER & SONS (*The Sawdust Millers*) **3613 Auburn Ave., Chicago, Ill.**

SALE ANNOUNCEMENTS

6—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
8—Jerseys. First Annual Sale of Ravine Farm Jerseys at Prairie View, Ill. A. Lawrence Mills, Owner.
12—Ayrshires. Consignment Sale of Edgerstoune and Monstone Farms Ayrshires at Springfield, Mass. J. G. Watson, Sale Mgr.
8-9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H. Bird, Mgr.
15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.

GUERNSEYS

RADISSON FARM GUERNSEYS
We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.
E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

High-Record Bulls
Bull No. 1, MAY ROSE, next two dams approximate 800 lbs. fat. No. 115, CHERUB, a dandy, $200. Bull No. 116, CHERUB, price $100. Several high record heifers offered cheap. Write for particulars.
FRISSDALE FARM,
R. F. D. No. 1, Hopkins, Minnesota

MAYOWOOD GUERNSEYS
Nothing for sale at present! Watch for announcement of our First Annual Sale in the near future. This offering will include a number of high-record grades. Come and look them over.
O. C. JENSEN, Supt., Rochester, Minn.

FOUNDATION GUERNSEYS
FOR SALE FROM A CLEAN HERD
Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.
ELM FARM, DEERFIELD, ILL.

Thorn Hill Farm Guernseys

Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to
AUGUST ZIESING, Deerfield, Illinois.

HOLSTEINS

Dairymen!
We are now in a position to furnish carloads of springing and fresh dairy cows and heifers — all breeds — from modified accredited counties. Can also furnish pure bred bulls, and high quality pure bred and grade heifer calves at reasonable prices.

We invite your patronage. You can save *time* and *money* by buying direct through the

CHICAGO DAIRY COW EXCHANGE, Inc.
Reid Murray, - Manager
Union Stock Yards, CHICAGO, ILL.

High Grade Holstein Springers
If in the market for big production these cows will please you. Tuberculin tested. Address
RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

K. P. O. Bulls
If you will need a new sire during the next year get in touch with us. We can offer you just what you want.
HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write
L. E. FERGUSON, LAURENS, IOWA.

STATE and FEDERAL TESTED **HOLSTEINS**
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.
Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

Dicmere Holsteins
30-LB. SHOW BULL
We are offering a very typy January calf from a 30-lb. 3-year-old dam. His sire, Walcowis Ollie Abbekirk, is a 968-lb. son of that grand champion, Iowana Sir Ollie. The herd is federal accredited. Write today if you want a good bull at a reasonable price.
H. E. DICKINSON, Oconomowoc, Wis.

Milford Meadows
Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.
Ask us about them.
W. W. KINYON, LAKE MILLS, WIS.

JEFFERSON COUNTY HOLSTEINS
Registered and Grade Cows
Do you want registered or grade cows? Come to Jefferson County to make your selection whether you want one or a car load. We have good ones for sale at farmers' prices. Area tested county. Full time fieldman at your service.
JEFFERSON COUNTY HOLSTEIN BREEDERS' ASS'N
C. W. Clingan, Field Sec., Ft. Atkinson, Wis.

ORMSBYS and OLLIES
Three daughters of our two great herd bulls have just completed records of over 33 lbs. butter, 7 days, as three- and four-year-olds. Three are now milking over 100 lbs. milk a day, and are being continued on yearly work. Sons of those sired by either PIETERTJE ORMSBY MERCEDES DELLA, greatest producing son of 37th. sire of World's Champions or by Sir Ollie Mooie Watson, highest son of old Iowana Sir Ollie, both National Dairy Show champions, offered at prices that will make you money.
F. H. BOYLE, Prop., PEEBLES, WIS.
L. F. MURPHY, MGR.

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

ABORTION FREE HOMESTEADS
We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.
T. B. under Federal Supervision.
MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager.

Come to Sheboygan County for Holsteins
We have choice grades and purebreds to select from. Write your wants to:
SHEBOYGAN COUNTY HOLSTEIN ASS'N.,
Frank Ubbelohde, Secy., Plymouth, Wis.

SERVICEABLE BULLS — FOUNDATION HEIFERS
Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.
BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins
have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.
DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

YOUNG BULLS
sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association
can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

REGISTERED HEIFERS—COWS
Because our barn space is limited we offer 12 head, registered heifers or cows. You can select what you want from the herd at farmers' prices. All females sired by 1000-lb. Homestead bull. Accredited area tested county.
CHAS. HUGHES & SON, NEENAH, WIS.

When writing advertisers please mention Hoard's Dairyman.

COMPLETE DISPERSAL AT AUCTION!

Of the Famous MINNESOTA HOLSTEIN COMPANY HERD

"America's Premier Type and Production Herd"

No herd in the world has a greater record of achievement for show ring winnings and production than the Minnesota Holstein Company herd. This herd has produced many sensational record cows, including the U. S. Champion butter producer. Three different times since 1920 the herd has won the Premier Breeder banner at the National Dairy Show. It has won three firsts at the National on "Get of Sire" and twice won 1st and 2d, an unequalled accomplishment. The herd has won a total of 27 First Prizes at the National in the past 7 years and has won 6 All-American honors, a record unexcelled by any other breeder. The present herd is even greater than it has been in the past and is in prime breeding condition. Only three cows in the entire lot are over 7 years of age. A healthy herd that has not had a reactor for over 3 years.

ALL SELLING!



MAY WALKER OLLIE HOMESTEAD
The U. S. Champion butter producer with 1523.23 lbs. butter from 31,610 lbs. milk. The only cow with three All-American offspring. A son, a daughter and several granddaughters also selling.



MAY WALKER INKA SEGIS
All-American Senior Yearling 1926. Has 23.44 lbs. as a junior two and is completing sensational year record. A daughter of the cow above. Full sister to Sir Inka May.



MISS LASSIE ORMSBY
First prize 2-year-old at Minnesota last fall. Will be a sensational 3-year-old this fall. She made 22 lbs. in seven days with first calf and is completing splendid year record.



STAR WALKER INKA SEGIS
A 21-lb. junior 2-year-old with 857 lbs. for the year. By a son of May Walker Ollie Homestead. Her dam was a first at the National and also the former world's champion 305-day heifer.



PHOEBE CORNUCOPIA WAYNE
An 4125-lb. cow with 1008 lbs. in the ten-month division. A wonderful individual. Two splendid sons by Sir Inka May also selling. Their two nearest dams average 1324 pounds.

75 HEAD

PIEBES — INKAS — ORMSBYS

—THE HIGHEST RECORD COW in the U. S. over all ages and breeds.

—MANY OTHER GREAT PRODUCERS including 2-year-old heifers with 800- and 900-lb. records and cows over 1000 lbs.

—DAUGHTERS OF COWS with records up to 1523 lbs. and many from 800- and 900-lb. 2-year-olds.

—MANY WONDERFUL SHOW ANIMALS including National Dairy Show firsts and All-American winners.

—A DAUGHTER and many granddaughters of May Walker Ollie Homestead, the U. S. Champion butter cow.

—A SON OF THE U. S. Champion and several grandsons. Several from 1000-lb. cows.

Positively a Complete Dispersal

The sale is being held to dissolve the ownership of the herd which is owned by Mr. A. L. Eberhart of Chicago, and Mr. V. S. Culver of Austin. Every animal will be sold without protection of any sort.

All Selling with Retest Privilege

FRIDAY

JULY 29th

10 A. M.

At County Fair Grounds

AUSTIN MINNESOTA

Let us send you Free Catalog of this great herd. Write today

MELIN-PETERSEN Co., Sale Mgrs.
306-B Gorham Bldg., MINNEAPOLIS, MINN.



MOOIE FOBES PONTIAC HOMESTEAD
A 24-lb. junior 3-year-old completing year record of 900 lbs. By a son of May Walker Ollie Homestead, the U. S. Champion with 1523 lbs. Dam of the second prize bull calf at the 1926 National.

ALL SELLING!



SIR BESS ORMSBY MAY (at 4 months)
A splendid yearling son of May Walker Ollie Homestead, the U. S. Champion with, 1523 lbs. He is by Sir Bess Ormsby Fobes, the famous son of "37th" and Wisconsin Fobes. Second at Wisconsin and Eastern States last fall.



WALKERACRES UILKJE ORMSBY
A beautiful 2-year-old now going at an 800-lb. rate for the year. She is a daughter of King Colantha Ormsby Bess 14th, a son of the former world's champion 11-year-old with 1191 lbs.



MISS PIEBE INKA HOMESTEAD
A 29-lb. 3-year-old going at 1100-lb. rate for the year. Made 787 as a yearling. By Piebe Inka Homestead and from Southside Inka De Kol 2d, a 980-lb. daughter of South Side Inka De Kol.



BESS FOBES HOMESTEAD
A 31.5-lb. daughter of Piebe Laura Ollie Homestead King. Four daughters also selling. One is a 29-lb. 3-year-old and the other a 20-lb. yearling.



PELAGIE WAYNE HOMESTEAD
Has just completed 305-day record of 800 lbs. as a 4-year-old. A paternal sister to May Walker Ollie Homestead. Her dam was the youngest female to win Grand Champion at Minnesota.

A SON OF PRIDE OF SIR PIETS

FOR SALE

Born Jan. 12, 1927. A very typy calf well marked and bred in the purple. I you will need a bull next winter bu this calf and save money.

His Sire:
PRIDE OF SIR PIETS, is a senio sire at Femco Farms. His dam is th highest record daughter of "37th" wit 1327 pounds as a 3-year-old. His sir is a 42-lb. son of the famous sire K. P. O. P. Eight 2-year-old daughter of Pride of Sir Piets have made fro 20 to 33 lbs. His first 2-year-old to fin ish a year record made 908 lbs.

His Dam:
SOUTHSIDE CLARA ORMSBY, splendid individual now making fin year record. Her sire is by a son o Pietertje Maid Ormsby and her dam i a 25-lb. 3-year-old daughter of a 31-l cow and a granddaughter of Oak D Kol Ollie Homestead, twice Gran Champion at the National Dairy Show

Price for immediate sale.....$200.0

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN

Healthy Holstein

If you are in the market for grade or registered steins from tested herds write us today.
ILLINOIS HOLSTEIN-FRIESIAN ASSN.
608 S. Dearborn, St., CHICAGO,

Ormsby-Homestead Bull

We have for sale 2 very good calves Nov. 1 and Dec. 27, sired by Rawleigh Or Pietertje Posch, our 41-lb. Ormsby sire. are from 24- and 25-lb. 4-year-old Home dams with good year records, one a record cow. Priced to sell. The her clean. Write
THE W. T. RAWLEIGH COMPAN
Owners Rawleigh's Ideal Farm, FREEPORT.

TAKE TIME!!

Others are saving $50 to $100 by purcha our last summer Holstein bull calves N Selection better. Every cow has C. T record. Many have official records. calves sired by 1,138-lb. bull whose dam t over 4.2%. A card brings list.

Rock River Farms, Byron

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We are offering BULL CALVES rich Ormsby breeding from tested dams. T are from six to eleven months old. priced as low as $100.00. Write for pedi and further information. Herd under fe supervision.
BINGHAM BROS., Arlington Heights,

BULL BORN SEPT. 232

out of a 24-lb. two-year-old with 460 lb milk. He is sired by a good proven bull. I about ¾ white and a real individual. for pedigree and price.

ELLWOOD & NELSON
DE KALB ILLI

HYDE PARK FAR
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Offers **BULL CALVES**

Sired by an outstanding 35-lb. son of M dor from Fully Accredited Registered dams with leading cow testing associ records. $100.00 up for typy individuals.
JOHN A. CARROLL Owner — WILLIAM ED Herdsmar

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Registered COWS, HEIFERS and BULL Very choice Calf Club CALVES. We have t sales agents in the field all the time who take care of all orders in fine shape. All quiries are referred to our entire membersh
OHIO HOLSTEIN-FRIESIAN ASS'N
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HOLSTEIN BULL

FOR SALE
Spring Brook Bess Burke 2d - Ormsby
BREEDING
WRITE FOR SALE LIST—JUST OU Herd under Federal and State supervisio for tuberculosis—blood tested for abortion.
WINTERTHUR FARMS. Winterthur,

When buying mention Hoard's Dairyma to your merchant or dealer—it helps us!



HOLSTEINS

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BUTTERFAT

Holsteins lead the world in production of butterfat—the largest factor in dairy profit. Eighty per cent of the cows which have produced 1,000 lbs. or more of butterfat in a year are Holsteins.

Write for our booklet—
"The Holstein-Friesian Cow"

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The HOLSTEIN-FRIESIAN

30 E. Ohio St. *Association of America* **CHICAGO**
ROOM 601

Do You Need a Bull That *Will* Put Straight Toplines on Your Herd?



EAR TAG 1175
Born November 3, 1926

It usually takes something more than a straight bull to transmit straight toplines. It takes a straight bull with a straight sire and dam and straight ancestry.

A bull with the right sort of a topline out of a family noted for such toplines will do wonders for any herd, but such bulls are hard to find.

The bull pictured above is such a bull. His sire, his dam, his dam's sister and his two grandams are the straightest topped animals you could ask for.

Send For a Pedigree of This Bull

Address all correspondence to

711-A CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR

Sir Bess msby obes

Head Your Herd With a "Sir Bess" Bull

We have for sale a few very good young bulls by Sir Bess or from Sir Bess daughters and by Creation. If you want breeding, type, and long time production we are sure one of them will suit you. Write us or come to the farms.

YHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) **DOUSMAN, WIS.**
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

ORRIS FARMS *Now Offering* — a September '26 CALF whose two nearest maternal dams have over 31 lbs. Dam now on year test. Sire, a well-bred Creator-Prilly bull. Write letails of a mighty good calf. **NORRIS FARMS** (Fully Accredited) **Mukwonago, Wis.**

Clover Lawn Ormsby Fobes



ns back of him average 1120 lbs. of butter a year. Average test for his six arly record dams 3.92% fat. Young bulls sired by him and cows bred to ale. 150 head in herd.

E LAWN FARM, Arthur Puls, **ALLENTON, WISCONSIN**

---

ost Spaulding Farm Co.

ce Bred Bulls from good record dams and KING PEITERTJE MERCEDES ORMSBY, ose daughters has just broken the World's the senior two-year-old class with 1,119 lbs. n year. This sire is a son of Sir Pietertje ercedes from an 1,100 lb. daughter of a cow and is one of the few sons of Sir acked by two generations of 1,000 lb. dams. rices.

S ULDING, MGR., Warren, Minn.

LE COUNTY HOLSTEINS

o l for their size, type and production. eds or grades. One or a carload.

S KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

A GOOD BABY BULL

Sired by ST. OLAF ORMSBY SENSATION No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

Akona Holstein Farm

Two registered heifers. No. 1 born Oct. 6, No. 2 Nov. 5, 1926. Sire's dam's record 1016 lbs. butter in year. Dam's on yearly test. Price $85 each.

B. A. NORRIS, ANOKA, MINN.



Come to Michigan for Holsteins

SUMMER BUYERS given every help to locate good PUREBRED Holsteins. Fifteen County Sales Managers eager to help you at no cost to you. Let me know what you want and I will ask these Sales Managers to quote you.

J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

SERRADELLA FARM *Offers* —

A SON OF SIR DUTCHLAND COLANTHA DENVER, whose dam is a 36—1300-lb. cow

The dam of this bull is a 27-lb. 4-year-old. She has 2 A. R. O. daughters. He is evenly marked, well built, straight topped youngster. Born July 9, 1926.

SERRADELLA FARM, (Federal Accredited Herd), **Oscoda, Michigan**



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

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4 BIG DAIRY DAYS

Basket Picnics at the State Institutions — Pontiac July 26, Kalamazoo July 27, Ionia July 28, Traverse City July 29

Visit the Institutions and inspect the herds. Excellent program, including dairy judging demonstrations.

Nationally known speakers. Everybody invited. A wonderful opportunity to see the "Michigan State Herds."

BUREAU OF ANIMAL INDUSTRY, Department B, LANSING, MICH.

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.
"The Herd With Straight Top Lines and Perfect Udders"

MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

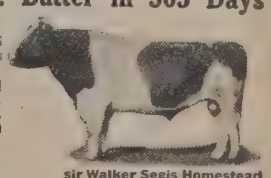
WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, **SIR WALKER SEGIS HOMESTEAD,** a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, **LASHBROOK JUNE WALKER ORMSBY,** an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. **This bull will put type and production in your herd and is high class in every respect.**

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

---

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

DANDRUFF IS INEXCUSABLE—



And now it is avoidable

PUT it up to yourself: could you honestly be attracted for any length of time to a person who had a case of loose dandruff?

This all too common condition is humiliating to the victim, and disgusting to everyone. The pity of it is that often many suffer needlessly.

Now loose dandruff is one of the easiest diseases to combat. If you have the slightest evidence of it, go after it immediately with Listerine, the safe antiseptic.

Here's how you do it: Simply douse Listerine on the scalp full strength and massage thoroughly. Listerine softens dandruff, while massaging loosens it, and permits the tell-tale white flakes to be washed away.

Keep the treatment up for several days. Do it systematically. Except in the most stubborn cases, marked improvement is apparent almost at once.

Lambert Pharmacal Company, St. Louis, Mo.

SPREADING LIKE WILDFIRE

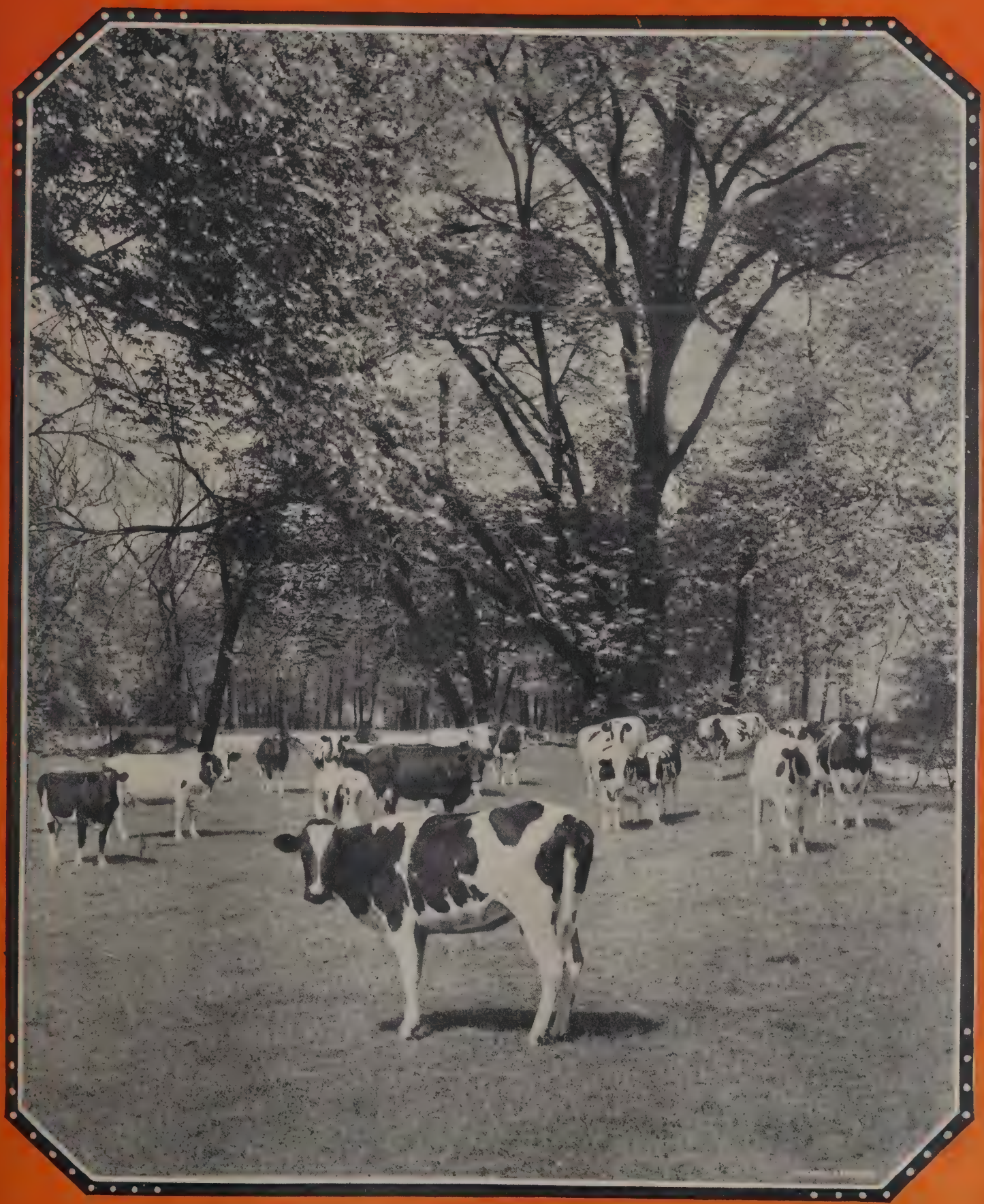
So goes the good news about Listerine Tooth Paste—the dentifrice that gets teeth whiter in quicker time than ever before. The price—25c for the large tube.

LISTERINE

—and dandruff simply do not get along together

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 14 Fort Atkinson, Wisconsin July 25, 1927



You Can Always Depend on

Polarine

THE PERFECT MOTOR OIL

No question about Polarine! Men throughout the ten states of the Middle West have learned that Polarine is the *right* oil for a tractor—that it's a dependable product—*always the same.*

For years men have depended on Polarine to take care of their tractors — to oil and protect every moving part of the engine — to avoid wear and prevent trouble and lengthen the life of the machine.

Polarine is low in price but high in lubricating efficiency. Your tractor couldn't run without lubricating oil of some kind. And Polarine is *the* kind—as thousands and thousands of farmers have discovered.

Polarine is *there*—wherever and whenever it is needed—lubricating every part of the engine —cushioning every frictional surface with a tough film of oil—protecting every vital part. It's good business to use Polarine. Polarine helps to reduce expenses — cuts down repair bills — enables your tractor to deliver the power you paid for — saves your hard-earned money!

You can always depend on Polarine—any time —any place. The quality of Polarine never varies from one year's end to another. Polarine is always the same. That word stands for oil of the highest quality. In the northern country of Minnesota, men are using Polarine exactly like that used in Southern Missouri.

Polarine was made especially for your tractor — whatever make you own. Standard Oil Company (Indiana) lubricating engineers studied the different types of tractors and developed a grade of Polarine to meet the exact needs of each type. The chart will tell you the grade to use.

To get Best Results—change your motor oil at frequent intervals.

For correct grade consult chart at Any Standard Oil Service Station.

Standard Oil Company, 910 So. Michigan Avenue, Chicago

[Indiana]

4687B

Why Land O' Lakes Creameries Have Lived

JOHN L. RICHARDSON, WASHINGTON

FTER adopting practices that would enable it to produce the best quality butter made in the ry, it is only natural that the esota Co-operative Creameries' iation, now known as the Land akes Creameries, Inc., should be taking in deciding upon a trade for its product. The experi- of the various California co-op- es and the fame gained by the h "Lur Brand" butter have t the significance of a catchy name. The association adver- for suggestions for an appro- name, offering five hundred s for the best suggestion. As a , 70,000 letters proposing more 70,000 names were received.

ter a long and careful process election and elimination, the "Land O' Lakes" was decided as the best adapted for this su- butter. The importance of a le trade name can probably be understood when it is known there are now some 2,700 s of butter on the markets.

Inspection Brings Results

great deal of credit for building e high standard of Minnesota r is due to the thorough system spection used by the association. e butter produced by the mem- reameries is assembled in St. Duluth, and Chicago. At these ntration points all the butter is ted and scored by government tors who are paid by the asso- n but who are furnished by the esota State Department of Ag- ure co-operating with the Unit- ates Department of Agriculture. h print of Land O' Lakes but- accompanied by a certificate ng to its inspection, which reads lows: "U. S. Department of Ag- ure. Minnesota State Depart- of Agriculture, St. Paul, Minne- Certificate of quality. I here- rtify that I have personally in- ed the butter contained in this ge and the quality of it was 93 gher."

ese inspection practices have be- well established with consum- d absolute faith and confidence aced in butter which has been ct to such rigid and careful in- ion. Consumers are willing to a premium when they are as- of a uniform, high quality uct such as the Land O' Lakes r represents.

Field Service

provement has been the motto e Minnesota creameries from the very beginning. The central organization has always appreciated the significance of education in bringing about the desired results. There are 16 fieldmen scattered throughout the producing area; and each man has between 30 and 40 local creameries with which to work. When the government inspector sends an unfavorable report concerning a creamery in a particular fieldman's territory, the fieldman hurries to this creamery and helps remove the trouble. He advises the local buttermaker and assists in finding and overcoming the source of difficulty.

One of the newer developments is that of checking up on the quality of cream delivered by the patrons. High grade butter cannot be made from low grade cream. Fieldmen often go to a creamery and list every can of cream delivered according to its grade. They will then go out to the farms of the patrons who delivered the low grade cream and help rectify the difficulty. The trouble often arises from some minor detail which is very easily taken care of after it is found, and patrons are glad to have help in locating and overcoming such hindrances because improvement in quality brings greater returns.

Direct Contacts

One of the most recent and outstanding plans put into operation by the Land O' Lakes Creameries, Inc., is that of making direct contact with chain store concerns. In April, 1925, the John T. Connor Company, of Boston, signed a contract for all of its chain store butter requirements for the following year. This deal amounted to about 250 cars of Land O' Lakes butter. Since that time great progress has been made in this direction and as a result a great portion of the output of that association is going directly to the chain stores which is a wonderful outlet for the quality product.

Under the old system of marketing, in which each co-operative creamery marketed its own output of butter, there were no thoughts of contracts. But under the federated system the local creamery signed a contract to deliver all of its butter to the association for a period of two years. Withdrawal can now be made at the end of any year. This agreement calls for payment of liquidated damages amounting to one-half cent per pound for all butter marketed outside of the association. No withdrawal was allowed until the close of the first two-year period, in this way permitting the association at least two years to get well established. Only 12 of the 427 member creameries exercised this privilege at the end of the first two-year period.

Patrons of the local creameries are now asked to sign contracts calling for the delivery of all of their milk or cream to the local creamery for a period of five years. Both contracts, that between the local and the association and that between the patron and the local, carry clauses specifying certain liquidating damages and providing for injunction against further breach of contract.

Factors of Success

Several factors have contributed to the success of the Land O' Lakes Co-operative creamery system. The more important of these are listed as follows:

1. The Land O' Lakes system has been built from the "ground up." It has depended upon a strong local unit in the form of thriving local co-operative creameries.

2. A sound financial policy has been in vogue from the beginning. The local creameries were not built until after a thorough preliminary survey had been conducted. If enough capital was raised and a sufficient volume of business guaranteed to insure successful operation, the venture was launched. The central organization was not organized until enough local creameries signified their intention of joining to make efficient operation possible.

3. Cardinal principles of co-operation as expressed by one vote per member, payment of going rate of interest on stock, and pro rata division of profits to members have always been followed.

4. The importance of educational work has been forcefully emphasized. All members of the system have been taught the fundamentals of co-operative effort, and this has made possible a smooth-working and efficient organization.

5. A uniform, superior quality product, which meets the demands of the most particular consumers, has been developed.

6. An aggressive merchandising and sales policy has been put into operation. This has made possible greater profits and a larger demand or outlet for Land O' Lakes butter.

7. Regulation of production to meet demand has been attempted in a small way by a plan to market sweet cream during periods of excess butter production. This has proved satisfactory and promises to help solve the surplus problem.

8. Contracts have been successfully used. Their purpose is not that of holding the members in the organization, but merely to serve as a basis for sound business foresight.

9. Quality improvement has been stressed in all stages of production. Field service has been used to raise the quality of the cream produced on the farm, and government inspection depended upon in the central plant.

10. Lastly, a policy of securing the most efficient and well trained managers, inspectors, and salesmen has been followed with utmost care and precaution.



GUERNSEY COW, HYLAN COTTAGE LASSIE

This cow is now in fifth place in Class B, by virtue of her recently completed record 17,081.2 lbs. milk, 913.2 lbs. fat, made while carrying calf 219 days of her test period. She is owned by C. L. A. Whitney, New York.

Isaac—"Oi, oi, der vedding invitation says: 'R. S. V. P.' Vot does dot mean?"

Jacob—"Ach! Such ignorance. Dot means to bring 'Real Silver Vedding Presents.' "



Comfort and Safety With Economy

Combined with their cushioning "give", for comfort, the wiry strength of Fisk Balloon Cords sets new standards for complete safety and long mileage.

By a patented process, "Fillerless" Cord, Fisk eliminates cross strands, equalizes strain on cords, and sheathes each cord in pure live rubber. All Fisk Balloon Cords are made by this process.

In the familiar Fisk tread, thick, tough and durable, skid preventing and puncture resisting, you will find the reason why users of Fisk Balloon Cords roll mileage records up to unaccustomed heights.

There is a tire for every need—in type, size and price—in the Fisk line.

"FISK SAYS IT WITH MILEAGE"





When Buick speaks *the World* listens

WHEN BETTER AUTOMOBILES ARE BUILT
BUICK WILL BUILD THEM

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

d at Fort Atkinson, s second class matter.

Semi-monthly

Three Years $1.00

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olume 72 FORT ATKINSON, WIS., JULY 25, 1927 Number 14

VACATION TIME IN COWLAND

G. A. WILLIAMS, INDIANA

S the sun rises higher and higher in the sky at midday, beating down with withering rays eld and fores+ alike, the fra-e of the wild flower becomes weet and the song of the bird requent; all life craves a period laxation and ease. Human na- involuntarily gravitates toward woods and shady fields. The of the soil arranges his work so the family can spend an occa- day forgetting the endless rou- of duties. Vacation s a universal appeal to ike.

e experienced dairyman found that it pays to de a liberal vacation for high producing dairy Unfortunately a num- f factors which tend to such valuable individu- orking overtime are not ed to the minimum.

sh, sweet creamy milk ld from the refrigera- much appreciated by notor tourist. Children t feel that they can call ay unless they have had r three ice cream cones perhaps a malted milk, chocolate bar, or some dainty which required in its preparation. The ds for these milk-con- g foods, to say nothing egular consumption of and butter, is sufficient e to prompt some own- milk the entire herd gh the summer months. if many cows do fresh- ring the fall, improved res and fewer flies tend set the normal decline duction. Before the at- nt is aware of it the g date is near at hand. cows do not have a dry at all and many oth- not stand dry long h for best results.

dairy cow is the hard- worked animal on the even under favorable ions. When pastures hort and dry the labor must be expended in securing aily feed allowance adds that extra to the daily up-keep. make matters worse, flies do hing in their power to make iserable for old Brindle. How ite and swarm and buzz during at of the day when she is try- make milk from the feed she ly partially digested! Then the supply may fail to meet her

matter how well the herd is and cared for, it is nearly im- le under ordinary conditions to me all these factors. The vig- he cow is taxed and her system ed. It is little wonder that the summer milk flow suffers a severe drop in many herds.

Feed is the source of all milk. The pastures and other feeds which the cow receives during the summer may not provide for the maintenance of the cow and the milk produced. Animals with marked dairy temperament will draw on reserve materials stored in the body to maintain production. This will continue for some time but ultimately the live weight will be reduced and the milk flow falls off. From this time on even the best ration will not restore production. It requires a dry period in addition to feed before the cow can give her maximum return for feed consumed.

The careful dairyman avoids such a condition. Liberal feeding during the dry period provides the heavy producer with some additional reserve to fall back on and which, when a proper ration is fed, will bring her to the ninth or tenth month of her lactation in fairly good condition. The more flesh the cow has lost the sooner she should be turned dry.

It is not an uncommon thing to hear someone say, "That cow will not go dry; she milks up to freshening." Such animals must be forced to take a vacation. In many cases improper care and poor management are responsible for keeping the cow in milk at this time. The feed which the attendant allows the cow to consume must be used for the production of milk or stored in the body. When dairy temperament is present, as it usually is with these persistent milkers, there is no inclination to build up the body and add to the live weight. Naturally the tendency is to provide milk for the rapidly developing fetus.

The secret of drying off the cow lies in reducing the ration. If this is begun long enough ahead of freshening and rigidly enforced, there are few if any cows which fail to respond to the treatment.

It must be borne in mind that while the cow is being underfed and receiving an inferior ration she will lose flesh quite rapidly. It is very necessary to know the exact date the cow was bred. If plenty of time remains before the calf is born this loss in live weight can be replaced.

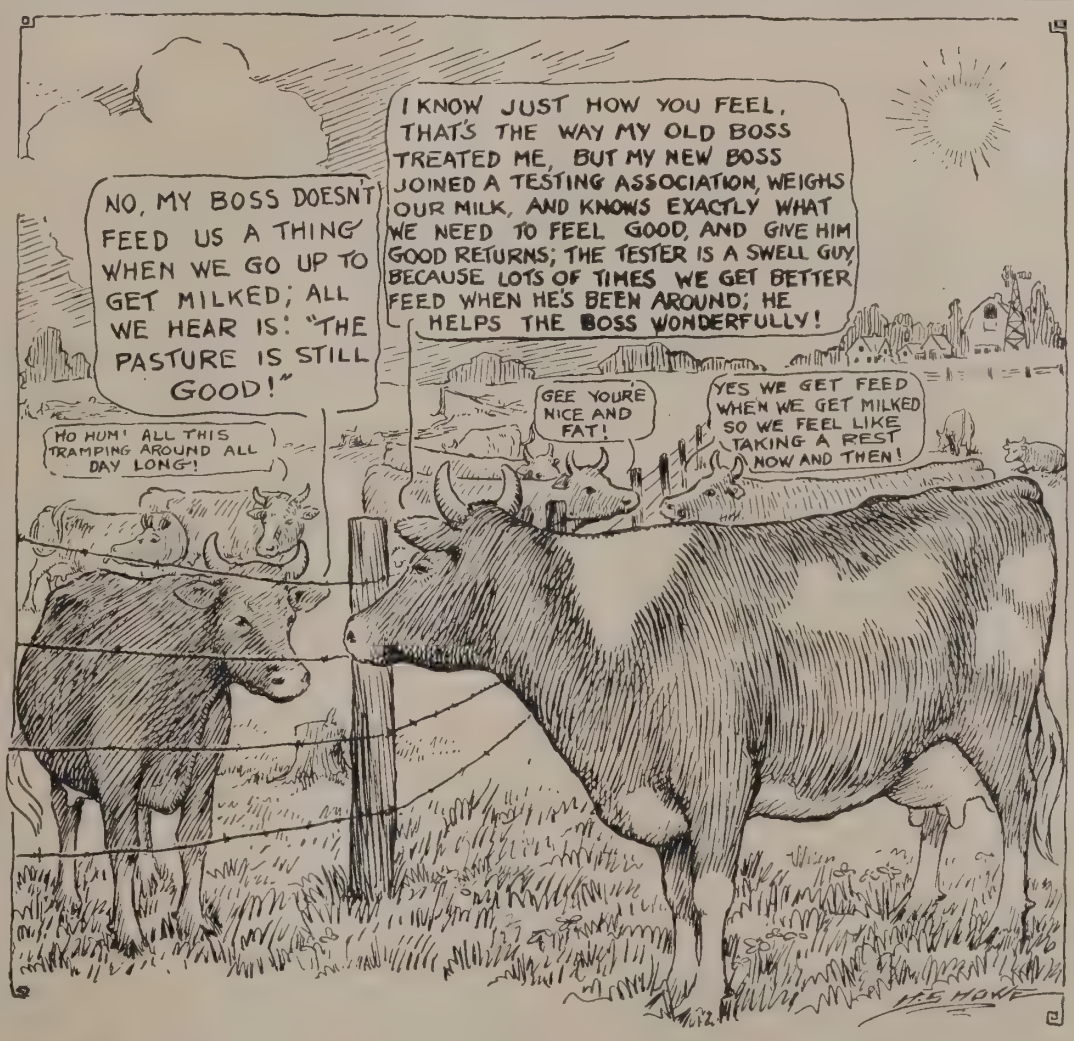
When the herd is running on pasture, drying a cow off presents more difficulty than later in the year. Some cows must be shut in a dry lot for a few days. The grain ration should be withheld and a poor grade of dry roughage fed. In extreme cases the water supply must be curtailed.

Regular and complete milking should be avoided during the drying off period. There is some difference of opinion among dairymen on this point. Some prefer skipping a milking after production is as little as eight or ten pounds daily; in three days skip another milking and shorten the interval until the cow is milked once daily. They maintain that the operation of milking stimulates the gland; when the cow is milked she should be milked dry. Others claim that incomplete milking will decrease production. The advocates of this plan recommend leaving a little more milk in the udder each milking. Perhaps a combination of the two methods is advisable. In any case care must be taken to prevent undue inflammation in the udder. Drawing just enough milk to relieve the fever may have to be done occasionally; this will vary with different individuals. As soon as the production ceases a liberal supply of grain should be provided. The mixture need not be high in protein since only the body maintenance is to be cared for. Corn is high in total digestible nutrients; it is usually plentiful on dairy farms and possesses plenty of palatability. It is well to add some feed such as ground oats or wheat bran to furnish bulk and a little linseed oil meal to keep the bowels active. (Cottonseed meal should not be fed to dry cows.) A mixture of 600 lbs. corn meal, 200 lbs. wheat bran or ground oats, and 100 lbs. linseed oil meal has been fed to dry cows with good results. The daily allowance will depend on the size and age of the cow, the length of time she will be dry, and her condition at the time. Heifers carrying their second calves should be fed quite liberally. Probably six to ten pounds of grain daily for each cow would be satisfactory for the first two or three weeks.

The corn should be gradually reduced as parturition approaches. It is a heavy feed and high in energy producing materials. During the last

(Continued on page 745)

SOME INTERESTING SUBJECTS WERE BROUGHT UP



SWISS YOUTH WORKS FOR EDUCATION

GUY A. PETERSON, WISCONSIN

FROM a nearly penniless immigrant to a college graduate with a responsible position in a large dairy plant in five years is a record made by Ernst Schneider, a farm boy from the mountains of old Switzerland and a member of the 1925 class at the Wisconsin College of Agriculture.

Schneider's record is well worthy of the attention of any farm boy who wants to make good either on the farm or in some other line of work. He was even more handicapped than many farm boys who are merely without funds, for he had neither funds, friends, nor a speaking knowledge of English. He came to America with the intention of remaining only two years, but when he saw that it was possible for a student to work his way through school he stayed and has now taken out his second naturalization papers. In those five short years he has mastered the English language, gone through a four-year course in college to win his degree, earned all the money for his education in addition to enough to visit his Switzerland home, and is now in a position where the future looks bright indeed to him.

Hopes to Own Dairy Company

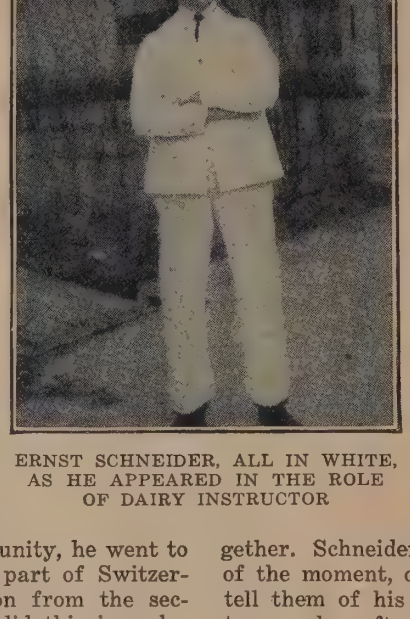
He is working for a Chicago dairy company where he is doing the work with his characteristic Swiss zeal. He hopes some day to own and operate a similar distributing establishment that he might serve farmers and the consumers at the same time. He appreciates the advantages he has received in America, hoping soon to become a useful citizen of the United States. He says that in Europe it is almost impossible for a boy without money to work his way through school because the pay is so small and the work is so strenuous.

Schneider's early life was not dissimilar to that of many American farm boys, though it may have been somewhat harder and under a more strict system of discipline. He was born twenty-five years ago in Spiez, the German part of Switzerland, on a fifty-acre farm that his father, Gotfried, has rented since 1895. The fact that this is the second largest in that community gives one a good picture of the size of farm business there.

Electricity Much Used

In that mountain section many farm operations are still done by hand labor because the land is too rough to lend itself to power farming. Electricity, however, is coming in very rapidly with many of the small jobs around the home and barn now being done by this force. It has been put to many uses on the Schneider farm. When Ernst was twelve years old he had to get up at four o'clock in the morning to cut grass with a scythe for his father's herd of sixteen Simmental cows, and grass is still being cut for them in the same way. During the summer this was a daily task, for the cows were kept in the barn, as the land could do double duty by raising grass and an orchard crop of apples at same time.

The Schneiders are proud of the fact that no woman of their family has ever had to milk cows, this being always done by the male members of the family. Milking was therefore an early job for Ernst and continued to be so all through his elementary and secondary school years.



ERNST SCHNEIDER, ALL IN WHITE, AS HE APPEARED IN THE ROLE OF DAIRY INSTRUCTOR

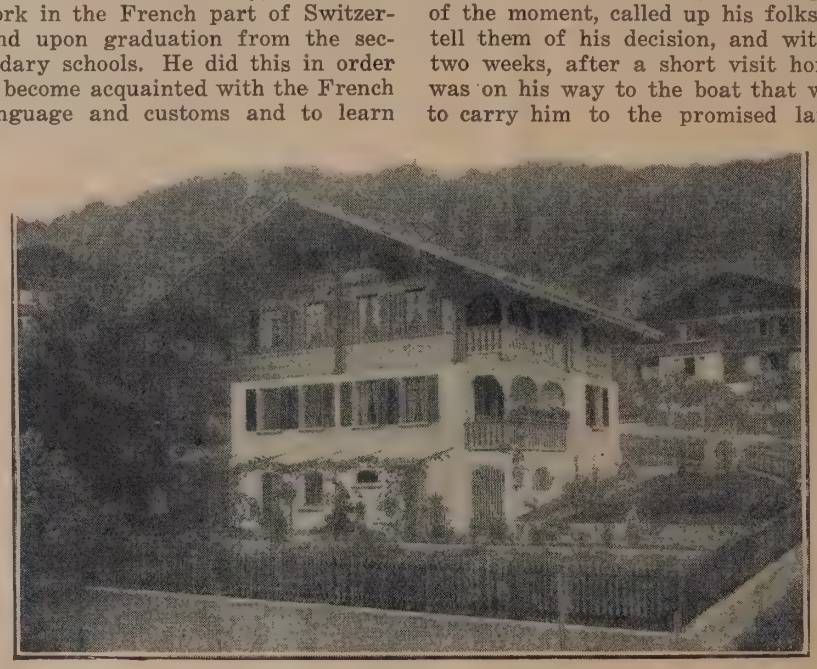
Works in French Vineyard

As is the custom for middle class farmers in his community, he went to work in the French part of Switzerland upon graduation from the secondary schools. He did this in order to become acquainted with the French language and customs and to learn different methods of farming. It was a 40-acre farm largely devoted to vineyards that supplied him with work from four in the morning to nine in the evening at a salary of $5 a month, at a time when a pair of shoes cost $4.

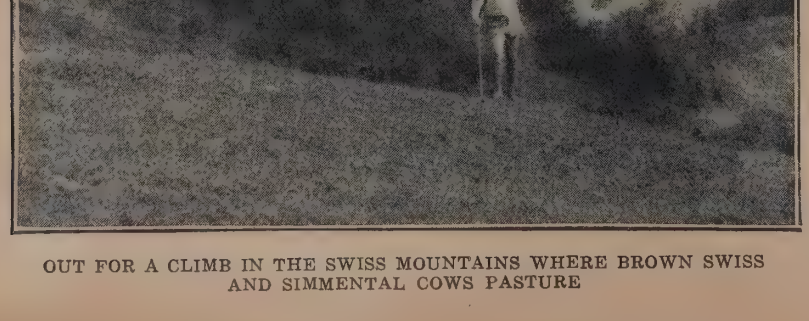
So strict was the working schedule that he had to remain on duty until eight o'clock in the evening on the one day a great friend of his came at noon to pay him a visit. It was work of this kind, however, that trained him for the later task of earning his way through school. He spent the next three years in various occupations, studying a part of the time in an agricultural school at Munsingen, working on his father's farm, overseeing a group of fifteen women on a vegetable farm that furnished Hausanne and Geneva with vegetables, and tending the cider press in a huge cider mill.

Sails for America

It was while he was making cider that a friend of his suggested they go to America together. Schneider, acting on the spur of the moment, called up his folks to tell them of his decision, and within two weeks, after a short visit home, was on his way to the boat that was to carry him to the promised land.



BEAUTIFUL OLD SWISS FARM HOME, SET IN THE SHADOW OF THE MOUNTAINS AND A FRAMEWORK OF FLOWERS, WHERE ERNST SCHNEIDER LIVED AS A BOY



OUT FOR A CLIMB IN THE SWISS MOUNTAINS WHERE BROWN SWISS AND SIMMENTAL COWS PASTURE

Arriving in Milwaukee, Wis., with only a few dollars in his pocket, it was by mere chance that he got into conversation with a Swiss farmer from Spring Valley, the "Little Switzerland of America." It so happened that this farmer owned a cheese factory for which he was seeking a cheesemaker. He offered the place to Schneider, since he just naturally supposed that anyone born in Switzerland could make cheese.

The young immigrant had never made cheese because his father sold milk and cream for the butter trade, but he took the work as the first thing that presented itself. A stranger in a strange land, doing a strange work, may sound a bit lonesome and dramatic, but Ernst had so much to do to learn the ropes in his new occupation that he didn't have time to be lonesome. He was busy, too, getting a speaking knowledge of the English language.

Attends Dairy Course

Hearing of the dairymen's short course for cheesemakers that was being given at the Wisconsin College of Agriculture, the next fall he set out for the University to make a lasting friendship with Professor E. H. F rington, head of the dairy school noted authority on dairy proble Farrington took an interest in youth from the first, giving him w as an assistant in cheesemaking smoothing the path to knowledg every way he could.

Schneider worked in the dairy partment all that year, entering University as a "special" Fresh in the spring of 1922 after man long hour of wrestling with adopted language. He was fortu in securing a place as a desk bo the University Club, where he s times worked fifty hours a week the same time carrying a full sc ule of studies in college. For thi bor he received his board and r filling the position with such effici that he was given the job all years of his college career.

Has Profitable Summer

The summer times for Ernst full of excitement as well as p for it was during the summers he earned the surplus money ne for all kinds of incidentals. At close of his Freshman year he the club on a bicycle for Green C ty to sell books. Within four w he had done so well that he excha the bicycle for a motorcycle, and weeks later bought an old Ford. made $900 that first summer.

The second summer he sold Ford, purchased a Dodge, and out into the country to sell bru Inside of three weeks he was the man for the Madison office, and short time broke the high hour, week, and high month records of for that company. Near the en the summer he was the second l est salesman out of the 5,500 or road.

Visits Homeland

At the end of his junior yea went back to Switzerland to visi parents and once more roam ove home land, for he had decided to out his papers and become a nat ized American citizen. His visit t land of the Alps was not to be en ly spent with his parents, how for he had hardly remade his quaintance with them when the mons came from Berne, asking to represent the Swiss governme the reception committee to show egation of American agricul journalists the beauty spots of Si erland. Naturally he accepted honor, with the result that glowing tributes to the gracious of Switzerland as a host were appearing in the American ag tural press.

He had hardly returned home this adventure when Asher Ho American representative at the tute of Agriculture at Rome, wr him asking him to take a ten-day ing trip through the streams passes of his scenic country. A tain climber from his youth an miliar with the very heart and h of his native land, there was no that he enjoyed more than to co with this request, so Asher H received what he called, "A that is a guide."

The end of the summer cam too quickly, but Schneider was to get back to his studies an work behind the desk at the Uni ty Club. He finished his Senior with a creditable record, thus pleting in 3½ years a 4-year cou dairy husbandry. He left the J versity at the highest beginning ary that has ever been offered graduate from the Dairy Depart but all those who have watched young man grow say, "He is wort

Dairying in the Western Counties of North Carolina

S. R. WINTERS, Washington, D. C.

1924, dairying was started in the remote western North Carolina counties such as Clay, Cherokee, ...in, Macon, McDowell, Burke, and ...tson. By holding a ...kly series of dairy ...tings in these coun... early in the spring, ... dairy industry was ...rted especially in ... and Cherokee ...nties which resulted ...he farmers shipping ...m, building silos, ...hasing pure-bred ...s in communities ... had never done any ...ying in the past. ...paigns for growing ... dairy feeds and ...ghages on the farm ...lted in the largest ...age of soy beans ... stock beets ever ...wn in the western ...nties. Dairy work ...ers around pure-... dairy sires and ...s and feeding. ... a winter feed for



...RMER OF TRANSYLVANIA COUN... SHOWING DIFFERENCE IN SOY BEANS ON LIMED AND UN-LIMED LAND

dairy cattle, Sutton & Son's English stock beet was introduced and advocated in Clay, Cherokee, Rutherford, Macon, Iredell, Wilkes, Wautauga, Caldwell, and Swain Counties. This was the first attempt ever made to produce these beets on a practical scale for providing a succulent feed in the western counties. As a result of dairy extension work in 1924, the first pure-bred Guernsey heifer was placed in Macon County, the first pure-bred Ayrshire cow in Wautauga County, the largest strictly modern dairy barn was built in Wautauga County, 14 pure-bred bulls were bought in the western counties, 13 pure-bred females and 63 grade females purchased, 34 farmers agreed to build silos and 6 community bull associations were organized and bulls placed in Western North Carolina. The first cream shipping agitation was begun in Cherokee County and many cans were shipped during the summer.

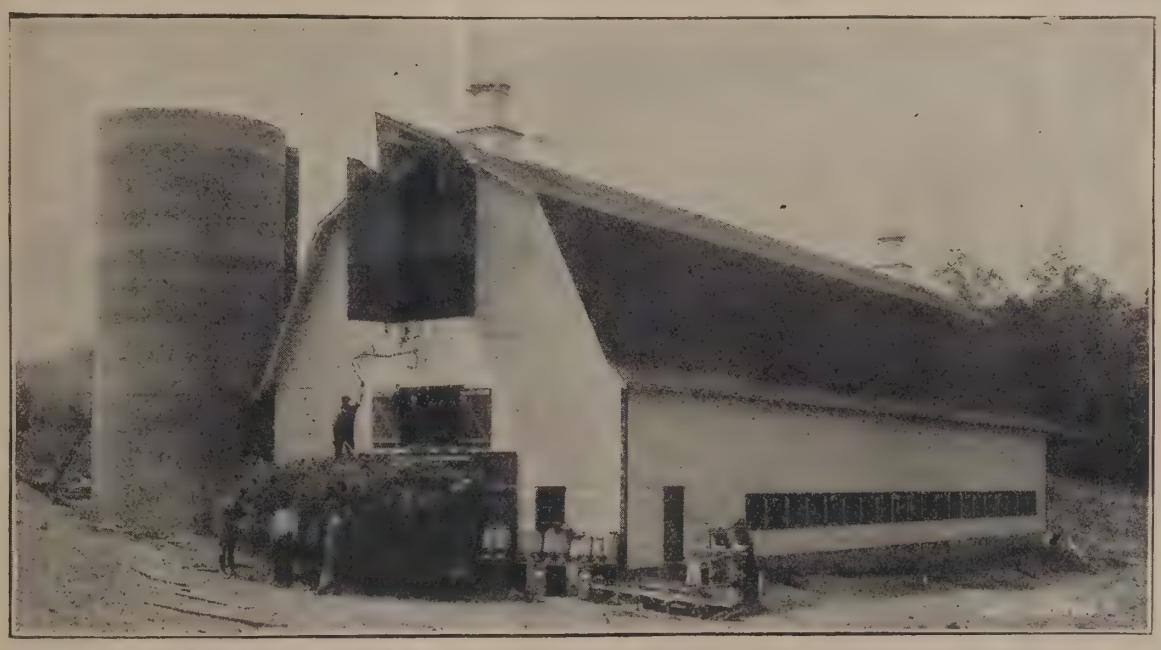
In 1925, the dairy work centered around "better dairy farming through cow testing associations and better feeding methods." The Buncombe—Henderson Cow Testing Association was organized with 24 herds and over 500 cows enrolled. The Gaston Cow Testing Association found that they were paying excessively high prices for dairy feed so they appointed a committee of three to purchase grains necessary for a balanced ration. The committee bought enough grain for all the cows in the association, mixed them and sold them to the members at an average net saving of $14.00 per ton. Many hundreds of tons were bought and mixed by this association.



FILLING A SILO IN CLAY COUNTY

A method of extension education used extensively last year was the feed schools conducted on dairy farms in the owners' barns where roughage and grains for milk production were discussed at the time of year which permitted the farmer to arrange for growing the proper crops and resulted in a larger acreage of soy beans among the dairy farmers than ever before.

Last year, 80 farmers engaged in the dairy business who had never done it before, 18 pure-bred bulls were placed, 133 dairy cattle placed, 14 silos constructed due to information given at feed meetings, 4 barns were remodeled and 3 new ones constructed, and 5 community bull blocks were organized and bulls placed in them. F. R. Farnham is the extension dairy specialist in this section.



DAIRY BARN BUILT ACCORDING TO EXTENSION SERVICE PLANS IN BUNCOMBE COUNTY

Clay County Dairy Project

In 1924, a county agricultural agent was employed in Clay County and he soon came to believe that the future of Clay County lay in dairying. He advocated dairying as the county seemed well adapted to raising pasture and feed crops and because it gave the farmers a good

(Continued on page 749)



MOUNTAIN MILK HOUSE SHOWING RUNNING WATER FROM HILLSIDE SPRING IN BUNCOMBE COUNTY



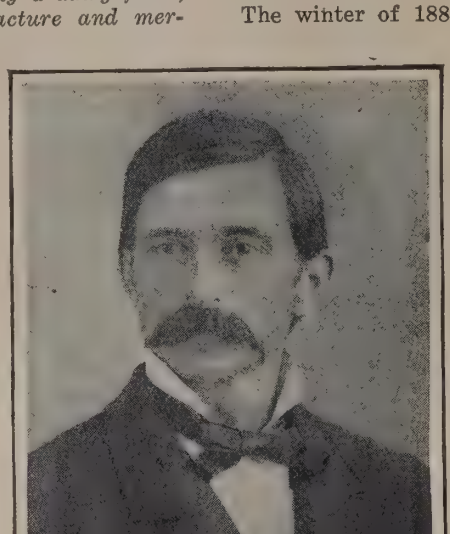
CREAM STATION IN MACON COUNTY WHERE DAIRYMEN HAVE THEIR CREAM WEIGHED, TESTED, AND PAID FOR WHEN DELIVERED

LIFE AND WORK OF T. L. HAECKER

No. 2

In the first chapter of this story, Professor Haecker told of his early experiences in running a dairy farm, in the farm manufacture and merchandizing of butter, in selecting dairy animals, and in co-operation.

His son, A. L. (Archie) Haecker, now secretary of the Nebraska Creamery Butter Manufacturers' Association, has written this next chapter which supplies a number of interesting details about the operation of Silver Springs Dairy, his father's Cottage Grove farm.



T. L. HAECKER AT 28 WHEN HE ENTERED THE GOVERNOR'S OFFICE

My Great-grandfather Brown settled on Silver Springs Farm in the summer of 1841, coming from Ohio in a covered wagon. His name was Roswell Brown and my grandfather, Orvin Brown, occupied the farm to the east. Silver Springs Farm really was one of the first big dairy farms in Dane County, for Roswell Brown was a dairy farmer with considerable experience, and in the fifties he kept as high as twenty cows, making butter and cheese which were first marketed in Milwaukee, as that was the principal trading point. This farm comprised several hundred acres at that time and had nine springs. In fact, it was selected on account of the excellent pasture and numerous springs, all of which were counted essential for dairying.

I believe it was in 1878 that father bought his first forty at Cottage Grove. The first crop planted that spring was oats, with a liberal seeding of red clover. The clover made a good catch and produced two very heavy cuttings. The second cutting was saved for seed and produced a big crop. The growing of clover at that time was not common, and little was known of its value either as hay or a soil builder. The next year, or in 1879, the farm was increased in size by the purchase of two more forties, and farming was begun in earnest. As early as 1880 we had a small dairy and were making plans to increase the herd. In fact, in 1880 we had to hire a man to do the chores, having enough live stock to warrant this.

Use First Patent Churn

I don't know just at what time we purchased our rectangular churn from Cornish, Curtis, & Green. At any rate, it was the first patent churn in our part of the country and was a great curiosity. It was a box hung by the corners. Later I think we bought a barrel churn.

The winter of 1881 was known as the big-snow winter. I mention this because I recall how difficult it was to transport anything from country to town. We made butter and it was supposed to be delivered once a week in Madison, but there were times when we could not get through. The snow was something like five or six feet deep on the level. I don't think anything like it has ever been known since.

From 1881, when we started our dairy, to 1889, we made butter and sold to customers in Madison. Our common practice was to set the milk in shot-gun cans, covering same with cold water—we used ice some of the time in summer. We skimmed the cream after the milk had set twenty-four hours, and made this cream into butter.

We packed this butter in two-, three,- five-, and ten-pound jars; also packed some in three- and five-pound pails. From 1889 to 1892 when I left the farm to attend the Minnesota School of Agriculture, we sold to a local creamery and cheese factory. We did this largely to save work as we were short of help at that time.

Father was anxious to have us boys receive an agricultural education. I remember that he told us about a school in Guelph, Canada, where practical agriculture was taught. This was, I think, in 1880 or 1881, and he was making plans to send my older brother to that institution. As soon as Professor Henry came to Wisconsin, Guelph was forgotten and it was not long before a short course was offered in agriculture at the University at Madison.

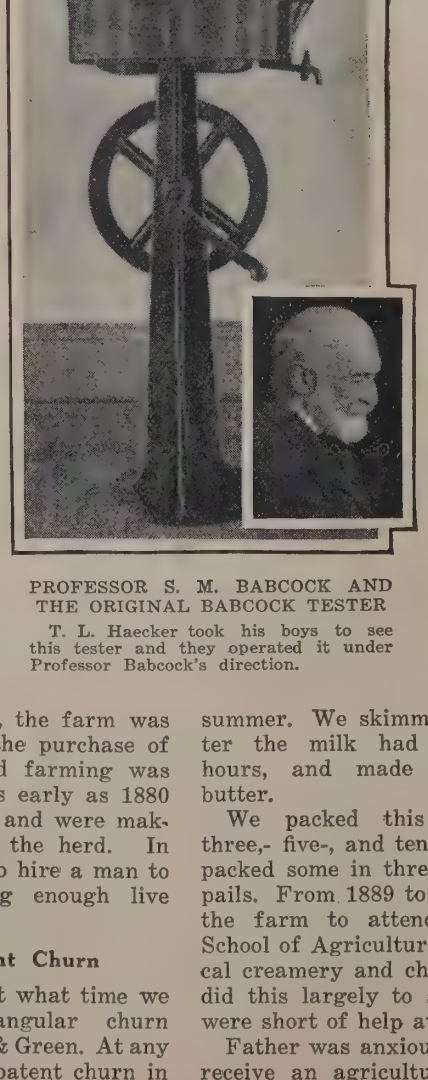
From my earliest recollection, and that's about fifty years, my father was talking about agricultural education. I believe he was one of a committee who brought pressure to bear on the regents of the University of Wisconsin; insisting upon a practical agricultural college and bringing up to Madison men like Professor Henry and Babcock.

In 1882 our dairy herd was greatly increased. We purchased a carload of fine dairy stock, including an animal known as Nebette, a most beautiful Jersey heifer. We also bought a young bull known as Jumbo of Riverside. This bull came from two of the most famous Jerseys in the country. His grandmother on one side was Mary Ann of Saint Lambert, and on the other side he traced to old **Eurotas.** He proved to be a most exceptional animal and was the foundation of some excellent stock.



SILVER SPRINGS DAIRY AT COTTAGE GROVE AS IT APPEARS TODAY

The house is the same as when Haecker lived there but the other farm buildings used to be on the opposite side of the road. T. L. planted these beautiful shade elms.

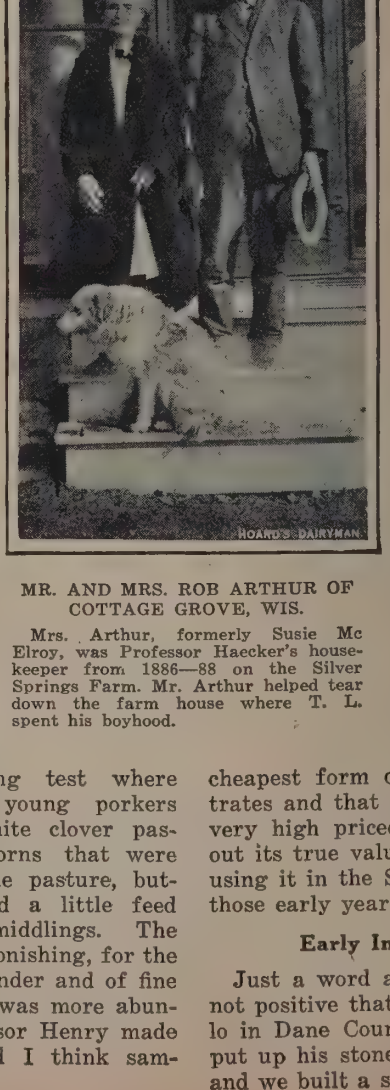


PROFESSOR S. M. BABCOCK AND THE ORIGINAL BABCOCK TESTER

T. L. Haecker took his boys to see this tester and they operated it under Professor Babcock's direction.

Farm Feeding Experiments

Father was continually making experiments. In fact, we had sort of a substation. I recall a little feeding test where we fattened some young porkers on bluegrass and white clover pasture, Burr Oak acorns that were most abundant in the pasture, buttermilk, skimmilk, and a little feed such as shorts and middlings. The results were quite astonishing, for the meat was not only tender and of fine quality, but the lean was more abundant. I recall Professor Henry made some photographs and I think sampled the pork.



MR. AND MRS. ROB ARTHUR OF COTTAGE GROVE, WIS.

Mrs. Arthur, formerly Susie Mc Elroy, was Professor Haecker's housekeeper from 1886—88 on the Silver Springs Farm. Mr. Arthur helped tear down the farm house where T. L. spent his boyhood.

This was one of the early tests to demonstrate that a protein ration would influence the quality of the pork. We also carried on some gravity creaming experiments, and father determined that the milk from certain cows would cream much quicker than that of others. We had one big, white Shorthorn grade in our herd that required from 24 to 36 hours to cream. In fact, her milk must have had very small fat globules for it was exceedingly difficult to get the cream on her milk. We had Jerseys whose milk would in two and one-half hours.



ARCHIE HAEC
SCHOOL TEAC
John Killian
the farm from
or Taylor a
lived there sinc
The Killians we
neighbors
Haecker family.

Mixing Better Rations

The mixing of rations was
ied very early by father, and
lieve he was translating
and Lehman at that time
was common conversation to
of digestible carbohydrates
protein. Rations were compile
clover hay always furnish
abundance. The need for a sil
keenly felt in those early
and talked
some time
we finally e
one. I believ
first silo was
in the summ
1886, whe
boarded up t
bent in the
using double
ing with pap
tween. We
the mista
planting a
ern corn whi
not matur
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rate, we est
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teen to ei
tons per a
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the silo.

We were
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over forty
ago and wer
fully figurin
balanced rat
that time. I
my father t
that cott
meal wa
cheapest form of protein in
trates and that some day it w
very high priced when people
out its true value. I think the
using it in the South for fertil
those early years.

Early Interest in Silo

Just a word about the silo. I
not positive that we built the
lo in Dane County. Professor
put up his stone silo in 1881
and we built a silo inside of th

ing it up, in the summer of
but my father was convinced
silos were profitable some years
this, for I recall that he did
uild a silo when he wanted to on
at of finances.
ize very highly my father's am-
not only to be in the front rank,
lso to count among his friends
en who were making history for
nsin's agriculture. Governor
, Colonel Burchard, and Cully
s were close friends of my fa-
We had the very first copies of
's Dairyman, and they were not
read but carefully bound with
ring and slat binding. Some-
articles were blue-penciled and
many times. Breeder's Gazette,
was a paper always taken and
We also had such reports as
printed by the government and

Clover" Allen Visits Farm

member a man known as "Clo-
Allen coming to our farm in
early years. It must have been
ime during '82 or '83. This old
nan was an enthusiastic advo-
clover. He knew all about it—
eat benefit to the soil and its
value.
ll never forget when I first saw
oming down the road walking
staff, and while he was some
away he stepped by the side of
ad and picked a handful of red
and waved it over his head.
said to me, "That is 'Clover'
He is crazy about clover, but I
with him."
as about supper time and fa-
ld me we had better invite in
f the close neighbors. After
Mr. Allen read a lengthy pa-
ling all about the value of clo-
d then after the paper was
discussion took place when all
regarding the growing of
were gone over.
Allen stayed all night and the
orning my brother took him to
t town in a buggy—I have for-
where—but I do remember the
s protest made by Mr. Allen
eing conveyed. He said he
just as soon walk and could go
as fast as the horse.
her man who was of much
to his fellowmen was "Uncle"
re Lewis. He was a good
of my father and he was con-
an authority on swine. When-
question came up that we could
swer regarding pigs, father
say, "I will have to consult
Theodore Lewis about that."
Smith and H. B. Gurler were
equently spoken of.

The Babcock Test

member my father telling about
or Babcock and his interesting
trying to determine a method
y a farmer or dairyman could
quick and simple fat test of
cream. It was not very long
my father reported that Pro-
Babcock had at last accom-
this wonderful feat and we
promptly taken to Madison to
test.
er must have been extremely
ed in this, for he counted it a
vent. I know when we were
ready to go he was very
that we wear our best clothes
best were none too good. I be-
e stopped at a store when we
Madison, to finish out the prop-
rel. But at any rate, this was
shall never forget. My father
ced us to the distinguished
or and he gave us a little talk
ow simple the operation was.
ve this he said, "I will let you
ake a test," and we did, under

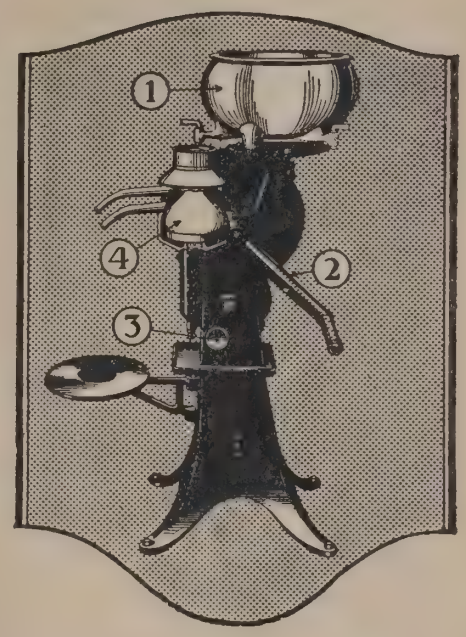
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The Oil Window

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See and try the new De Laval

his careful instructions. He told us just what to do and how to do it.

Father was a great believer in advertising, both in papers and at the fairs. We generally had a small ad running in the "Dairyman" whenever we had anything to sell. We also made the fairs, especially the state fair which was held at both Madison and Milwaukee some time in 1885 or '86. We also got into the Guernsey business, keeping both a herd of Jersey and Guernsey cattle.

Dorset-Horn Sheep

We had Dorset-Horn sheep which were imported from Canada; and we kept White Leghorn chickens. Before the White Leghorns, as early as '78 or '79, we kept Brahmas. The Dorset-Horn sheep were about the first brought into Southern Wisconsin. They were noted for their medium wool and fine quality mutton. They were also most prolific, as they lambed twice a year —spring and fall—and always had either twins or triplets.

In May, 1886, McCormick held a great sale in Chicago where a Jersey herd was dispersed at public auction. I went with my father to this sale. He purchased several head of cows and heifers and I shall never forget the great difficulty we had getting through the streets of Chicago to the freight depot. There was a strike among the carpenters and shop men, and this strike tied up traffic. The strikers were parading and wore shavings around their hats as a trade decoration. They carried a big banner with the words, "Ten Hours' Work and Twelve Hours' Pay." We reached the depot after several hours of struggling through blockades of teams and paraders.

Musical Neighbors

Mr. C. E. Leslie went with us. I shall never forget the fine picture he made. He was driving in a rig with my father, and they would occasionally force a passage for us, and once in a while they would get out and hold the team. Mr. Leslie always wore a stove-pipe hat, a large diamond pin, and was dressed in superb and up-to-date fashion. He stood over six feet, wore a black Van Dyke beard, and had a wonderful bass voice. He and father were very close friends in spite of the fact that Mr. Leslie bred Aberdeen-Angus cattle. The Leslie farm was about a mile from ours. Mr. Leslie was a famous composer of music, writing twenty-four or five books of music before his early death which came when he was about fifty-five.

Perhaps some of the old-timers will recall the Doddy Songs written by Mr. C. E. Leslie. When he wrote them he drove down in front of our house one evening and gave us the first concert. It was fine music. Mr. Leslie had an excellent bass and his wife a beautiful alto. His niece, Grace Drakley, sang soprano, and his brother-in-law, Earl Burwell, tenor. So they had their quartette and they put on their songs at the fairs.

(To be continued)

Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

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H. L. HOARD A. R. HOARD F. W. HOARD
EDITORS
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Entered at Fort Atkinson, Wis., as second class matter.

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Silage Feeding Experiments

A. W. Oldershaw reports in the Journal Royal Agricultural Society, England, the results of two experiments in which the milk production of lots of cows fed on rations containing mangels was compared with the milk production of other cows receiving rations containing similar amounts of starch equivalent and protein, but in which the succulent roughage was derived mainly from silage. Milk production was slightly better with the root rations in both experiments, but was practically equal for the cows which ate the silage readily. Certain individual cows would not eat the silage.

A man is himself plus the books he reads.

Co-operative Milk Plant for Indianapolis

Plans are being perfected for the erection and operation of a farmer-owned milk distributing plant in Indianapolis. An option has been secured, by the Indiana Dairy Producers' Exchange, on a tract of land and it is expected that building operations will be started in the near future. It is proposed to erect a plant equipped to handle surplus milk and to distribute whole milk at wholesale and retail. The new enterprise is to be financed by the issuing of certificates of indebtedness bearing interest at the rate of six per cent. In distributing these, preference will be given to farmers who have signed contracts agreeing to market their dairy products through the new plant.—Agricultural Co-operation.

Licensing Makers in Ontario

HOARD'S DAIRYMAN:—Ontario cheesemakers and buttermakers are now working under a licensing system which came into effect a couple of months ago. This involves 785 cheese factories and 277 creameries that must have their operators licensed as efficient and capable makers of cheese and butter.

To qualify for a first grade certificate a cheesemaker must have had 93 per cent or over of his 1926 make of cheese grade "Firsts" by the federal graders. For a second grade certificate he must have at least 88 per cent of his cheese to grade first. Where less than 88 per cent grades first the maker can only secure a permit which entitles him to operate a factory for not longer than two years. If at the end of that period the permit holder can not qualify for a certificate he will not be permitted to continue as the head maker in a cheese factory or creamery. The certificates are of such size that when folded they can be enclosed in a pocketbook which permits the maker to carry it with him when applying for position.

In the award of first grade certificates the maker must know how to operate the Babcock test. This has put a number of makers into the second grade. It has been the practice in most of the cheese factories to have the maker take composite samples of milk from each patron which are tested each month by the dairy instructor who visits his factory.

When the campaign was on for cream grading in Ontario the question for grading milk for cheesemaking received considerable attention. The writer outlined this question pretty fully in Hoard's Dairyman at the time and it aroused no little discussion both here and elsewhere. The dairy department considered this a too far-reaching undertaking to take up. It is here mentioned merely because it was largely from this discussion that the granting of certificates to cheesemakers came into being. Under the present system no factory can accept milk that has been rejected at another factory. If this is done the certificate of the maker is cancelled. A time limit of ten days is fixed during which a patron whose milk is rejected by his own factory can not have his milk accepted at another factory. If his milk on the day after rejection is all right it will be accepted at his own factory providing he improves the quality of his product thereafter. This regulation was worked into the certificate plan to prevent disgruntled patrons from going to other factories and to prevent makers in these other factories from accepting milk rejected by other makers.

This latter provision of the certificate plan fills a long felt need and in a way accomplishes what was expected that grading milk for cheesemaking would do. It takes care of the patron who supplies good milk and penalizes the patron who attempts to deliver an inferior quality of milk that injures the finished product. It is roughly estimated that 10 per cent of the patrons of cheese factories in Ontario do not supply a first class milk for cheesemaking. Why should the other 90 per cent be penalized because the 10 per cent do not try to improve?

Canada. J. W. WHEATON.

Builds Up Worn-out Soils

HOARD'S DAIRYMAN:—When B. Kloepping of Dawson County, Nebraska, came to the farm which he now occupies, seven years ago, the land was pretty well run down. The best that he could expect in wheat yields was 20 to 25 bushels per acre. The corn was poor to medium in yield.

Mr. Kloepping is making use of barnyard manure and sweet clover in building up the fertility. Every year along in February he scatters sweet clover seed on his winter wheat land. The seed is mostly unhulled seed, just as it came from the threshing machine. There is never an acre of winter wheat sown but what the sweet clover is added along in the winter months.

Irrigation is practiced on the Kloepping farm. Each fall after t plowing for the winter wheat crop completed, the field is listed with t lister furrows three feet and 8 inch apart. Then the irrigation water turned down the lister furrows that the entire field is thorough soaked. When the field is compa tively dry, a cultivator is used throw the dirt into the lister furro The field is then double-disked, h rowed twice, and the wheat is drill In the fall of 1926, the wheat yield 47 bushels per acre.

Besides the sweet clover, manu is applied to the land which is to into corn every spring. The soil now well filled with organic mat throughout.

Nebraska. H. H. BIGGA

Illinois as a Dairy State

The farm value of dairy produ in 1926 was $101,563,830, accord to estimates by A. J. Surratt, A cultural Statistician of the Illi Crop Reporting Service. This e mate shows an average productio 4,368 pounds milk for each of 1,039,000 cows, or a total produc of 4,538,216,930 pounds for the st

The average farm price rece for the entire state was $2.238 hundred pounds milk. In the Chic dairy district the average was $ as compared with $1.96 for the so ern half of the state.

BUCKEYE BALLOON



Kelly quality in a moderate-priced tir

THERE are many car owners who do not feel that they need the extra long mileage of a tire such as the regular Kelly-Springfield. To such tire buyers we say:

For the amount of money you want to spend you can buy a Kelly-built tire, the Buckeye, that at its price represents just as great value and just as much quality as the higher-priced Kelly product. Buckeyes are sturdy, full size, full ply tires, built to give honest service. You will find that they compare favorably with many higher-priced tires.

"Kelly dealers everywhere—there must be one in your town"

KELLY-SPRINGFIELD TIRE CO.
General Motors Bldg. New York

KELLY SPRINGFIELD PNEUMATIC TIRES

diana's Gold Medal Herd Repeats

G. A. WILLIAMS, INDIANA

NCE 1917 the Indiana State Dairy Association has sponsored the 300-lb. Cow Club as a me- for stimulating herd improve-. Membership in this club is ed to the owners of herds hav-0 or more cows completing year- ecords above 300 lbs. butterfat. ertificate is issued to members, a bronze medal awarded as well. of the 10 cows each produce 400 fat, a silver medal replaces the ze one. Dairymen who are suc- ul in developing 6 of the 10 cows 500-lb. records are presented a gold medal. When Mr. Riggs leted the cow testing association for 1925 he qualified with a sub- ial margin. Not only was he the dairyman in the state to win this r, but it remained for him to his own record two years later qualify with a higher herd aver-

comparison of the cow test as- tion records of 1922 and 1927 what rapid progress has been in that time:

	Cows	Milk Lbs.	Fat Lbs.	Feed cost	Income
	9	6,487	351	$ 77.15	$136.55
	10	8,583	492	115.25	180.42
se		2,096	141	$ 38.10	$ 43.87

e Vanderburgh—Warrick Cow ng Association, of which Mr. s has been a continuous member, been in charge of Mr. Clint F. r for seven years. Every month r and breeder study the records ully and outline the feeding pro- for the succeeding month. cow is studied and her individu- es and dislikes are taken into ac- . It is seldom that two cows in herd receive exactly the same ration during any period. Grain l according to the milk produc-

might be assumed that the grain n fed under such conditions l be a very complex one. Such t the case. Corn, oats, bran, nseed, oil meal, and a small ity of commercial dairy feed to 7 of the cows have formed the ntrates entering into the grain re. The protein content is kept as near 16% as possible, but since individual desires are considered more important than anything else, each cow practically balances her own ration. Owing to soil conditions alfalfa hay is hard to secure locally. Soy bean hay has proved a very satisfactory substitute, although several attempts have been made to grow this legume on the farm.

Mr. Riggs began farming some 20 years ago, keeping grade Jerseys. It is only nine years ago that pure-breds were added. Care has been taken in selecting the foundation females, as also the herd sires used to head the herd.

About the time he started in pure-breds a bull and several females were brought into the county from Central Indiana by a local dairyman to start a registered herd. It was natural that a man of Mr. Riggs' type should be interested in these animals. He studied them carefully, and when they were entered in the cow testing association he eagerly watched for the monthly report. Something about that herd of cows appealed to him. He decided to bring some of the blood to his own farm at the first opportunity.

Later when this herd was dispersed, several daughters of Lynhurst Golden Prince, the male which came from Central Indiana, were purchased. The results were so gratifying that additional cows of the same breeding have been bought whenever possible. At the present time six members of the present gold medal herd are sired by this bull. The remarkable thing about these cows is their ability to make high records the first lactation. Four of the six have exceeded 500 pounds of butterfat as 2-year-olds, and the other two have not fallen very far behind. Any bull which transmits such high production is truly an asset to the breed.

Fortunately Prince is still in active service in Vanderburgh County, the property of Wilbur Neidig. Breeders are realizing the value of this bull and are breeding a number of cows to him each year.

This does not indicate all that has been accomplished during that time. Believing that a good herd of Jerseys is the best asset a young man can start out with in Southern Indiana, this progressive dairyman has been laying a foundation for his son, James, who rendered very faithful service in developing the herd. When the son began farming for himself on a nearby farm, the foundation herd was tapped of some of its richest blood. Last year these were entered in the local C. T. A. under the name of James A. Riggs. This reduction in numbers accounts for the fact that a second gold medal was not carried to Vanderburgh County one year earlier.

What Mr. Riggs has accomplished on this Southern Indiana farm is one more illustration showing what may be accomplished when records and breeding are firmly welded into one superstructure of herd improvement. The constructive breeder must have ideals; he must refuse to swerve from his course until those standards have been attained. It is impossible to estimate the value of such men in developing the dairy industry. The owner of Indiana's twice gold medal herd is such a man.



JOHN D. JONES, JR.

. Jones has been selected as secre- of the newly organized National e Institute, with headquarters at aukee. As Commissioner of Agricul- for Wisconsin, Mr. Jones made a for himself as a good executive with nderstanding of fundamental farm ems, and this newly created organi- n of the producers and handlers of e is fortunate in securing his serv- The purpose of the Institute is to lish co-operation throughout the e industry to the end that larger per a consumption of cheese may be ed.

You are a smithy; your anvil, life. Keep swinging the hammer, despite all strife. Honest your purpose; stroke that is true; joy in the thing you are trying to do.—London Sketch.

None!

No Long Tubes No Claws

The Surge Milker



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Ever try to wash a mess of long tubes and twisted claws? Try it once . . . . then try The Surge and *see how much easier it is! Another thing!* Long tubes and claws with their cracks, crevices, twists and turns are bacteria breeding grounds. The Surge has NO long tubes! NO claws! That's WHY Surge Owners find it so *easy* to produce clean low bacteria count milk and get premium prices.

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You can buy a Surge Milker on very easy terms. We'll figure to use any equipment you may have already in your barn. You'll be surprised how little it'll amount to. Mail coupon now. It doesn't obligate you.

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Please send me without cost or obligation, Free Surge Catalog and tell me about your special Free Demonstration Offer on the SURGE Milker. **(Please give this information.)**

Number of cows milked..... R. F. D.....

Name.....

Address..... *State*.....

Mastitis and Off-flavored Milk

HOARD'S DAIRYMAN:—I recently read an inquiry in the issue of Hoard's Dairyman under date of April 25 captioned "Off Flavored Milk." For the benefit of inquirer, I will state that I am at present, and have been for several years, producing raw milk for retail distribution. This necessitates, in order to be successful, the most minute and detailed attention to secure best flavor and odor, and last summer for the first time I found exactly what he is being troubled with.

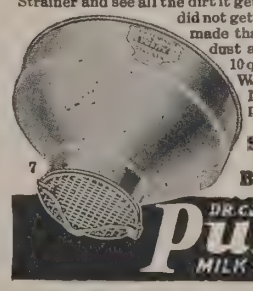
I am positive that if he will watch carefully the cows he mentions whose milk seems to be affected, and observe their quarters closely to ascertain if they come to the barn from pasture with one or more quarters hardened and possibly inflamed, or at any rate if he suspects any of them and finds the milk tasting salty or becoming off color, just secure sample and send to the state bacteriologist and ask him to test it for mastitis. I am sure you will find your trouble to be caused by mastitis infection. I have lost 54 cows in the past ten months with this infection. Two cows' udders rotted off, others lost from one to three and sometimes all four teats and had to be slaughtered. The flavor and odor were exactly as described, only my case probably was more aggravated than his seems to be. I was about three months in finding the cause of this terrible odor and flavor. It sometimes developed slightly stringy milk.

Our state veterinarian, Dr. Lytle, stated that there was not, to his personal knowledge, a record of as aggravated case of mastitis infection as was mine. We have gotten relief, at least temporarily, by having a serum or bacterin made from the bad milk or pus from these bad teats, this being used to vaccinate the entire herd.

Corwallis, Oregon. S. B. S.

Make This 10 Day Test

Try Dr. Clark's PURITY Milk Strainer for 10 days. Pour your milk through an ordinary strainer and note the amount of dirt and sediment removed. Then pour the same milk through a PURITY Strainer and see all the dirt it gets that the first strainer did not get. It's the only strainer made that gets ALL the dirt, dust and sediment. Made in 10 quart and 18 quart sizes. Write today for the 10 Day Trial Offer and prices.



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50,800 FARMERS and DAIRYMEN all over the country now save work and time with power houses equipped with the CEDAR RAPIDS SPEED GOVERNOR and the CEDAR RAPIDS LINE SHAFT. Give special speeds for separator, churn, pump, washing machine, wringer, grindstone, etc. One gasoline engine or one electric motor operates all the machinery. Write for special cash price and free power house plans.

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The city kid was roaming about in the country when he came upon a dozen or so empty condensed milk cans. Greatly excited, he yelled to his companions: "Hey, fellers, come here quick! I've found a cow's nest!"—The Albers Egg Maker.

EDITORIAL COMMENT



A NATIONAL PROBLEM

The Mississippi flood which has made thousands of farmers and others homeless, destroyed their property, and laid waste thousands of acres of land, presents a real national problem. Since the Mississippi river drains 39 states, handling the Father of Waters becomes a national question. It would be unfair to expect the few states which have sustained these heavy losses to bear the expense of providing against any such devastation in the future. It is an engineer's problem; no one else has the knowledge or experience to handle it.

There seems to be a difference of opinion among the men trained for this kind of work as to which is the better method to follow to prevent a similar calamity. We have no doubt but that in time the engineers will agree upon some plan that will handle the flood waters of the Mississippi and prevent future loss of life and property. When such a plan is presented to our government it will be the duty of Congress to make sufficient appropriation to carry the plan into effect. It would seem that President Coolidge has this in mind. When he was approached to reduce federal taxes he reminded those interviewing him that the federal government would be called upon to expend millions in making provisions to take care of the future flood waters of the Mississippi.

THE METHYLENE BLUE TEST

At a meeting a few months ago with city health officials and other interested persons we suggested the use of the methylene blue reduction test as a practical means of grading milk for direct consumption in those cities not provided with bacteriological laboratories. Smiles of superior knowledge greeted this suggestion and we were assured that this test was not sufficiently searching for this purpose. We regret we did not then have the report of recent investigations at the Vermont Experiment Station, the conclusions from which are pungently stated by the authors as follows:

"In the work herein reported the methylene blue reduction test proved to be a more accurate measure of milk quality than the agar plate count. Since it is also simpler, cheaper, and more rapid than the agar plate method it would seem that it should be more generally used as a test for grading milk."

Bulletin 264 of the Vermont Station at Burlington is necessarily technical in character, but it contains food for thought for those who worship at the shrine of the bacteriological plate count, as well as for that large body of dairy farmers who have been looking for some simpler, if not better, method of determining milk quality. The methylene blue reduction test is coming into increasing use at cheese factories and it is worthy of a wider trial in determining its efficiency in grading milk for direct consumption.

LONG DISTANCE FORECAST

It has become quite the thing to forecast market conditions and various other items. In the past, prices of agricultural products have traveled in what is termed cycles. For example, for a certain period the price of hogs was relatively higher than the price of corn which was followed by a period when corn was higher relatively than hogs. These cycles have been produced by farmers swinging in and out of producing a certain kind of product, to favorable years, and to other causes. When potatoes are high one year, an increased acreage usually follows the next year and as a result the price of potatoes is lowered.

Dr. G. F. Warren of the Cornell University predicts that following 1931 beef and dairy cattle will experience an abrupt drop in price. He says, "The market for heifers will be good, doubtless, until about 1931 and increasing numbers of them probably will be raised in the next few years. The best time to raise calves for the future is probably already past. Farmers who plan to raise cattle to sell later at a profit should start now. Far too many calves will be raised later."

It should be remembered that there is opportunity for factors to develop that will bring about no material drop in prices of live stock. Bear in mind no one is wise enough to state definitely just what will happen in the future and Dr. Warren understands that as well as any one. His prediction, however, is based upon what has happened in the past and on the general trend of human affairs. It is also well to bear in mind that those who produce high quality stock will not suffer the same depression in prices as those who raise inferior or mediocre animals. There is always a good market for well bred, capable dairy animals.

NATIONAL CHEESE INSTITUTE

To secure co-operation between producers, assemblers, manufacturers, and distributors of cheese in the United States, the National Cheese Institute has been incorporated. The purpose of the organization is to further protect the interests and general welfare of the cheese industry. It affords a means of co-operation between the federal and state governments in all matters of general concern to this industry. The Institute will direct itself to increasing the consumption of cheese and to educating the American public as to its true food and economic value. It will also assist in improving the quality of cheese.

Hon. J. D. Jones, Jr., former commissioner of agriculture of the state of Wisconsin, is the secretary of the new organization and will be in charge of its office and laboratory at Milwaukee, Wisconsin.

In commenting on the aims and objectives of the National Cheese Institute, the secretary says: "The aggregate annual production of all varieties of American-made cheese is in excess of 400,000,000 lbs. and the annual per capita consumption of domestic and imported cheese is a trifle over 4 lbs. The production, storing, curing, and manufacture of cheese is a fundamental part of the great American dairy industry. It has long been recognized that the cheese industry needs greater unity and cohesion; that it needs some impartial and unbiased central agency to work for the industry as a whole and whose standing is such that it can speak authoritatively for the entire cheese business. The National Cheese Institute will fill this need. It will afford common ground on which the producer, maker, assembler, manufacturer, and distributor may meet for the consideration and solution of common problems. Fundamental and foremost in the program of the Institute will be the promotion of a larger per capita consumption of high quality American-made cheese of all varieties. In working out this program, the welfare of the primary producer will be given first consideration. His position is basic, for on him and his effort the entire cheese industry is builded."

There is large opportunity for this organization to render a splendid service to the cheese industry of the nation. It must, however, keep in mind the rights of two groups of people, namely, the producer and the consumer.

SUNLIGHT AND LIME

Because of certain experimental work with chickens and goats, it has generally been assumed that sunlight and the ultra-violet ray would assist the cow in the assimilation of lime. This assumption has been rather disproved by experimental work recently concluded by Dr. Hart and his associates at the Wisconsin Agricultural Experiment Station.

The first experiment provided for the exposure of cows to direct sunlight during the month of June when the ultra-violet intensity of the sunlight was at its maximum. Despite this exposure, the cows failed to get into a positive calcium balance or, in other words, they failed to retain as much lime as they gave off in their milk and in their excreta. Reasoning from the experiments conducted with goats under the influences of the ultra-violet light, the experimenters came to the conclusion that summer sunlight, in comparison with the radiations of the quartz mercury vapor lamp, is feeble in its antirachitic or lime assimilating properties when considered in relation to heavy milking animals. Last winter, therefore, they radiated three good producing Holstein cows with ultra-violet rays from the mercury vapor lamp, later expecting to observe a favorable effect upon the animals. As previously stated there was no observable effect as the result of this treatment.

The conclusions of the experiment were that the ultra-violet light had little, if any, direct influence upon the calcium and phosphorus assimilation of dairy cows; it had no influence, either favorable or adverse, upon the milk production of the cow and it did not have any apparent influence upon the calcium and phosphorus content of the milk.

The suggestion is that the cow derives this antirachitic vitamin from the feed and is different in this respect from man, the goat, the chicken and probably the rat, all of which can be favorably influenced by the short wave lengths of solar radiation. The experimenters, however, caution that this investigation should not be interpreted as indicating that exposure of the dairy cow to direct sunlight is not beneficial.

OLEO MISREPRESENTATION

The National Dairy Council calls our attention to a misstatement of fact made by B. S. Pearsall, President of the Institute of Margarine Manufacturers, concerning research work carried on in England to determine the value of certain diets for growing boys. Mr. Pearsall is reported to have said:

"This research work consisted of feeding seven different groups of boys on as many different diets for a period of four years under the scientific observation of nutrition workers of international reputation. A plain and economical diet of bread, meat, vegetables, margarine, and a pint of milk per day produced by far the greatest growth in weight and height and the most satisfactory condition of health and spirit of any of the seven diets used in the experiments. These experiments on growing boys establish beyond any question or doubt what this institute has always claimed, namely, that margarine is a pure, economical, and wholesome food."

What the Medical Research Council actually reported, referring to feeding a group of boys the basic diet with vegetable oil margarine in place of butter, is as follows:

"When this result is compared with that obtained from feeding another batch with an equal quantity of butterfat, it is obvious that the vegetable margarine has failed.

"The group of boys who ate the margarine ration did not grow any faster than the batch of sixty-one boys who were taking only the basic diet, the average growth rate, 1.84 inches, being the same. The margarine group, however, has an advantage over the basic diet group in weight increment."

In this experiment seven groups of boys were fed the same basic diet. One group received the basic diet alone; another the basic diet plus milk; another the basic diet plus butter; a fourth, the basic diet plus margarine. Not until milk or butter was added did the boys show gains over those receiving the basic diet. The butter-fed group gained 20.9 per cent in weight and 20.6 per cent in height over the margarine-fed boys. Mr. Pearsall for some reason omitted this information.

This character of effort by Mr. Pearsall is quite in keeping with the general practice of many interested in the manufacture and sale of oleomargarine. To our way of thinking, they have never been able to present the merits of their product accurately.

Pink Buttermilk

Why will buttermilk occasionally have a pinkish r? I sell my buttermilk to customers and e in a great while it will get this pinkish color ch I cannot account for. My cows get grain year around besides pasture.

Teston, Iowa. J. B.

is possible that the pinkish color of the but- ilk may be caused by certain bacteria or by t growing in the buttermilk, but this would be ewhat unusual. It is also possible that the ation in the color of the buttermilk may be ed by the butter coloring as an appreciable unt of the butter color remains with the but- ilk. If there is a variation in the amount of er color used, there is likely to be a pinkish to the buttermilk in those cases where a r amount of the butter color is lost in the rmilk. It is also possible that this condition t occur in the spring when the cows go on ure and the milk itself is highly colored.

Killing Canada Thistles

there anything I could spray on a Canadian e patch which will kill the thistles without y to the other grain?

ge, N. D. M. H. K.

e Canada thistle is a troublesome weed and lt to destroy. Many schemes have been de- to destroy it, but none of them work as ef- ely as desired.

e of our Illinois subscribers recommends so- arsenate for destroying thistles. He uses easpoonfuls of sodium arsenate to ten quarts ater. The solution is usually applied with a ar sprayer about every ten days for several hs, beginning as soon as the plants start to It is important not to permit live stock ve access to the treated patches for at least days after the last treatment, as the solu- s poisonous.

ere possible to cultivate or use a hoe, proba- is is the most efficient means of eradication. uires persistency and means frequent cut- so that there will not be sufficient growth ground to keep the roots alive. If possible, the field before the thistle forms seed. Keep ld cleanly cultivated the balance of the sum- nd the following year plant corn in check Some men have found it possible to get re- by seeding to alfalfa, not so much as a er crop but for the frequent cutting that the thistle from going to seed and so weak- that it is more easily killed when the field into an intertilled crop.

Self-feeding Pigs

ave 70 spring pigs farrowed in late March arly April. They have the run of a self- filled with corn, shorts, and tankage. The ge is mixed with a mineral mixture in the tion of four parts tankage to one part min- ixture. Plenty of water and alfalfa pasture ovided. I would like to know if I am mix- e tankage and mineral in the right propor- Would you advise mixing shorts with the e and mineral? If so, in what proportion? til a few days ago I was hand feeding these I the corn they would eat and giving them made of shorts, salt, and tankage. The pigs onderful; they are not yet weaned. It is my perience with a self-feeder. I was nearly wn packing slop to them.

oway, Nebr. C. H. H.

uggest that our correspondent feed the corn f-feeder or compartment separate from sup- tal feeds; that he mix tankage, shorts, and meal in the proportions of 70 parts tankage parts each of shorts and linseed meal. This nental mixture should be fed in a separate der or in a compartment of the one in he corn is fed. We would feed the mineral e in a feeder separately from the other

happens that where corn and tankage, or emental mixture of which the largest part age, are offered, pigs will eat just about t amount of each to properly balance the If the mineral mixture is put with the ental mixture, the pigs may eat more of plemental mixture than is necessary. With pasture available, the pigs will eat less of plemental mixture in proportion to the ten than they would where no pasture is e. This is likewise true of the mineral .

e is no economy in carrying slop to pigs. e one can make them look fine by so doing, any finer than by self-feeding under the onditions. We have outlined how these pigs should be fed for maximum and economical gains, using self-feeders. It should be pointed out here, particularly to one who is having his first experience with the self-feeder, that it is not an automatic method; it will not run itself. One must keep the feeders supplied with feed and see that they are operating properly.

Skimmilk From High Test Milk

I am writing you for information on the composition of skimmilk and its feeding values of the three leading breeds, Holsteins, Jerseys, and Guernseys.

Beaver, Utah. T. C. P.

Milk testing 3.5 per cent will contain approximately 8.26 lbs. solids not fat as compared with 8.97 lbs. solids not fat for 4.5 per cent milk and 9.17 lbs. solids not fat for 5 per cent milk. We do not have available analyses of skimmilk secured from these but the solids not fat in the skimmilk would be somewhat larger per 100 lbs. than with the whole milk. However, assuming the same relationship exists, we would estimate on the average that Holstein skimmilk would contain approximately 8.3 lbs. solids not fat and Jersey skimmilk 9.2 lbs. solids not fat, while Guernsey skimmilk would contain 9 lbs. solids not fat.

As indicated above, the higher testing milk will produce skimmilk having slightly greater feeding value than does the lower testing milk. While this is true of the averages of all these different tests of milk, yet individual cows themselves will vary greatly. It would not be at all unusual to find milk testing 3.5 per cent fat that would have over 9 per cent solids not fat, while milk testing 5 per cent fat might have less than 9 per cent solids not fat. However, with a great number of cases averaged up, it would be found that the higher the milk tests the higher the content of solids not fat, and it is the solids not fat that represent the feeding value of the skimmilk. If considered on the basis of a large quantity of milk this is quite an important factor, yet in the case of the individual calf consuming less than 20 lbs. of milk a day, the additional feed value of the skimmilk containing more solids not fat is not a very material factor as it would provide not to exceed .1 to .2 of a pound additional feed material daily.

Price of Milk for Starter

I would like to know what is considered a fair price per hundred for whole milk testing from 3.3 to 3.6. The creamery here has installed a starter can and wants my milk for a starter. They think that $1.80 per hundred would be a fair price for milk delivered. I don't feel that it is hardly enough because I have plenty of little pigs to drink the skimmilk.

Will you please tell me what the regular price for milk is? What do you consider skimmilk is worth to a man when corn is a dollar a bushel and tankage is as high as it is now?

Little Cedar, Iowa. L. W.

Ordinarily a creamery will pay a considerably higher price for milk suitable for making starter than it would for the same amount of fat in cream or for milk of mediocre quality. It would seem that the creamery should make allowance for the extra care required to produce a high grade of milk as also for the higher cost of hauling milk compared to the hauling of its cream equivalent. These extra allowances should be added to the butterfat value of the milk plus the feeding value of the accompanying 80 to 85 lbs. of skimmilk that would otherwise be retained on the farm.

If the milk tests 3.5 per cent, the butterfat value at 50 cents a pound would be $1.75 for 100 lbs. of milk. With skimmilk at 50 cents a hundred pounds, the 80 lbs. of skimmilk would be valued at 40 cents, making a total value of $2.15 a hundred as the butterfat and skimmilk value of 100 lbs. of 3.5 per cent milk. To this should be added the allowances previously referred to for the extra care and the additional hauling costs.

The most usual method of estimating the value of skimmilk is to compare its feeding value with corn. Experiments indicate that when skimmilk is fed at a rate of not more than 3 lbs. of skimmilk to one pound of grain, 100 lbs. has a feeding value equivalent to a half bushel of corn. In other words, when corn is selling in the local market for $1.00 a bushel, skimmilk would be valued at 50 cents a hundred.

Another method of estimate shows that when fed properly, 100 lbs. of skimmilk is equal in feeding value to 7.29 lbs. of tankage and 10.86 lbs. of corn. With corn at 70 cents a bushel and tankage at $70.00 a ton, 100 lbs. of skimmilk would be valued at 39 cents. With corn at $1.00 a bushel and tankage at $70.00 a ton, 100 lbs. of skimmilk would be valued at 45 cents. With tankage at $80.00 a ton and corn at $1.00 a bushel, 100 lbs. of skimmilk would be valued at 48 cents.

Sunflowers for Silage

Kindly instruct me as to the right time to plant sunflowers for silage and how it compares with corn silage for feed; how thick should it be planted and how many pounds to plant per acre.

When is the right time to cut sunflowers for silage?

Marengo, Illinois. T. M.

There is considerable discrepancy in the reported experience relative to the feeding value of sunflower silage. We attribute this very largely to the varying results that men have secured in geting a palatable silage from sunflowers.

The most favorable reports we have seen state that sunflower silage is about 95 per cent as valuable as corn silage. This is better than most reports indicate, but apparently holds true in those sections where corn does not make a good crop. It is doubtful in our opinion as to whether sunflowers may profitably be grown for silage in those sections where corn makes a satisfactory crop.

Sunflowers for silage are usually planted in the same manner as corn. Ordinarily, the earlier the sunflowers are planted, the larger will be the yield. Planting is done at the usual time for planting corn, but because of the somewhat quicker growth of the sunflowers and because they are better able to withstand damage by frost, planting may be delayed some two to three weeks or more after corn is planted with reasonable promise of a fair to good yield.

The variety generally recommended for silage is the Mammoth or Russian sunflower, although in North Dakota the Black Beauty and White Beauty are reported as being highly satisfactory.

The amount of seed required per acre will vary according to the closeness of the rows and the nearness of the plants in the row. When planted alone, it will take from 6 to 8 lbs. of seed per acre. The seed may be planted with the corn planter or with the regular grain drill with the spout stopped up so as to plant in rows from 24 to 42 inches apart. If it is found convenient to cultivate in rows 30 inches apart, the general reports indicate that on good soil this distance of the rows apart will give the largest yield per acre. It is preferable to plant as corn is planted for silage, with the plants about 10 inches apart in the row. Under this system of planting the stalks will not be inclined to grow so large or become quite so woody.

The Illinois Agricultural Experiment Station recommends that the best results are likely to be obtained by ensiling sunflowers before more than 20 to 25 per cent of the plants are in bloom. Although the content of digestible nutrients increases slightly after this stage of development, the silage from the early cut plants is more palatable and will produce higher milk yields than that from the later cuttings. This station found that silage made from sunflowers cut 87 days after planting was superior to that which was allowed to mature for three weeks longer. The loss of juice from the silo when plants are ensiled at the immature stage may be prevented by allowing the plants to wilt in the field after harvesting and before bringing them to the silo.

The Illinois Station found as a result of its feeding trials that sunflower silage did not seem to cause any physical disturbances nor was the composition or flavor of the milk affected. The silage fed in these experiments proved much less laxative than corn silage and did not cause any increase of urine.

The sunflowers may be cut with the corn binder or may be cut by hand. The high growth of the plants make them a little bit difficult to handle and it will be somewhat more work to ensile them. We would particularly advise against the attempt to grow sunflowers and corn together because of the difficulty of handling the long stalks of the sunflowers having the heavy head at the top with the shorter growth of cornstalks where the weight is more evenly distributed.

Sunflower silage is not as palatable as is corn silage and cows must become accustomed to it before they will eat the sunflower silage readily. The reports we have received indicate that a mixture of corn and sunflowers is better relished by the cows than are the sunflowers alone. This may be accomplished by cutting in one load of corn to one load of sunflowers. In order to have the two plants ready for the silo at about the same time, the sunflowers should be planted some two weeks after the corn is planted.



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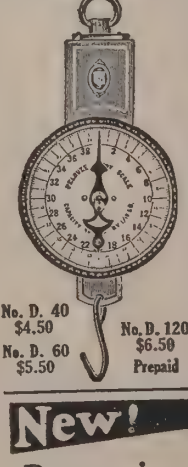
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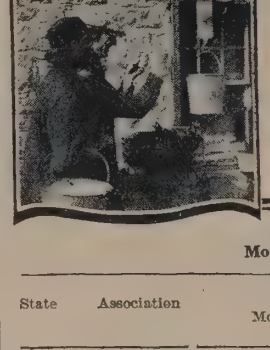
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COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Tenn.	Knox Co.	June	479	505	22.0	R. J	25	654	32.8	G. W. Callahan
Minn.	Becker Co. 1	May	311	734	29.7	G. H.	10	1146	46.8	A. McDonough
"	St. Louis Co. 1*	June	266	792	30.6	G. G.	5	930	38.5	M. Bloom
Vt.	Lamoille Valley	"	535	605	28.0	J.-G.	4	962	49.5	W. C. Hadley
Iowa	Winnesheik*	May	377	634	23.8	G. G.	9	805	33.6	M. Herold
Mich.	Alpena—Leer	"	240	680	29.5	G. G.	6	1056	48.5	A. Shuell
"	N. Antrim	"	231	704	33.0	J.	11	937	44.5	T. Shooks
"	Otisville—Genesse	"	249	686	30.6	G.	8	1127	47.7	R. Maxfield
"	Missaukee—Fal.*	"	206	895	33.5	G. G.	6	1037	46.6	R. K. Baas
"	Osceola—Reed City*	"	228	786	33.0	H.	10	1194	48.1	E. Hammar
"	So. Berrien*	"		875	34.6	G. G.	5	1110	50.0	W. Beehler
"	Van Buren 1*	June	286	756	31.8	R. H.	5	1564	52.0	R. Sherman
"	N. Wexford	"	185	732	32.5	G. D.	7	964	42.6	R. D. Horton
Wis.	Endeavor*	"	416	778	27.7	J.	6	847	40.5	W. Moss
"	Thiens.—Lakefield*	"	406	785	30.7	G. G.	16	917	43.3	F. Burhop
Ind.	Spencer—Perry Co.*	"	285	580	27.2	J.	15	724	37.9	C. R. Lang
Ore.	Melowest 1	May	677	1101	42.1	J.	12	1430	53.5	F. Brunell
"	" 2	"	650	1090	42.4	G. J.	16	1365	61.8	B. Monsen
"	Coquille Valley	"	807	915	40.1	G. J.	20	1173	50.3	C. A. Carlson
Wis.	Merton—Lisbon	June	523	793	30.3	H.	31	1279	45.8	I. J. Harness
"	Oak.—Tomah—Warrens	"	506	798	30.0	N. G.	13	1086	45.8	E. E. Bolten
"	Genesee—Eagle	"	518	714	27.8	G. H.	16	1236	41.3	L. Andofer
"	Ced.—Grafton	"	294	1004	35.6	H.	13	1308	46.0	E. Wegmann

* Retest rules followed.

A Washington Tour

Factors which affect profits in Whatcom County, Washington, dairying were given consideration at the fifth annual cow testing association tour. Important points as size of business, use of mechanical milkers, high production per cow, and maintaining good production in late summer were shown by a survey compiled by R. M. Turner, farm management specialist from the State College of Washington, and presented by County Agent H. B. Carroll, Jr.

Figures were obtained from 35 dairy farms, all of which have completed one or more years of testing in the local association. Large and small herds were selected under a wide variety of conditions.

A dairyman with 10 cows or less has absolutely no chance of an income of $1,000 from his dairy herd, according to this survey. A herd between 11 and 20 cows has 7 chances out of 17 to make this income and a herd of more than 21 cows has 6 chances out of 8. Poor cows or high costs may have prevented him from receiving higher returns.

The average labor income from farms averaging 6.7 cows was $386.30 per farm; for 14.6 cows was $1,040,56; and for 27.5 cows was $1,466.09 per farm. These labor incomes include that sum which is left after all cost as feed, interest, and depreciation have been deducted, except labor costs.

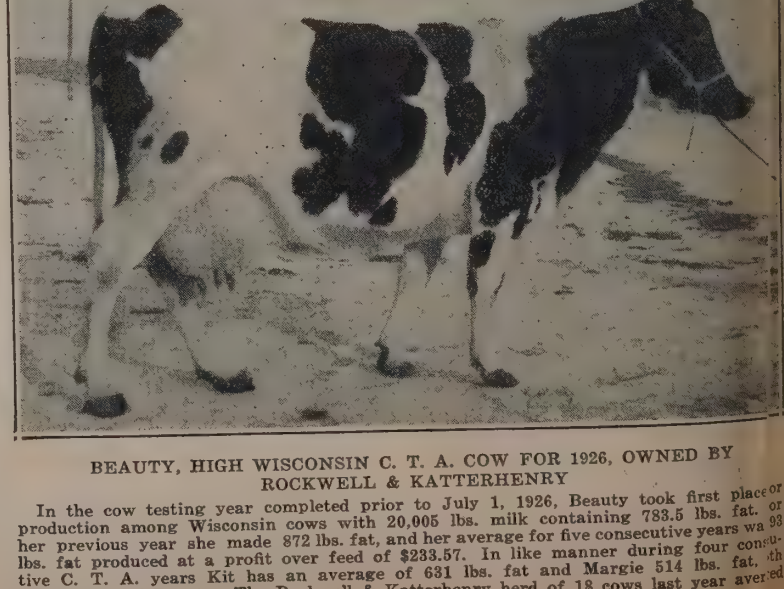
Many dairymen depend upon cash crops to supplement their herd income. Besides growing much of feed for their cows, they prod grains, sugar beets, seed crops, p toes, and berries. Some like the c bination of dairy and poultry b ness, and much skimmilk in West Washington is being fed to chick which was fed hogs a few years

Machine milking makes it poss to handle larger herds. Twelve the 35 farms surveyed have mil machines for herds averaging cows each. These machines gre reduced the total labor cost per and raised overhead costs but sli ly.

High production per cow is most important single factor af ing dairy profits. When produc is under 300 lbs. of butterfat, it 56.1 cents to produce a pound compared to 39.1 cents with pro tion at 400 lbs. or more. The ave labor income per cow increased $24.04 in the lower herds to $ in the higher producing herds.

If his cows produce under 30 of butterfat, a dairyman has chance out of 8 of making $1,0 bor income, while if his cows pro over 400 lbs. of butterfat, he l chance out of 2, according to survey.

Many dairymen allow produ to drop in the late summer for of good pasture. As pasture i cheapest feed, one of low ca capacity is losing possible profit the owner. Three remedies are gested: (1) improving pastur suitable grass mixture, harro



BEAUTY, HIGH WISCONSIN C. T. A. COW FOR 1926, OWNED BY ROCKWELL & KATTERHENRY

In the cow testing year completed prior to July 1, 1926, Beauty took first place for production among Wisconsin cows with 20,005 lbs. milk containing 783.5 lbs. fat. For her previous year she made 872 lbs. fat, and her average for five consecutive years was 93 lbs. fat produced at a profit over feed of $233.57. In like manner during four consecutive C. T. A. years Kit has an average of 631 lbs. fat and Margie 514 lbs. fat, the stablemates of Beauty. The Rockwell & Katterhenry herd of 18 cows last year averaged 444 lbs. fat.

fertilizing; (2) feeding green
l, such as wheat and vetch, corn
summer silage; and (3) feeding
n during the entire summer in
portion to the milk flow of each

n preparing for the tour mimeo-
hed sheets were prepared which
ained a discussion of the specific
its of interest at each farm visit-
This was so well prepared that
asked permission to refer to this
n the suggestion that those in-
sted in like tours in their own
munities might write for copies.
H. B. Carroll, Jr., replies that he
be pleased to comply with any
iests addressed to him at Federal
ding, Bellingham, Washington.

ood Work Being Done

OARD'S DAIRYMAN:—Dairy im-
rement work in York County,
nsylvania, received a real impe-
in organizing the Northern York
nty Cow Testing Association
uary 1.
he systematic checking on the
k of individual cows in the herds



M. F. SCHAEFER, TESTER FOR NORTHERN YORK COUNTY, PENNSYLVANIA, ASSOCIATION AND HIS BUSINESS "AD"

members has already resulted in a siderable shift in cows and in nges in feed and management. In-or cows are being weeded out as r are discovered and the better s are given more feed and better e in order to fully utilize their erior working ability. Several e-bred sires of good breeding have n purchased by association mem-. There has been an increase in number of members and in the ber of cows tested each month e the association started. The ber of cows giving more than 0 lbs. of milk has also materially eased each month.
Villiam F. Schaefer is the tester harge. The progress made in the ciation is very largely due to the rest he takes in the work and the ice he renders. Mr. Schaefer s pride in his work and believes advertising. The accompanying tograph shows the tire cover on automobile adorned with a cow a suitable inscription calling at-ion to the association and its k. There should be marked dairy gress throughout that section of k County in which the association ates.
ennsylvania. E. B. FITTS.

The Separator Freshens

OARD'S DAIRYMAN:—Four times I found separators losing at the of $6 to $8 per month, but there worse ones in the country. About months ago I was asked by one of members if I wouldn't test his her's separator. The sample was ght. I could not read the test in skimmilk bottle. I took the re-ning milk along to the next farm, tested it in a milk bottle, and found 2.4% test. I wondered if he had not sent by mistake whole milk from a low testing cow.

The separator was thoroughly overhauled the following month and I learned that the cream check increased from $7 to around $35 without fresh cows. Can you beat that? The separator had "freshened."

WILH. BODEKER, Tester.

Milk Tubes

HOARD'S DAIRYMAN:—As tester for the Upsala—Swanville Cow Testing Association of Minnesota I have had opportunity of seeing milk tubes in actual use by different men. Some men are very careful, while others don't seem to care and the results are accordingly. One man used a tube in a cow's teat and caused blood poisoning which killed the cow. This cow was the best one they had in 1926. Another used a tube in a teat that had been stopped on. When he was through milking he took great pains to blow the dirt out of it and stick it in a can that was hanging on the wall where it stayed until the next milking. The cow had garget in the one quarter of her udder and was fast drying up. Experience is a great teacher, but the tuition is terribly high.

Unless the milk tube is used properly the cow is bound to lose at least one quarter through infection. It's very easy to get infection in the udder but a mighty hard thing to get out again. Be sure the tube has been properly sterilized and kept in a sterilizing solution from one milking to the next. Take the tube to the barn with you in the solution and place it near the cow to be milked. Do not take it out of the solution until you are ready to insert it in the cow's teat. Be careful and do not let it touch anything but the very end of the teat and be sure that that is washed clean. When you take it from the teat don't put it in again before it has been thoroughly sterilized.

HARRIS L. WARD, Tester.

The man who succeeds is the man who reads. Lincoln walked twenty miles to get a book.



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D. M. HASTINGS, Atlanta, Ga.



Rear view of the Farmall, plowing. This also shows the high clearance over the rows of corn and cotton and other row crops. With this tractor you will be ready for next season's *planting* and *cultivating*.

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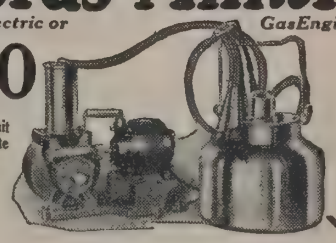
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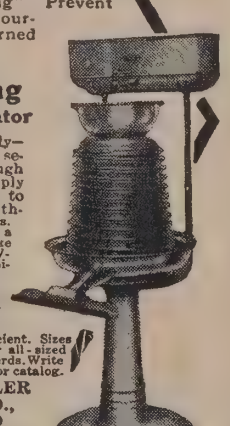
Better Milk

Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the 'Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

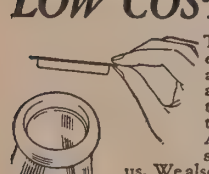
Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



THE H. H. MILLER INDUSTRIES CO., CANTON, OHIO
successors to
Chas. Skidd Mfg. Co.
Janesville, Wis.

A New Sanitary Finger Pull Cap for Milk Bottles

LOW COST A new sanitary cap that fits tight. Easy to remove from bottle with fingers. The household appeal of Kuvercaps gets new customers and holds the old. Try out a few and see how popular they are. The cost is small—they build new trade quickly. Ask your supply house for samples and prices, or write us. We also make "Midwest" Standard Disc Caps—noted for quality.



MID-WEST BOTTLE CAP CO.
P. O. Box 16 Belvidere, Ill.
Get Samples

Kuvercap

Buy a Vest Pocket Herd Book

PROPOSE MERGER IN NEW YORK

H. H. LYON, NEW YORK

AFTER many months of hard work the New York State Milk Producers' Program Committee on Unified Organization has made its report. Few people realize the efforts they have made to bring a report that will actualy benefit the dairymen they represent. This work they have done without pay. They called a meeting to be attended in Utica, on June 27, by delegates from the entire territory, each delegate supposedly to represent approximately 500 producers and to be chosen from different groups or from unorganized bodies. Some 300 dairymen attended the meeting.

When the committee made its report it did not recommend the formation at once of one united organization to handle the sales of all the milk. It did not feel justified in calling for the scrapping of existing organizations at the present time and from this position it refused to recede. The starting of a new organization at this time would be unwise and only lead to further discord.

This meeting was the culmination of the fifteen months' deliberation and taking of testimony. This testimony has been taken down by Mr. Bates of the State Department of Agriculture and Markets and is placed for safe keeping with the state college of agriculture at Ithaca. A summary of it, however, has been prepared and is available to some extent for distribution. The records, it is stated, contain "the greatest amount of authentic information on the dairy industry ever obtained."

While no new organization has been recommended, Chairman Ten Eyck contends that the better price for milk that dairymen are receiving and the almost assured advance in the fall fully justifies the existence of this committee and its work. "United we win, divided we lose," was on the banner back of the speaker's table. The chairman stressed the advantage to come from a single organization. "One tank for surplus milk," he shouted. The Federal Reserve banking system in which banks are supporting a "pool" has made the American financial structure the soundest in the world.

Aside from the 17-page mimeograph summary of the information obtained there are five columns, newspaper space, of recommendations by the committee. It is at once agreed that most of the producers of milk for the metropolitan market are affiliated in one way or another with some marketing organization. Then it is contended that the competing groups are reducing the price by competitive bidding. Again it is shown that they are reducing the price by attempting to avoid assuming a pro rata share of the burden of surplus. There is duplication of plants and unnecessary hauling charges due to the same competition. Probably none are getting the cost of producing milk, and they are not getting as much for milk as market conditions warrant.

The committee unanimously recommended two things. There should be created an advisory board at once. Second, there should be a referendum of dairymen as to the formation of a single organization. A resolutions committee was appointed with Congressman John D. Clark of Delaware County as chairman. This commi presented a resolution to the e that the delegates adopt the rec mendations for an advisory cou They recommended further that advisory council be composed of following members: The execu committees of the following organ tions: Dairymen's League Co-op tive Association, Inc.; Sheffield ducers' Co-operative Association, Unity Dairymen's Co-operative A ciation, Inc.; with one additional member from each organization each 10,000 members or major f tion, thereof. This report was ad ed. It was reported that the N Pooling Dairymen's Association the Eastern States had ceased to erate. There will be four forms organization for dairymen to con er in the referendum: The Lea Sheffields, Unity, and the John plan. It looks as though the Sheffi and the Unity are somewhat at v ance from the others. Evidently th is much to be done yet.

It seemed evident that there some disappointment that a single ganization for the entire territ cannot be agreed upon and launc but the majority of those present have come closest in contact with difficulties involved are of the o ion that for the present the wi course was followed. The merging all the organizations is the aim. chairman dismissed the meeting v expressions of confidence. "I feel," said, "that the dairy industry has en one of the greatest steps forw it has ever taken and I prophesy dairymen of New York State wil proud of the action taken here tod

Salvaging Milk Bottles

HOARD'S DAIRYMAN:—An expenditure of $500,000 is planned by the Milk Dealers' Bottle Exchange in Chicago for the erection and equipment of a modern plant to handle runaway milk bottles belonging to the 480 distributors owning membership in the exchange.

Organized in 1918, so efficiently has the work of the Exchange been extended that it is now estimated to save its members $1,500,000 a year in bottles which otherwise would be lost to their owners.

An average of 200,000 bottles a day is sorted out in the two present sorting stations. This is equivalent to ten freight car loads a day or a train of 60 cars a week. In summer the day's run mounts to 275,000 bottles. There are 100 employes on the payroll and fifteen trucks are engaged in conveying the bottles to their owners after being sorted in the plant.

About 30 per cent of the bottles handled daily are brought in by junk men who find them as they patrol Chicago's more than 50,000 miles of alleys where they have been thoughtlessly tossed. The other 70 per cent have worked their way into the wrong dairy from a dozen different causes. Under the rules of the association they must be sent back to the Exchange to be sorted out and returned to their rightful owners.

The Milk Dealers' Bottle Exchange is a co-operative organization, not for profit. Shares are sold at $10 each, based on the number of delivery wagons owned by a distributor. A charge of 1½ cents is made for each bottle returned to its owner. Junk dealers are paid half of this and the Exchange expenses are paid out of the other three-fourths cent.

Considerable quantities of bottles belonging to dealers in surrounding cities creep into Chicago. These are accumulated at the Exchange until sufficient to make their return profitable. Usually there is a load to be brought home from the outside town. Occasionally a bottle turns up in the day's run from London, Hong Kong, Buenos Aires, or other equally distant city.

Not long ago enough bottles belonging to milk dealers in Pittsburg, Pa., piled up to fill a car load. This suggests the activities of what the Exchange officials call "bottle bootleggers." Before the Chicago organization was perfected three car loads of Chicago owned bottles were being shipped out of the city every week by the "bootleggers" who obtained them from the junk men. The early tory of the Exchange is filled v stirring tales of efforts to break this unlawful trade. It has now b practically eliminated, it is believe

The new sorting plant will be a proof structure with a frontage about 650 feet. An up-to-date veyor system costing $50,000 has b designed which will facilitate sor and reduce costs. A bottle wash machine to cost $80,000 and belie to be the largest of its kind is als be specially built and installed.

All the large cities of the cour support bottle exchanges, but beca of the quantities handled in Chic this organization, according to Er Reuter, manager, is probably largest in the world.

Illinois. H. H. SLAWSO



CLOSE-UP VIEW OF THE MONUMENT ERECTED ON PICKARD BROS., OREGON, FARM JUST PRIOR TO THE RECENT DISPERSION OF THEIR FAMOUS JERSEY HERD

The 47 animals in the herd averaged $414. W. K. Keenan of New York paid the highest price, $2,600, for the world record cow, Darling's Jolly Lassie.—IVAN STEWART, Oregon.



P. A. was made-to-measure for me

PRINCE ALBERT couldn't have suited me better if I had made the blueprints myself, and superintended the entire job from soup to nuts! It fitted my smoke-taste perfectly the first time I tried it. I started right — with P. A. — and I've stayed with it.

I wanted fragrance. I got it . . . both from the tobacco in the tidy red tin and in the smoke itself. Fragrance that reminded me of woodland trails just after a soft, spring rain. I wanted mildness—mildness that would let me smoke from morning till midnight.

But mildness alone was not enough. I demanded a full, rich tobacco body that would satisfy my pipe-hankering on every fire-up. There again Prince Albert had my measure, right to the tick of the tape. Cool, long-burning, free from bite and parch—P. A. was all of these.

You suspect by this time that I am satisfied with P. A. I'll tell the world I am! And I want to get it over to *you* that, if you don't know P. A. by personal experience, you've got something coming to you . . . something mighty good. Try P. A., on the word of a friend!

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.

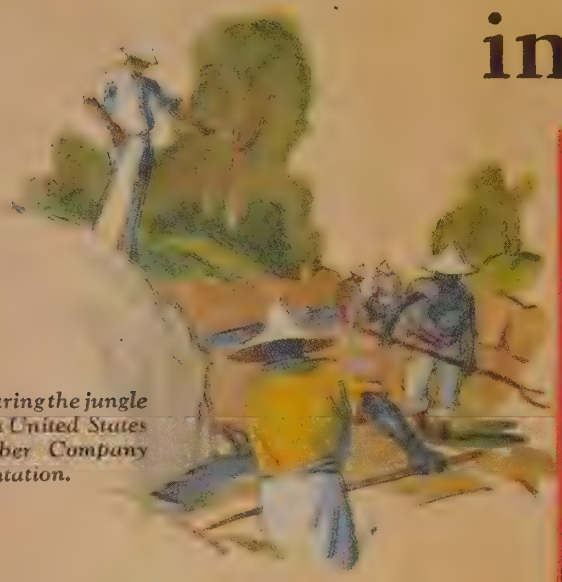


PRINCE ALBERT

—no other tobacco is like it!

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

The Greatest Large-Scale Farmer in the World.....



Clearing the jungle for a United States Rubber Company Plantation.



Bud-grafting young stock. Each budded tree must be protected with a shield of leaves.

Picture a group of farms totaling 136,000 acres with 20,000 hands to work them. Consider that these farms had to be cleared from virgin jungle, drained, fertilized, prepared. That 10,000,000 trees have been grown from seed, set out, grafted. Consider, also, that these farms have whole villages within their borders, schools and hospitals. Docks of their own. 80 miles of railroad and 355 miles of motor roads. Picture this and you begin to get an idea of the greatest agricultural enterprise in the world—the Far Eastern rubber plantations of the United States Rubber Company.

This huge development has but one object—to make *certain* of an ever-increasing supply of the finest rubber that can be grown for United States Tires. And so to guarantee the users of United States Tires *quality* right through from the place where quality must start—the rubber from which the tires are built.

Get more for your money!

THE longer wear of United States Royal Cord Balloons begins with rubber *grown for quality.* But plantation ownership is only one of the important steps in producing these better tires.

To obtain tire cord of the quality its specifications demand, the United States Rubber Company operates its own *Cotton Mills* in the heart of the cotton fields.

And every Royal Cord Balloon incorporates three of the greatest forward steps ever made in tire building:

Sprayed Rubber—the purest, strongest and most uniform crude rubber known; *Web Cord*—the framework of the tire structure in which the cotton cords are bonded together with pure rubber latex without friction generating cross-tie threads; and the *Flat Band Method*—which assures a tire equally strong at every point.

Company-owned plantations and mills, new and better materials and methods—all mean *greater mileage* for tires. That is what you are interested in. *Get more for your money*—go to the dealer who sells United States Tires.

United States Rubber Company
Trade Mark

UNITED STATES
ROYAL CORD
BALLOON



Collecting latex (rubber tree milk) from the tapped trees.

UNITED STATES TIRES ARE GOOD TIRES

easonable Live Stock Notes

HEN August rolls round, the cylinder of the thresher begins to hum and we go hither on exchanging labor with our ors that the results of a sea- small grain seeding may be ed to the granaries. In this and hurry to get the shocks off bble we have little time to de- the husbandry of live stock. ately for the forehanded farm- minimum attention need be at this time. The really good er, however, keeps an eye out ings that may need attention ually finds time to put in a lick here and there in order ne efficiency of his live stock kept up to par.

idsummer Decline in Milk

ust ushers in an annual and ble decline in milk flow of our herds. It makes little differ- hen cows freshen—the harvest g our attention, the severe bit- flies, the extreme heat, and the nly found poor pasture all drive cows down in milk flow. not such an important prob- th cows that are to freshen in r because they should be dried August but with cows not due e until December, January, bruary it is an important part d management to make every to help cows keep up in pro- through August. Studies of ses of this decline in produc- ow the most of it to be due to ate feed. Flies and hot weath- account for some of the de- ut not much and then usually y affect the amount of feed at. It may be necessary to nent with grain and to give portunity to graze during the the evening and morning. It h while to give cows such op- ty and conditions as will in- em to eat large quantities of

d New Sweet Clover Pasture

ast is the month when cows ned from the old sweet clover to the new growth of last s seeding, provided the old has at long enough and the new made satisfactory growth to pasturing. We would like to experiences of several dairy- no are trying this out. There e indication among those de- on sweet clover for pasture r seeding some sweet clover spring and turning the cows he old, spent pasture of the s year's seeding to the new of the seeding made last sweet clover may be depended supply pasturage about 5½ Just how well these two s fit together in August is a n that needs a more complete Write us your experience.

at Sow May Need More Feed

brood sow that is called on to two litters of pigs a year pecial attention. As a rule, ows are thin when spring lit- e weaned. They are bred after their pigs are weaned thin condition, many of them lost 60 to 80 lbs. in weight. s a tendency to let such sows t for themselves during the mmer season. They will do a ifting for themselves all right get enough of the right kind Otherwise they cannot bring rong pigs in September and more need for strong fall n is the case with spring pigs. ows are now well along in their pregnancy periods. Are they getting back the weight lost to their spring litters. Such sows should have at this time, in addition to pasture, a daily feed of grain equivalent to about two per cent of their live weights.

Broody Hens

Broody hens—what are we going to do with them? Each flock owner has his or her own notion of how to persuade broody hens to return to better behavior. If one has a sure-fire method of breaking up their desire to keep the nests warm, hang on to it for good methods are scarce. The best method we ever saw to give such hens something different to think about was an ordinary commercial crate hung off the ground by a single hanger attached to the center of the crate. When a few broody hens are put into a crate hung in this manner there is created an action resembling a combination of merry-go-round and tetter-totter. It's hard for hens to concentrate on hatching out chicks under such circumstances. The crate is lowered for feeding and watering the hens.

Proper Development of Pullets

August is a critical month in the development of pullets for future egg production. If one pushes them too rapidly, thereby bringing them into production in September, they are likely to molt before Christmas in which case winter production is out of the question. If one does not crowd them along rapidly enough, production will not begin until after cold weather begins in which case it is hard to get them up to satisfactory production until February and early March and then the price is declining. Pullets should be made to grow uniformly from hatching to maturity, without setback. Free range, an abundance of shade and green feed, combined with access to the proper growing mash in a self-feeder, will usually bring pullets up to laying time in the right condition for good winter production. August is a good time to check up on the development of pullets.

Bulletins of Interest

Prune the Bearing Apple Tree, by R. H. Roberts. Bulletin 378, Wisconsin Experiment Station, Madison, Wis.

Concrete in Home Sanitation, pamplet published by Portland Cement Association.

Sources of Animal Protein for Laying Hens, by J. H. Martin. Kentucky Experiment Station, Lexington, Ky.

Management Problems of Farmers' Elevators, by H. B. Price and C. M. Arthur. Bulletin 224, Minnesota Experiment Station, University Farm, St. Paul, Minn.

Stover No. 102 Limestone Pulverizer. Bulletin 201 published by Stover Mfg. and Engine Co., Freeport, Ill.

The Marketing of Milk by F. J. Prewett of the Agricultural Economics Institute, University of Oxford, England. This is a discussion of the handling and distribution of milk in England, with particular emphasis on the opportunity of greater co-operation among milk producers.

Noted Holstein Sire Dies

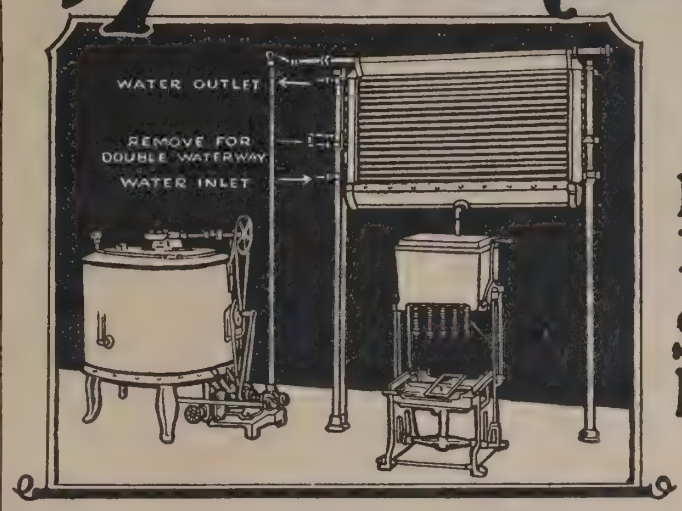
Sir Bess Ormsby Fobes, herd sire at Hollyhock Farms, Wisconsin, for seven years, and known the country over as one of the best of present day Holstein sires, died June 25. A son of S. P. O. M. 37th and Wisconsin Fobes, he was bred by John Erickson and sold to Hollyhock Farms by Schinke and Rabenhorst as a 3-year-old.

He has 33 A. R. O. daughters, only six tested at over three years. The first three mature daughters to complete 7-day records went to 34 lbs., 32 lbs., and 29 lbs. His first five 2-year-old daughters to be tested for a year averaged 640 lbs. fat, (800 lbs. butter.)

Sir Bess has always been known for his own good type and definite proof of his ability to transmit it is found in the grand champion female at the last National Dairy Show, one of his 4-year-old daughters. That cow now on year test has produced 560 lbs. fat, (700 lbs. butter) in her first six months.

"Sir Bess" leaves 45 daughters in the Hollyhock herd, with 11 cows still to freshen to his service.

VICTOR DAIRY PASTEURIZER



for the FARM DAIRY and SMALLER PLANTS

REALIZING the need for a simple, efficient and economical milk pasteurizing outfit for smaller plants and farm dairies, *CP* offers the Victor, illustrated above.

The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

With a Victor Outfit the small dairyman can produce good, wholesome pasteurized milk just as cheaply and efficiently as the big city dealer. Pasteurization provides safe milk and will increase your business. The Victor is a business builder. Write for full information and prices.

THE CREAMERY PACKAGE MFG. COMPANY
(*World's Largest Dairy Supply House*)
1245 W. Washington Blvd. CHICAGO, ILLINOIS
Sales Branches in Principal Cities

RUNNING WATER WITHOUT WORK

With a good Well and a good Windmill you can have all the water you want without work, worry or expense. Water from a well costs you nothing. The cost of an **Auto-Oiled Aermotor** is moderate. The expense for maintenance is so small that it need never be given a thought. An Aermotor runs in the lightest breeze. It will also work safely and steadily in the heavy winds.



The **Auto-Oiled Aermotor** is completely self-oiling. The double gears run in oil in a tightly enclosed gear case which holds a year's supply of oil. When the mill is running the oil circulates through every bearing. Every moving part is constantly and completely oiled. Friction and wear are practically eliminated.

Auto-Oiled Aermotors have behind them a long record of successful operation. Their merits are known the world over. For further information write

CHICAGO KANSAS CITY **AERMOTOR CO.** DES MOINES OAKLAND DALLAS MINNEAPOLIS

"Trade in" for a Power-Equipped Sharples SEPARATOR

You can trade in your old separator for a power-driven Sharples Tubular—you can trade it in on one of **larger capacity**, at very little cost. A power-driven separator costs only a little more than a hand-driven separator, and $20 allowance will be made on your old machine. If your separator is too small for your needs, if it is worn, out of balance and losing cream, and you want to be free from the drudgery of it all, write today for the Sharples offer, telling us what capacity you need.

$20 allowance on your old Separator

SHARPLES SEPARATOR CO., 565 W. Washington Blvd., CHICAGO, ILL. or WEST CHESTER, PA.

When buying mention Hoard's Dairyman to your merchant or dealer—it helps us!



Neighborly Notes

Yesterday, with my usual thrill of expectancy, I opened my mail and was rewarded by finding one of those delightful farmers' bulletins which the United States Department of Agriculture sends out. These same bulletins have provided a veritable well of knowledge for me the past year or two. I have been surprised to find that this department takes as great pleasure in helping the farmer's wife as the farmer himself.

It was quite by accident that I stumbled onto the real value of these bulletins. Of course, I, like everyone else, had heard of them for years but considered them as something very remote, as concerning myself at least. One day I chanced upon an exceptionally interesting article in a magazine that referred the reader to a bulletin on "Child Management," by D. A. Thom, M. D. As this happened to be a subject I was much interested in, I sent at once for this bulletin. I was amazed and delighted with it. I sent back for others and for a list of available bulletins. The list was staggering but also very promising. Subjects varied so that no matter what you were interested in you would find something meant just for you. There are a number of interesting booklets on flower culture if that happens to be your hobby. Although of late I have not sent for any special number, about every so often one of these extremely interesting little books comes into my home. Many of these bulletins are sent out entirely free of charge, though some have a charge of a few cents attached to them to cover printing and postage. Write to the U. S. Dept. of Agriculture, Washington, D. C., for these bulletins.

This particular bulletin, which arrived so recently, proved to be No. 1530 on "Fitting Dresses and Blouses." Now I have always sewed and consider myself as good along that line as the average housewife and yet I was astonished at the things I did not know when I looked over this little booklet. The bulletin deals with alternating and fitting of garments whether home-made, made by a dressmaker, or purchased ready made. It points out the loss from an economic point of view through the wearing of a garment that does not fit; so much dissatisfaction results from the wearing of an ill fitting garment that often it is cast aside long before it is all worn out. Very few women know how to alter patterns so that they will conform to their own figure. Manufacturers have used so-called "ideal" measurements as their basis in cutting patterns and garments. This bulletin helps the home dressmaker to remedy these conditions, and cut the goods and fit it to her own measurements. Each step in this work is illustrated so clearly by actual photographs that the reader cannot fail to grasp the point the writer tries to convey and the remedy for each trouble.

I have in my hands at present a bulletin on home conveniences, No. 927, which should be in every farm home in America, and inside the cover I find these lines, "Whatever lessens woman's work, benefits the race." Some day I will tell you more about this booklet, but at present I wish merely to mention a part of the table of contents: The kitchen cabinet; the fireless cooker; sponge box or bread raiser; dish drainer; heights of working surfaces; serving tray; folding ironing board; the iceless refrigerator; the cold box. Are you not anxious already for a copy of this to read?

"A Guide to Good Meals for the Junior Homemaker," (Miscellaneous Circular 49), takes up a study of the five food groups, how food supplies body needs, calories, etc. In fact it takes up work very similar to what is being taught in classes of domestic science in high school.

There is a whole booklet of fourteen pages in itself, just made up of a list of bulletins on foods and cooking, canning, cold storage, and home economics. This ranges all the way from Food and Drugs Act to ice cream, honey, laundering, and metabolism.

The canning bulletin which I have, No. 1471, covers all sorts of methods of canning: hot pack, cold pack, water bath canners, and pressure canners. It provides not only instructions for canning all sorts of fruits and vegetables but time tables as well.

Then for the person who knows little about fabrics and selection of cloth, I would recommend No. 1449. Or, if you are interested in the principles of window curtaining, send for No. 1516. This booklet is one of the most delightful I have ever received. It is full of the most interesting ideas for your windows. Just to look at the illustrations in this book is enough to fire one with enthusiasm.

This morning one of my friends called me up and said she had gotten a stain on some of her best linen and she simply could not get it off. Immediately I brought forth my Stain Removal Bulletin No. 1474. And within a half hour she reported that the stain had disappeared.

To quote from one of the bulletins: "The government of the United States is the greatest of all modern publishers. It employs thousands of scientists who are engaged the whole year round in making researches and investigations in all branches of agriculture and household economy, in geology, in mining, in electricity, in chemistry, in astronomy. The arts of war as well as those of peace are also cultivated. The greatest art of all, that of maintaining and spreading free government, is strenuously carried on by president, cabinet, senators, representatives, army, and navy.

"The results of all these activities of the most comprehensive and effective organization ever known are constantly reduced to print and poured out in an incessant flood from the Government Printing Office at Washington, the largest printing plant in the world."

Let us make use of this information that has been gathered for our benefit. We, who are farmers' wives, have little time to spend digging out such gold mines of information for ourselves, and so when the government has done this for us, has had this same information published in language simple enough for us all to understand, let us accept the knowledge thus available, knowledge that will lighten our work, gladden our play, and bring us help in many a way.—ETHEL MORRISON MARSDEN.



MRS. J. C. ALLEN, INDIANA, CANNING MUSTARD BY COLD PACK METHOD FOR WINTER GREENS

Importance of Eating Vegetables

The more scientists investigate, the more importance they attach to the value of vegetables in the diet; and the more psychologists investigate, the more importance they attach to learning to eat and enjoy vegetables when young. It is not only that the young child has a great need of vegetables but the chances are that if he does not learn to eat them when he is young, he will never eat them at all. Children are born without any natural likes or dislikes for foods but they acquire them with such uncanny subtlety that it seems they were born with them. They get used to milk and then spit out orange juice, not because they don't like it, but because it is different from milk which they have already got into the habit of taking and they don't want to change.

A survey made by some home economics people concerning the vegetables children like and eat showed that they, in the main, eat the vegetables their mothers cook and serve and that they learn to like the ones which they originally thought they disliked, if they kept on eating them

(Continued on page 743)

Miscellaneous Fashions



No. 2922—For the Smart Matron. Cu sizes 18 years, 36, 38, 40, 42, 44, ar inches bust measure. The 36-inch siz quires 3⅝ yards of 36-inch material wi yard of 32-inch contrasting.

No. 3042—Tremendously Smart. Cu sizes 16, 18 years, 36, 38, 40, 42, and 44 i bust measure. The 36-inch size require yards of 40-inch material with ⅝ ya 32-inch contrasting.

No. 3067—For Smart Daytime Wear. in sizes 16, 18 years, 36, 38, 40, and 42 bust measure. The 36-inch size require yards of 40-inch material with ⅝ yard inch plain contrasting.

No. 3081—For the Little Sub-Deb. Cu sizes 6, 8, 10, 12, and 14 years. The size requires 2½ yards of 40-inch ma with 3 yards of 4-inch ribbon for bow sash.

No. 3074—Dainty Beach Dress. Cu sizes 6, 8, 10, 12, and 14 years. The size requires 1⅝ yards of 40-inch ma with ⅝ yard of 40-inch contrasting.

No. 2321—One-Piece Dress. Cuts in 16 years, 36, 38, 40, and 42 inches bust ure. The 36-inch size requires 3 yards inch material with ½ yard of 32-inch trasting.

No. 2939—Exceedingly Smart. Cu sizes 16, 18 years, 36, 38, 40, 42, and 44 bust measure. The 36-inch size require yards of 40-inch material.

How to Order Pattern

Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. your order to Fashion Department, Hoard Dairyman, Fort Atkinson, Wis. Every tern is seam-allowing and guaranteed perfectly. Do not fail to state size.

Our patterns are made especially for the leading fashion designers of New City. No stock of patterns is carried i office and, since all orders are forward the factory, kindly allow a reasonable for delivery of any pattern you order.

Have you seen our new Summ Style Book? If not, send for it day—only 10 cents. Patterns ionable and easy to make.

DAIRY MARKET NEWS

Feed Market Situation

The Grain, Hay, and Feed Market Service, U. S. Bureau of Agricultural mics.)

l markets ruled irregular late in June arly in July with strength in wheat offsetting the decline in hominy feed luten feed. Corn and oats prices have airly steady at about the level of two ago, although markets for these grains been much influenced by crop develop- Good pasturage over practically all of untry has helped to keep down consum- emand for feeds but with a moderate offerings of most feeds have been read- sorbed and reserve stocks seemed gener- mall.

at feeds ruled higher after the recent e with middlings and the heavier feeds ng decidedly more strength than bran. prices are generally 50c higher than two ago at the present writing (July 8) the heavier feeds have advanced as much 50 per ton at some points. Reports in- that hardly any bran has gone into e at the present time—an unusual con- —as the current demand has absorbed ferings. Shorts and middlings have also l freely into consuming channels and es have been hardly equal to current

seed meal held about steady although the e of trading has been very small. The t of this feed is also light, reflecting quiet conditions in paint markets influence requests for linseed oil. In- were scattered in the Northwest but there seemed inclined to store whatever they could not sell at $45 a ton.

tonseed meal was also practically un- ed on the whole although quotations at is points fluctuated, largely because of ers' offerings. Offerings of this feed the South were at practically unchanged but in the Northeast some resellers willing to discount current quotations up c a ton in order to move their holdings resellers were also pressing sales at Chi- Demand at northern distributing points d very quiet.

ten feed became much easier to buy and facturers in the Northeast were again ac- ng orders on their "grass price" basis, was sharply lower than the prices re- secured by resellers for this feed. De- , however, seemed brisk at the lower fig- and some of the mills at Buffalo were up for the immediate future and were not ng prices. Manufacturers at Chicago again accepting orders for shipment but generally limiting sales to one car per mer.

miny feed has been more freely offered prices worked lower at most markets al- h the decline has been checked to a large t by strength in the corn market. Sup- at most distributing points have been of volume and buyers have been cautious making further commitments, doubtless g that should corn prices make material es on account of more favorable weather e corn belt the present level for hominy would be too high.

alfa meal has been rather quiet and s have made slight declines at some s in sympathy with generally lower s for alfalfa hay. Tankage has moved ly at previous quotations of about $65 on at the principal markets. The demand this feed may be affected by the lower s at which hogs are selling this year, y $5 per hundredweight lower than a ago, but offsetting this the increase in umber of hogs and the higher prices for this season tend to increase the amount nkage used.

Quoted July 8

andard spring wheat bran: $29 at Buffa- 32.75 at Philadelphia, $27.50 at Chicago, at Minneapolis. Hard winter wheat bran: at Buffalo, $30 Cincinnati, $25 Omaha. winter wheat bran: $32 Buffalo, $34.75 ldelphia, $30 Cincinnati, $27 St. Louis. andard wheat middlings: $31 Buffalo, 0 Philadelphia, $31.75 Chicago, $29.50 neapolis. Soft winter wheat middlings: 0 Cincinnati. Gray shorts: $36 St. Louis, Omaha.

ttonseed meal (43%): $45 Buffalo, $47 ldelphia, $43 Chicago, $42.60 Omaha. nseed meal: $45.50 Buffalo, $46 Chicago, 0 Minneapolis.

uten feed: $35 Buffalo, $31.10 Chicago. e hominy: $38 Buffalo, $40 Philadelphia, Cincinnati, $35.50 Chicago, $36 Omaha. lfa meal: $25 St. Louis, $25.75 Chicago, Omaha.

Wisconsin May Butter

isconsin co-operative creameries paid pro- rs a net price of 46.3 cents a pound for erfat in May according to reports from 80 hese creameries to the Wisconsin Depart- t of Markets. These creameries received average of 41.6 cents a pound for butter, ing spread of 4.7 cents between the price ived for butter and the price paid for fat. he range in prices paid for fat was from to 50 cents, with the price received for butter ranging from 40.1 to 42.5 cents. The overrun ranged from 21.7 to 23.9 per cent. Receipts of butterfat averaged 37,929 lbs. per creamery.

June Foreign Butter

The following table of foreign butter prices gives the average of weekly quotations as published by the U. S. Department of Agriculture:

Market	June 1927	May 1927	June 1926
	Cts.	Cts.	Cts.
New York	42.5	43.5	41.2
Chicago	40.4	41.5	39.1
Copenhagen	33.4	32.9	34.7
Berlin	33.5	33.7	35.2
London			
Danish	35.8	35.3	37.5
Dutch*	35.0	34.4	32.6
New Zealand	35.6	35.0	35.1
Australian	35.5	34.4	34.5
Argentine*	34.7	33.9	31.6
Siberian	34.2	33.3	31.2

*Unsalted.

June Cheese

Wholesale price of cheese on the Wisconsin boards averaged 22.5 cents for June, which is practically the same price as prevailed last month but exceeds a year ago by 2.6 cents. The first two weeks in July saw little change in prices, with the markets generally firm.

Cheese production for the first five months of the year totaled 144,572,000 lbs., a decrease of eleven million pounds from last year. Net imports were 30,518,000 lbs., an increase of ten million pounds over last year. Storage on June 1 was 35,780,000 lbs., a decrease of four million pounds from last year. This brings the total estimated trade output for these five months to 196,152,000 lbs., a decrease of 9.3 per cent in apparent consumption of cheese as compared with the same period last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during June:

	June 1927	May 1927	June 1926
	cents	cents	cents
Twins	22.2	21.9	19.3
Single Daisies	22.5	22.4	19.9
Longhorns	22.3	22.3	20.1
Square prints	22.8	22.9	20.3
*Receipts since Jan. 1	96,958	76,192	90,319
*Receipts for month	20,765	20,017	19,951
*Storage (End of months)	10,995	9,634	18,212

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted).

June Condensed Milk

(Report by U. S. Dept. of Agriculture)

Prices paid producers for 3.5% milk f. o. b. factory were as follows for June covering those factories manufacturing both case and bulk goods:

Geographic sections	No. of factories	Prices per cwt. Range	Ave.
New England	1	$2.02	$2.02
Middle Atlantic*	7	1.90—2.14	2.05
E. No. Central	57	1.70—2.04	1.91
W. No. Central	6	1.79—2.10	1.93
North Western	6	1.75	1.75
South Western	10	1.66—2.20	1.84
United States	90	1.66—2.20	1.91

*Sixty-one additional factories reported prices based in part on current month's wholesale butter quotation. Forty-seven factories reported prices not determined as yet and 20 reported factories closed.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for May:

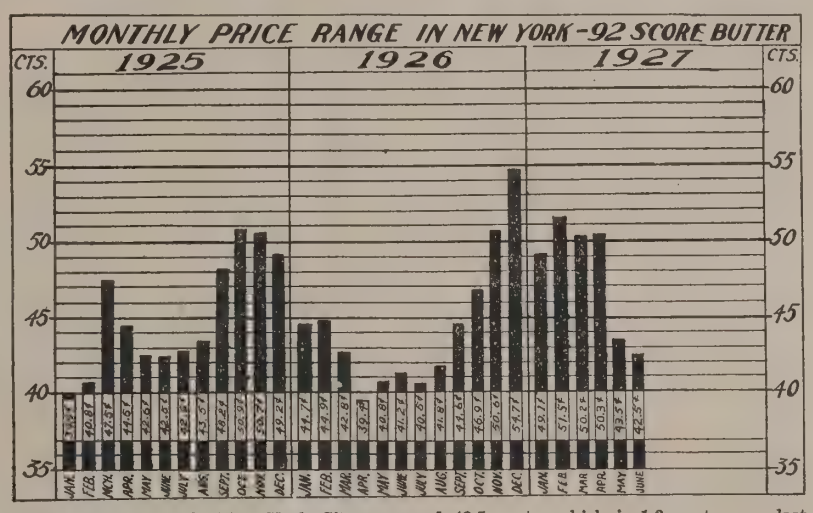
	Range	Ave.
Condensed, per case	$5.26— 6.55	$ 5.94
Condensed, per cwt.	9.25—13.00	10.31
Evaporated, per case	3.55— 5.20	4.43
Evaporated, per cwt.	6.45— 9.50	8.55
Condensed skim, per cwt.	4.55— 7.00	5.87
Evaporated skim, per cwt.	2.50— 5.38	3.57

June Butter

Butter averaged 42.5 cents in New York for June, a decline of one cent from the May average but still 1.3 cents above June a year ago and the same as two years ago. The first two weeks of July saw declines of one cent, but receivers appeared to have confidence and sent butter into storage at around 42 cents rather than push it on to the market at lower prices. Production has apparently reached its peak for this season and is now on the decline.

Creamery butter production for the first five months of the year was 582,920,000 lbs., an increase of eighteen million pounds over last year. Net imports for the same period were 4,339,000 lbs., an increase of four million pounds over last year. Storage holdings on June 1 were 25,340,000 lbs., a decrease of five million pounds from a year ago. This brings the estimated trade output for the first five months to 807,891,000 lbs., an increase of five million pounds or .7 per cent greater consumption than for a like period last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices on 92-score butter (extras) at four of the principal markets, together with receipts and storages:



The June butter in New York City averaged 42.5 cents, which is 1.3 cents over last year and practically the same as two years ago.

	June 1927	May 1927	June 1926
	cents	cents	cents
Chicago	40.4	41.5	39.1
New York	42.5	43.5	41.2
Boston	42.6	43.8	41.6
Philadelphia	43.2	44.3	42.1
*Receipts for month	74,223	62,211	72,570
*Receipts since Jan. 1	301,544	227,321	296,192
*Storage (end of month)	41,026	9,470	44,872

*In thousands of pounds at the four markets (i. e.—000 omitted). Ninety scere butter averaged 39.1 cents for June in Chicago, with centralized butter at this market selling for 40 cents. Jobbers' prices on extras sold to retailers averaged 42.9 cents in Chicago, a spread of 2.5c above wholesale.

Milwaukee June Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of June:

For the portion sold as fluid milk, $2.85 per cwt.; and for the portion manufactured, $1.70 per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Sixty-three and one-half per cent of the total receipts were sold as fluid.

May Dry Milk

(From Report by U. S. Dept. of Agriculture)

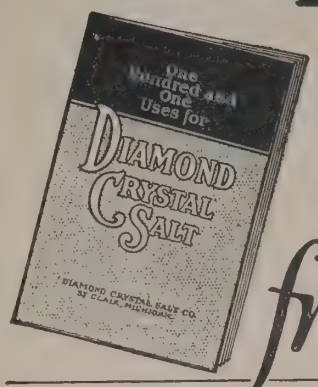
The wholesale prices given below are based on reports from manufacturers governing actual sales f. o. b. factory during May:

Dry Skimmilk: Prices ranged from 7 cents to 11.5 cents for dry skimmilk in bulk, averaging 9.13 cents a pound for sales totaling 7,421,801 lbs. When packed in one-pound cans the price reported was 28.2 cents a pound.

Dry Whole Milk: Prices ranged from 24.5 cents to 27.5 cents for dry whole milk, aver-

(Continued on page 743)

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it's free

IF YOU would know how generally useful salt can be around the home and farm, write today for the booklet, "101 Uses for Diamond Crystal Salt." We venture to say it suggests many that are entirely new to you.

Besides, it answers every question you may have about salt. Is Diamond Crystal different from ordinary salt? Is there an advantage in its flaky, snow-whiteness? When is salt mild to the taste and what effect has that on food? All these — and many more — questions can be answered and proved by reading this booklet. We shall be glad to send a copy to you.

Diamond Crystal is a pure, mild salt. It dissolves easily and blends readily with food. It emphasizes food flavors and does not obscure them.

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"The Salt that's all Salt."

Diamond Crystal Salt



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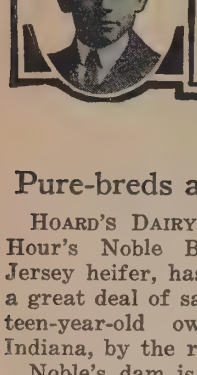
DIAMOND CRYSTAL SALT CO.,
Dept. 1179, St. Clair, Michigan

Please send me, free, trial package and booklet, "101 Uses for Diamond Crystal Salt."

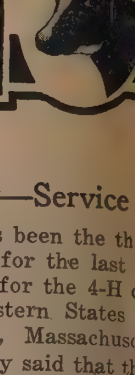
*Name*_____

*Town*_____

*R. F. D.*_____ *State*_____



HOARD'S DAIRYMAN JUNIORS

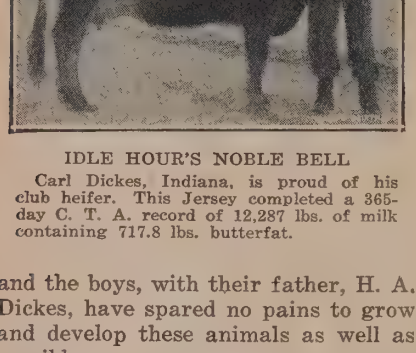


A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Pure-breds and Club Work

HOARD'S DAIRYMAN JUNIORS:—Idle Hour's Noble Bell, a two-year-old Jersey heifer, has been the source of a great deal of satisfaction to her fifteen-year-old owner, Carl Dickes, Indiana, by the record she has made.

Noble's dam is Golden Gardo Bell, a heifer which Carl's brother secured through the calf club three years ago. Gardo was a bred heifer purchased in Ohio. These were the first registered females to come to the Dickes farm,



IDLE HOUR'S NOBLE BELL

Carl Dickes, Indiana, is proud of his club heifer. This Jersey completed a 365-day C. T. A. record of 12,287 lbs. of milk containing 717.8 lbs. butterfat.

and the boys, with their father, H. A. Dickes, have spared no pains to grow and develop these animals as well as possible.

The farm of H. A. Dickes & Sons has maintained a herd of dairy cows only a comparatively short time. Beef cattle formerly filled the stables. A registered Jersey sire has been purchased, and it is the desire of the father and his two sons to develop a herd of pure-breds from this foundation stock.

Indiana. G. A. WILLIAMS.

After Club Work, What?

I am wondering if hundreds of former club members are not unconsciously incorporating into their daily work things they were taught in their 4-H work—things that almost unknowingly are helping them to do their work more efficiently and are starting them on the road to success.

After club work, what? To one group it may mean leaving rural life for the bright lights of the city. It may be that these young folks have been taught just enough leadership and co-operation that they will develop into leaders of commerce and industry. It is my contention that if a person does not have a liking for farming, it is his duty to himself to get into another profession.

After club work, what? To another group it means stepping across the threshold of youth into the life of realities. The former club member who stays on the farm has an opportunity to put into practice what he learned in club work. In many backward communities club work has been the sole source of agricultural education.

After club work, what? We have a kind of unwritten law which asks that a club member give back to club work what he has taken out of it. There is no better source of club leaders than young people who came up through the ranks themselves. They can see things from the viewpoint of both the member and leader.

After club work, what? Many instances can be cited of club members who have built up a successful business just by carrying on their club project on a greater scale for their own benefit. Former club members can be of value to their communities by backing parent—teachers' associations, breed organizations, and community clubs.

[EDITOR'S NOTE:—The above was taken from a talk given before a group of club folks by George Price, a graduate of club work and a club leader, who is now farming with his father in Kenosha County, Wisconsin.]

Little Talks for Juniors

Work. A big, little word, isn't it? Sometimes it means fun and pleasure; sometimes drudgery, sometimes pain, sometimes money. But, whatever the meaning, it's a very necessary thing. We can't get along without it. Maybe it's just getting kindling for mother, or running an errand. Maybe it's a day of toil in the fields with father. When you grow older, work is your means of earning a living.

Work is a blessing. It keeps people busy, and busy people are not usually doing things they ought not to do. Time does not drag for busy people; on the contrary, the day is hardly long enough for them.

Every worthwhile thing depends on work. Every material thing is the result of work by someone, sometime, somewhere. Work builds homes, barns, skyscrapers, engines, automobiles, trains, electric lines, farm machinery. Work is necessary for successful crops, herds, and flocks. Work brings up families and makes citizens. Work feeds and clothes the world, and makes the wheels go round.

It takes work to achieve success, whether it's in club *work*, in farming, or in business. If you would be successful, WORK.

Humpty Dumpty, Clown

HOARD'S DAIRYMAN JUNIORS:—One of the men best known to the 4-H club members of California is Humpty Dumpty, the health clown. Every Saturday evening he talks over the farm radio to thousands of listeners. He conducts parties through health land and travels to the ice cream mountain in a milk plane.

Thousands of boys and girls and not a few older people have watched him perform at various state and county fairs. His magic milk stunt and his mechanical cow have entertained as well as enlightened, with the result that the per capita consumption of dairy products in California is higher than in any other state, in spite of



HUMPTY DUMPTY HEALTH CLOWN

the fact that the prices for these products are higher there than in the East.

Ray L. Law, for that is Humpty Dumpty's real name, is employed by the health department of the California Dairy Council, so he is giving all his time to the task of increasing the consumption of pure dairy foods as the surest method of bettering the health of the people.

Wisconsin. GUY A. PETERSON.

Opportunity—Service

"Opportunity" has been the th back of the exhibit for the last years at Camp Vail for the 4-H members at the Eastern States position, Springfield, Massachus

It can be truthfully said that t is opportunity for all boys and no matter where they live if t but search it out. Tacked on all sides of every post in the exhibi hall last fall was a card which "4-H Club Work Means Opport ty." Each exhibit booth represe either the opportunity that had seized by some individual club m ber or a group of club members.

For instance, the West Virg group did weaving of basketry, the material used was all grown the state.

The Vermont delegation made ple sugar. The young people of county of that state have learne pack neatly in a pound box, wit 4-H Club card, maple sugar w they have sent around the world.

The Pennsylvania boys brought tatoes raised in Pennsylvania, ba them and served them hot with p ty of butter and salt.

Rhode Island showed how work offers opportunity to dev the Health H. Each state made exhibit illustrative of opportunity

Service has been the watchw throughout the last several years, best of all there developed with exhibit itself this year a chance serve.

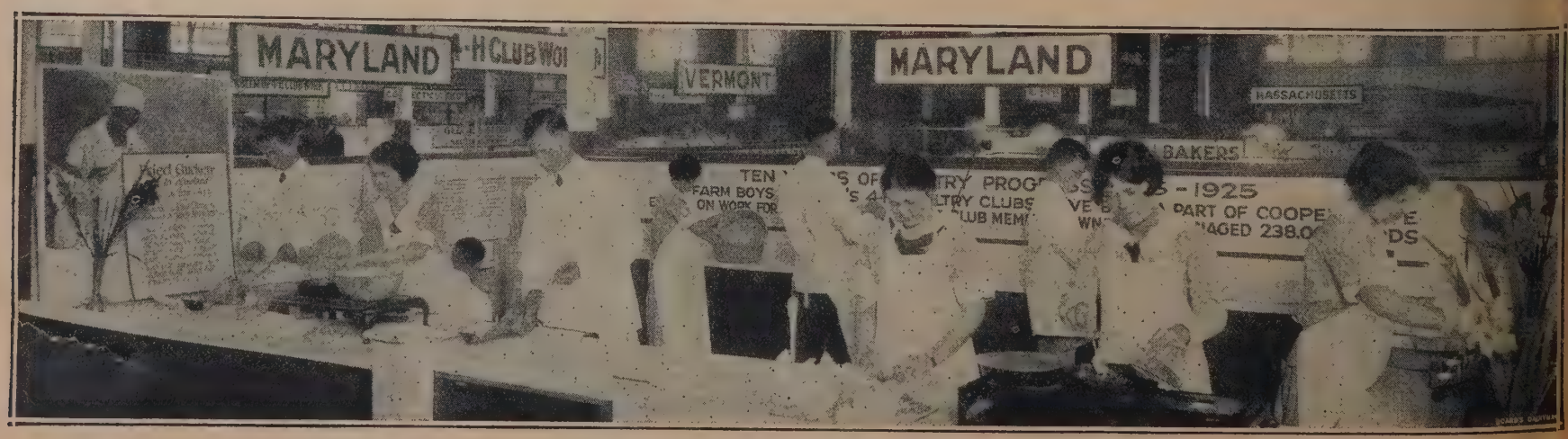
Maine had a clothing booth and girls mended, patched, and pres clothing for girls in the camp.

New York, with a splendid bo showed how a farm shop should set up and equipped, and the b did odd jobs about the exh throughout the week. To illust their willingness to serve, a st used for milking goats, belonging one of the Connecticut booths, wrecked in transportation. The N York boys used a photograph built another which was used dur the week.

Young people coming to Ca Vail are impressed with the idea t it is for them to return in service honor which has been paid them w they were invited to be guests of Exposition Management.

They are made to feel that exhibit is a great show window 4-H Club Work and they, as part that exhibit, are there to make t exhibit as fine as possible.

Service and the spirit of serv



THAT FAMOUS MARYLAND FRIED CHICKEN WAS PREPARED FROM A 300-YEAR-OLD RECIPE AND SERVED BY CLUB MEMBERS OF THAT STATE AS THEIR CONTRIBUTION TO CAMP VAIL LAST YEAR

es the camp all the week. Each
r of the camp is called upon to
very best he or she can.
great bond of friendship ties
ung people from twelve of
rtheastern states, all pulling
mp Vail, all pulling for 4-H
ork.
ie end of the week all go home
g that they are a part of a
national movement and that
nity and service are the two
f every true club member.
r them sing with spirit:
se to go to Camp Vail
'd ask no more,
e had all that's coming to me
d a little bit, Mm and a little bit,
d a little bit more."
FARLEY, State Club Leader.

unior Field Days

w attendance record was es-
d when 1,923 New York State
b members attended Junior
ays at Cornell University,
New York, June 22-24, ac-
to John P. Willman, live
xtension specialist.
en boys and one girl partici-
the milking contest, a new
on the program. Marshall
of Oneida County won first,
mstock of Oswego County,
and Clarence Henderson of
County, third. Eighty-two
competed in dairy, sheep, and
dging. Melvin Olmstead of
County was the champion
dge.

Sing Songs

Songs," the third and re-
lition of the Kentucky 4-H
d Community Song Book,
ng words and music of more
5 songs including patriotic,
lub, and nonsense songs,
s carols, and rounds, is just
press. The book is adapted
other states. It is compiled
Anita Burnam, University
cky, Lexington.

ir Review Column

ar feature of the junior department, the contents of Hoard's Dairyman evious issue. Let's talk it over.]

e July 10th issue begins a
f articles on the "Life and
T. L. Haecker."
s T. L. Haecker? Since 1918
been professor emeritus of
at the University of Minne-
e is known as the father of
in the Gopher State and his
efforts for co-operation and
tigations in dairy cattle feed-
well known.
was he born? In a little log
Medina County, Ohio, the
hild in a family of twelve
4, 1846. He is now 81 years

**and when did he start farm-
himself?** When Haecker was
old his family settled on a
Cottage Grove, Wisconsin.
Haecker was educated in the
school and at the University
nsin. He served in the Civil
in February, 1874, returned
ge Grove and commenced
on his own account. (See
6.)
**does the business record on
le Stock Farm show?** This
Iowa farm operated by
. Hormel, maintaining a herd
de Guernseys and marketing
from 150 to 200 hogs, shows
fit for the past five years of
, or an average annual net
$1,694.49. (See pages 687
)
**does Hormel say about keep-
records?** "I sincerely be-
t with the aid of our ac-
nd production records, we
le more progress in the first
five years of our work than we could possibly have made in ten years without them. We do not think our records extraordinary. They help point out the mistakes and they are proof of the value of good practices we have discovered and adopted."

How can lice on poultry be treated at culling time? After examination dust a pinch of sodium fluoride under each wing and around the vent of those birds to be retained in the flock. (See page 689.)

How can egg collections on the farm be made easier? By keeping the flock confined to the house until noon or shortly after. This discourages stealing nests. (See page 711.)

How can the appearance of eggs be improved? By confining the flock a few days after heavy rains. Some litter on the floor during the summer will allow the hens to keep their feet cleaner and produce better appearing eggs.

Junior Letters

Climbing in Club Work

Hoard's Dairyman Juniors:—We have taken Hoard's Dairyman for four years. I can hardly wait until it comes because I like to read the junior page. I am sixteen years old and going to the Eau Claire high school.

I belong to a calf club. The name of the club is Pleasant Valley—Brunswick 4-H calf club. Our club has been organized two years. We have had fifteen members every year. Our club took 3rd prize in club groups down at the county fair the first year and last fall our club group took second. Next fall we are going to try to take first. "Make the Best Better."

I also have a sister in club work too. She is fourteen years old. She is the secretary-treasurer of our club. I have a brother 10 years old and he is trying hard to join our club this year. We have our club meetings once a month. Mr. Stauss, our County Agent, helped us get organized. Mr. Burke, a club leader, helped us from May to September last year. I am hoping to hear from some juniors. My address is R. 3, Eau Claire, Wisconsin.

Alice Erickson.

Wins in Club Judging

Hoard's Dairyman Juniors:—I was seventeen years old the 27th of March and live at Persimmon Grove, Kentucky. I have been a club member for six years and won in the Kentucky state champion live stock judging team of 1926 at Louisville, Kentucky, and sure was proud of the work our team did. I was the second highest individual judge. There were 186 contestants. Our team entered the International Live Stock Show at Chicago which was held November 27 to December 4, 1926. Our team won second place in judging draft horses.

I live on a farm of 113 acres. We have 12 milk cows, and 46 sheep; also hogs, chickens, horses, and a dog. We have all Holstein cows but two and they are my sister's and mine. We have a radio in our home which we enjoy very much. My address is R. 1, Alexandria, Kentucky.

Helen Gertrude Schafer.

My Pig "Spot"

Hoard's Dairyman Juniors:—This is my second year in the Pig Club. I like the work very much as I am fond of stock, especially pigs. I bought my pig from my father when she was about two months old. I gave six dollars for her. She weighed about sixty pounds. She had a white spot on her hip so I named her "Spot." Daddy said if I would take good care of her he would give me the feed.

She weighed 162 lbs. at six months when I sold her to my uncle, George Hazzard, for fourteen cents a pound, bringing me a total of $22.68. Deducting the $6, the cost of my pig, with no other expenses, netted me a neat profit of $16.68 to go on my bank account.

This is what I have learned about raising Poland-China hogs. As long as you can keep the curl in their tails and their ears lopped down you can be sure Piggy is on the incline "Pork going up." I am 10 years old. My address is Winnebago, Illinois.

Emerson Whitney.

Raising Cotton in Texas

Hoard's Dairyman Juniors:—I live in the southern portion of Texas where we raise cotton, corn, sorghum, sunflowers, and a few other grains. Some of the northern juniors may be interested to know a little about cotton. It is usually planted in April when the weather is warm, in rows like corn. It comes up in five or six days, and is hoed and plowed as often as necessary.

When the cotton is from two to three months old it begins to set squares, or buds, which when full grown open into beautiful large white blossoms. These blossoms remain open for only one day. In the evening they turn pink, then red and soon drop off and leave visible a tiny boll. The bolls when full grown are about the size of a hen's egg, but when they open they are the size of a cup or larger. When a field of cotton is open it looks like one large fluffy cotton ball.

Sixteen hundred pounds of cotton is called a bale. In this black and bottom soil, cotton grows to the average height of four or five feet. Yes, I can pick cotton too, but when I'm dressed in my knicker suit and big Mexican sombrero, I help with nearly all kinds of field work.

There are no large dairies here and very few small ones. Most people keep only enough cows to supply milk and butter for their own use. On our farm we have fourteen grade Jersey cows, eleven of which are being milked at the present time. My address is Sealy, Texas.

Alice Billig.

Dairying in Virginia

Hoard's Dairyman Juniors:—I live on a large dairy farm of 280 acres. I help dad milk and I really think it is fun to milk. I milk eight cows night and morning. I also help to feed the calves and I think that is more fun than anything else. We are in one of the greatest dairying sections of Virginia. We are about one and one-half miles from the railroad. I am in the third year high school and my books are my greatest friends. I am very much interested in laboratory work.

I am sending you a brief record of dad's best grade Guernsey cow for 1926. I milked her all the year. She gave 541 lbs. of butterfat and 11,063 lbs. of milk. The profit above feed cost was $372.85. I am very proud of her record. I wish some of the other juniors would write to me. My address is R. 1, Ashburn, Virginia.

Elizabeth Wright.

From Beef to Dairying

Hoard's Dairyman Juniors:—I was in the baby beef club last year. It was my first year in club work. I took mine to the county fair. He was younger than the rest, but I got 6th prize. I went to the state fair but did not get a prize. He was sold down there for $120.00. This year I am going to join the dairy calf club. My address is R. 3, Box 12, Britton, South Dakota.

Evelyn Mae Johnson.

You can't beat Burch's Best Cow Blankets



PATENTED MAY 19, 1925—No 1538596—

No Sir! There's not a cow blanket made that equals "Burch's Best." Hundreds of fine herd owners cover their winners with this patented blanket. Has ten exclusive features. Combines beauty, praticability and low price. Made to fit every animal perfectly. Every blanket covered with

Our Ironclad Guarantee

We guarantee them not to rip or tear for two years. You *must* get perfect service. No other blanket is so fully covered. None can be, for none are made so well. Well send a sample on request to convince you.

Where Burch Blankets Will Be Used This Year

These herds will use Burch Blankets this year: Carnation Farms and Pabst Holstein Farms, Oconomowoc, Wisc., Corium Farm, (F. J. Rueping, Pres.) Fond du Lac, Wisc., Fern-Dell Farm (A. W. Fox, Mgr.) Green Bay, Wisc., Elm Hill Farm, Brookfield, Mass., Rock County Herd, Janesville, Wisc., and many others.

Send your name and address today for free descriptive booklet, prices, etc.

F. S. BURCH COMPANY, 152-A W. Huron St., Chicago, Ill.

Show Blankets Our Specialty



Pat. Nov. 23, 1909 Nov. 29, 1921

Try a Sample Order Today

Prices F.O.B. Milwaukee

Where Quality Determines Choice

KANT-KOM-OFF Blankets Predominate

A check-up of blankets seen on prize cattle at one of the Fairs last summer showed KANT-KOM-OFFS on 663—next nearest 284, next 142. This is Typical of the Preference Shown for Laacke's KANT-KOM-OFF Blankets everywhere.

Order From This Adv. Satisfaction or Money Back

STYLE	To 48 in.	50-68 in.	70in.up
12oz Satin Finish Burlap	$2.90	$3.20	$ 4.40
Khaki or Gray Duck	3.40	4.10	5.60
Wool Felt (all colors)	8.90	10.90	13.90
Lining (extra, each)	1.40	1.75	3.00

Lettering, Stenciling, Trimming, Extra. Discounts for Quantity.

R. LAACKE COMPANY, 553 Third Street, MILWAUKEE, WIS.

WHITE COLLIES For Sale!

Litter of eleven, born May 31. Strong, lively white Collie puppies. A few left with only a spot or two of coloring. Mother and father registered and work on our herd daily. Prices: males $15.00, females $10.00, F. O. B. Fort Atkinson.

Hoard's Dairyman Farm
Fort Atkinson, Wisconsin

Will furnish papers for registering.

Car-lots Only



Order Now

For bedding, most convenient, serviceable and sanitary. Write for special, delivered prices.
Jagerson Fuel Company, Neenah, Wis.



EXTREME durability and good, fast work at low cost, are outstanding features of the Case Silo Filler.

* * *

Its clean shear cut to exactly even lengths, its powerful blower and light running bearings and parts make the machine most efficient.

* * *

Ease of feeding, few adjustments, extreme simplicity and extra strength in every part make this machine the first choice of good farmers everywhere.

J. I. Case Threshing Machine Co.
Incorporated Established 1842
Dept. G-32 Racine, Wisconsin

CASE

A catalog of this most efficient knife-on-flywheel machine will be supplied on request. Mail the coupon.

Name .....
P. O. .....
State .....
G-32

You need a Vest Pocket Herd Book



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Transmitting Bull. Don't gamble on a herd sire. Get a proven one. My "Count-Piebe" bull has first calf, grade heifers giving 9800 lbs. of milk a year. Will sell or trade for cows. J. A. THOMPSON, Brookville, Ind. 14-2

For Sale—Treadmill for bull, used six months, $50. Covered milk wagon, $75. Grade and pure-bred registered Holstein cows, $100 and up. Prices f. o. b. Butte. THE MINERS' DAIRY, Butte, Mont. 14-2

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Choice grade Holsteins, Guernseys and Jerseys. Heavy producers from accredited area. GREENDALE STOCK FARMS, Elsie, Mich. 13-2

Three handsome Holstein heifer calves, $65.00 tested, crated. ALFAKORN DAIRY, Evansville, Wisconsin. 14-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

Must sell—Farm to be subdivided, 40 purebred Guernsey females in 10 head lots with serviceable bull. Langwater Ultimas, Glenwood, Gov. of the Chene and other leading strains for production and butterfat. Also vigorous bull calves one month to year. Only 4 reactors in 19 years, no abortion. Easy terms. CRAB TREE FARM, Lake Bluff, Ill. 30 miles north Chicago—Chicago and Northwestern or North Shore Electric.

Guernseys—Beautifully marked, practically purelbred heifers, well-grown, good udders, bred for production and type; 8 weeks old; tuberculin tested. Shipped by express at little cost. $20.00 each C. O. D. WILDWOOD FARMS, 1092 James, St. Paul, Minn. 14-2

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

For Sale—Guernsey cows and heifers. Federal accredited. FRED SY, R. 4, Kiel, Wis. 13-2

Registered Guernseys—Females and males. Inquire LAKE COUNTY FARM, Two Harbors, Minn. 14-2

Registered Jerseys—Male calves $50 and up, sired by Fauvic's Sultan's Mac 244462, son of a Gold Medal, Silver Medal, and state champion cow. L. & C. MASON, Armington, Ill. 14-2

Jersey cows, one- and two-year-old heifers. Carload each. Practically pure-bred. ED. SHARP, Wolfe City, Texas. 12-3

Jersey heifer, 3 years, finely bred. "JERSEY," Cabinjohn, Maryland. 14-2

Forty registered Jerseys. COBERT JENKINS, Georgetown, Indiana.

LIVE STOCK WANTED

Wanted—Carload registered or high grade, fresh or close Holstein springers, must be clean. I desire a 60 day retest. State price. H. K. HOCKMAN, Chalfont, Pa.

Wanted—One carload choice yearling grade or registered Guernsey heifers, immediate or fall delivery. L. B. PATTERSON, Statesville, N. C. 13-2

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 75 cents for one cow, $2.50 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 12-3

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Police Pups, imported stock, females $15, males $20. S. E. OLSON, Ada, Minn.

For Sale—Pedigreed German Police pups, Hohendyk strain. L. D. ZIMBRICK, Beardsley, Minn. 14-2

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

POULTRY HOUSES

Poultry Houses on easy terms as low as $10 per month. Also barns, garages, homes. Write for Big Free Catalog, Dept. 50, FRANK HARRIS SONS CO., 2330 South Springfield Ave., Chicago, Ill.

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

MACHINERY

Small Dairy Equipment—Nine hole bottler (quarts and pints), washing vat with steam turbine, conical cooler, 25 bottle cases, 4 case trucks, 3 brush bottle washer. Good condition. A bargain. JAMESON'S DAIRY, Evansville, Wisconsin. 14-2

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Hinman Valve Chambers and pumps and parts, at a very reasonable price. JOSEPH HAAG, No. 813, W. Harris Street, Appleton, Wis. 13-*

For Sale—De Laval milker, 2 units complete with pipe for 36 cows. Used 6 months. Price reasonable. W. H. LUDWIG, Marshfield, Wis.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, Ohio. 11-4

For Sale—1 Sharples Moto-Milker with double unit, complete with cups. 110—220 1 ph. 60 cycle. $50.00. D. H. BURRELL & CO., INC., Little Falls, N. Y.

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

DAIRY BARN EQUIPMENT

Wanted—Steel stanchions and barn equipment. BRUNSWICK & GEISENDORFER DAIRY, Pittsfield, Illinois. 14-2

FARMS FOR SALE

Big, level, equipped farm with income today for you. Over 70 acres in crops, 5 horses, 10-20 Titan tractor and attachment, threshing machine, 12 cows, 4 heifers, colt, hens, hogs, buzz saw outfit, complete line modern machinery, personal easily worth $4,000; 226 acres, only 1½ miles RR town, 180 acres crop land, springs for watering stock, fruit, good 6 room house, 100 ft. cement basement barn, silo, 40x40 ice house, all buildings electric lighted. Because other interests, sacrifice complete at $8000, only $2500 cash required. J. H. TOBIN, Strout Agency, 19 Main St., Cortland, N. Y.

Fine Dairy Farm yours without cost—Unheard of opportunity for experienced dairy farmer who acts fast—220 acres in finest dairy section of Illinois. Owner retiring. His family not interested in dairy business. Learn how this attractive property can be secured and the original investment refunded with interest in less than one year. No time to lose. Take first train for Chicago. Wire me when you will arrive. Phone me when you get in. No brokers wanted. Will deal with principal only. R. E. KENEFICK, 5519 University Ave., Chicago, Illinois. Telephone Midway 8928.

Farm of 168 acres in Central New York for sale to settle an estate. Splendid buildings, well watered, has carried as high as 75 head of cattle. Last two years over 80 tons of hay were sold and 40 head of cattle carried each year, besides horses and other stock. Only ½ mile from church, school, depot, and milk plant. 20 miles from Syracuse on improved road. SILAS GODFREY (Administrator), Pennellville, New York. 13-7

Dairy Farm For Sale—260 acres located in Marathon County on Highway 16 near Wittenberg, Wisconsin. School and cheese factory within ¼ mile from premises. Modern building practically all built in last five years. Farm fully equipped with machinery including tractor. Fine herd of Holstein cows, four horses and other miscellaneous items for $26,000.00. For complete information write the KNOKE LUMBER COMPANY, Appleton, Wisconsin. 14-3

You, Mr. Tenant Farmer, will never again have the opportunity to own your own farm home at the price and easy terms which the farmers' own bank is now prepared to offer you—farms in North Dakota, Minnesota, Wisconsin and Michigan. Write for information, giving location and size of farm desired. FEDERAL LAND BANK, Dept. 16, St. Paul, Minn. 14-*

A splendid 80 acre farm near Milwaukee, excellent location. Buildings like new, modern in every way, good rich soil, practically all under cultivation. Farm has been worked by owner over 40 years. Retiring and poor health reason for selling. This is a very attractive place. Price $16,000. JACOB KONRAD, Richfield, Wis.

$1100.00 monthly income. Close to New York markets. Ninety acres corn, oats, wheat, barley, potatoes, millet. Possession to suit purchaser. Other farms. Deal with owner. Save commissions. PARSONS, 504 Kilmer Bldg., Binghamton, N. Y. 14-2

For Sale—Established wholesale dairy business and farm—70 head good cattle, 50 milking—150 acres excellent land. FRANK W. COLE, 1970 Higbee, Memphis, Tennessee. 14-2

80 acre farm, Vilas County, Wisconsin, for sale; 45 acres clear, good soil, 5 room house, barn; ½ mile from depot, school, big golf links and lake. MRS. H. C. MARBITZER (Owner), Brant, Mich.

For Sale—350 acre dairy farm, modern equipment, income from milk $1200 per month. Price of buildings alone will buy this. EARL LYTTLE, Franklin, Pennsylvania.

160 acre improved farm. Complete buildings. Priced to sell. TARR BROS., New Auburn, Wisconsin. 11-*

For Sale—Two Hinman units $75.00. WM. SUER, Bellevue, Iowa.

Good improved farm 440 acres; desirable for stock or dairy. Write owner. J. L. BOLTON, Tifton, Ga.

SAVE MONEY — by reading these columns!

MAKE MONEY — by advertising in them!

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

LUMBER

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

LIGHTNING RODS

Reliable agents to sell the "Diddie-Blitzen" rods in your own territory. Lightning damage can be prevented by our system. Write today for our proposition. L. T. DIDDIE CO., Marshfield, Wis. 13-6

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale—A. B. CAPLE, Route 3 Perrysburg, Ohio. 4-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. ALBERT MILLER & CO., 192 N. Clark St., Chicago, Illinois. 14-*

SEEDS AND PLANTS

Alfalfa Seed—95% pure, $6.50 per bushel; Scarified sweet clover, 95% pure, $5.50; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

TOBACCO

Better Tobacco! Fragrant, mellow! Five pounds smoking, 75c. Four pounds chewing, $1.00. FARMERS' CLUB, 250, Hazel, Kentucky. 10-8

PARTNER WANTED

Wanted—Working partner to operate hundred cow dairy. Expect to have it going by October. MAYBANK FARM, Hattiesburg, Mississippi. 13-3

MISCELLANEOUS LAND

A Texas Snap. By prompt action you can secure Texas guaranteed Citrus Fruit land in the celebrated Rio Grande Valley at a great bargain on easy terms. G. H. KLINE, 105 So. Dearborn St., Chicago. 11-4

FARMS WANTED

Want to rent for term of years, with option to buy, modern dairy and grain farm about 160 acres. Must be real farm priced in accordance with the times. Address BOX 434, care Hoard's Dairyman.

Want two 120 acre farms fully equipped. WALT MILLER, Carpenter Bldg., Milwaukee.

EXCHANGE

Want to trade raw or improved land for dairy cattle. AXEL SORBO, Crosby, North Dakota.

FOR RENT

Improved farms for rent in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Make a trip and see the growing crops. Cheap round-trip homeseekers' tickets. Write for Free books. E. C. LEEDY, Dept. 982, Great Northern Railway, St. Paul, Minn. 13-*

Wanted—Experienced man to operate 171 acre dairy farm, fifty-fifty basis. Stocked pure-bred, grade Holsteins. Operator furnish horses, machinery, buy one-half feed, alfalfa, silage. Possession November 1st. I. M. HUDSON, Benson, Minn. 14-2

DAIRIES

Unusual opportunity to locate a dairy. College trade of fifty gallons per day as basis. Town of 1500; nine miles from large city. Special arrangement with college for pasture land. Interested in highest quality milk. A. D. HENDERSON, Antioch College, Yellow Springs, Ohio.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

MISCELLANEOUS

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

SALE ANNOUNCEMENTS

July 29—Holstein Dispersal Minnesota Holstein Co. Herd, Austin, Minn. Melin—Petersen Co., Sale Mgrs.
Sept. 2—Guerneys. Cayuga County Guernsey Breeders' Sale, Auburn, N. Y.
Oct. 5—Guernseys. Louis Merryman's Second Annual Grade Sale, Timonium, Maryland.
Oct. 6—Guernseys. Louis Merryman's 17th Semi-Annual Sale, Timonium, Maryland.
Oct. 6—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
Oct. 8—Jerseys. First Annual Sale of Ravine Farm Jerseys at Prairie View, Ill. A. Lawrence Mills, Owner.
Oct. 12—Ayrshires. Consignment Sale of Edgerstoune and Monstone Farms Ayrshires at Springfield, Mass. J. G. Watson, Sale Mgr.
Nov. 8-9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H Bird, Mgr.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.

TESTERS WANTED

Experienced cow testers needed; two July 15th August 1st, two September 1st; pay $105.00 mo six cents mileage. Absolutely useless to apply you can furnish good recommendation from you tension Dairy Specialist and County Agent. D EXTENSION OFFICE, Blacksburg, Virginia.

Iowa Cow Testing Associations need testers. ary $900 per year and up, plus board. Tr courses offered. Give age, experience, reference letter. DAIRY EXTENSION, IOWA STATE LEGE, Ames.



Advertising in this department is 8c per w Remit in advance.

HELP WANTED

Wanted—Strong, settled, working herd man high class general laborer. Prefer German, si no children. Twenty milking registered Ho Milking assistant supplied. Personal interview sible. Northwestern Illinois. ADVERTISER People's Gas Building, Chicago, Illinois.

Wanted—Young married man, preferable wit rience and technical training, to make butt curd cheese, and doing general work aroun plant. Must be industrious, not afraid of resp ity, and all right habits. None others need PROGRESSIVE DAIRY COMPANY, Racine.

Wanted—Empire machine milker to milk for and help with dairy room work. Must be stea good milker. $75.00 per month with room and a $100.00 bonus at end of year. STANDARD COMPANY, Wallace, Idaho.

Wanted—A working foreman who thoroughly stands all kinds of machinery, good tractor m one who can handle men successfully. Must ha class references. Apply PABST FARMS, Oconc Wisconsin.

Wanted—Experienced creamery man, marr single, who understands all branches of work clean milk is produced for city distribution. proposition for the right man. Address BO care Hoard's Dairyman.

Wanted Immediately—Single man of good who understands dairy farming and not afraid work. $50, board and room. MERRIVALE F Lake Geneva, Wis.

Help Wanted—Single dry hand milkers. G ing conditions; chance for advancement. Can married men with small families. HARTMAN FARM, Columbus, Ohio.

Wanted—Woman housekeeper, age 22 to 3 single, and good cook. Address BOX 42 Hoard's Dairyman.

Firemen, brakemen, beginners $150—$250 r railroads everywhere. Which position? Addre 426, care Hoard's Dairyman.

Wanted—A-1 dairyman on model farm. good feeder, milker, calf-raiser and have fir references. R. R. A., Box 334, Indianapolis,

Wanted—Test cow milker and herdsman. or single. GUERNSEY RANGE FARMS, Pfrang, Mgr., Edgar, Wisconsin.

Wanted—Two single dairymen for dairy w clusively, salary $50, excellent board, single ro laundry. LAUREL LOCKS FARMS, Pottstow

POSITION WANTED

Experienced dairy, fruit and general farm m herdsman, exceptional ability, specialist, desi tion as farm superintendent, managing execu stock holder of large agricultural farming en Only large proposition considered which has go kets, paying dividends and has resources wh unlimited in development. Now employed dairy corporation in Easton, Penn. Daily p duction 7000 quarts. Very successful, highly mended, agricultural education, authentic, p scientific, expert in production of certified milk and managing of milk routes. Many years ex with dairy, fruit, poultry and general farmi suits guaranteed highly profitable. Will acce tion for coming year on share-salary basis com or straight salary. Prefer Eastern, Central or ern states. Give full particulars in first lette COLE, General Delivery, Wilkes-Barre, Penn

Position Wanted—Young man, with 12 ye tical dairy experience, desires to make new tions where chances for advancement are no and where hard and careful workmanship will preciated. Butter maker, tester, route work, a keeping. Understand and can operate power a ery, such as bottlers, coolers, and pasteurize gle; 29 years of age; Protestant; with excelle ences. Address BOX 433, care Hoard's Dairy

Position Wanted—As dairy farm manager ligent, scientific, single man aged 32; Holst college graduate. Thorough knowledge of agr feeds and feeding for A. R. S. O., A. R. O ing and C. T. A. work; production of Grad certified milk, use of milking machines, ven science, soil fertility and crop rotation. W. N. H. W., care Hoard's Dairyman.

Position Wanted—By energetic young man Experienced in all lines of dairy and far Capable of handling milk house or route m management. Steady, reliable, good habit wages, particulars in first reply. Address IN care Hoard's Dairyman.

17 years as Dairy Farm Manager on we farms. Exceptional experience and traini cellent references. American. Age 38. Available August 15. Address BOX 4 Hoard's Dairyman.

Herdsman, married, desires position. T experienced with feeds and feeding, calf raisi work, producing and handling special milk. ing to board help. Address BOX 432, care Dairyman.

Position Wanted—American 32 years old enced, and college trained, in dairy and gen management. Best of reference. C. T. EL Wieboldt Hall, 7th floor, Northwestern U 337 East Chicago Avenue, Chicago, Ill.

Wanted—Position as herdsman. Guernseys Experienced feeder, calf raiser, A. R. work. married, one child. Short course graduate ences furnished. JOHN NELSON, Stangelv

Experienced man with five grown-up milke dairy with route, on share basis. Experienc bor against capital, or might work for wage PHILLIPS, Ullin, Illinois.

Dairy Farm Manager with lifetime experie position with good herd on modern farm. two children. Bankable reference. Address N care Hoard's Dairyman.

Manager with special training in business coupled with several years with pure-bred open for position of a high character. Addr 437, care Hoard's Dairyman.

Position Wanted: Housekeeping, full charge having two small sons. Must be clean. ho home, references required. MRS. LUE-A LAURIN, Deloit, Iowa.

Wanted—Position Aug. 1st as herdsman man. Good buttermaker. Life time experie reference and particulars address J. C. MOR 166, Roslyn, L. I., New York.

Position Wanted—By experienced creamery ry plant worker. Can furnish reference. A 2 worked for present employer two years NEISIUS, St. Cloud, Minn.

Position Wanted at once by good dairyma ried, have some help. C. C. LAMB, R. 1 278, Atlanta, Ga.

Position Wanted—Farm work, single, 15 ye perience. M. KRAMER, 1830 E. 19th St., Ohio.

Dairy Market News

(Continued from page 739)

26.17 cents for sales totaling 431,404 hen packed in one-pound cans the price d was 46.7 cents a pound.

Buttermilk: Prices ranged from 6.5 to 10.5 cents for dry buttermilk in veraging 8.69 cents a pound for sales g 3,264,077 lbs. When packed in one- cans the price reported was 10.98 cents d.

consin June Condensery Prices

y-two condenseries reported to the Wis- Department of Markets the prices paid he per hundred pounds milk delivered r factories. Reduced to a common 3.5 nt test basis, these prices ranged from to $2.40, the average being $1.95.

en factories sent delayed reports for he average being $2.05. This is four above the previously reported average l for 44 factories.

iladelphia Milk Prices

Inter-state Milk Producers' Association ces that the July basic price for milk $3.29 f. o. b. Philadelphia and $2.71 ndred at receiving stations in 51—60- ne.

June surplus prices were $2.19 first and $1.85 second surplus f. o. b. Phil- a. The June surplus prices at all re- stations on railroad were $1.61 first and $1.27 second surplus.

e are based on milk testing 3 per cent at with a differential of 2 cents for alf point of test up or down.

old Storage Holdings

. S. Department of Agriculture)

following is a report of the cold stor- ldings of dairy products on July, figures given in thousands of pounds (000 t):

	July 1 5-yr. av.	July 1 1926	July 1 1927
	lbs.	lbs.	lbs.
creamery	70,989	86,897	90,116
American	43,148	54,069	49,643
Swiss	3,894	4,465	5,223
Brick	1,998	1,906	1,991
Limburger	879	1,277	1,575
all other	7,038	7,054	8,387

e holdings include stocks in both cold warehouses and packing house plants.

ucing the Bacteria Count

ARD'S DAIRYMAN:—"What we know won't hurt us," is an old familiar statement, but if widely d is rather a flimsy rope to on in this day of bacterial ity.

e day a friend asked me to take with him into the country. His d took him to a certain dairy situated about 50 miles from ty. While he was engaged with roprietor I took the opportunity ake a careful inspection of the . On the way home my host me what I thought of the dairy. wered, "Well, I've seen a good dirty dairies but that one is the st and most disgustingly filthy I was ever in."

es, and you're drinking the milk that dairy at the —— Hotel," swered.

edless to say that I have not eat- en a single meal in that wonderful dining room since. No doubt I had carried away billions of bacteria in my stomach many times and so far as I know they did not hurt me. At the same time I certainly do not owe my good health to either the hotel management or to the owner of that dirty dairy. I escaped but I was only one of thousands who were drinking that unspeakably filthy milk on faith. Did they all escape, too? Or, how many deaths and epidemics could be traced to that dairy if all the facts were known?

Among the farm enterprises of which I have general control is a dairy of 225 cows with a yearly average of 183 milked daily. Our bacteria counts, made twice a month, averaged less than 10,000 per c. c. for the calendar year 1926. From this experience alone, therefore, I know that filthy milk production and conscienceless distribution is an unpardonable offense against a trusting public and that good, wholesome milk can be produced in most dairies where ordinary intelligent care is exercised. Our program is quite simple:

We begin milking at 3:00 a. m. Each milker has 16 cows in his line and is expected to keep his own cows clean. Beyond that he does no other work except to give the cows their hay and shake down the bedding when the milking is finished. During the milking the man who has charge of the feeding measures out the beet pulp and concentrates. We would like to eliminate all other work while the milking is being done but with a large herd and with our help this is not always possible. By 6:30 the milking is done and by 7:00 the milkers are all gone to breakfast and to rest until noon. After 7:00 the cows are turned out, if the weather is not too severe, and the stables thoroughly cleaned. What manure has accumulated since the night man went off duty is cleaned out, the bedding pushed forward toward the mangers, the mangers swept, the stanchions dusted, and floors, gutters, and mangers flushed out with a hose. Before the cows come in at noon the silage is put into the feed troughs and the hay, to be fed as soon as the milking is done, is placed conveniently without the bales being opened.

Promptly at 12:00 o'clock the cows are brought in and during the next 55 minutes they are curried, brushed, and have their tails washed. While this is going on, new bedding for the night is brought in and distributed along the passageway between the gutters where the bales are left unopened until the milking is done. As each milker finishes preparing his cows for milking he goes into his locker and changes from overalls to a white suit and cap. At 12:55 the afternoon milking begins, and by 3:30 the milk has gone by truck to the creamery.

The buckets used are covered excepting a 6-inch opening which is provided with a short, flared spout, or funnel. Before beginning to milk each udder is wiped off with a clean, damp towel. About every 3 months the hind quarters of the cows, including udders, tails, and flanks, are clipped.

Our aim is to have our cows so clean while they are being milked that there is no dust or hair to fall into the milk, and dry-hand milking is strictly observed. Every operation that tends to stir up dust is eliminated as completely as possible during the milking. While we are not producing certified milk we take pride in feeling that our product is in the certified milk class, that we are not afraid to drink it ourselves, and that our patrons are not suffering through any willful negligence on our part.

DAVID A. BRODIE.

District of Columbia.



RNATION WALKER HAZELWOOD

is Holstein cow has just broken two world's records by producing 34.58 fat (43.23 lbs. butter) from 627 lbs. in 7 days and 127.6 lbs. fat (159.56 butter) from 2,732.3 lbs. milk in 30 as a senior 3-year-old. As a junior ar-old this heifer established a new d's record for 365 days with a produc- of 976 lbs. fat (1,220 lbs. butter). ation Walker Hazelwood was bred is owned by Carnation Milk Farms, hington.

Importance of Eating Vegetables

(Continued from page 738)

on the supposition that they were good for them.

Spinach is one of the difficult vegetables as it is so healthful and yet so many children have the idea that they do not like it. The home economics people who made the survey have worked out some vegetable recipes that may interest you, as they were made with a view to catering to the whims of difficult children.

Glazed Carrots

Wash and scrape eight medium size carrots, parboil for ten minutes in boiling salted water, cut in thick, lengthwise slices and put in buttered pan. Make a syrup by boiling together for three minutes one-half cup sugar and one-fourth cup water. Pour syrup over carrots and bake till tender, basting several times.

Cabbage au Gratin

1 small cabbage
1 pint white sauce made with 3 tablespoons butter or bacon fat, 3 tablespoons flour, and 1 pint milk
1 teaspoon salt
¾ cup grated cheese
½ cup buttered crumbs.

Arrange cabbage and cheese in alternate layers in a baking dish, add hot sauce, then crumbs, and bake in a moderate oven.

There are many ways to cook spinach and once a child has learned to like it he will eat it with relish no matter how it is prepared. One of the most important things about spinach is to be sure to get all the grit out of it; sand in food is enough to deter anyone from eating it.

The simplest way to cook spinach or any of its substitutes, such as beet tops, turnip tops, dandelion leaves, or chard is to wring all the water out of it that you can and then cook it in a closely covered vessel. This method wastes the least juice. This juice, by the way, is delicious made into a cream soup. The commonest way of serving spinach is with salt and some kind of fat mixed into it hot, and vinegar or lemon juice put on when it is eaten. Or, you can add bits of hard-cooked bacon, or ground ham, or cheese, or simply a white sauce. Or, you can make a hearty dish out of it by taking steamed chopped spinach, making nests in it for the number of people you have to serve, placing an egg in each nest and baking until the eggs are done.—LUCY THOMPSON.

An extracting dentist says that he had an absent minded motorist in his chair the other day. "Will you take gas?" he asked. "Yeah," replied the a. m. patient, "and you'd better look at the oil, too."—Boston Transcript.

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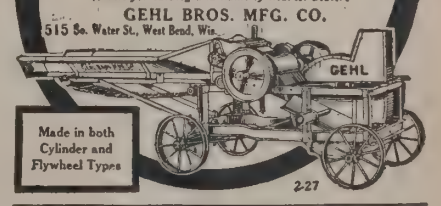
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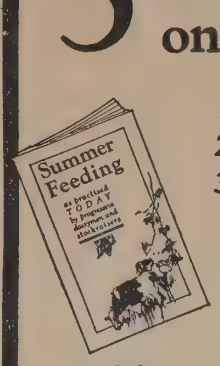
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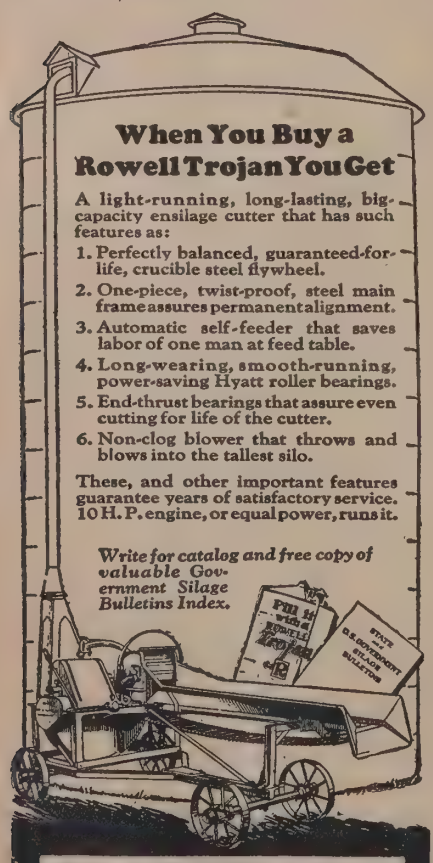
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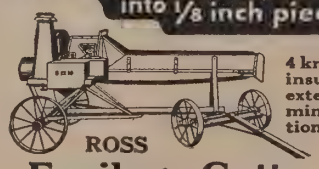
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Ohio Judging School

During the past few years the breed associations, showmen, and judges have recognized the need of standardizing so far as possible the placing of live stock in our show rings. While it will never be possible to eliminate the personal factor, yet it is desirable to establish a great many points which are now handled in a variable manner by different judges. With this idea in mind, the Animal Husbandry Department of Ohio State University has been offering a judging school to the breeders and judges of Ohio. Two types of live stock are considered each year. One year beef cattle and hogs are studied and the next year sheep and dairy cattle are studied.

On June 22 and 23 this year sheep and dairy cattle were studied. There were about 70 attending the sheep school and about 100 attending the dairy cattle school. Quite a number of breeders and judges attended both.

The dairy cattle school was devoted to four breeds of dairy cattle—Jerseys, Guernseys, Holsteins, and Ayrshires.

Professor J. C. McNutt, of New Hampshire University, worked with all the breeds and was assisted by N. H. Hill of Ohio in the Guernsey classes and by Howard C. Barker of Ohio in the Holstein classes.

During the entire school there was a tendency to frank and free discussion and some very interesting points were brought out.

It is hoped by some that in the future the school may develop more of an official character which may lead to the certification of judges for county fair work.

Ohio. C. L. BLACKMAN.

What Corn for Silage?

There is a wide difference of opinion as to the best variety of corn for silage. Some prefer a corn that will make a large tonnage, irrespective of time of maturity, while others prefer a corn that will mature early and produce a high per cent of grain. Still others wish their corn principally to develop foliage—planting it thick, so it will produce little or no ears but much foliage. A good many experiments and tests have been conducted along this line, and while there have been some valuable findings, still no definite conclusions have been arrived at.

In states where the European corn borer is operating, farmers are urged to plant an early maturing corn for silage; also they should harvest the corn as soon as they can in the fall. They are urged to do this because the corn borer harboring in the stalks works down as the season advances, and the early maturing variety can be harvested and put in the silo before the borers have reached the low stubble section of the stalk. In this way practically all borers can be destroyed, and at the same time practically all of the crop can be harvested and put to valuable use.

I recall when we first started growing corn for the silo, back in 1886 and '87, we used a southern variety which grew to a great height and produced an abundance of forage. This corn, however, did not prove the best for our vicinity because it contained a high per cent of water and produced a very acid silage due to the lack of maturity at the time of harvesting. Later we tried a quick maturing Flint corn and got much better results; also we used a rank growing sweet corn which made excellent silage, especially when allowed to mature. A good many dairymen have found the large, vigorous-growing sweet corn which produces abundance of foliage a most excellent plant for filling the silo.

With all the varied ideas regarding this subject, perhaps the majority will admit that the corn which yields the best in their locality is the best corn for silage, and most silo users insist that the corn shall reach at least the dough stage before it is harvested. Another good suggestion is to select a variety that will be sure to mature before frost. By maturity I mean to reach that stage of development when the corn is right for the silo, and this is, as a rule, the time when the corn is ready to cut and shock. In extreme northern sections and in high altitude districts, corn often becomes a questionable plant for the silo, and without doubt Russian sunflowers have proven the best substitute. In fact many prefer sunflowers to corn where there is any question of early frost. In the northern dairy states early maturing dent varieties are the most popular for use in the silo. Our corn breeders have been doing excellent work in developing new varieties and strains that will mature early and will yield well even in our northern states. Of course such varieties should make the best and safest crop for the silo.

Sorghum and kaffir corn are proving the best plants in many of the south and western sections, especially where prolonged drouth is liable to occur. In Missouri, Kansas, Oklahoma, as well as Western Nebraska, sorghum cane has proven a most excellent silage plant. While any saccharine or corn-like plant will make silage, a good, vigorous variety of corn that will produce an abundance of forage as well as a good ear and mature reasonably early, is to be preferred.—A. L. HAECKER.



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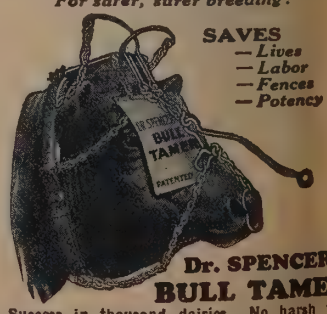


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falfa Best Pasture for Pigs

e July would seem to be a poor o say anything about pig pas- but frequently when one has a reminder of something badly i he gives it a second thought. xcuse for mentioning this sub- ow is to put in a good lick for pig pastures next year.

Montana Station reports a rison of alfalfa, medium red , rape, rape and oats, oats, and as pasture for pigs. The feed- al was evidently planned to aid who are out of the corn belt ho must depend on other car- eous feed because barley is the used in the comparison. This to interest a good many of our 's who can grow forage and grain but not corn.

order to make the comparison on the basis of pasture crops, orm amount of barley was fed h pasture crop. This was at te of 2 lbs. of barley per hun- ounds of live weight daily or is termed a 2 per cent grain g. The following table gives the of the trial:

	Kinds of pasture					
	Alfalfa	Medium red clover	Rape	Rape and oats	Oats	Barley
of pigs per acre	17	17	18	14	14	14
of pasture season (days)	137	115	100	100	77	77
fed per 100 lbs. live weight .)	2	2	2	2	2	2
fed per pound gain (lbs.)	2.10	2.64	2.43	3.14	2.81	3.06
daily gains per head (lbs.)	0.60	0.34	0.45	0.43	0.47	0.42
barley and pasture per 100 gain	$8.00	$10.80	$9.93	$12.94	$12.37	$13.60
per pig on labor and in- ment	$3.81	$1.10	$1.23	$0.03	$0.23	$0.19
per acre after deducting of grain eaten	$92.87	$50.36	$39.95	$21.40	$23.20	$17.28

lfalfa pasture, $20 to $25 per acre, depending on yield.
lover pasture, $20 to $25 per acre, depending on yield.
ape pasture, $18.50 for rent and putting in crop.
ape and oats pasture, $21 for rent and putting in crop.
at pasture, $20 for rent and putting in crop.
arley pasture, $20 for rent and putting in crop.
arley, $3.00 per hundredweight.
alue of gains, $13 per hundredweight.

that alfalfa, red clover, and the order named are the best crops. Alfalfa has a big ad- e in length of pasture season. ily gain was very satisfactory rape and oats, the oats, and rley pastures, but the pasture is short and the carrying ca- lower than for the other An acre of alfalfa turned into worth of pork is something thinking about. Of course, ay not sell for $13 a hundred ar, but whatever the figure is , by comparison, is a mighty asture for hogs.

r finding out by actual trial was the best pasture, another trial was made to determine it rate the barley should be hree lots of pigs were fed on pasture. One lot received a r cent grain feeding or 1 lb. ley per hundred pounds live weight daily; a second lot was fed 2 lbs.; and a third, 3 lbs. of barley for each 100 lbs. of live weight. The daily gains were in direct ratio to the amount of barley fed, they being .43 lb., .60 lb., and .73 lb. per pig daily for the 1, 2, and 3 lbs. of barley fed. The cost of barley and pasture for 100 lbs. gain when 1 lb. of barley was fed daily per hundred pounds of live weight was $6.26; when 2 lbs. of barley were fed the cost was $8; and where 3 lbs. were fed it was $9.78.

With plenty of pasture available cheaper gains may be made by limiting the grain fed, but with limited pasture it seems advisable to feed at least 2 lbs. of grain daily per hundred pounds live weight.

Building Bone From Skimmilk

Swine producers are always interested in good bone formation in pigs, particularly in those retained for breeding purposes. An interesting experiment is reported by the Ohio Station along this line. The rations fed were corn alone, and corn supplemented by soy beans, wheat middlings, linseed meal, tankage, and skimmilk. When the bones of the pigs in the different lots were examined for size and texture it was found that corn supplemented with skimmilk produced not only the most bone but the strongest bone. The other rations were in the order as follows: corn and tankage; corn and linseed meal; corn alone; corn and middlings; and corn and soy beans.

A conclusion of the experiment is that rations of cereals alone will not produce normal growth of bone.

Sunshine Increased Gain

According to a feeding trial recently reported by the Ohio Station, sunshine has a measurable effect on the gains pigs will make when compared with pigs fed the same ration but deprived of sunlight.

The ration fed to the two lots of pigs was composed of corn, tankage, salt, limestone, and linseed meal. The pigs deprived of sunshine gained 1.02 lbs. daily at a feed cost of $6.22 per hundred pounds gain. The pigs that were similarly fed but exposed to sunshine gained 1.2 lbs. daily at a feed cost of $5.88 per hundred pounds gain.

Linseed Meal for Pigs

The addition of linseed meal to a ration of corn, tankage, salt, and limestone increased the rate of gain of pigs from .75 lb. daily to 1.02 lbs. daily and reduced the cost per hundred pounds gain from $6.45 to $6.22 in an Ohio feeding trial reported at the Ohio live stock day June 4.

The pigs that did not have linseed meal consumed 421.1 lbs. of feed per hundred pounds gain whereas the pigs having linseed meal consumed only 406.4 lbs. Fourteen and six-tenths pounds of linseed meal replaced 10.5 lbs. of tankage for each hundred pounds gain.

Many a good litter of pigs has been handicapped from the start because their owner did not have things ready when they came. Neglect at this time is just like taking money out of one pocket and putting it into another pocket with a hole in it. It's not too early to begin thinking about a safe place for fall pigs to be born.

Vacation Time in Cowland

(Continued from page 723)

two weeks equal parts of wheat bran, ground oats, and linseed oil meal make a splendid mixture. The daily feed should be reduced considerably. There is no limit to the amount of good legume hay a cow may consume at this time; when silage is used it may be well to reduce the consumption to about half of the usual amount. Just before calving a pail of warm water with a handful or two of wheat bran meets the needs of the cow; heavy feeding should be avoided. If the bowels are a little sluggish a dose of Epsom salts should be given.

The advisability of milking a cow before freshening is sometimes raised. There seems to be a very intimate connection between the udder and the reproductive organs at this time. Cows milked previous to calving often are more subject to retained afterbirth than if they are not milked. Then, again, if there is any possibility of milk fever this condition is intensified.

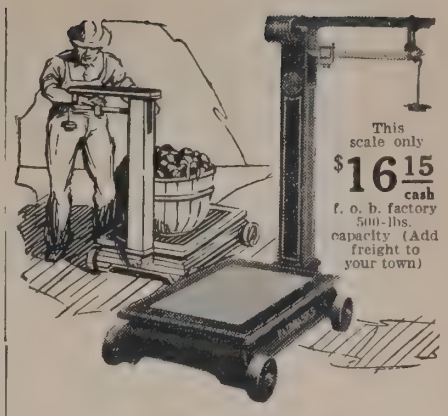
When the first signs of calving appear the cow should be placed in a clean, thoroughly disinfected box stall. It is well to have an attendant on hand in case normal delivery does not develop. A slight pressure at the proper time may save the cow considerable distress. With this exception it is best to leave the cow as quiet as possible.

The importance of the dry period as a factor in the making of good yearly records is becoming better understood through a study of cow testing association records. The cow secretes comparatively large amounts of mineral each year in her milk. Frequently the ration received during the winter months is low in this material. Unless she is given a dry period of six or eight weeks to add to supplies stored in her body, her system is called upon to meet the deficiency. The period of non-production may lessen the record a little that lactation but if the cow is a heavy producer and receives a good ration while dry she will materially increase her production the next year.

Happy is the dairyman who, while directing each silver arrow of milk into the white foamy mass in the pail, is sufficiently familiar with his herd to "tune in" on some blustery fall evening and catch a melody somewhat as follows:

"When the pasture season's over
And we're sheltered in the barn,
When the mows hold tons of clover
And the silo's filled with corn,
We begin a new lactation
After six weeks' good vacation.
Sixty days were not too many—
We will make it up next year.
(Some poor things do not get any
But it costs their owners dear)
If you give us cows no rest
We can never do our best."

It is a good thing to be rich and a good thing to be strong; but it is a better thing to be beloved of many friends.—EURIPIDES.



"Makeshift Measure"

has no place on the farm

NOWADAYS every modern-minded farmer considers his farm a factory that produces with labor and machinery the same as city plants. He takes a tip from big manufacturing methods and measures everything *by weight.* He takes no chances of losing part of his profit by "makeshift" measuring or guessing. His scale helps him account for every penny.

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Poultry on the Dairy Farm



Milk for Poultry

HOARD'S DAIRYMAN:—Some time ago we noticed this article in one of your papers:

"A hundred pounds of skimmilk is estimated to be worth six times the market price of a pound, live weight, of hogs or half the market price of a bushel of corn when fed to hogs. It is worth more than this when fed to young calves, chickens, pigs, or colts."

We are interested in feeding chickens. Our chickens here are marketed at the age of six months, and we are anxious to know what the feed value of buttermilk is compared to solid feeds to chickens from three days to six months of age, and also for laying hens. We would like to know what other rations are the most suitable to use with buttermilk. There seems to be considerable controversy in this locality in regard to buttermilk as a food for chickens. Any information that you can give us will be very much appreciated.

California. N. O. CREAMERY.

It is a mighty hard proposition to give a definite answer to this question concerning the food value of milk, although a lot of experiments have been conducted. It is the simplest thing in the world to turn to experiments at Purdue, Kentucky, or a number of other places and show the absolute necessity of animal protein feed being combined as a part of the ration for most economical returns. In other words, although this material seems to be rather high in price the fact that it is combined as part of the ration tends to lower the cost of production.

One of the old experiments conducted back several years ago is fairly typical of feeding values in which, as the result of an experiment, it shows that for every $2.50 invested in meat scrap, $23.92 is returned; for every $2.10 invested in fish scrap $22.65 was returned; and for every 30c invested in skimmilk $2.04 was returned. In the same way, I might go through and show you the difference in cost of production based on the source of animal protein feed which was used, but it is almost universally shown that the feed cost per dozen with either milk or meat scrap is about the same.

On the chick proposition there are some other problems that enter into it. For instance, the amount of the various sorts of milk given below required for three weeks for 100 chicks is as follows: Dried buttermilk, 3.906 lbs.; fresh buttermilk, 92.42; sweet skimmilk, 115.62; and sweet whole milk 117.19. The pounds of grain per pound of gain with each one of these is as follows: Dried buttermilk, 3.29; fresh buttermilk, 2.95; sweet skimmilk 2.13; and sweet whole milk, 1.91.

I believe on this basis one will find that the cost of production with whole milk is higher than it would be with the sweet skimmilk or the fresh buttermilk for two reasons: First, in that the whole milk is worth more than the sweet skimmilk, since the whole milk is quoted at about $2.50 per hundred and the skimmilk or buttermilk at about 30c per hundred. One will also find that the consumption is a little bit higher since the birds like it and will drink a greater percentage of it. A person is partly compensated in it by the smaller amount of grain required for gain as indicated in the above tabulation.

The second problem that enters into it, is the feeding of the whole milk apparently hastens maturity, which means a person is gaining on the market at the same time. If they are feeding whole milk it will allow one to put a broiler on the market about two weeks earlier than is possible with any other material. This, too, must be considered a gain because the broiler market after it is once opened is a falling market and the sooner a bird can be sold the more returns one can expect from it.

Any sort of a ration can be used with milk, in fact we don't believe that a satisfactory growth can be obtained unless milk is used in some form or other with any sort of a ration. You are, undoubtedly, familiar with the mixture which we have been recommending, and which has been given in these columns, previously known as the 80—20, composed of 80 lbs. of ground yellow corn, 20 lbs. standard wheat middlings, 5 lbs. chick size raw bone, 5 lbs. high calcium carbonate limestone, and 1 lb. of salt with milk to drink. This can be changed in those cases where dried milk is used instead of the liquid milk.

The amount of milk in this ration must be controlled as production is desired, since a liberal amount of milk continuously will, with early hatching, bring the birds into production along in the late summer, which usually results in a winter molt. We avoid this by lessening the amount of milk later on by the addition of water to drink also, or else decreasing the amount of milk given to them in order to control this growth.

When milk is used for hens it can be used exclusively and used in conjunction with any of the other animal protein feeds one needs and desires.—J. B. HAYES.

Control Costs

"Most chick mortality is due to the hatchery." That in substance is the complaint most commonly heard. It is immaterial how the chicks were handled, how they were brooded, what the conditions may have been, or how careless the feeder might have been—the hatchery was to blame for the loss.

One would think that all the hatcheries and all the breeders were trying to put out either chicks or eggs that would hatch chickens one could not raise. The opposite is nearer the truth in that any business to survive must have repeat orders. Repeat orders come only by the sale of quality. When one gets a good, thrifty bunch of chicks from a source, they are going to return there when ordering each year. Mismanagement kills more chicks than disease or poor hatching. It is a natural fact that we hate to ever admit ourselves in error. It is much easier to blame the other fellow.

There is a reasonable correlation between number of eggs produced and cost of production. A hen or a flock of hens that averages 20—25 eggs per individual in a month, is more efficient than a group that averages only 5 eggs. In the same degree is there, apparently, a ratio between the number of chicks lost and the cost of production over any given period. Some deviation exists.

Cost per chick	No.	Fuel	Feed	Cost per chick 12 wks.	Mortality
Cts.					%
15	250	$3.40	$ 28.60	$ .30	6
15	500	7.75	58.84	.33	12
13	770	8.80	136.38	.22	16
14	300	2.79	30.46	.35	29
20	837	7.77	34.40	2.74	92
Av. 14	428	4.87	47.41	.506	23

Examples cited are typical of the differences that existed. When the 92% mortality was eliminated, one found that the average cost per chick to 12 weeks was 30.3c, and the mortality was 17%. These are records taken from farm flocks that can be generally applicable.

One serious loss results from housing. Instead of following definite recommendations relative to the number of chicks that should be carried in a certain house, the effort is rather toward filling it up. Fewer chicks per lot and per house will result in better brooding results. One man recently complained of a loss when brooding 1200 chicks with one stove. Another put 600 chicks in a house 8'x8'. That isn't brooding, that is herding and results will be proportionate.

A second loss is caused by improper temperature. Most people don't attempt to keep the chicks comfortable but regulate that by the thermometer. A party put 600 chicks under two brooders in one big room which was O. K. He then closed the windows tightly, raised the room temperature, and roasted or gassed 300 of the chicks in one night. Keep heat under the brooder but keep the windows open and a lower room temperature.

A third loss is caused by dirty range. A poor range is any range that has been used by the old stock or covered with poultry manure at least two years previous. Start the chicks on clean range. Grow them on clean range and move from clean range to a clean laying house. That is the most reasonable way to prevent parasite infestation. It is superior to medicinal treatment.

A fourth loss comes from feed. This does not mean the mixture as much as the condition of the feeds. Moldy feed or litter; sour, moist mash; dirty drinking vessels; access to seepage water and things like that cause a loss in chicks. This also includes lack of fresh, succulent green feed, bare range, or improperly built rations.

When a loss in chicks occurs, one should first determine the cause. That may mean sending a chick either to a veterinarian or to the state college. This should be done when the loss starts. Most people allow about two-thirds to three-fourths of the chicks to die before trying to discover what is wrong.

If one has good equipment, good chicks, and good management, the losses will usually be low. When shoe boxes, hot bricks, feather dusters, and hot water bottles are used, one cannot expect the utmost in success.

The right equipment is a big help, but nothing has yet been discovered that is automatic. Everything, even chicks, needs attention.—J. B. HAYES.

During a 9 weeks' test at the Canada Experiment Farms chicks receiving both buttermilk and water as drink made average increases in weight of 142 per cent over those receiving no milk, and the mortality was more than twice as heavy in the latter group.

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ces of Drinking Water

question of drinking water for cows is much more important me owners seem to think. We that from the ill effects we seen from letting cows have to impure water. In one in- we remember of having been to discover, if possible, the of sickness affecting a small f cows that supplied milk to a and of corresponding sickness children in the families sup- It was a bowel or enteric . The cows were "off feed" owed a rise in temperature, nordinate thirst. The feces my and foul-smelling. The af- children suffered from so- "summer complaint" which of- attributed to cutting of the ch teeth."

nvestigation showed that the as sound. It consisted of hay of good quality and a concentrate ration of ground bran, and oil meal. Grass was grazed, it being the summer of the year. Passing from the to the yard and then to the we soon found the source of . The yard was on a steep nd the leechings from it—the e tea"—ran into a depression tle" and to it went the cows ime they were let out and freely of the brown contami- ater. That water was full of osing organic matters and f a strong odor of ammonia t stand in a corked bottle for ours. A sample heated over also quickly dispelled the pink a small quantity of potassium ganate. The seep-pond was fenced off, at our suggestion, cows quickly recovered and as no further complaint from ons of the dairy. The moral it is unsafe to let cows drink tea and surface water that is t and the product of drainage gher land. Cows like such nd manure leechings. The ste is relished. Better fully he cows with salt and miner- restrict their drinking to pure

can be little question, too, mer dysentery in dairy cows iently traceable to impure water. Coccidian dysentery, g chiefly during the summer is contracted upon low, wet, land and from drinking con- d water. That, too, may be ce of scours in young calves, n such enteric troubles occur ays advisable to suspect im- of drinking water as the pos- use. The farm that has a passing through it—that is ed "mighty handy" as a wa- lace for farm animals—is not desirable on that account. am may carry noxious germs of hog cholera and germs of —and the latter disease at- l classes of animals and is mmunicable and fatal to man. nfectious diseases are trace- vater, and intestinal parasites liver fluke commonly are con- n the marshy pastures along reeks, and by lakes and pond

ws drink great quantities of is of supreme importance supply be pure and safe. e is the dairyman who can his cows with such water from individual drinking cups of a gravitation water supply so that they can "help themselves" to it at all times and run no risk.

Ringworm

I am having trouble with calves from four to eight weeks old getting a scab or what has been called vegetable growth, first appearing around the eyes, then spreading to other parts of the body in spots. Is this growth contagious? How can I prevent it and what is a cure for it?

Wrenshall, Minn. W. R. C.

The disease described is ringworm, also called "barn itch." It is contagious, being caused by the vegetable parasite *trycophiton tonsurans* which grows upon damp walls and woodwork as well as upon the skin. Isolate affected calves and cleanse, disinfect, whitewash, and properly light and ventilate the stable. It would even be better to supply new, sanitary quarters for unaffected and perfectly recovered calves. Treat spots about the eyes by bathing several times daily with a solution of hypochlorite of soda ("B-K"). Treat other spots by saturating with oil until the crusts or scabs can be removed without drawing blood. When that has been done apply strong iodine ointment on and around each spot. Do that twice daily for 2 or 3 days and then as often as is seen to be necessary. Another and cheaper treatment, where many animals are affected, is to saturate the spots on the body, at intervals of 6 or 7 days, with a solution of 4 ounces of bluestone per pint of hot water.

Hard Milker

We have a cow here seven years old that always was a hard milker but she seems to be getting worse. It seems her milk wells are closing up but there is no obstruction that can be felt.

Is there much danger from bloat with sweet clover? How would it be for a night pasture? We can't use alfalfa for pasture here at all for cattle.

Waverly, Minn. T. D.

Insertion of sterilized dilators or teat plugs should be tried. If such dilation of the teat ducts, caused in that way, does not succeed the only recourse will be to have a veterinarian slit down through the stricture in the milk duct by means of a sterilized teat bistoury. The cut is made in 2 or more different directions. Afterward apply twice daily a little yellow oxide of mercury ointment (ophthalmic) during the healing process. If you do not care to have that done, let a calf nurse.

Bloating is liable to occur when cattle suddenly are allowed to graze any rank, wet growth of a legume roughage. Sweet clover, however, seems less liable to cause bloating than red clover or alfalfa. Feed cows hay before pasturing and keep them off the green crop when wet with dew or rain. Allow free access to salt and slaked lime.

Obstructed Teat

I have a cow that freshens this spring and the milk won't hardly come down from one of her hind teats. I have to catch way up in her sack to get the milk out and then it comes down very slowly. What is the trouble and is there any remedy for it?

Nashville, Wis. E. M. B.

There is an obstruction high up in the teat duct and an operation in such a condition is liable to result in destructive infection. It would be best to let a calf nurse or to dry off the secretion of milk in the affected quarter.

Wart

I would like to have a little information about a large wart on my heifer's neck. It is the size of a large hen's egg and is on the top of her neck. There are four small ones starting out around these. I have been greasing it well with castor oil but it seems to do no good and gets larger.

Linn, Kans. V. C.

If the wart has a slim neck it may at once be twisted off or pulled off. If you cannot manage that tie a fine cord tightly around the base of the growth, in a bow knot, and tighten the cord daily until the wart drops off. Then apply pine tar or tincture of iodine. Keep the smaller warts covered with a thick paste of cold pressed castor oil, salt, and flowers of sulphur and they should soon disappear.

Goiter

Kindly tell me of a remedy to cure goiter on young calves.

High Bridge, Wis. F. A.

To prevent goiter in the new-born calf give the pregnant cows two grains of potassium iodide daily in her drinking water and feed a complete ration. Treat goiter in a new born calf by painting the enlargement with tincture of iodine 2 or 3 times a week and giving the calf 2 grains of potassium iodide daily in water. Study bulletins on minerals for live stock which you can obtain from the state experiment station at Madison.

Infected Teats

I have four cows in my string that I have trouble milking out of one quarter. End of teat seems to close very tightly with some swelling in teat and up in quarter. This trouble started about 4 or 5 days ago and two of them it is impossible to milk without milk tubes now.

Priest River, Ida. L. L. H.

Germ-invasion from contaminated floors or ground causes sores at the tips of the teats and thickening of the lining membrane of the duct, as the infection spreads upward. Use of a milking tube tends to spread the infection and eventually causes ruinous mastitis (garget). When a case is starting immerse the teat for 5 minutes or more, night and morning, and then swab with a 2% solution of mercurochrome, or apply a mixture of 1 part or tincture of iodine and 2 parts of vaseline. Also insert a piece of thick carbolized cat-gut or a medicated teat plug in the duct of the teat, between milkings. Where the duct has nearly closed it will be necessary to have your veterinarian operate with a teat bistoury. Isolate affected cows. Cleanse, disinfect, and whitewash the stable, including the floors and gutters.

Death of Cow

All cows in this vicinity are being tested for T. B. as milk is shipped to the cities. One of my neighbors had one that calved a couple of hours after injection of tuberculin and about 12 hours afterward she died. Owner thinks that the injection of tuberculin caused death. Will you kindly inform me if you think this is probable and if it is considered safe to test cows about to freshen or immediately after.

Poplar, Wis. P. A. P.

It may be taken as certain that the injection of tuberculin was in no way responsible for the death of the cow in question. It is harmless to a cow that is not affected with tuberculosis. The intradermic or "tail" test may be applied at any time, but it is not advisable to apply the thermal or subcutaneous just before or just after calving. We suspect that the cow died of milk fever or a hemorrhage.



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OAKLAND GUERNSEY FARMS (SINCE 18

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGIN FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy pro Write or come and see us. Carloads furnished on short notice. Prices reasonable. faction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO

Special Offer of Registered GUERNSEYS

NINE COWS most all young, and fifteen HI and CALVES, from four months to past a y choice of registered bull calf, no relation, to them. The twenty-five head for $3,500. T. B. f. o. b. car, all papers furnished. Must sell

H. R. LOBDELL - - MUKWONAGO, Waukesha County, Wise

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

GUERNSE

Registered and High Grad of Any Age For Sale

In Waukesha County you have an oppo to select what you want from 250 tub tested herds owned by members of the county breeders' association in Americ cattle, service, and prices will suit you. or come.

WAUKESHA CO. GUERNSEY BREEDERS F. E. FOX, Sec'y WAUKESHA, WIS

Serviceable Show Bull

FROM CLASS LEADER DAM

Am offering DAIRYDETTE'S CHERUB OF CHIPPEWA for sale. Born Feb. 20, 1926. A good show prospect. Dam has 697 lbs. fat in E. E., eighth in her class, first in Wisconsin. Sire, a prize winning son of Cherub's Prince. Write today for detailed information.

L. P. MARTINY, Chippewa Falls, Wis.

OUR GUERNSEY SIRES

Combine Type and Production

PRINCE CHARMING OF SHUTTLEWICK. Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 yrs. Sold for $22,000. Her dam, Langwater Levity, grand champion at 1923 National. CINDERELLA'S FAME OF MOUND CITY. Dam, Cinderella's Josephine, 909 lbs. fat. YOUNG BULLS for sale by these sires and from A. R. dams; also a few bred and open heifers. Accredited herd. Write.

LINWOOD GUERNSEY FARM
Homer Rundell, Owner, Livingston, Wis.

FOR SALE — Yearling Purebl GUERNSEY BULL

Also several young bull calves. D with records exceeding 500 lbs. Pr and particulars on request. Address

EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan,

HELENDALE GUERNS

TYPY BULL CALVE

of best of breeding and from producing for sale at moderate prices. Herd Accredited and free of abortion.

HELENDALE FARM, Athens, Wi

Need a Sire Next Fall?



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

Every female in our herd has been bred and raised on the farm. The same applies to the females for several generations.

Herd on Accredited List
Has also been tuberculin tested for more than 20 years.

We believe our bull calves are well worth your consideration if you want a bull calf that will improve your herd.

HOARD'S DAIRYMAN FARM
FORT ATKINSON WISCONSIN

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Confidence who has a two year old record of 511.82 lbs. fat terfat and a junior four year old record of 764 lbs. but Ma Chere Confidence is one of the outstanding daughte the famous Jardinier's Masher. A. K. C. sires excelle ders, long deep bodies, straight top lines, and real produc His first nineteen A. R. daughters average 8739.4 lbs. mil and 422.8 lbs. butterfat on two time milking and her tions at the average age of three and one-nineteenth ye

GUERNSEYS

OREMOST GUERNSEYS

have for sale, bulls ready r service and bull calves.
ty-three A. R. Cows in the rd average 11,643 lbs. milk, 1 lbs. fat.
dams of our four herd sires erage 14,058 lbs. milk, 730.5 . fat.
as well breed cows with gh production and proper pe.
most Guernseys have won prizes in the past three ars at State and National ows including Premier Exitor of 1924-'25-'26.
will cheerfully send pedie and prices on your reements for a herd sire.

MMADINE FARM
ELL JUNCTION (Dutchess Co.) N. Y.
NNEY, Prop. JIMMY DODGE, Mgr.

ernsey Bulls FOR SALE
ry best breeding. Accredrd. Write for information.
W. POST, Ensenore, N. Y.

ie Brae Guernseys
e—Itchen King 49803 A. R. 8 A. R. Daughters that will 640 lbs. fat. Sons of Itchen sale out of A. R. Dams of breeding. Priced reasonable.
BRAE FARM, Clinton, N. Y.

ep Track of Your Cows
Know what they are producing. Such knowledge pays big dividends in cash.
We will send samples and prices of our handy milk record sheets for five cents in stamps.
ARD'S DAIRYMAN
Fort Atkinson, Wis.

BROWN SWISS

n Swiss Bulls Mark int on Grade Herds
large production in a herd of ows may be gained by breeding Brown Swiss bull. They sire calves of a uniform type, well for the general dairy farm. bulls weigh between 1,800 and s.
ill be glad to help you secure a Swiss bull and, if you desire, a r a cow.
WISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

S HILL FARM
MORRISTOWN, N. J.
OWN SWISS
The Former Kinnelon Herd)
r sale from the famous Kinnelon dams. records, sired by Nellie's Stasis, 6721. mbination of show type and production e in this country. Let us know your fully accredited.

Dairying in the Western Counties of North Carolina

(Continued from page 725)

cash income. Pastures would also help bring the land under cultivation. Four clubs were organized and three pure-bred registered Jersey bulls purchased. One pure-bred bull was already in the county so that a bull circle of four blocks was organized and 25 grade milk cows were brought into the county.

The plan was to obtain one co-operator in each community who would agree to run a demonstration dairy under the direction of the county agent who would give him all the assistance he could and also get help from the state specialists when necessary. Thirteen cream shipping demonstrators were secured, one or more in each township, and the first can of cream was shipped from Clay County early in March. During the following 8 months, 3,072 pounds of butterfat were shipped by these demonstrators, netting them $1,075.20. Five cream separators were placed and on August 1, a cream buying station was established for cream shippers' convenience.

The first silo was put up in August, 1924, by one of the dairy demonstrators. It was a 50-ton wooden silo, costing $125, on the farm of B. and Ed. Kitchen, Shooting Creek township. In the fall, the first county dairy show was held with fifty head of dairy cattle shown.

In 1925, there were 30 demonstrators co-operating and 27 finished with accurate records kept. The dairymen of Clay County received $3,000 in cash last year and dairying is the principal agricultural interest in the county and the best source of cash income. The cream is shipped to Asheville and the cows are all tuberculin tested in the demonstration herds. Willard R. Anderson is the county agent.

[EDITOR'S NOTE: The cuts accompanying this article were made from photographs obtained through the courtesy of the U. S. Department of Agriculture.]

JERSEYS

Bred Heifers and Young Bulls
by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.
ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

FOR SALE
Senior 2-Year-Old Bull
MODESTY'S OXFORD RALEIGH 259550 Tattoo 132
Dropped February 8, 1925, solid color, black tongue and switch. The dam of this bull is Raleigh's Castor Daise 361899 in R of M with 539 lbs., 9 oz. 85% butter. Both grandams of this bull are heavy producing R of M cows.
Price $300 F. O. B. our Station
Herd Accredited and Free of Abortion
Send for Pedigree
RAVINE FARM, Est. 1913, PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle

"SYBILS and MAJESTYS"
Offering a few choice bred heifers due to freshen in the fall. The right combination of Sybil and Majesty breeding predominating. Moderately priced. Write for particulars.
CEYLON COURT FARM
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

Easton Farm
-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

JERSEY BULL
Dropped Feb. 18, 1927, solid color, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.
AMBERG FARM, HILLSBORO, WIS.

Belswood Jerseys
H. F. Block, Waukesha, Wis.

JERSEYS FOR SALE
YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.
H. S. HAGER, PRAIRIE DU SAC, WIS.

Golden Sunset Jersey Bulls
Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.
THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

WHITE COLLIES For Sale!
Litter of eleven, born May 31. Strong, lively white Collie puppies. A few left with only a spot or two of coloring. Mother and father registered and work on our herd daily. Prices: males $15.00, females $10.00, F. O. B. Fort Atkinson.
Hoard's Dairyman Farm
Fort Atkinson, Wisconsin
Will furnish papers for registering.



One Million Registered Jerseys
A few weeks ago the millionth Jersey was registered by the American Jersey Cattle Club. This event marks the beginning of a new era in the growth of this great breed. The number of pure-bred Jerseys registered almost doubles every ten years showing the *healthy, sure* growth of this breed.
For information about Jerseys or assistance in locating stock write
THE AMERICAN JERSEY CATTLE CLUB, Dept. B
324 West 23d St., NEW YORK, N. Y.

Jersey Bull Calves
We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. outterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.
THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

AYRSHIRES

Spring Valley AYRSHIRES
Accredited Herd
Foundation FEMALES - BULLS
For Sale At All Times!
Choicely bred Cows and Heifers for sale -- mostly sired by an A. R. son of that great cow Carston Lady Mary Stuart. These Cows and Heifers are bred to Howie's King of Hearts, Dunlop Sunspot and Cavalier's Sherry Redman, all National show winners.
We also have for sale some excellent bulls by these sires and from good A. R. cows. Write us today.
L. S. CLOUGH, Owner
WARREN PENNSYLVANIA

PROFITABLE — PRACTICAL
AYRSHIRES
The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long leats, at reasonable prices, write us. Federal Accredited Herd.
SYCAMORE FARMS, Douglassville, Berks Co., Pa.

BUY A BABY BULL
Ayrshire bull calves from heavy-producing, good-uddered cows at bargain prices.
Let us help you find one.
Ayrshire Breeders' Association
10 Center Street, Brandon, Vermont

AYRSHIRE BULLS - $35 and UP

Edgerstoune Wide Awake
Nicely marked, deep bodied, straight bull calves from dams with 10,000 lbs. milk or better. By such sires as Edgerstoune Wide Awake, Imp. Howie's Wait and See, Imp. Howie's Ringmaster and Imp. Favorite Beauty Champion, sires that have over 15,000 lbs. milk back of them for 5 generations. Bulls are priced low because we need the room. $35.00 and up. Herd under State and Federal supervision. Write.
BOOTHSTOCK FARM. Roy F. Booth, Mgr., Northville, Mich.

AYRSHIRE COWS
FULLY ACCREDITED
300 Head in the Herd
Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.
ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

A HIGHLY BRED AYRSHIRE
BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.
GLEN FOERD FARMS TORRESDALE, PA.

PENSHURST AYRSHIRES
Accredited certificates recently renewed for both tuberculosis and abortion. 235 head tested. Penshurst Man O' War heads the herd. His dam is world's champion Ayrshire producer and reproducer. Sire's dam ex-champion (their records average 24,025 lbs. milk.) His progeny is excellent. Write us for the best in Ayrshires.
PENSHURST FARM, Narberth, Pa.

20 AYRSHIRE HEIFERS
Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 3 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.
ALDEBARAN FARM, E. J. Nelson, Mgr., Racine, Wis.

Purebred Ayrshire Cattle For Sale
Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

20 years may be a long time, but—
74.4% of Hoard's Dairyman's live stock advertisers have been advertising regularly for from 2 to 20 years

Last Reminder—

MINNESOTA HOLSTEIN COMPANY DISPERSA

THE GREATEST OFFERING OF TYPE AND PRODUCTION IN HOLSTEIN HISTORY

An offering which includes the highest year record cow in the U. S. over all ages and breeds, together with a daughter, a son and several grandsons and granddaughters. Many other high record cows and heifers and sons of sensational producers. Show animals including All-American winners and splendid prospects for future shows.

If You are Interested in Holsteins You Should Attend This Sale Whether You Buy or Not

NEXT FRIDAY, JULY 29th, AUSTIN, MINNESOT

STATE and FEDERAL TESTED HOLSTEINS

BUY FROM AN AREA TESTED COUNTY

The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.

Write or wire for information or appointments.

WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

JEFFERSON COUNTY HOLSTEINS

Registered Heifers at Farmers' Prices

We have some very good bargains in heifers 9 to 18 months old. We also have registered and grade cows for sale. Area tested county. A full time fieldman at your service. All inquiries answered promptly.

JEFFERSON COUNTY HOLSTEIN BREEDERS' ASSOCIATION,
C. W. Clingan, Field Sec., Ft. Atkinson, Wis.

Dicmere Holsteins

30-LB. SHOW BULL

We are offering a very typy January calf from a 30-lb. 3-year-old dam. His sire, Walcowis Ollie Abbekirk, is a 968-lb. son of that grand champion, Iowana Sir Ollie. The herd is federal accredited. Write today if you want a good bull at a reasonable price.

H. E. DICKINSON, Oconomowoc, Wis.

Come to Sheboygan County for Holsteins

We have choice grades and purebreds to select from. Write your wants to:

SHEBOYGAN COUNTY HOLSTEIN ASS'N.,
Frank Ubbelohde, Secy., Plymouth, Wis.

SERVICEABLE BULLS—FOUNDATION HEIFERS

Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.

BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

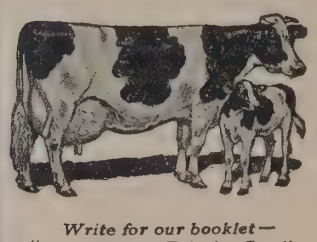
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

Lime and Phosphate in Kentucky

On soils outside the bluegrass region in Kentucky, the application of ground limestone has given profitable crop increases. When lime and phosphate are both used, a greater profit is obtained than where either is used separately. The average crop increases from this treatment have been: Corn, 14.6 bushels; wheat, 7.6 bushels; soy bean hay, 1,337 lbs.; clover hay, 2,021 lbs. All crops considered, the yields have been practically doubled. The ground limestone was used at the rate of 2 tons per acre for a 4-year rotation period. The acid phosphate was used at the rate of 800 lbs. per acre for each 4-year rotation or 200 lbs. per acre per year.



Write for our booklet—
"The Holstein-Friesian Cow"

HOLSTEINS
are producers of
BUTTERFAT

Holsteins lead the world in production of butterfat—the largest factor in dairy profit. Eighty per cent of the cows which have produced 1,000 lbs. or more of butterfat in a year are Holsteins.

EXTENSION SERVICE
The HOLSTEIN-FRIESIAN
Association of America
230 E. Ohio St. ROOM 601 CHICAGO

Sir Bess Ormsby Fobes

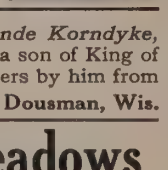
"Sir Bess" is Dead
A Few of His Sons Left

Sir Bess Ormsby Fobes died June 25th, so the number of his sons left to be sold is limited. We still have a few good ones left. Better write us today for information about one or come to the farm and see them.

HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) DOUSMAN, WIS.
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

NORRIS FARMS *Now Offering* — a September '26 CALF whose two nearest maternal dams have over 31 lbs. Dam now on year test. Sire, a well-bred Creator-Prilly bull. Write for all details of a mighty good calf. NORRIS FARMS (Fully Accredited) Mukwonago, Wis.

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

GRAMLING FARMS HOLSTEINS *King Pontiac Inka Lunde Korndyke,* our senior herd sire, is a son of King of the Pontiacs, a double grandson of Pontiac Korndyke. Sons and daughters by him from Homestead dams for sale. The herd is clean. GRAMLING BROS., Dousman, Wis.

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

ABORTION FREE HOMESTEADS

We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.

T. B. under Federal Supervision.

MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager.

YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write

SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

Milford Meadows

Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.

Ask us about them.

W. W. KINYON, LAKE MILLS, WIS.

Ormsbys and Ollies

We are not showing this year—can offer a few very choice bulls and females—one big time show bull at two years old in January. Cows milking over 100 lbs. daily—three-year-olds up to 83 lbs. One of the best herds in the state—bar none. Look them over.

F. H. BOYLE, Owner, PEEBLES, WIS.
L. F. Murphy, Mgr.

BULL CALVES $75 to $100

Six choice bull calves 4 to 7 months old. Sired by a 990-lb. grandson of Iowana Sir Ollie and from good producing daughters of a 1040-lb. Homestead sire. Accredited herd. Write today.

CHAS. HUGHES & SON, NEENAH, WIS.

20 years may be a long time, but —

74.4% of Hoard's Dairyman's live stock advertisers have been advertising regularly for from 2 to 20 years

Healthy Holste

If you are in the market for grade or regist steins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN AS
608 S. Dearborn, St., CHICA

Ormsby-Homestead B

We have for sale 2 very good cal Nov. 1 and Dec. 27, sired by Rawleigh Pietertje Posch, our 41-lb. Ormsby si are from 24- and 25-lb. 4-year-old H dams with good year records, one record cow. Priced to sell. The clean. Write

THE W. T. RAWLEIGH COMP
Owners Rawleigh's Ideal Farm, FREEP

TAKE TIME!!

Others are saving $50 to $100 by p our last summer Holstein bull calve Selection better. Every cow has C record. Many have official record calves sired by 1,138-lb. bull whose d over 4.2%. A card brings list.

Rock River Farms, Bra

Buffalo Creek Farm Hol

We are offering BULL CALVES Ormsby breeding from tested dam are from six to eleven months o priced as low as $100.00. Write for and further information. Herd unde supervision.

BINGHAM BROS., Arlington Hei

BULL BORN SEP'2

out of a 24-lb. two-year-old with 46 milk. He is sired by a good proven b about ¾ white and a real individua for pedigree and price.

ELLWOOD & NELSON
DE KALB

HYDE PARK FA

PALOS PARK, - IL

Offers BULL CALVES

Sired by an outstanding 35-lb. son dor from Fully Accredited Regist dams with leading cow testing a records. $100.00 up for typy individ

JOHN A. CARROLL WILLIAM
Owner Herd

High Grade Holstein Sprin

If in the market for big prod these cows will please you. Tube tested. Address

RIVER MEADOW FARMS, Portlandville.
P. S. Come and make selectio

UNITED STATES SOLDIERS HOME

WASHINGTON, D. C.

OFFERS FOR SALE at reasonable prices fr accredited herd in the United States, PU HOLSTEIN-FRIESIAN MALE CALVES month to seven months old, from yearly te and sons of General Piebe 323266 H. B. richest bred sons of the well known K. P. O. descendants have in the past eight seasor less than 553 first prizes. His five nearest have 1,200 lbs. butter in 265 days. Als Grahamholm Colantha Pauline Lad 2973

K.P.O.P. HEIFE

Can spare a car of dandy Reg Holstein heifers 6—18 mon from 1,200-lb. K. P. O. P. bul the thing for calf club work.

BOSTWICK & SON, Ardmor



Ear Tag W1951 — Born December 22, 1926

His 2 Nearest Dams Are 2 Of The Best Grand-daughters Of Colantha Johanna Lad

THE BULL we offer this week is an unusually good straight individual, good enough to please anyone in that respect.

HIS DAM, Tsussie Colantha Rose, has 1,081 lbs. of butter from 25,058 lbs. of milk in a year, and as a 2-year-old made 917 lbs. of butter from 20,954.80 lbs. of milk. Her first daughter to finish year test made 803 lbs. of butter in a year as a 2-year-old.

HIS SIRE, Matador Segis Walker Gerben, is the son of old Matador, selected by Carnation Farms from the 200 sons of Matador born at Carnation Farms. A first prize winning bull several different years, he is from a 1st prize winning cow with 1,073 lbs. of butter from 27,525 lbs. of milk in a year. His 2 nearest dams are the two greatest daughters of Dutchland Governor Sir Colantha, one of the greatest proven sons of Colantha Johanna Lad.

Looking For An Unusually Reliable and Attractive Herd Sire?

THIS IS THE BULL

Send Today For His Pedigree

Address all correspondence to

711-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



ost Spaulding Farm Co.

ice Bred Bulls from good record dams and KING PEITERTJE MERCEDES ORMSBY, ose daughters has just broken the World's the senior two-year-old class with 1,119 lbs. a year. This sire is a son of Sir Pietertje fercedes from an 1,100 lb. daughter of a cow and is one of the few sons of Sir backed by two generations of 1,000 lb. dams. rices.

AULDING, MGR., Warren, Minn.

GOOD BABY BULL

by ST. OLAF ORMSBY SENSA- N No. 346641, the Show son of sby Sensation. Dam of calf a won- il daughter of Dean of the Orms- What more could be desired? December 21st; about half white. information write

LAF COLLEGE FARMS, Northfield, Minn.

HIO HOLSTEINS

ered COWS, HEIFERS and BULLS. hoice Calf Club CALVES. We have two gents in the field all the time who can re of all orders in fine shape. All in- are referred to our entire membership.

IIO HOLSTEIN-FRIESIAN ASS'N
102nd St. Cleveland, Ohio.

LSTEIN BULLS

FOR SALE

Brook Bess Burke 2d - Ormsby BREEDING

TE FOR SALE LIST—JUST OUT der Federal and State supervision for osis—blood tested for abortion.

RTHUR FARMS, Winterthur, Del.

. P. O. P. Bulls

u will need a new sire dur- he next year get in touch us. We can offer you just you want.

ROVE & ARNOLD, Norwalk, Iowa

ABLE 30-LB. BULL and BULL CALVES

P. breeding. Sons of Rival King Ormsby his dam world's champion in Class C. deral Supervision. If you want show type, production write

ERGUSON, LAURENS, IOWA.

BIG PRODUCTION HOLSTEINS

The Femco Farms herd now consists of 250 registered Holsteins. Twelve cows in the herd have yearly butter records from 1,000 to 1,426 lbs. Three have milk records from 30,000 to 34,000 lbs. Many heifers with records in proportion.

HERD SIRES

PRIDE OF SIR PIETS—Son of Wisconsin Pride 2d, highest record daughter of "37th" with 1,327 lbs. as a 3-year-old. By the highest record son of K. P. O. P.

DUTCHLAND CREAMELLE COLANTHA LAD—Sire of seven 1,000- to 1,426-lb. cows, including two with milk records over 33,000 lbs.

MANKATO FLOA ORMSBY KORNDYKE LAD—The only bull in service whose dam and sire's dam are 1,000-lb. 2-year-olds. Combines the blood of the world's greatest sires of 1,000-lb. cows.

Write us for pedigrees of choice bulls for sale.

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

MAYOWOOD HOLSTEINS

We can offer a few serviceable bulls, including several splendid sons of White Hope out of high-record dams. We are also quoting some very excellent calves at strictly farmer's prices. Write us for extended pedigrees.

O. C. JENSEN, Supt. Rochester, Minnesota

STEELE COUNTY HOLSTEINS

are noted for their size, type and production. Pure-breds or grades. – One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

Akona Holstein Farm

Two registered heifers. No. 1 born Oct. 6, No. 2 Nov. 5, 1926. Sire's dam's record 1016 lbs. butter in year. Dam's on yearly test. Price $85 each.

B. A. NORRIS, ANOKA, MINN.

uy from Hoard's Dairyman advertisers. They are reliable.



Come to Michigan for Holsteins

SUMMER BUYERS given every help to locate good **PUREBRED** Holsteins. Fifteen County Sales Managers eager to help you at no cost to you. Let me know what you want and I will ask these Sales Managers to quote you.

J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

SERRADELLA FARM *Offers* —

A SON OF SIR DUTCHLAND COLANTHA DENVER, whose dam is a 36—1300-lb. cow

The dam of this bull is a 27-lb. 4-year-old. She has 2 A. R. O. daughters. He is evenly marked, well built, straight topped youngster. Born July 9, 1926.

SERRADELLA FARM, (Federal Accredited Herd), **Oscoda, Michigan**



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., **NORTHVILLE, MICHIGAN**

MICHIGAN LEADS ALL STATES

On the Honor List for 1926-27 — with 1624 Points

More than 42% of Michigan Points were won by Michigan State Herds with 688 points.

The showing of these herds is proof of production.

We are offering bulls from these great producers and sired by some of the breed's greatest sires.

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. **We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.**

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, **SIR WALKER SEGIS HOMESTEAD,** a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, **LASHBROOK JUNE WALKER ORMSBY,** an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of **Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.**

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

Fred C. Nichols, Farmer, makes a discover



"I decided to try your Mobiloil," writes Fred C. Nichols of Delanson, New York, R.D. 2. "Right here I will say I wish I had decided before, and I would not have had to put in new rings and pistons this spring.

"To say that I am pleased with Mobiloil is putting it mild. Such a change in my motor—I haven't had a plug out since I started using it. She runs so much smoother and so much more power.

"I live on a dirt road, long hard pull and then a very steep hill to get up on the farm, and on this hill I had a chance to notice my extra power—the motor starts as easy again. When you say it is worth a special trip to town you are right, it is, and I would rather make the trip than put any other oil in my crankcase.

"I use a Stewart truck also a Ford motor and draw heavy loads, and think Mobiloil the best oil on earth.

"Just why I am writing this letter I don't know—probably it's because I am so pleased with Mobiloil. I will use it on all my farm machinery next summer. Best wishes to you and Mobiloil."

Similar experiences await you!

Actual use of Mobiloil has opened the eyes of countless farmers to real engine economy and efficiency. Mobiloil costs a few cents more per gallon than ordinary oils. But, despite this fact, *it is the most asked-for oil among farmers today.*

"Extra" power is what you want. It is what you get with the correct grade of Mobiloil in your crankcase. Think what that means in the operation of your tractor!

The continued use of Mobiloil will introduce you to a series of savings that far outbalance the slight extra price. Less wear. Fewer repairs and replacements. Greater freedom from carbon and overheating.

Mobiloil frequently lasts twice as long as ordinary oils in a tractor. And many farmers report that Mobiloil cuts oil consumption in cars and trucks from 10% to 50%.

YOUR guide—if your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors. And remember that . .

609

automotive manufacturers approve it!

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc."), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cadillac	BB	Arc.	BB	Arc.	A	Arc.	A	Arc.
Chandler Sp. 6	A	A	....	....	....	....	....	....
" other mods.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chevrolet	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler 60, 70, 80	A	A	A	A	A	A	A	A
" other mods.	A	Arc.	A	Arc.	A	Arc.	....	....
Dodge Bros. 4-cyl.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Essex	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hudson	A	Arc.	A	Arc.	A	Arc	A	Arc.
Hupmobile	A	Arc.	A	Arc.	A	Arc	A	Arc.
Jewett	....	....	A	Arc.	A	Arc	A	Arc.
Maxwell	....	....	....	....	A	Arc.	A	Arc.
Nash	A	Arc.	A	Arc.	A	Arc	Arc.	Arc.
Oakland	A	Arc.	A	Arc	A	Arc	A	Arc.
Oldsmobile	A	Arc.	A	Arc.	A	Arc	A	Arc.
Overland	A	Arc.	A	Arc	A	Arc.	A	Arc.
Packard 6	A	Arc.	A	Arc.	A	Arc.	A	A
" 8	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Paige	A	Arc.	A	Arc	Arc.	Arc	Arc.	Arc.
Reo	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Star	A	Arc.	A	Arc	A	Arc	Arc.	Arc.
Studebaker	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Velie	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Willys-Knight 4	....	....	B	Arc.	B	Arc.	B	Arc.
" 6	A	Arc.	A	Arc	A	Arc.	....	....

GARGOYLE

Mobiloil

Make the chart your guide

HOW TO BUY— A nearby Mobiloil dealer will gladly offer you a substantial reduction on quantity orders—barrels and half-barrels. This method of buying Mobiloil recommends itself for two reasons, (1) the cash savings, and (2) the convenience of having a long-time supply on hand. Ask your Mobiloil dealer which grades of Mobiloil to use in your car, truck and tractor. He has the Mobiloil Chart which has been approved by 609 makers of automobiles and automotive equipment.

VACUUM OIL COMPANY

MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dal*

Other branches and distributing warehouses throughout the country

LIBRARY

HOARD'S DAIRYMAN

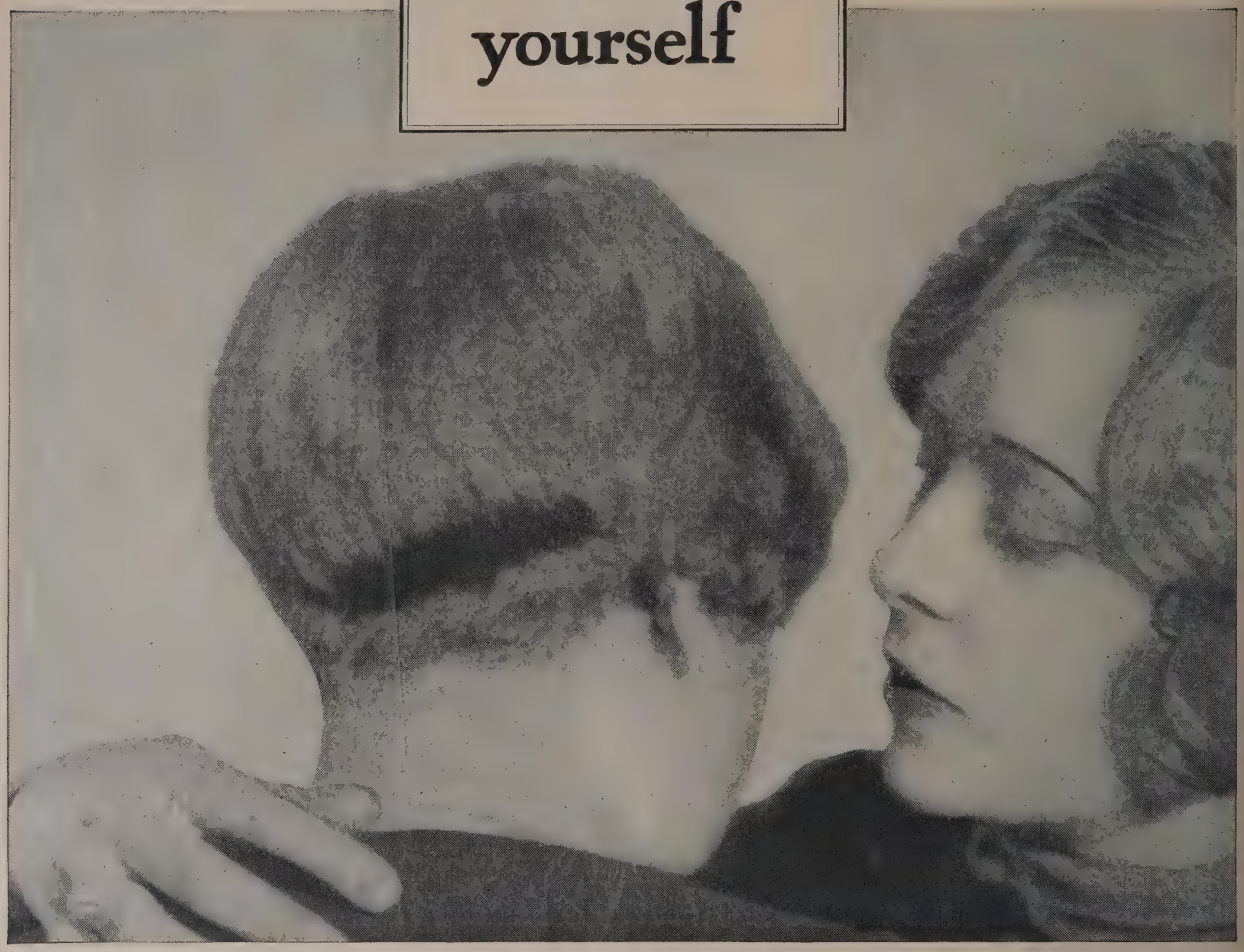
A JOURNAL DEVOTED TO DAIRY FARMING

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ume 72, No. 15 Fort Atkinson, Wisconsin August 10, 1927

don't fool yourself



Loses job and sweetheart

Your common sense tells you that neither employer nor sweetheart can stand a case of halitosis (unpleasant breath) very long.

You, yourself, can never tell when you have halitosis. But you'll *never* have it, if every day you use Listerine, the safe antiseptic.

Listerine immediately destroys odors of all kinds and so leaves the breath normal and sweet. And the antiseptic essential oils combat the action of bacteria in the mouth.

Begin using it now. Common decency demands it. Keep a bottle handy in home and office. It puts you on the popular and polite side.

Lambert Pharmacal Company, St. Louis, Mo., U. S. A.

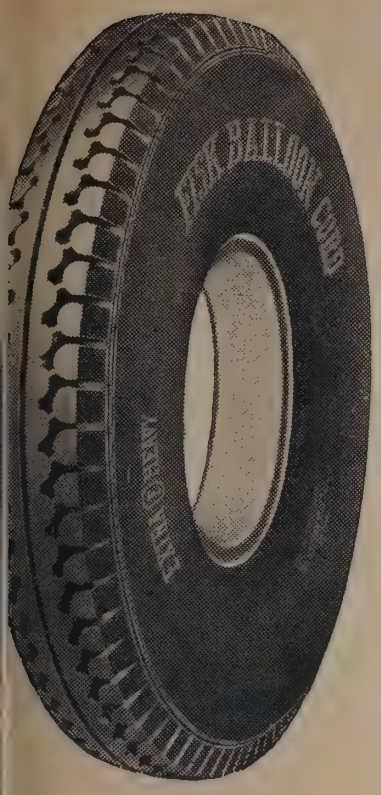
1/3
Had Halitosis

80 streetcar conductors, meeting the public at close range every day of the year, said that about one person out of three offends by halitosis. Who should know better than they?
Face to face evidence

LISTERINE

—the safe antiseptic

IS THERE ANY?
What is the point of paying more when Listerine Tooth Paste is a scientifically correct dentifrice and sells for 25c for a large size tube?



More Miles Smoother *Safer*

hen you feel that ordi-
ry tires cannot give you
e extra comfort, extra
fety, and extra mileage
at you expect, you will
d complete tire satis-
ction with the Fisk Ex-
Heavy Balloon.
This new Fisk is the la-
t and greatest achieve-
nt of tire craft. You
t the utmost in smooth,
e riding, sure trac-
n and easy steering
roughout suprisingly
at mileage with Fisk
tra Heavy Balloons.

There is a tire for every need—in type, size and price—in the Fisk line.

SK SAYS IT WITH MILEAGE"



Milk Stool Philosophy

HOARD'S DAIRYMAN:—People who really think they are honest in their conclusions are not necessarily right. Sincerity cannot make up for an unsound reasoning and conviction. No reasoning is sound and really four-square unless it is the result of a most careful study of cause and effect. Very few of us trouble ourselves to really get the cause. We simply take an early effect and call it the cause, and then honestly follow its effects until we come to a conclusion which we like. Then some one else takes another effect of the same cause and honestly follows it and comes to a conclusion which we don't like in the least. This does not occur because either of us were dishonest in our reasoning, but because both of us got the wrong start.

Our basic pursuit in life is happiness. We plan, we work, we save, we invest, and we willingly undergo severe self-denials because in the end we hope for happiness. Even hope, which plays so large a part in our lives, gives birth to a great joy other than the one we seek but which it could not have been if we had not pursued. There should, therefore, be no check on any one's pursuit of happiness, but there could well be a check on the means some use in its pursuit. Selfishness, greed, indulgence, and lust have been used until the very pursuit has gotten in disrepute.

Humans seek happiness in one of two ways, either on the premise that the world owes us a living or on the premise that we owe the world a life. It is only the ones working from the first premise who need a check; the others need encouragement.

Minnesota. J. J. SPRENGER.

Cutting Down the Feed Bill

HOARD'S DAIRYMAN:—There is but one way to figure the dairy cow business to prove whether you are keeping your cows or they are keeping you—that is, to apply the foot rule to the difference between feed cost and cream checks, as Clair F. Limbeck, a successful Northeastern Iowa dairy farmer views the matter.

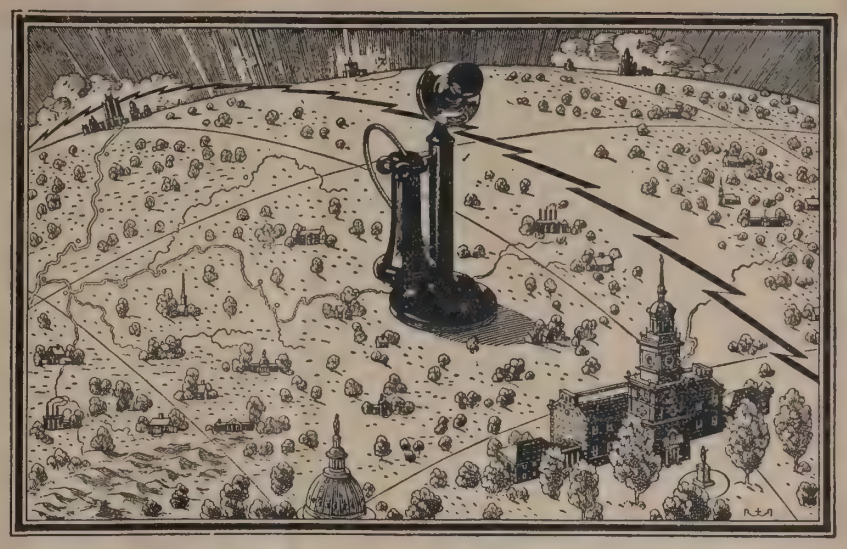
The Limbeck Holsteins rank among the best producing herds in Iowa cow testing associations, but that isn't the big thing, as the situation is considered at the Limbeck farm. The chief interest there is the way, the past two years, the difference between feed cost and money earned by the cows has been widened by feeding alfalfa hay in winter and pasturing the cows on sweet clover in summer.

The widening has been effected at both ends. Production has increased materially, and feed cost has decreased in the same way. Alfalfa and sweet clover are given credit for both increase and decrease. "It is cheaper to grow proteins than to buy them, we have found, and the cows do better on them," said Mr. Limbeck. "We used to buy proteins extensively. Now our bill for them is much less and our cows are producing better."

The Limbeck farm has twenty-five acres of its 110 acres in alfalfa and nine acres in sweet clover. A fine stand of both crops was obtained by liming, inoculation, and the use of good seed. The nine acres pastured thirty-five head of cows and young stock from May until the last of September in 1926. Then, feeding alfalfa started.

Iowa. F. L. CLARK.

The secret of life is not to do what one likes, but to like to do what one has to do.—HALE.



The Traveler's Telephone

An Advertisement of the American Telephone and Telegraph Company

AMERICANS are the greatest travelers in the world. They have knit the country together by steel rails and made it the largest and most prosperous business community the world has ever seen. Business, friendship and political solidarity are maintained by personal touch, by travel and the telephone.

Wherever the business man goes in this country, be it thirty miles or three thousand, he is still within earshot of his office, his family and his friends.

He can get them and they can get him, and for the longest call in the United States the day rate is only $12 and the night rate is only $6.

For the Bell Telephone System is an idea in force nationally. All the instruments are designed in the largest industrial laboratory in the world and made in the same factories to the one standard of fitness. All of the telephone builders, repairers and operators are trained to the same ideal and aim; stated by President Walter S. Gifford as:

"A telephone service for the nation, so far as humanly possible free from imperfections, errors or delays, and enabling at all times anyone anywhere to pick up a telephone and talk to anyone else anywhere else, clearly, quickly and at a reasonable cost."

Connect *This* Waterer to your tank and *forget it!*

Works the year around — A new price



THE "RED DUCK"

Three year guarantee — from The Home of Sunny Betterbilt Farm Buildings, Sectional

THE HOUSE of FRENCH
HAWARDEN, IOWA

☐ Send Catalog

☐ Enclosed is $5.00 for Waterer



The famous purebred Jerseys owned by Mr. George W. Sisson of Potsdam, N. Y., are regularly milked with the De Laval Milker. Some remarkable records have been made by individuals of this herd, foremost of which is their famous matron, Bess Irene 351690. All cows on test are milked with the De Laval and Mr. Sisson speaks very highly of its work. The cow with the milker attached, shown above, is Bess Irene.

Many of the Finest Cows of All Breeds are Milked with the De Laval Milker—

for Better Milking and More and Cleaner Milk

THE list of herds milked with the De Laval Milker contains the names of many of the world's most noted cows. The De Laval is used on herds of this kind to assure maximum production, cleaner milk and better milking for the cows.

Many well-known records have been made by cows that were milked with De Lavals exclusively during their entire test periods. Hundreds of owners of good cows have installed De Laval Milkers so that they might be sure their cows were receiving the best milking possible, thereby avoiding injury to teats and udders.

That the De Laval Milker produces much cleaner milk is unquestionably proven by the number of Certified, Grade A and Special Nursery milk producers who use and endorse it.

De Laval engineering ability is always at your service. Write the office listed below which is nearest you for complete, detailed information. or see your local agent.

The De Laval Separator Company

NEW YORK
165 Broadway

CHICAGO
600 Jackson Blvd.

SAN FRANCISCO
61 Beale Street

No one familiar with the Guernsey breed will dispute the statement that the purebred herd kept at "Munroholm," Mr. Thomas H. Munro's splendid Guernsey farm at Camillus, N. Y., is one of the very finest. It was here that Edytha of Munroholm 144838 A. R. and Monie of Monroholm 149795 made their famous records. Both were De Laval milked while on test. The manager states that he does not know what he would do if forced back to hand milking.

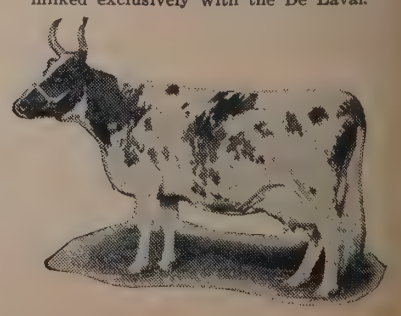


De Laval Milker

Mayowood Farm at Rochester, Minn., has two equally strong claims to fame. One is the fact that it is owned and operated by the Mayo Brothers, who are among the world's most noted surgeons. The second claim to fame can well be made through the purebred Holstein herd which is kept there. Some of these high producers have made excellent records and all have been benefited greatly through the continued use of the De Laval Milker. The management recommends it highly.



Mr. Robert L. Knight's beautiful "Lippitt Farm" is the home of an outstanding purebred Ayrshire herd. This herd has been milked with the De Laval Milker for some time and Mr. Knight goes on record as being well pleased in every respect. The beautiful individual shown below is Oldhall Sarah 2nd who, at the age of *14 years*, produced 10 626 lbs. of milk and 370.79 lbs. of butterfat on 360-day test. During this period she was milked exclusively with the De Laval.



HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

Semi-monthly

Three Years $1.00

at Fort Atkinson, econd class matter.

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ıme 72 FORT ATKINSON, WIS., AUGUST 10, 1927 Number 15

you detest your job? Does our work become so repulsive t times that all you can picture look into the future is an un- ıg succession of nervewreck- sts from your morning alarm a hurried dressing in an icy n, a sleepy endurance test of your allotted cows, endless, s chores during the day, and tion of your milking ordeal at In other words, is your out- tually warped? If it is, to go urther, did you ever consider at your humdrum du- l mine mean to both

rum duties are the which make our daily dious. They are one ecessary evils of the without which man be most happy but civilization would be ete failure. Industry n built upon hum- ıties. They are the which man pays for h century luxury. l I have become so d in pay checks that ey we will spend a half of our lives on nut fifty-four."

e beginning, primi- ı did as he pleased. when he was hungry particularly, when d something edible. s tired he slept, were or day. When he be- tless, he moved; and few wants and pri- nbitions, his mode of ideal. But as he be- ssociate more close- his fellows and his es became more ed, and as he discov- rs who excelled him cular phases of his aspirations were Then trading be- l from this traffic or originated hum- ies, for he who was any one particular to his benefit to con- elf to his individual This necessitated and routine and duties go hand in

mber when, as a boy, en my first job on the farm, n. The rows were long. The re energetic and were hold- own against the corn plants. was large which made my nal progress practically un- It took only a short time to wonder what it was all for I was going to get out of it. ter a few hours, when the disappeared from our clover job was changed, and I was horse to ride and told to cows while they filled up sture. This was different. h fancy I was on a noble with a six-shooter at each

HUMDRUM DUTIES

JOHN S. RAMSAY, WISCONSIN

side, rushing madly after my horde of rapidly retreating and falling Indians. I was in my glory.

When the cows filled up and began to roam, I drove them back into the old pasture and went back to my hoe. In the days that followed I learned to endure my colorless hours with a hoe by looking forward to the fun of watching cows. And in looking forward to this job I took more interest in my hoe. It was here I learned my first secret in the philosophy of life. It was this: The quality which holds us to the monotonous duties of our work and makes the most heartless tasks bearable is ANTICIPATION.

Later I graduated from my hoe to the barns. Here I was to clean stables and curry stock, and I confess I was thoroughly sick of being personal valet to about forty head of cows and eight or ten horses. I became completely disgusted with this work before the first week had passed, but kept doggedly at it, cleaning stalls and gutters, grooming horses and cows, and sweeping floors and alleyways.

Finally, one day, the boss took me with him to buy stock. We visited a number of barns and saw a large number of animals. As I went through our neighbors' barns and looked over their herds, I had an opportunity to make comparisons. Some places were very neat and attractive; others were filthy. Some stock was well fed and cared for; many were in very poor condition. When I returned to our farm and got back to my work, my job took on a different aspect. It did not consist so much of hauling refuse out of stalls and gutters as it did in seeing what a neat barn I could keep and how sleek I could keep my charges. And right here I discovered another secret. The degree of "humdrumness" in our duties depends very largely on our POINT OF VIEW.

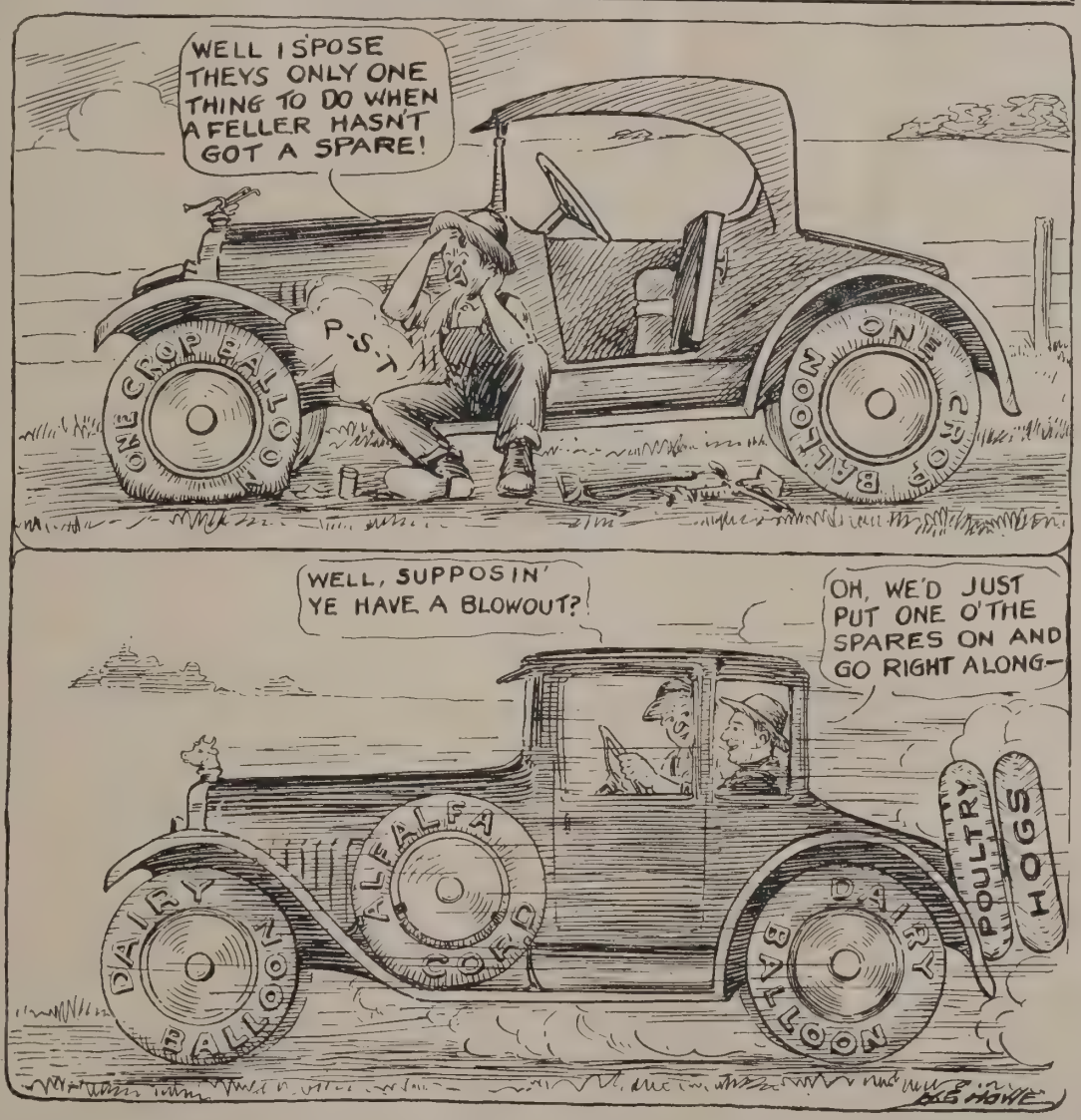
Then, after finishing high school, I came home to work in earnest. I took charge of our retail milk route. I shall never forget the first trip over it. We drove nine miles to town with a team, changed horses, and peddled milk to two hundred private houses. I thought we should never finish this trip. The entire procedure was a blur. When we finished our delivery we ate dinner, again changed to our original horses, and drove the nine miles home. For a week this program was repeated. At the end of that time, the boss decided that I could run the route alone.

For some time the long drive to town, the drudgery of two hundred stops, and the return home was terribly monotonous. But as I became accustomed to the road and as I became personally acquainted with my customers, the monotony disappeared and I started to take an interest in my work. Soon I prided myself on being on time, on giving each individual personal attention, while at the same time I took an active interest in the appearance of my horses and wagon. At this point another and perhaps the most important of life's secrets revealed itself to me. Everyday duties are humdrum only until one awakens to the service rendered by their painstaking performance.

Now, as I stop to ponder on why man has given up his liberty and sacrificed so many of his instinctive desires at the altar of civilization, I believe that his personal sacrifices have been freely offered. And they have been given not purely from an expectancy of personal gain, but from the nobler realization that in the giving he has been able to perform his greatest degree of service to his fellow man.

So when your job looks blackest, step back and look at it as an outsider. Realize that upon its satisfactory performance depends not only your present material welfare, but that in its well doing the public as a whole and you personally benefit to the same degree.

VALUE OF PREPAREDNESS



Cream cheese made by adding to a rich cream the desired proportion of skimmilk solids in the form of dry skimmilk shortens by many hours the process of manufacture. The new cheese is smooth and buttery and has a richer taste.

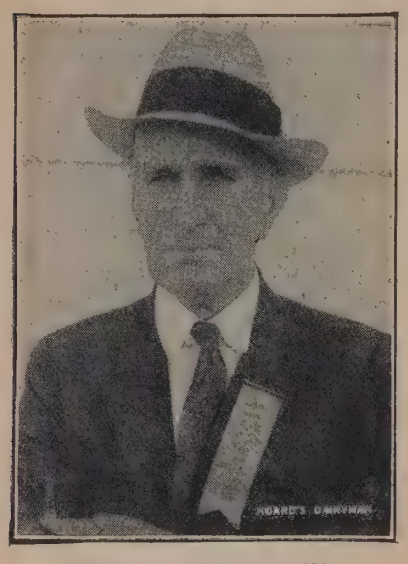
"Let us develop the resources of our land; call forth its powers, promote all its great interests, to see whether we also, in our day and generation, may not perform something to be remembered."—WEBSTER.

Hind—Clark Dairy in Hawaii

W. H. PHILLIPS, HAWAII

IT has occurred to me that the readers of Hoard's Dairyman may be interested in knowing about a model dairy out here in the middle of the Pacific Ocean.

Fifteen minutes' ride from Honolulu on a fine macadamized road



SENATOR ROBERT HIND

takes you to the Hind—Clark dairy which has the Pacific Ocean in front and the Koolau range of mountains behind; on the right, a grove of algeroba trees; and on the left, a field of alfalfa from which are cut ten or eleven crops a year; beyond this, a field of sorghum standing eighteen feet high, which will probably yield twenty to twenty-five tons to the acre.

There are three hundred cows in the dairy—two hundred being milked at the present time. Of the two hundred, about one hundred and fifty are Guernseys and the rest Holsteins. The cattle are kept in the grove of algeroba trees where they are fed green alfalfa in racks with a ration of dry hay once a week. The cows are kept out of doors all of the time except when being washed and milked.

At milking time they pass into a paved yard from which a run-way containing running water leads into the part of the barn where they are washed while receiving their ration of ensilage and dry feed. Thirty cows at a time are stanchioned here. After they come in with their feet well soaked by the water through which they have passed, attendants with brushes are ready to remove every particle of dirt from their bodies, except from the udders which are washed and dried later in the milking stable. The cows pass from this room into a vestibule from which they are admitted to the milking stable in relays of twelve at a time.

After carefully washing and drying the udders, they are milked with a milking machine and then pass out through doors in front and back to the corral. The two hundred cows are washed and milked in about three and one-half hours.

The milking is done with closed pails from which the milk is elevated and passes through pipes directly into the bottling room. Then it passes over a cooler, which in two minutes lowers the temperature to 38 degrees F. This is the only time it comes in contact with the air. It then passes into a tank and is ready for the bottles.

The milk is all certified, the Guernsey milk selling for thirty cents a quart and the Holstein for 22½ cents.

The surplus milk is skimmed and made into cottage cheese which retails at forty cents a pound.

Recently the Hind—Clark dairy furnished a naval transport carrying 1,400 people with sufficient milk and cream to last until they reach Japan, a journey of ten or eleven days.

The crops are all raised on irrigated land. Any surplus of alfalfa is put into hay and held in reserve. Sorghum is made into ensilage. Five or six crops of sorghum are harvested before it is necessary to replant.

The dairy has its own ice plant. The milk is sent into the city on Dodge delivery cars.

The whole plant represents an investment of about $500,000. Last year the pay-roll, including work done in clearing land and other beginning work, approached $60,000. While the plant is not yet a year old, it is a commendable example of constructive work on the part of the owners.

These men did what other dairymen would do well to notice. They went to the head of the Queen's Hospital, Dr. Larsen, who had been active in a movement to secure pure milk, and asked for advice as to just what should be done to insure the production of sanitary milk. Dr. Larsen, who had been active in a movement to secure pure milk for the city of Honolulu, was well qualified to give such advice.

Also Senator Hind visited personally many good dairies in the States and put into practice the knowledge thereby obtained.

As a result, this dairy is not surpassed by any I have seen in the States and few, if any, can equal it. It is rapidly becoming one of the show places of the Island of Oahu and is visited daily by people not only from the States but from Australia and New Zealand.

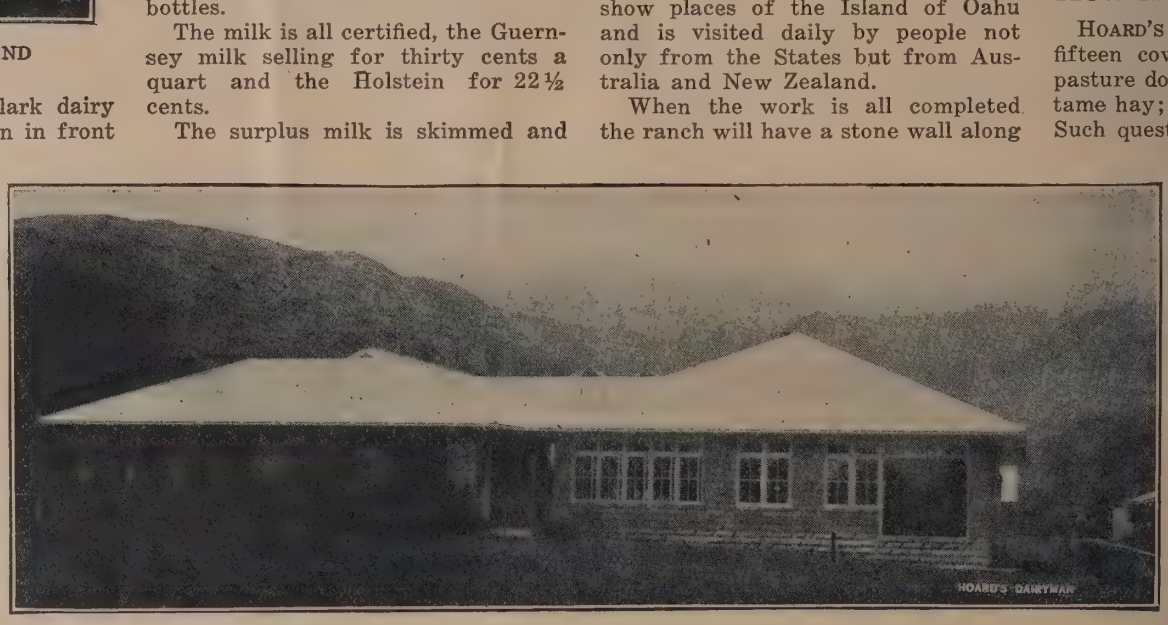
When the work is all completed the ranch will have a stone wall along the three-quarters of a mile on the road and the wall will be covered with the Huapala vine, whose y blossoms will typify the g Guernsey milk produced here.

The ranch, with its backgrou purple mountains over which clouds hang in ever changing c with its many fields of alfalfa sorghum and beautiful alg trees, already presents a sight v coming far to see.

We invite you and your reade come and see it.



OUTDOOR FEEDING PADDOCKS



THE CREAMERY IS AT THE LEFT AND THE MILKING STABLE AT THE RIGHT



THESE TWO SILOS HOLD 114 TONS EACH. ANOTHER UNDER CONSTRUCTION HOLDS 240 TONS



INTERIOR OF THE MILKING STABLE

How Many Acres Per C

HOARD'S DAIRYMAN:—"There fifteen cows in my herd, how pasture do I need; how many ac tame hay; how many acres of gr Such questions are frequently Summarizing the done at numerou periment stations, the rainfall is suffi the acreage needed cow is as follows:

Alfalfa—for h a to 1½ acres (o tons) per cow; clover—for pastur to 1 acre per cow; —for silage—1 acr 4 to 6 tons) per oats—for grain— ¾ acre (or 600 po per cow; barley grain—½ to ¾ ac 600 pounds) per co

Using these av figures, it is very e plant the required for the various Illinois.

O. A. HAN

FROM OUR FAMILY ALBUM

Snapshots of Hoard's Dairyman Subscribers in Wisconsin, Their Families, Fields, Flocks, Herds, Farm Activities



Chick, chick, chickens! Six daughters of D. J. Howell, Waukesha County Holstein breeder, have their hands full. Left to right: Lillian, 8; Margaret, 22; Helen, 13; May, 18; Marion, 16; Grace, 10. They have two brothers, Stewart and Harold.



George May believes in advertising. The cow is painted in colors on his general purpose truck. Once a butcher in Neillsville, now a progressive dairyman, he is building up a Guernsey milk trade in town. Study to win is his motto.



Even the calf reads Hoard's Dairyman; also, H. A. Kuhtz, Julia and Charles, right, and Merlyn Smart. Left —"Belted beauties;" right—prize Black Minorcas on the Kuhtz farm.

Mrs. George Koebler, Waukesha County, and three of her little ducklings.



More Waukesha County scenes. Left—Will Werning on the plow. Below—His young stock on pasture. Right—The H. E. Howell family; Delbert 17, Earl 9, Dorothy 12, mother and father. Below—Poultry house and flock of C. E. Fruit; also, Ethelda 6, and Lorraine 3.





August Buergi, prominent Barron County farmer at community picnic.



Mrs. Edwin Allen and Welcome Dorothy, Clark County, enjoy feeding the flock. "Poultry pays on the dairy farm," says Mrs. Allen.



Ferd Kopp cultivating his corn with the spring tooth harrow. This and other pictures below are Clark County scenes.



Frank Jahr, Clark County, seeding corn on virgin soil. Note the stone pile on the right and the forest in the background.



But for club work Lester Carteron would not be a farmer today. This fine herd of Holsteins is his reward.



Children and chickens on the H. D. Ralph farm. The two boys look like future farmers. They are H. D., Jr., 3½, and David Charles 1½.



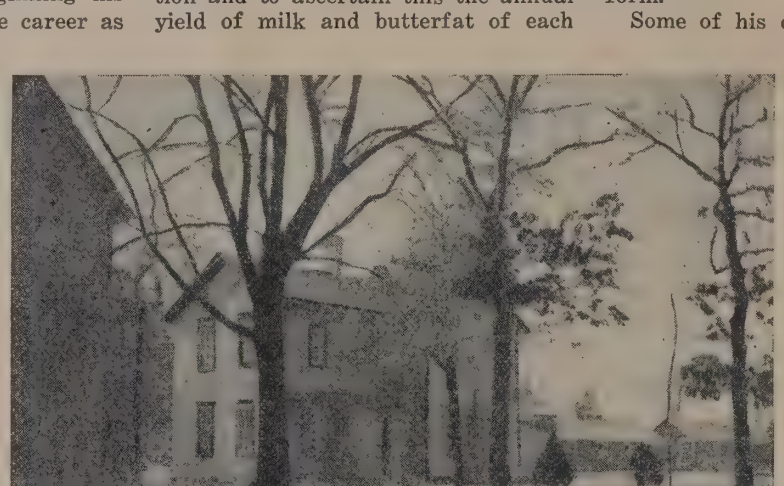
Elmer Buddenhagen keeps accounts and runs his farm on a business basis. Here he is feeding the pigs.

LIFE AND WORK OF T. L. HAECKER

No. 3

PROFESSOR Haecker was 45 years old when he joined the staff of the Minnesota College of Agriculture in 1891, beginning his memorable and remarkable career as a dairy investigator. Lincoln was still in his twenties when he began his political career. Many of our great leaders have launched their life work early. While Haecker began somewhat late in life on the work which was to bring him fame and to greatly stimulate the dairy industry, his whole previous training had really been pointed toward some such goal and helped materially in developing his investigational abilities as they were to be applied to the dairy industry.

Haecker's political affiliations as secretary to the governor continued over a period of 17 years, but in 1891 at the conclusion of Governor Hoard's term, this connection was abruptly cut off by the changing administration. He went directly to the dairy school at the University of Wisconsin, then just being organized, and enrolled in its first session. His buttermaking ability was soon recognized by the instructors and he was enlisted as a teacher. In the spring, a call came from the Minnesota College of Agriculture for a dairy specialist, and he accepted. He was given instructions to select and purchase a carload of cows for the Minnesota College herd. He did this, purchasing mostly Guernseys and Jerseys and rode with the cows to the college. Complete records were kept by Professor Haecker on all the cows in the college herd for 27 years from the time that the first carload of cows was unloaded.



The first dairy school in the world. In this building T. L. Haecker was a student and teacher with Dr. S. M. Babcock, H. B. Gurler, and W. A. Henry when the school was organized in 1891, at Madison, Wis. In the oval is a picture of Professor Haecker, at 45 years of age, when he entered the dairy school.

Publishes First Bulletin

Haecker's first bulletin describing his investigational work at Minnesota was published in October, 1894, and contained reports on the following subjects: Dairy Herd Record for 1893, Cost of Butter Production in Winter, Comparing Prairie Hay with Timothy, Rearing Dairy Calves, Cooperative Creameries, Experiments in Sweet Curd Cheese Work.

Professor Haecker appreciated that the problems of dairying were numerous, but he had the necessary foresight and judgment which enabled him to select those lines of investigation which were of greatest practical benefit and of the most pressing need.

He had a very definite purpose in keeping a complete dairy herd record for 1893. In his bulletin he wrote: "One of the most important factors in dairying is the cost of butter production and to ascertain this the annual yield of milk and butterfat of each cow in the University Farm herd and cost of feed for each was the chief object of this record."

That his records were accurate is shown by this statement, "It was the aim not to resort to any estimates in this work when it was possible to get actual results. Each milking was therefore weighed and recorded and a sample taken and tested by the Babcock test for per cent of fat."

Haecker was one of the first to study the relation between form and function in the dairy cow. He divided the cows into groups according to their general conformation, studied their records, and found that production was influenced by form.

Some of his observations and conclusions from 1895—1900 on the relation of form to function in the dairy cow were embraced in these statements:

"The productive capacity of a cow depends more upon type or conformation than upon size or breed. Those of the beef type produced butterfat at a feed cost of 17½ cents per pound; those carrying a medium amount of flesh produced butterfat at a cost of 15.1 cents per pound, and the spare cows having deep bodies produced butterfat at a cost of 12.1 cents per pound.

"During the five years of careful investigation in regard to the cost of production of butter between cows spare and angular in form and cows carrying considerable superfluous tissue and having an inherited or acquired disposition to convert feed into flesh, the records show that in every instance the cow that carried the least flesh charged the least for butter, and just insomuch as one cow was a little smoother and plumper than the other would, the butter product cost more than that of the other.

Spare Cow Beats Fleshy Co

"It should be borne in mind that the results are not made from ages where sometimes the fleshy produced butter at less cost but often at greater cost than the cow but are from accumulated mony showing not only that day, every week, every month during her entire lifetime, the cow is the better. That she shou so much better is almost incre strong and uniform as the evide

"The cows included in the groups ranked, with reference t amount of tissue they carried ar feed cost of producing a pou butter, as follows:

Ethel, grade Shorthorn
Ligetta, grade Shorthorn
Fairy, grade Shorthorn
Ida, grade Shorthorn
Lydia, Brown Swiss
Topsy, grade Holstein
Sweet Briar, Guernsey
Duchess, Jersey
Fortune, Jersey
Houston, Jersey-Guernsey

"The vital question that con every dairyman in the land is, shall the line between these co drawn? And before he makes th cision it will be well for him to t few things into consideration; the first and most important the ruling price of dairy pro Ten years ago, when the av price of butter was 26¼ cent pound, all of the cows would do itable service in a dairy. But prices are such that a net retu 15 cents per pound is the av that can be expected, he must closely the cost of production, margin between cost and return be so close that he will be forc the conclusion that 'dairying d pay.' *It follows then, that so f profits in the dairy are concerne more closely he restricts his he cows having the typical dairy the more certain and greate profits.*

"The second point to be consi is the length of time the dif types of cows will do service i dairy. Our records indicate tha cows having a flesh-growing her under liberal feeding, remain i dairy only a few years, whil spare cows do good ice to a ripe old ag

Advocates Single pose Cow

In 1894, though preliminary records available, Profe Haecker saw that s gle purpose dairy was the profit mak



THE DAIRY BARN AT THE MINNESOTA SCHOOL OF AGRICULTURE WHERE HAECKER CONDUCTED MANY OF HIS EARLY EXPERIMENTS IN FEEDING COWS. ETHEL, RIGHT, BEEF TYPE, AND HOUSTON, DAIRY TYPE, TWO COWS WHICH HAECKER USED IN HIS SINGLE VS. DUAL-PURPOSE EXPERIMENTS

dairy farmer. He observed that vs varied in their annual produc-n, but his convictions remained un-erved. "It will be found as the rec-s of this work accumulate that va-tions in yield of individual cows l occur from year to year just as is case in field crops; and so it may pen that in comparing the per-mances of cows of different types l breeds that now and then a good 's poor year will be compared h a poor cow's good year to the ap-ent disadvantage of the former; the adaptability of a certain style ow for dairy work has been as y and clearly demonstrated in ctical dairy husbandry as in ex-imental work."

s a graphic illustration of the re-on of form to function, he cited records of Ethel, of beef type, Houston, of dairy type. "The y one that fairly represents the rage cow on our western farms is el, though her yield of butter is h greater than statistics give as average yield of the cows in the st. Ethel was of the blocky type; hook points were well rounded; lders broad; cylindrical body; , loin, and back well padded with ; chest deep and flanks low, giv-her a level top and bottom line; hs full and when fresh she car-a fine udder and gave a good s of milk. She was greatly ad-ed by farmers visiting the station was frequently pointed out as the l farmer's cow.

Houston was of the extreme angu-type; her hook points were sharp; lders narrow; body flat or what ften termed slabsided; her ribs, , and back were free from flesh; t narrow and lacking in depth; ks cut up; body long; bottom line ave, giving her a 'pot bellied' ap-ance; thighs spare and rear line rving; very short from hook ts to pin bones; prominent rump spinal column; light neck; top dropping down from the withers; head rather heavy."

ouston, dairy type, produced but-at a cost of 3.5 to 4.9 cents a d during the winter while Ethel's luction cost was from 4 to 12.8 s a pound. There was little dif-nce in the weekly butter yield n the two cows were fresh. Hous-gave the largest yield for any one , 13.65 lbs. The week before be-turned out to pasture Houston 12.62 lbs. while Ethel only gave lbs. of butter following a steady ine in production.

Dairy Bred Cows Win

gain Haecker brought out that and production are closely asso-d when he wrote, "The impor-e of having stock intended for the y produced by dairy sires is forci-illustrated, where it is shown by al experiment with twenty-three , on a year's trial, that the dairy cows produced on an average 337 ds of butterfat at a feed cost of cents per pound, while the cows ng a tendency to convert feed in-eef on practically the same ration , on an average, only 267 pounds utterfat, costing 13.8 cents per d. There are, now and then, good y animals produced by sires be-ing to beef or general-purpose ds, but they are exceptional cases. great majority of the offspring be a failure in the dairy."

Studying Co-operation

e have already referred to ker's pioneer efforts in the field o-operative creameries. Soon af-coming to Minnesota, Professor ker was called upon to make a ey of creamery conditions in the Gopher State. His travels took him to all parts of the state. It was often necessary for him to walk from one creamery to another and he sometimes walked as far as 8 or 9 miles between creameries. Conditions were rather discouraging until he reached the Clark's Grove Creamery near Albert Lea, where he found the first co-operative creamery in the state. He investigated the organization and plans of the creamery. And then he went about the state preaching the gospel of co-operative creameries from "nail kegs and soap boxes" wherever he could find an audience.

From this experience he wrote in his report on co-operative creameries: "After a thorough canvass of the state it was found that about half of the vacant factories are in localities where there are not a sufficient number of cows; others failed because they were owned by individuals who did not pay enough for cream to make it an object for the farmers to patronize them. As a rule, the gathered cream plan, where old methods of setting milk were used, did not give satisfactory returns to farmers; but whenever separator creameries have been established on the co-operative plan, in localities where there are a sufficient number of cows within a radius of four miles, they have in every instance secured highly satisfactory results. Therefore, when considering the advisability of starting a creamery in any locality, the first thing to do is to ascertain if the required number of cows can be secured within a radius of four or five miles, which is about as far as milk can profitably be hauled. If less than four hundred cows are secured, we would advise that the project be dropped, as it is difficult to make it a success with less."

Today Minnesota is recognized as the leading state in co-operative butter manufacture and marketing. The early work of Haecker should receive no small measure of credit for this achievement. His vision, his preaching, his teaching, his untiring efforts brought results greater than even he anticipated.

(To be continued)

Multiply Your Man-Power By Seven

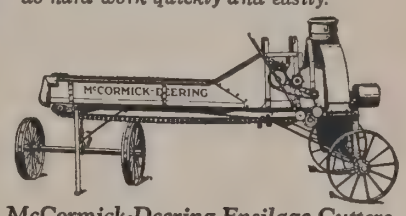
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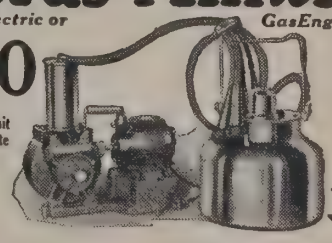
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JULY AND AUGUST are the dangerous months for the dairy herd. Hot weather, swarms of flies, dried and shortened pastures all combine to throw cows into a slump. And a slump in milk production now will cut your profits in the Fall.

At this season of the year your herd must have plenty of shade, plenty of water and a good grain ration to provide the necessary nutrients not furnished by midsummer pastures. A simple mixture containing

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National Belgian Show American Poultry Congress

Sept. 26 - Oct. 2, 1927

WATERLOO - IOWA

Minnesota Plays Even

HOARD'S DAIRYMAN:—I own 240 acres in Winona County, Southeastern Minnesota. There are 175 acres under cultivation and I rent 40 acres of adjoining land. I am milking 16 Holstein cows (half are pure-bred) that averaged 322 lbs. fat in the local cow testing association for 1926. I raise 80 Chester White hogs a year and keep 100 White Wyandotte chickens. Have 14 acres of alfalfa started that is doing fine, and had 30 loads of alfalfa hay from seven acres last year. Other hay consists of clover and timothy, with 15 acres of mammoth clover raised for seed. My grain consists of oats, barley, winter wheat, and rye, and some wheat and flax.

My farm account for last year is as follows:

Inventory	March 1, 1926	March 1, 1927
Land and buildings	$25,185	$25,160
Live stock	4,440	4,605
Feed and grain	1,535	1,350
Machinery	2,385	2,920
Total	$33,545	$34,035

Receipts	
Grain	$1424
Dairy cows and hogs sold	2347
Butterfat	1872
Eggs and poultry	121
Sundry	401
Total cash	$6165
Increased inventory	490
Family food from farm	350
House rent	480
	$7485

Expenses	
Feed	$ 511
Machine work, twine, and seed	351
Machinery and equipment	264
Hired help	999
½ of auto expense	184
½ of telephone	30
½ of electricity	40
Sundry	116
Rent (40 acres)	414
Taxes	390
Total cash	$3299
Board for help at $25 per month	500
Interest at 5 per cent on inventory	1677
Total expense	$5476
Labor income	2009
	$7485

During this same year my living expense was as follows:

Personal family expense	$ 573
Household expense	322
Groceries and meat purchased	527
Life insurance, charity, etc.	192
Fuel	111
Food from farm	300
House rent	480
Total living expense	$2505

From this living expense should be deducted the $500 charged as board for hired men, in the regular farm account, leaving our personal family living expense at $2,005. This would indicate that my labor income was just sufficient to meet our living expense.

Minnesota. S.

New World's Champion Guernsey

Charles W. Bosworth of Massachusetts bred and started on test the pure-bred cow, Bosworthfield Evelyn, in Class BBB (305-day record, milked twice daily, and carrying a calf for 230 days). When half way through her record, which was last September, he sold the cow to A. Heywood McAlpin of New Jersey, but kept the cow on her old home farm to complete the record.

She finished with the remarkable ten months' production of 11,006.4 lbs. of milk and 608.6 lbs. fat, or an average of over sixty pounds a month on twice daily milking, standing in the stanchion and running in pasture. —The American Guernsey Cattle Club.

A man too busy to take care of his health is like a mechanic too busy to take care of his tools.—Cicero.

yes Judge by Results

There's one best way to judge anything. That's by *results.*

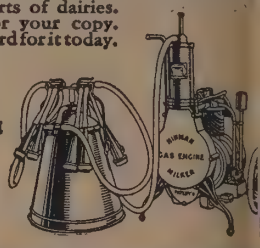
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The Hinman has had *nineteen years of unbroken success.* It was built around the *right* milking method at the start. Individual pump—*gradual* application of vacuum—complete release after each suction. Constantly improved and refined, it is today the *easiest* to clean, *better* for cows and most *economical* to operate. It is the *modern milker.* At the same time, you *know* it's the milker for practical, *continuous results.* Years have *proved* it so.

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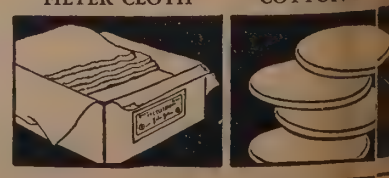
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Dirt
between the cou
and the pail

EXPERTS say that hairs, flying l of dirt, and microscopic partic that enter the milk stream betwe the cow and the pail are an import source of high bacteria count. J Johnson's Filter Cloth over your p *—and keep out this dirt!* Catch s more of these dirt particles by filt ing through Johnson's Filter Cl whenever you transfer your milk. A use Johnson's Discs when you str the milk into your shipping cans.

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Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

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ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Veterinary Bacteriology

A new book on the subject of veterinary bacteriology has come to our attention. It is the work of Raymond A. Kelser, Veterinary Corps, U. S. Army. So few books in English are available on this subject that the coming of a new one, complete and up-to-date, should interest those concerned with the technical aspect of bacteria in relation to the prevention and control of bacterial diseases of animals, as also those engaged in public health work where animal diseases are involved. The book is too technical for laymen, but will be found helpful and interesting to students and practitioners. The price of the book is $5.50 postpaid. Copies may be secured from Hoard's Dairyman Book Department.

Uncle Ab says a smile is one thing that is about as blessed to give as to receive.

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., July 25—That successful aviators drink milk is not a coincidence which just happened to happen in the Lindbergh case, according to the further information which has been developed here since the successful trio of trans-Atlantic flights. All three airship commanders who landed safely in Europe use milk as their favorite beverages, if apparently bona fide interviews with them are to be believed.

The day following the arrival of Commander Byrd and his two assistants at their coast of France landing place, the newspaper cables flashed the message that his first request when he was taken to the home of the Mayor of Sur-le-Mer, was for a glass of milk. Lindbergh asked for a bottle of milk and a bath. A clever young lady assistant in the office of Dr. C. W. Larson, Chief of the Bureau of Dairy Industry, when she saw the Byrd story remarked that he did not need the bath. He landed in the English channel, it will be remembered.

The invitation from the dairy industry of Great Britain to participate in the World Dairy Congress next year in London has now been amplified by an invitation which has been received by the machinery and supply trade in this country to participate also in the special dairy exhibit which is to be set up by the British dairy folks in connection with the Royal Agricultural Exposition at Nottingham, England. This exposition is convenient of access from London, it is stated, and will be held during the week immediately following the official sessions of the Congress. Plans for the building and application blanks and full information have been received by the American Dairy Machinery and Supplies Association in New York.

The work which Dr. Dorset of the B. A. I. research staff has been doing in studying the composition of tuberculin, and which has been referred to informally in this correspondence, is now published in full in the current issue of the Journal of the American Veterinary Medical Association. As indicated, he has found that it consists of a lethal principle, capable of killing the guinea pigs used to test its strength, and another principle which reacts on the skin. It has been formerly tested as if composed of one principle only. Dr. Dorset indicates that the work has not proceeded far enough to reach definite conclusions, but indicates that greater testing efficiency may result from further successful work which will enable veterinarians to use a tuberculin which will have all possibilities of uncertainty eliminated.

Little prospective influence of the corn borer on the dairy industry is seen by the experts from the U. S. Department of Agriculture who attended the corn borer round-up meeting in Toledo, Ohio, last week. One of the sessions held at Toledo was taken part in by all of the live stock men present from Washington and the six states now afflicted with this pest. Their recommendations were along the line of using the corn shredder and the silo to kill the borers, and asking for information as to the additional cost of this method of handling cornstalks over field feeding, or using the stover as dry feed. It was not expected that the corn borer could be eliminated, it is reported, and it was felt that in cases of severe damage it might affect hog raising and induce greater keeping of cattle. For the immediate present, however, there was not thought to be serious danger of changing corn belt farm practice. Drs. Mohler of the Bureau of Animal Industry, Ball of Cereal Investigations, and Larson of the Bureau of Dairy Industry were among those in attendance.

Blanks for the nation wide survey of city ordinances concerning testing of cattle to insure T. B. free milk supply are going out this week. The U. S. Public Health Service will report on all cities above 10,000 population, while the state and county veterinarians will report as closely as possible on all municipalities below that figure. The results will be of value in measuring the public demand for T. B. tested milk.



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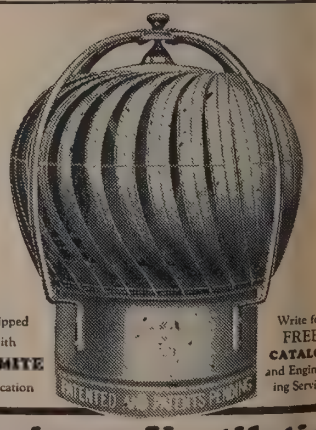
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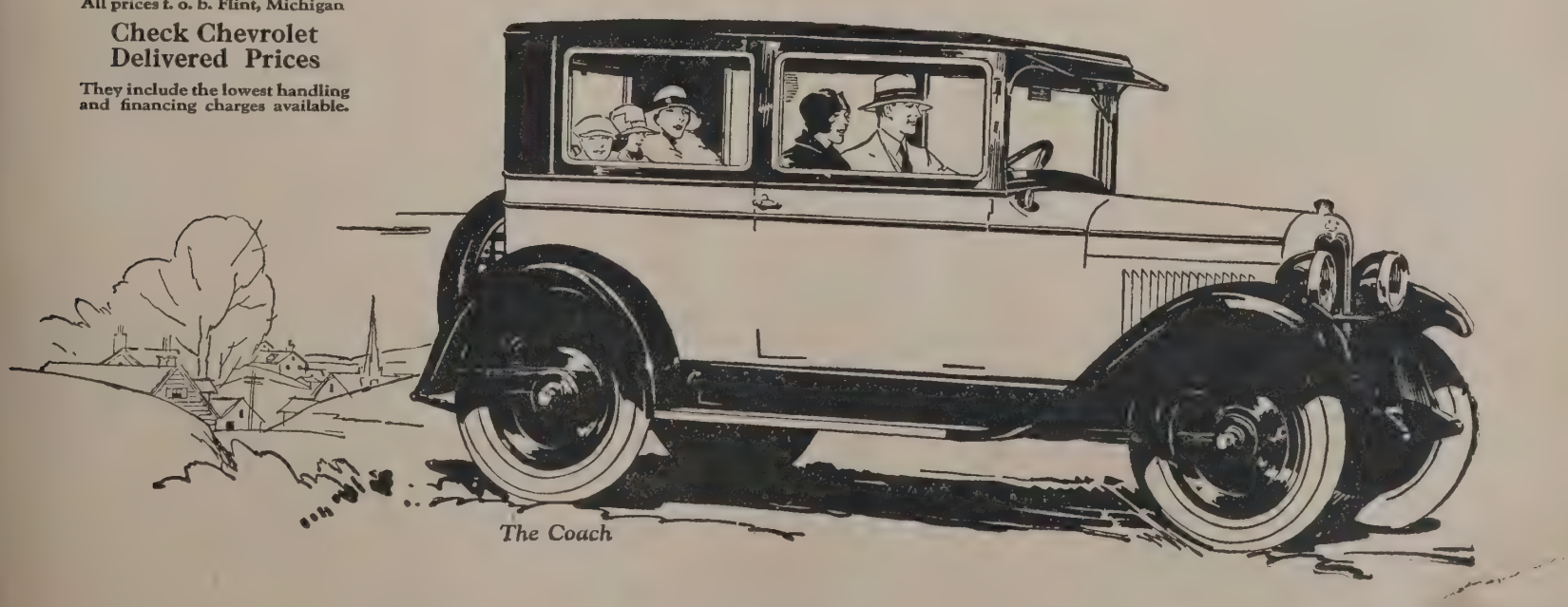
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U A L I T Y A T L O W C O S T

EDITORIAL COMMENT



TUBERCULIN TEST NOW

The New York Legislature enacted a law which authorizes competent veterinarians to tuberculin test dairy cows whose milk is marketed in liquid form or manufactured into butter, cheese, condensed milk, etc., and also to make physical examinations of these cows. The commissioner of agriculture has the power of ordering reacting animals or animals carrying communicable diseases to man or other animals, to be slaughtered or disposed of in such other manner as he may direct.

A law of this character is but a natural step in the trend of affairs for more wholesome dairy products. It will do much to get the owners of cattle to exercise more care in keeping their herds free from disease. The time is coming when the state and federal governments will not be as liberal as at present with indemnities to reimburse the farmer who loses cattle from tuberculosis. It is well for those who have not tuberculin tested their cattle to bear this in mind. Consumers are making larger demands as to the source of their milk supply and they are willing to pay a better price for it.

PROVEN SIRES

Because breeders do not fully comprehend the value of a proven sire, breeding is placed under a severe handicap. We are making progress in the development of better dairy cattle but not as much as we should. We should prove our bulls and then give those of outstanding breeding merit an opportunity to be used on a large number of cows. Nine-tenths of the bulls that have been able to increase production have gone to the butcher before they were discovered. This would not be the case if every owner of a pure-bred bull comprehended the meaning of a good bull and especially one that has shown himself able to get daughters superior to their dams.

According to cow testing association records, one-third of the pure-bred sires are lowering the production of their daughters in comparison with their dams. About one-third raise the production slightly, but the great increases are coming from only one-third of the pure-bred sires. In other words, we are only making progress about one-third as fast as it is possible to make it.

In a Wisconsin cow testing report our attention is called to a pure-bred bull whose first three daughters at two years of age produced, respectively, 484, 435.7, 407.4 lbs. of fat in a year; all were kept under herd conditions and not forced in any way to make unusual records. When their talent was discovered, the sire was immediately sought and it was found that some months before he had been sent to the butcher. If an ordinary, well bred bull is worth $250 to $300, a bull of this kind, handled in the right way, is worth at least many times this amount.

WHAT CO-OPERATIVES CANNOT DO

Writing on the subject of the possibilities and limitations of co-operative marketing, H. E. Erdman of the University of California has boldly pointed out some things about the limitations of co-operative marketing that should be learned by everyone who desires to lend his assistance to this great movement in the distribution of farm commodities.

He says of the limitations of co-operative marketing that no farmers' organization can fix the price at which the product is to be sold and sell all its product unless that price also suits the consumer. It must be remembered that there is probably no farm product of which the supply will not increase if a price is obtained that makes production unusually profitable as compared with other lines of farming.

A second fallacy frequently proposed by proponents of co-operative marketing is that middlemen will be eliminated. What frequently appears to be the elimination of middlemen is merely the replacing of a private business with a co-operative unit. Mr. Erdman says that no large organization has thus far eliminated any of the important steps in the marketing process. Many have brought several steps under one control but this has not always resulted in lower costs. Often it has meant better service, greater control over distribution, etc., so that in the end there has been a net gain.

It is often assumed that co-operative associations can do business more cheaply than can private agencies because it is expected to eliminate profits. To this, Mr. Erdman says that the important thing that is overlooked by those who hold this view, is the fact that profits in our competitive system arise out of the very fact that costs of operation have already been cut by those concerns which are making profits.

In addition to the above three definite limitations it is pointed out that there are a number of inherent weaknesses in co-operation which must be overcome by capable management if co-operative marketing is to be genuinely successful. These weaknesses are: (1) It is difficult for management and membership to keep in harmony. (2) Members become careless as co-operative citizens. (3) There is often a tendency towards extravagance. (4) Outsiders sometimes get higher prices than members. (5) Members of a new organization often expect too much.

WISCONSIN GRADED MILK

By the time this appears in print, the Wisconsin Department of Markets will have perfected the details of a plan for grading and trade-marking milk produced and marketed according to standards it established. It has adopted the standards prescribed by the United States Public Health Service for Grade A milk, both raw and pasteurized. No other grade of milk is provided for.

This plan was first initiated as a means of meeting the needs of local cities for milk grading, and several grades were originally provided. As the plan has eventually worked out, this condition will be left largely to the adoption of ordinances in the several cities throughout the state. A campaign for the adoption of the standard milk ordinance of the United States Public Health Service will be inaugurated in Wisconsin next September.

The right to sell milk under the trade-mark of "Wisconsin Grade A" will be granted to individuals or corporations that agree to supply the proper inspection and submit to the supervision of the Department of Markets. The local inspectors will be employees of the local concern, but their work must be approved by the inspector employed by the Department of Markets. While this system may be employed for local sales, it is now anticipated that it will most largely be used as a means of effecting out-of-state shipment of milk and cream to sections that will accept the grading and supervision as provided by the Wisconsin state authority.

It is reported that several eastern cities have signified interest in this proposal and will be willing to accept milk graded under specifications proposed. One large distributor already has a plant in Wisconsin that it desires to bring under this grading plan as soon as it is available. Several eastern cities are said to be suffering from a milk shortage, and milk and cream is being bootlegged into these communities that is not up to a reasonable standard of quality. If the proposed grading plan succeeds, it should obviate the necessity for this practice and remove some of the temptation to follow it.

FARM PEASANTRY

We do not entertain the fear, as some do, t we are generally drifting to farm peasantry. recognize we have farm problems difficult to s and we see opportunity for much improvement the necessity of establishing a different relat ship between agriculture and other industr Three outstanding factors in our country will vent the development of farm peasantry: first factor is the schools. Our farms are o pied by an intelligent and educated people standards of living and a desire for things w alone will prevent farm peasantry.

The second agency to prevent a decline in a culture is machinery. Through its use the Am can farmer has become the most efficient far in the world. One cause of our agricultural pression may be attributed to the increased ciency of the farmer made possible by impro machinery. Machinery takes the drudgery ou farm work and makes it a more pleasant occ tion. People trained in the use of machinery never become peasants.

The third factor working against a farm peas ry is the opportunity for people to change f one job to another. We have no castes in Ame A farm-reared boy has the opportunity to cha to innumerable positions. He may become a tor or a lawyer; he may engage in manufactu or in one of the various other professions numerous to mention. If our farm popula were bound to the soil as it was in the tw century, then we might entertain some fea farmers becoming peasants. Education, ma ery, and the interchange of jobs are the outst ing factors against a permanent decline in agr ture and the production of a farm peasantry. fact is, we are doing a better job of farming t than at any time in the period of our history. great work before us is to get the industr farming in proper relationship to other indust

GOOD ROADS

The more we have the more exacting we are the greater become our demands. Only a years ago this nation began to give serious sideration to building roads. A road was co ered good up to this time if it were passable greater part of the year. The advent of the a mobile had led people to demand the best h ways the world has ever known and if they not good at all seasons of the year, serious plaint is entered against the officials respon for our splendid road system. When the a mobile came into use, the motorist was sati to travel 15 or 20 miles an hour and any one traveled faster than this was a speed king was flirting with death. We now travel 40 m an hour and if the roads do not permit thi grow impatient.

A news letter put out by the Minnesota Hig way Department calls attention to the bad co tions of unpaved roads during the spring mo This department spent $224,000 for wage maintenance men last March compared to $9 March, 1926, and still the roads were poor unsatisfactory to those who used them. a spring was hard on many roads and it was im sible to keep them in shape, no matter how m work was done. The motorist, however, was patient and letters, newspapers, and commen ceived by the Minnesota Highway Departmen dicate that some people thought the maintenan men were not on the job this spring.

Such a state of mind clearly shows that ten is a uniform demand for good roads at all sea of the year. To build and maintain the kin road the motorist demands requires the expe ture of millions of dollars and it is our belief h those who use the roads most should maket largest contribution for building and maintain them. The gasoline tax is the ideal tax for h purpose. It makes the users of the roads pa for them, and what could be more equitable?

Whipping Cream

What should cream test to whip good? At what nperature should it be held?
Parson, Wyo. J. E.

There are three factors which are important in ipping cream. These are the richness, the age, l the temperature of the cream.

Cream testing approximately 25% fat will whip re easily than that which is less rich, but under st conditions it is felt safest to recommend am testing not less than 30%.

Cream ordinarily should be 24 hours to 48 rs old in order to whip properly. The whipping ality is improved by age up to the point where our taste is developed, but at 72 hours a maxim whip is usually obtained.

Not only should cream be sufficiently rich and iciently old, but it should be held at as low a nperature as possible, and the bowl and whipg utensil should be kept cold. Frequently cream t will not otherwise whip will do so if care is rcised to cool the beater and the bowl before ning in the cold cream.

Raw cream excels pasteurized cream in whipg qualities, particularly with cream that tests % or less.

Sugar, when added in amounts sufficient to eten, decreases the quality of the whip regardof whether added before or after whipping. voring extract added only in sufficient quanti to flavor does not affect the whipping quality the cream.

Viscogen, when properly used, increases the pping quality of either raw or pasteurized am and does not affect its flavor. It should not used, however, in cream which is intended for without first consulting local, state, and fedlaws in regard to its use and labeling. Viscois made by combining 2½ parts by weight cane sugar with 5 parts of water, while one of quick lime is slacked in three parts of wa-

These solutions are then thoroughly mixed allowed to stand for several hours. The result- clear liquid is then poured off into a tightly pered bottle and is added in requisite amounts he cream to be whipped. Care must be exerd not to use too much of the solution, as it give an off-flavor to the whipped cream. A mercial product of this character is on the ket under various trade names and is sold ugh many grocery stores.

hose desiring more complete information on subject should apply to the United States Dement of Agriculture, Washington, D. C., for etin No. 1075, entitled "The Whipping Quality Cream."

How to Make Bordeaux Mixture

E. Vaughan, Wisconsin College of Agricul-, gives the following information concerning leaux mixture:

ordeaux mixture is a standard fungicide for preventon of many plant diseases, such as poblight, grape black rot, and mildew. When ied under high pressure, Bordeaux makes a film over the leaf or fruit surface to be proed and kills the fungus growth as soon as it s Flea beetles and leaf hoppers are also red by Bordeaux mixture.

making up small amounts of Bordeaux for en use proceed as follows: Slake four ounces igh grade stone lime and dilute to about two ns, or take six ounces hydrated lime or limate make into a thin paste and dilute to two ns and strain into the sprayer; dissolve four es copper sulphate in a pint of hot water in o quart glass jar, dilute to two quarts, strain the dilute milk of lime solution and stir vigory. It is ready for use at once or may be kept some time by adding one-half ounce white r dissolved in a cup of water.

st Bordeaux before using to prevent injury to r foliage. This is done by putting a polished blade into the solution. If no copper is deed the spray is safe. A better test is to se a one or two-ounce bottle of ten per cent poum ferrocyanide solution and allow a drop or to fall on the mixture. If it remains yellow, spray is safe. If the knife blade turns copper ed or the ferrocyanide turns brown, add more to react with the copper sulphate to prevent y.

spraying several acres of potatoes it is customto make Bordeaux mixture in barrel or 100 n lots. In the case of barrel lots where hyd lime or limate is used proceed as follows: ssolve the copper sulphate at the rate of one d to one gallon of water in any wooden keg or barrel, using four pounds of copper sulphate for each barrel lot of spray desired. This should be done long enough before spraying so that the crystals will have gone into solution. The easiest way is to suspend the crystals in a flour sack touching the top of the water the night before the spray is needed. A gunny sack may be used if it is clean and free from lint. Start water running into the sprayer, take six pounds of hydrated lime or limate, mix with water to make a thin paste and pour into the sprayer through a strainer. Stop water running into the barrel when it is about nine-tenths full and stir thoroughly while adding four gallons of the stock solution of copper sulphate through a strainer. This stirring or pumping the mixture into itself, while adding the copper sulphate, is highly desirable in making an efficient Bordeaux. Fill the barrel with water or an arsenical solution if insects are present.

This method of mixing does away with the elevated mixing platforms formerly recommended and is the method now used by most of the large fruit growers. Straining the solutions that go into the sprayer prevents the entrance of coarse particles that would clog the spray nozzles.

Satisfactory commercial preparations of Bordeaux are on the market either with or without an arsenical added. They cost somewhat more than home-made Bordeaux but are not as much bother to prepare. When only a few gallons of spray are needed the commercial mixtures are preferred if they can be obtained when fresh.

Examine the spray outfit before starting. Make sure that connections are tight, that working parts are well greased and have discs renewed if necessary. It is impossible to get good results when the equipment is out of adjustment.

Partition in Silo

Some time ago I read in Hoard's Dairyman an article or discussion on the advisability of dividing a large silo in two to accommodate a small herd of cows. We now are in need of information on this subject. Our barns burned down a month ago and if we rebuild it will have to be on a smaller scale.

The silo is a 14-ft. hollow tile. Do you recommend dividing a silo and can you give us any definite information on how to do it.
Baldwinsville, N. Y. L. J. J.

The building of a partition through a silo can not be recommended, although we have had a few reports indicating success with this method. The difficulty with a partition is that the silage is inclined to settle unevenly, which results in considerable spoilage even if the attempt is made to round the corners. The worst feature, however, is the difficulty of building a partition sufficiently strong to withstand the outward pressure of the ensiled material. This may be overcome in part if each side of the silo is filled at the same time. It is possible that a reinforced concrete partition properly anchored into the side walls of the present silo may withstand this pressure but this would prove a rather expensive undertaking and we can not advise it in the light of the reported experience with spoiled silage.

There have been several methods suggested for handling silage to keep it from spoiling where relatively few head of stock are being fed. One of these is to feed down one-half of the diameter of the silo for a week or more and then clean off what is spoiled on the other half and feed this down, alternating in this manner from side to side. There is some spoilage in this manner of handling but it can be partly obviated by covering the unused half with tar paper, canvas, feed sacks, wheat straw, or other material that will exclude the air. If paper or canvas is used it will be necessary to put weight, such as spoiled silage or something that will hold it down tightly to the surface, to exclude the air.

One of our readers reports success by first feeding from the front of the silo down two or three feet, then throwing the spoiled silage from the back half over the good silage in front and tramping it down thoroughly, wetting if necessary to make it pack. Then feed the back down until it is two or three feet lower than the front. Then throw back the same spoiled silage and keep on with this practice until the silo is empty. He reports that this reduces spoilage to a minimum.

Other men have used a system of taking off alternate halves of the silage every other day, keeping the unused half covered as under the previous plan. Some of our readers have reported satisfactory results by sprinkling two or three pails of water over the silage after taking off one feeding. This seems to help if care has been exercised in not loosening up the silage left in the silo after taking off the layer for feeding purposes.

Using Hay Caps

A couple of years ago I made a purchase of some army pup tents expecting to use them as covers for alfalfa cocked hay. I am a little uncertain as to whether you weight the corners with the weights to keep the covers from blowing off or whether you anchor them in the ground with steel wire stakes or something of that kind.

How near cured do you allow the alfalfa to become before you cock it up?
La Porte, Ind. G. L. M.

Hay caps are ordinarily made from forty inches to forty-eight inches square. The most usual system is to attach the weights to the caps by means of a string, using either binder twine or some other heavy cord. In some cases wire is used for attaching these weights and eyelets inserted in each corner of the cap. Light galvanized wire is cut into 10-inch lengths with a hook on either end. Sometimes one end of the wire is inserted into the cement weight when made and the weights are then merely attached to the cap through the eyelets when the cock is being covered and taken off when the cap is removed.

Cement weights are made in a variety of sizes using a mixture of fine screened sand and cement in the proportion of three to one. The weights should be about eight ounces, which will mean a cement ball some two or two and a quarter inches in diameter. The weights may be molded by the use of small paper sacks or by using a piece of wood about two and a half inches in diameter with one end rounded like a potato masher. Drive this into the ground about two and a half inches and the resulting hole makes a good mold. Other men have suggested the use of eaves trough, partitioning it off with shingles set in at the proper distance so as to make the weights of from eight to twelve ounces. One convenient method of attaching either strings or wire to the cement weight is to bend over the ends of a common wire staple and insert into the cement mixture before it hardens.

Some men have used wire stakes and report excellent success with this method. No. 9 galvanized iron wire is cut into 10-inch lengths and bent into the shape of a fish hook at one end and with an eyelet at the other. The eyelet is fastened to a corner of the cap with a piece of twine. When the hay is cocked the cap is thrown over the top and each corner of the cock is lifted with the left hand and the hook in the corner is caught underneath. The operation is repeated with each corner of the cap and in this way the cap is not only held on but the hay is held so that just a small portion of it lies directly on the ground. Another reader reports the use of No. 12 galvanized wire cut in 9-inch lengths, and it would seem that the heavier wire would be preferable. It is plain that the use of this method of attaching the hay cap does away with the difficulty of tangled strings that result when the weights are attached with cord. However, when cord is used, a good deal of this difficulty can be avoided by exercising care in picking up the hay cap weights, putting them in the center of the cap, and then lifting and putting it away by taking up each corner of the cap.

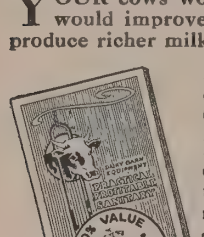
Up until the last two years we have used hay caps exclusively on the Hoard's Dairyman farm and we believe they are a very desirable thing. However, the increasing amount of labor required to take care of the alfalfa hay together with the competing cultivation of corn, have lead us to adopt the use of the side-delivery rake and the windrow hay loader. This expedites the handling of the crop and we secure a good quality of hay. Possibly the hay is not of quite as high grade as when cured under caps, but is more economical.

When alfalfa or clover is cured by the cap method, it is a general rule to cut it in the morning, allowing the hay to stand in the swath until it is well wilted and then late the same day or the following day the hay is raked up, put into cocks of from 80 to 100 pounds, and immediately capped. The hay is allowed to cure in cocks for two or more days depending on the kind of weather that may obtain. If rains intervene, it will be necessary to move these hay cocks every four or six days to prevent the smothering out of the alfalfa plants beneath. Before loading, the cocks are spread open or merely turned over on the side to permit drying out of the interior. The length of time the hay is to lie in the swath will depend to a considerable degree upon the dryness of the weather that may or may not obtain.

NEY

If your cows could talk—

YOUR cows would tell you that modern sanitary dairy barn equipment would improve their health and make them happier. Enable them to produce richer milk—and make more profits for you.



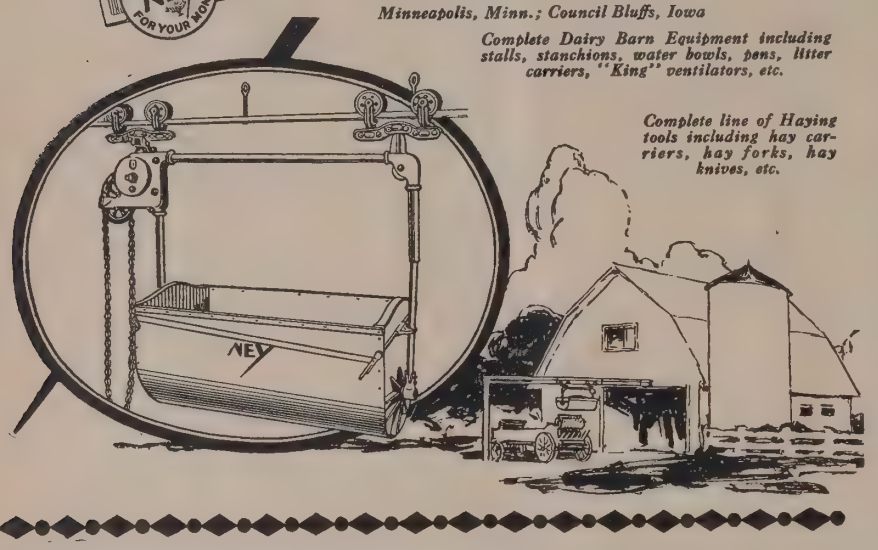
Ney Litter Carriers eliminate all the back-breaking drudgery in keeping the dairy barn clean and sanitary. Cut in half the time and labor spent doing barn chores.

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Complete line of Haying tools including hay carriers, hay forks, hay knives, etc.



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Don't Miss "The Fair of Fairs!"

Mention Hoard's Dairyman to Your Dealer — It Helps Us

What Co-operation Must B

JOHN A. COMMONS, WISCONSIN

WHAT dairy co-operation must be in this modern day has just been stated in Chicago. Officers, members, students, and statisticians of co-operative associations came from 39 states and from many foreign lands to pool their experiences, their problems, and their solutions. The American Institute of Co-operation, farmer supported and farmer controlled, provided place and program during its dairy products week. The papers, the floor discussions, the conferences, and the conclusions of long practical experience and of accurate scientific study, portray the lines of successful progress and hopeful promise of meeting the large problems of the dairy farmer.

In the space available here it is impossible to do justice to the significance of the meetings or full appreciation of the eminent contributions given by men known throughout the dairy marketing world. The inclusion of McGuire of Land O' Lakes, Swoboda of Wisconsin's Cheese Federation, Heaps, Hough, Pattee, Eastlack, and others from the successful fluid milk associations of the East, Miller of the Dairymen's League, Beach of the Michigan Producers, and Lynch of the Illinois Agricultural Association, vouches for the representation of real co-operative leaders. Schoenfeld, Jones, McKay, Larson, and Tenny of the Department of Agriculture are names that indicate to those who know their work the scientific accuracy of the data considered and the conclusions reached. Erdman, Horner, Bakken, King, and Stitts, from universities of California, Michigan, Wisconsin, Pennsylvania, and Minnesota contributed the work of educational institutions upon the problems. Woolman, of the largest Philadelphia dealer company; King, of the London Office of the Australian Butter Control Board; Thompsen, of the Springfield Intermediate Credit Bank, and many state and federal marketing officials gave the picture of foreign and domestic relations of dairy co-operation to governmental regulation and legal limitations. The joint and collective conclusions of this group are authoritative. Probably never has there been so large a voluntary gathering of those who are working for the dairy co-operation movement to succeed. Never have the accomplishments, the troubles, and the proper lines of future progress been so thoroughly, frankly, and authoritatively considered in the dairy world.

The keynote of the week's discussion was that large memberships, large volumes, high quality product, and low per unit costs are not enough for successful co-operation. Policy and outlook must expand, as well as size and scope. However large the farmers' association, it cannot long force distributors and consumers to do what they do not want to do. Co-operation must be not only between members, but between producers, distributors, and consumers. All must be gotten together in their common interests. Their differences are insignificant. The market is not a place to fight, but is a place to co-operate with everyone concerned.

Concrete illustration is in the success of the eastern fluid milk associations. Getting together with dealers and representatives of the public has resulted in equalized production and consumption, stabilized price, lower spread between farm and retail price, and raising of farm price without disturbance of retail price.

The same applies to markets for other products. Of all dairy kets, the fluid market can be trolled by associations in greate gree. If it won't work in a milk market, it is suicide in the keting of another product. This not mean form of organization tivity in selling. What suits one ket or one product may or ma suit another market or another uct. Identical plans are not for fluid milk and manufac products. This needs no emphasis throughout the whole dairy ma ing field the policy of consci considering, respecting, and bett the interests of all parties to the ket is nowadays essential to su

Another supreme note of the ings was the laying to eternal re the bogey of surplus. The fluid associations fear a shortage than a surplus. Stabilization of ket conditions requires daily s sufficient to meet fluctuating mands. If lacking, consumers, th dealers, go beyond the bound of the co-operative to the dow of the association. The daily plus and the seasonal surplus c handled in other ways.

In the field of manufactured products, co-operative associ leaders find the same thing. The plus problem is one of utilizin markets for the many manufac products. Its solution is the ga ing of market information, its ca interpretation from day to day the organization and equipme the association to allow not on version of one product from m to market as each appears to more or less permanent advan but to shift from product to pr with equal facility. For this dination of manufacturing and keting effort there is required th cilities and the highly skilled ma ment possible only to large orga tions.

In general the attendants a dairy week felt that the structu the organization was not of sup importance, as long as it al ready and adequate finance, sentative directorship, and auth tive and responsible manage They deprecated attempts by organizations to rapidly assum market functions. They showed clusively their belief that the trouble with the marketing s was the irregularity with products were supplied for sale. ularization of this flow in each ket, between markets, and bet products is the province of the erative association, the desire dealer, and the need of the con er.

The general stress of the mee as far as human participation operative marketing is conce was on management. Proper or zation is worthless without lent management. Operation and activities are wasteful wi direction and, what is of supren portance, control by efficient, ness trained management. So o plex are the interrelations o modern market systems that high fection of market training is tial if improvement in marketi to come from co-operation. Th provement is the goal, is in the of these co-operators who met in cago.

It was not in generalities that the conferences were conce Space permits no excursion int fine discussions of detailed pro of every phase of dairy produc

(Continued on page 784)

Of Champion Ancestry



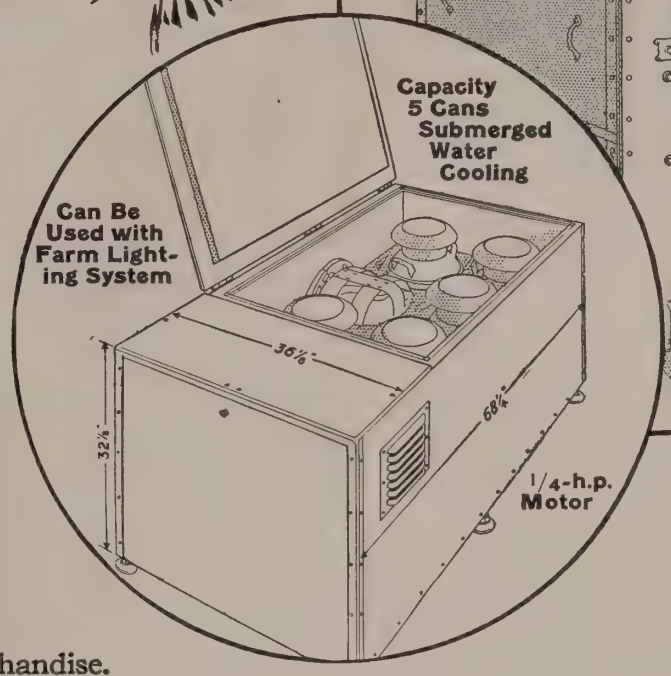
Nizer-Kelvinator Electric Milk Coolers Save Time Save Money Save Labor

elvinator pioneered the first suc-ssful system of electric refrigera-n. It has a record of twelve years successes in thousands upon ousands of homes, and its name favorably known to every house-fe. Nizer pioneered the electric binet for ice cream and has led in ery practical development in the eservation of this perishable merchandise.

zer-Kelvinator Electric Milk Coolers are champion ancestry. The brain child of e foremost engineers in electric refrigera-n! You can depend on them to be prac-al savers of time, money and labor. No re troublesome ice harvesting. No ex-nsive ice houses. Save worry. Save rejec-ns on receiving station platforms.

Proved Practical

zer-Kelvinator Electric Milk Coolers have been ted under the most rigid dairy farm conditions. fore offering them to you, they have been proved ctical, economical and efficient.

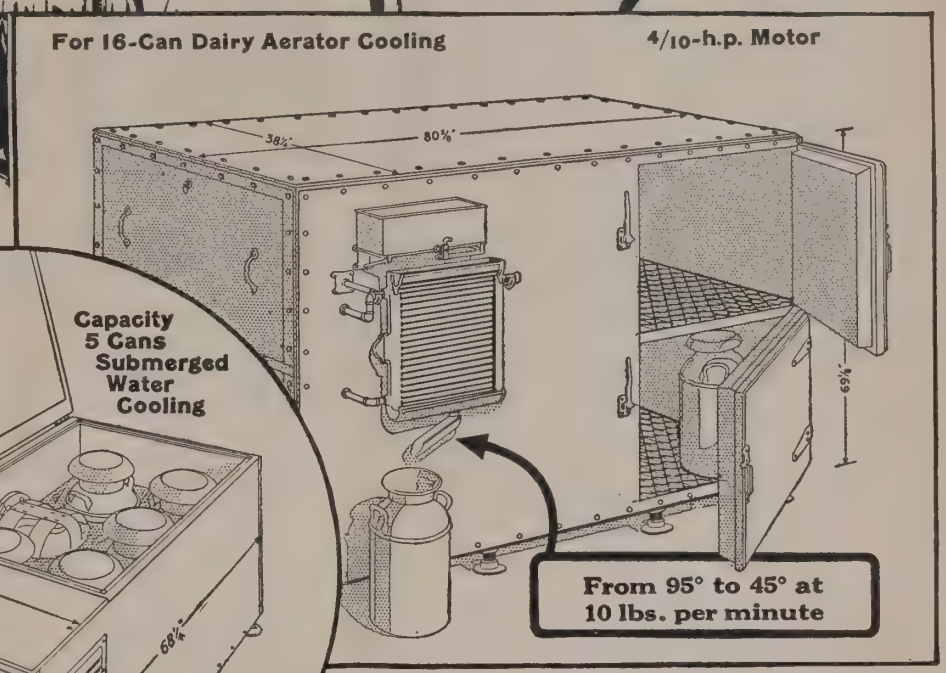


2 Sizes, 2 Types

There are two sizes and two types—the aerator cooler for dairies up to 16-can production and the submersion type for dairies with a production up to 5 cans. Each is ruggedly built to stand up under farm use for years. Economical to operate.

Ask Your Milk Dealer

Your milk dealer will be glad to tell you about Nizer-Kelvinator Electric Milk Coolers. You can obtain them direct through him or through most Kelvinator Dealers. Or, if you prefer, write direct to the nearest Nizer branch for a folder, fully descriptive of each cooler.



Your chance to get $500.00 free for a name

Nizer-Kelvinator will pay $500.00 in gold for an appropriate name. It must be a good name—a real dairy farm name that any dairy farmer would recognize as describing practical electric dairy coolers.

Beautiful Kelvinator for Second Prize

The famous "Sealtite" Cabinet Kelvinator Model 272—gray, steel-clad, white enamel lined, two inches corkboard insulation. Equipped with the first successful domestic electric refrigeration. Just the thing for the farm kitchen. Ample food storage space, light, clean. Gives "cold that keeps" without attention. Sells for $210.00 ordinarily and is the outstanding household value in electric refrigeration today.

Write for a Descriptive Folder

The name you submit will have a better chance if you know all you can about Nizer-Kelvinator Electric Milk Coolers. Send for a folder today. Clip the coupon and send in your name. You can send in as many as you wish. No restrictions except that you are in some way connected with a dairy farm and fill in the coupon.

A fair and square contest, judged by men you know: Harry A. Sieck, General Salesmanager of Nizer and Vice-President of Kelvinator, Inc.; W. A. Schreyer, Business Manager of Dairymen's League News; W. C. D'Arcy, D'Arcy Advertising Company, and Gordon Muir, Advertising Manager of Nizer.

All names must be in the offices of Nizer Division, Electric Refrigeration Corporation, Detroit, Michigan, by noon Monday, August 15th. The names of the winners will be published in this publication by September 15th.



NIZER Kelvinator

REG. U. S. PATENT OFFICE

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Sold to or through Milk Dealers by Nizer Division, Electric Refrigeration Corporation, also by most Kelvinator Dealers, and in Canada by Kelvinator of Canada, Ltd., London, Ont.

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Consult this Expert on Milk Cooling

Nizer-Kelvinator offers free of charge the counsel and advice of one of the foremost dairy authorities in the country, to dairy farmers who have questions on milk cooling. Harry A. Sieck, formerly Chief Engineer of the Dairymen's League, Dairy Engineer and Consultant of note, and now General Salesmanager of Nizer and Vice-President of Kelvinator, Inc., will be glad to help you. Merely write to Harry A. Sieck, Nizer Division, Electric Refrigeration Corporation, Detroit, Michigan.

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Nizer Division, Electric Refrigeration Corp., 14210 Plymouth Road, Detroit, Michigan

Gentlemen: I submit the following name for your Electric Milk Coolers.....

Following the rules of your contest, I have answered the following questions correctly:

Name.....Address.....

Size of dairy herd.....Name of Milk Company I sell to.....



Neighborly Notes

'Twas picnicking time again and for several weeks the children had been begging for a picnic, a real, true picnic. And now father had his work in shape so that he could take a day off and the whole family was going on a spree! It had been quite a task to choose where to go—the boys wanted to go to the "crick" and the girls to a nearby city where there was a zoo. Dad rather preferred just to start out and drive and drive with no place in view, (of course, he had a sneaky notion of which way he'd head for but he wasn't telling for very good reasons). Mother, dear soul, let the whole family wrangle to their hearts content before she stepped in and took the helm, as usual.

"Listen, everyone, please. You know for quite a long time we have wanted to drive to Lake Geneva and spend the day there and take the boat trip around the lake and see all those beautiful estates. How would you like to do that?" And the vote was unanimous in favor of it. Even Dad was well pleased.

How busy mother had been all the day before planning for it and working on some mysterious looking box affair! But she would not let a soul in on her secret, not even dad. Of course she baked, too, such good smelling things that they all got hungry at once. They could hardly wait for the morrow to come. The children spent the day planning just what they would wear and say and do. Dad cleaned the old car up so that it fairly shone and filled it full of gas, oil, water, and air.

Early the next morning they were ready to start. Mother had been up since four o'clock and all of the lunch was packed before the children were awake. Father came in to carry out the various baskets, pails, boxes, etc., that were always a part of every such trip—and generally by the time these were all assembled the family had no room left for themselves and as Bud said, "They had to drape themselves on the roof." But today there was no such array, only one large neat looking box of black oilcloth stood ready to go.

"Strap it on the running board, dad, and then we'll all have plenty of room inside for once," mother called.

"Yes, but where's all the rest of the stuff?" dad insisted. "We always have so much luggage a fellow can't get in."

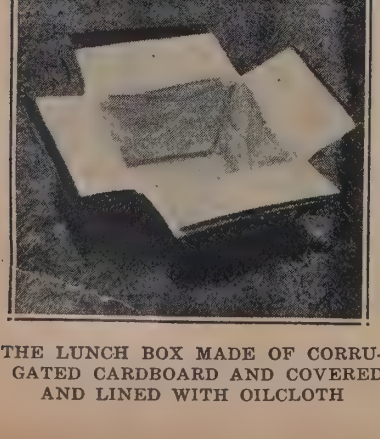
"That's all," mother assured him. "That's my surprise. It's all packed in that one box. And wait till you see the inside."

It was hard waiting. Even dad scoffed at the idea of that one box holding enough for six of them to eat. He reckoned they'd all starve and maybe have to go to one of those swell hotels around the lake. The ride was one long to be remembered, for it was a beautiful day of sunshine and clear blue sky, just warm enough for comfort. And the thrill they all got as they drove up to the lake and looked across the expanse of deep, blue water! Far off a yacht or two could be seen and one or two trim little motor boats plied back and forth nearer at hand. They could just catch a glimpse of a few beautiful homes and grounds from where they were parked, but in the afternoon they were going to see all of those magnificent homes which are owned by the millionaires of Chicago and elsewhere. For the mail boat, on which they were planning to take the trip, would stop at every dock with mail and they could get a good glimpse of each place. But for the present they wanted to eat worse than anything else.

Dad carried the large black oilcloth box over to one of the tables which was built in the park by the lake, and mother proceeded to unpack it. The family certainly was astonished as mother showed them the lunch case and its contents. The box itself measured 18 inches in length, 15 inches in width, and 12 inches in depth. It was made of heavy corrugated cardboard, and the top opened in four sections. Mother had spent several hours covering the entire outside of the box, including these four flaps for the top, with black oilcloth and the inside with white oilcloth. She had fastened stout tapes to the flaps and to the sides of the box in such a manner that the whole case could be securely fastened shut when filled, and closed, and in this way was absolutely dust-proof.

First, mother drew forth an old white tablecloth which she spread out on the table and then paper plates, napkins, and cups—which could easily be disposed of after the meal. Then from a pocket on one side of the box she produced the silverware. The children helped to set forth the food as she brought it forth from this ample container, stacks and stacks of sandwiches wrapped in wax paper, graham ones with lettuce in for dad, peanut butter ones for Bud, cold boiled ham sandwiches for Mary, and cheese ones for Jim, and then a few made of chopped nuts and olives and pickles for Ruth. Then came the lovely brown roast chicken, and the pans of scalloped potatoes and baked beans which were still warm for they had been wrapped so well in thick layers of newspaper. There were pickles, radishes, cookies, doughnuts, apple pie so flaky and tender, nut cake, bananas, and oranges. From the thermos bottle mother produced piping hot coffee for herself and Dad and from a quart jar milk for the kiddies. Each side of the box held one or two pockets of white oilcloth and from these she produced envelopes of salt and pepper, a small glass jar of sugar and from the last pocket a wet wash rag, a bit of soap, and a small face towel. Mother had thought of everything.

"Some day I'm going to have a thermos jug," mother told them. "Then I can bring along a gallon of hot creamed chicken or hot soup, or most anything. Why, Addie even makes chicken and dumplings and carries them in her thermos jug. Then we'll have a picnic outfit no one can beat. But for the present, this does pretty well. You know for years I've wanted a real picnic lunch case but they cost about $35 to buy. So for quite a while I've been planning this, and I've done pretty well." And they all agreed.—ETHEL MORRISON MARSDEN.



THE LUNCH BOX MADE OF CORRUGATED CARDBOARD AND COVERED AND LINED WITH OILCLOTH

Green Tomato Soy

A couple of years ago I was making a trip through California and, like all tourists, I was much interested in the missions. The farthest north of any that I visited was the one at Sonoma located in the same county with Santa Rosa, made famous by being the home of Luther Burbank.

The mission, as we drove up, looked like several of its sister missions in that it seemed to consist of a chapel-like part well restored and in good condition, placed at right angles to a long colonnade. But what other mission had we visited that had had that look of utter cleanness, scrubbed to the last degree and on top of that, that tantalizing odor of something cooking—something that reminded a person from a colder state of snowed-in nights with sizzling ham for supper and a tart sauce to go with it!

A guide met us—Mrs. A. J. Borie—dressed in a crisp gingham dress with a soft white cap on her gray hair—as different as possible from all the other guides we had seen, interesting as they were. She told us stories of the early days of Indians, of Mexicans, of migrations, and led

(Continued on next page)

Fall Fashion Book Ready



You simply must have a copy of our Fall Fashion Magazine, for it contains too many good things for you to miss.

All the new fall and early winter styles of course, and then there are pages of novelties such as costume outfits for the masquerade party. Christmas gifts you can make at home, including toys for the children, such as Little Red Riding Hood, The Three Bears, etc., etc.

Articles about health and beauty and reducing safely, and pages showing correct hats, fancy needlework, special styles for stouts, styles for the older woman, the new lingerie, etc.

Every woman should have a copy of this book for it points the correct way to fashions. While you have the matter in mind, send 10 cents for your copy now to Fashion Dept., Hoard's Dairyman, Fort Atkinson, Wis.

Miscellaneous Fashions



No. 3018—Flattering Square Neckline. in sizes 38, 40, 42, 44, 46, and 48 inches measure. The 44-inch size requires 3⅜ y of 40-inch material with 1⅝ yards of 18- contrasting.

No. 2334—Suitable for Stout Figures. in sizes 36, 38, 40, 42, 44, 46, 48, 50, an inches bust measure. The 36-inch size quires 2⅞ yards of 40-inch material wit yard of 36-inch contrasting.

No. 2987—Plaits Add Distinction. Cut sizes 16, 18 years, 36, 38, 40, and 42 in bust measure. The 36-inch size requir yards of 40-inch material.

No. 3000—Simplicity and Smartness. in sizes 16, 18 years, 36, 38, 40, 42, an inches bust measure. The 36-inch size quires 2⅞ yards of 36-inch material wit yard of 32-inch contrasting.

No. 2312—Attractive Apron. Cuts in 36, 40, 44, and 48 inches bust measure. 36-inch size requires 2⅜ yards of 36-inch terial.

No. 2786—Dainty Frock. Cuts in sizes 10, and 12 years. The 8 year size require yards of 36-inch material.

No. 3062—Daintily Shirred. Cuts in siz 8, 10, 12, and 14 years. The 8 year size quires 1¾ yards of 40-inch material wit yard of 36-inch contrasting.

How to Order Patterns

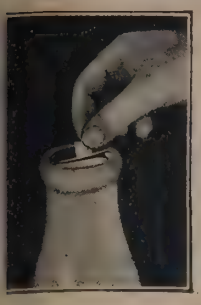
Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. your order to Fashion Department, Ho Dairyman, Fort Atkinson, Wis. Every tern is seam-allowing and guaranteed t perfectly. Do not fail to state size.

Our patterns are made especially for the leading fashion designers of New City. No stock of patterns is carried in office and, since all orders are forwarde the factory, kindly allow a reasonable for delivery of any pattern you order.

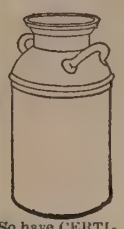
Housewife: "What do you worl my poor man?"

Tramp: "At intervals, ma'am."

Your Big Expense



Milk Cans have HANDLES



So have CERTIFIED CAPS for Milk Bottles

Dissatisfied customers cost you money. On r books one day—gone tomorrow. Dairies ywhere are making new friends—making omers who **stick.**

Give your customers Certified Caps—the with the Red Flap. Flaps made of tough fiber, like a stout handle. Easy to see. y to grasp. They lift the cap off whole y time.

tified Caps with Red Flaps are perfect for ping machines or for hand capping. We prove that they save you money. Make do it.

te us, or ask your supply house for free ples.

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ee pointer sets anywhere al to offset weight of pail. ings in tenth of pounds figuring easy—and large vith distinct figures and ations insures correct- Sturdy steel construc- Guaranteed accuracy. At r dealers—or order direct. prepaid on receipt of price.

Single Spring 30-lb. Size $3.85 — Double Spring 60-lb. Size $4.85

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N. Ada St., Chicago, Ill.

HANSON Scales

ir Dealer Does Not Handle Goods dvertised in Hoard's Dairyman— Ask Him Why!

us from end to end of the mission.

Finally we could stand it no longer. "What is that wonderful smell coming from?" we asked. Missions were dead and gone things compared to that.

"Why, that is my green tomato soy," she replied, "and I think it is just ready to come off the stove. Would you like a taste?"

Would we? Just try us. We trooped with her along the long colonnade where thousands of Indian feet had trod in those early days, back to her immaculate little kitchen where the huge kettle of soy was bubbling. We felt like children getting our "taste" and I couldn't help feeling that when I got big I wanted to be a guide in a California mission and cook green tomato soy so that I could make visitors have that at-home feeling that Mrs. Borie made us have. Here is her recipe and it is delicious:

2 gallons green tomatoes sliced
12 large onions sliced
1 quart sugar
2 tablespoons dry mustard
2 tablespoons salt
2 tablespoons pepper
1 tablespoon allspice
1 tablespoon cloves
2 quarts vinegar
Cook three hours.

—LUCY THOMPSON.

Ladies, Attention!

Do you like to embroider? If so, why not try the stamped articles advertised on the color page in our June 25 issue? We know you will be pleased with them for they come already cut and stamped with instructions for embroidering. The child's dress is ready to wear. They are not only useful but beautiful in design.

We will fill your order promptly as we have these articles on hand ready to mail.—Hoard's Dairyman Fashion Department, Ft. Atkinson, Wisconsin.

The Right Book for Him

I heard a man telling a story the other day that he thought was a great joke. A man went into a book store and looked around for a moment in a puzzled fashion.

"Is there something you wish?" asked a clerk.

"Well, yes," the man replied. "I would like to get a book suitable for a man about to be married."

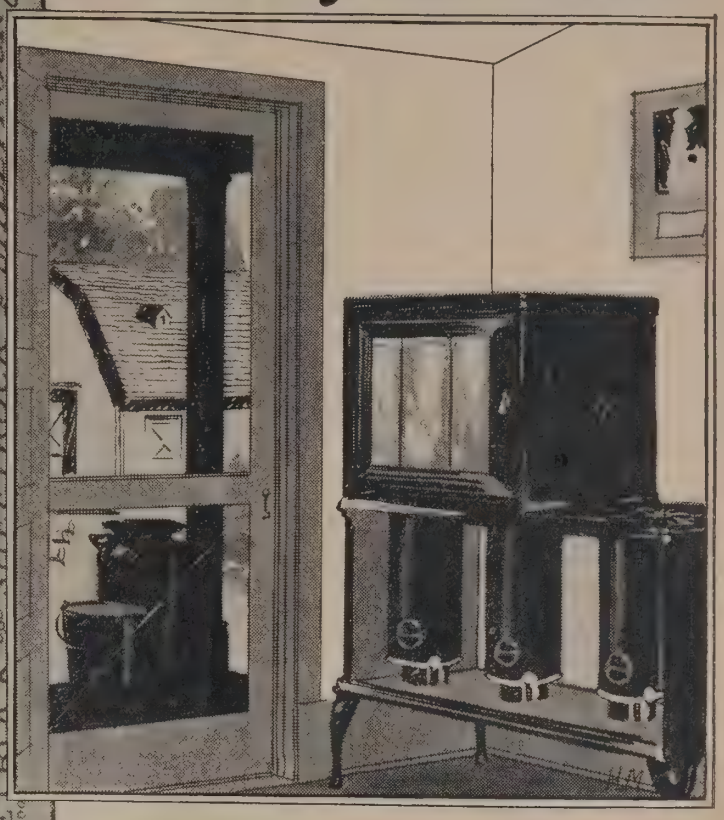
"Yes, sir," the clerk replied. "Here, Mr. Smith, show this gentleman some of our large size pocketbooks."

The jokes all run to the effect that it is the man who makes the money and the woman who spends it, but wouldn't it be interesting to know just who really does spend the money and what it is spent for. Certainly the average woman does not spend it for frills and furbelows for herself as the jokes intimate, because in most cases she has a hard enough time stretching it around to cover the most necessary articles of food and clothing.

Man still likes to keep his hand on the purse strings and to have the world at large think of the money as his but look around you and see if, after all, it isn't the women who do the actual spending.—LUCY THOMPSON.

NORTHEY
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ANY SIZE, STYLE OR FINISH
NORTHEY MFG. CO.
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Besides giving *comfort* to your family, or *shelter* to your *stock*, you can *protect* when you build with Sheetrock. Protect from *fire*—from *cold* and *heat* and *damp*. For Sheetrock is:

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Look for the USG Sheetrock brand on the back of every sheet, with the Underwriters' stamp of inspection. Made only by the United States Gypsum Company. Your local dealer has it or can get it for you promptly from our nearest mill. Fill out and mail the coupon.

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MINNETONNA
HOME BUTTER MAKER

A WONDERFULLY efficient butter making machine built on the same working principles as the machines used in large creameries, differing only in size and price.

It gets all the butterfat out of the cream. It churns rapidly so the butter comes in from one-half to one-fourth of the time. By simply throwing in clean water and giving a few turns, you remove all buttermilk. Instead of working the moisture *out*, the MINNETONNA works the moisture *in*, so necessary to the flavor and the keeping qualities, and giving an "over-run" (of moisture and salt) of from 20 to 25 per cent above butterfat test. Hence *more* and *better* butter.



Churning capacity 3 to 12 gallons. Working capacity 3 to 20 lbs. Larger sizes up to 100 lbs. capacity.

Write for description and for FREE 320-page catalogue of Dairy Goods.

The CREAMERY PACKAGE MFG. COMPANY
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Sale Branches in Principal Cities

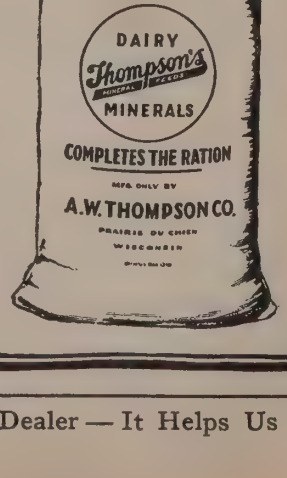
CHURNS THE BUTTER AND WORKS IT.

INCREASE DAIRY PROFITS with Thompson's MINERAL FEEDS

Feeding Thompson Minerals as a regular part of your cow's rations will mean better health, more milk, bigger profits from your herd.

They are carefully compounded from the choicest and purest minerals; each ingredient serves a specific purpose —none of them should be omitted from a properly balanced mineral feed. Animals relish them and they are easily assimilated.

Thompson's Dairy Minerals improve digestive functions, tone up the system, help make breeding surer, enable cows to have healthier, better boned, and more vigorous calves, and are a valuable preventive of goitre. They promote increased milk flow and longer lactation.



Experiment stations recommend them—good breeders use them

Put up, without filler, in leak-proof, fibre-lined sacks, and sold by leading dealers at very attractive prices.

If unable to secure a supply readily, write for literature on our Dairy, Swine, and Poultry Minerals, giving your dealer's name.

A. W. THOMPSON CO.
Prairie du Chien, Wisconsin
Dealer Representatives Wanted

DAIRY MARKET NEWS

Feed Market Situation

(By the Grain, Hay, and Feed Market News Service, U. S. Bureau of Agricultural Economics.)

Continued strength in the feed grain markets, together with only a moderate output of most feeds, held feedstuff prices practically steady during mid-July with strength in the heavier wheat feeds offsetting the seasonal decline in cottonseed meal. It appears that production of gluten feed and hominy feed have not been large and linseed meal production has been restricted by the small volume of fresh orders for linseed oil. The increase of around 3.5 per cent in the spring pig crop was also a strengthening factor in the feed situation and prices of most feeds made fractional advances during the month while middlings and the heavier wheat feeds were sharply higher.

Production has shown a seasonal increase in the Southwest where new crop wheat is being ground and prices are turning easier in that section, although the poor crop of hard winter wheat in the far Southwest has helped to restrict grindings there. The output at Minneapolis continues light and has been readily absorbed. Hardly any wheat feeds have gone into storage from the Northwest up to this time, an unusual condition. Demand has been active in the Northeast and the eastern North Central States and Buffalo mills have sold their output through August and are three weeks behind on deliveries. Bran prices have held practically steady while middlings at some markets have advanced as much as $3 a ton.

Material dullness has been shown in the market for painting materials and fresh inquiries for linseed oil have continued light. This has restricted crushings and only small amounts of linseed meal have become available. Even these limited offerings have been ample for current needs at Buffalo but demand recently turned more active in the Northwest and prices were advanced fractionally at Minneapolis where mills were reported to have sold their current output for some time ahead.

Cottonseed meal prices showed a seasonal decline, largely because of the approach of new crop meal movement. Southern Texas farmers are now marketing the first of their 1927 cottonseed crop and offers of new crop meal for deferred shipment to northern markets were becoming more numerous at prices materially under old crop quotations. The supply of cottonseed meal this coming season will doubtless be considerably smaller than last year.

Gluten feed quotations were unchanged at Buffalo where offerings of this feed were liberal and the demand rather slow. Reports indicate that the high price of domestic corn has led one manufacturer to purchase around 750,000 bushels of Argentine corn for use at an eastern plant. This will doubtless increase the amount of gluten feed offered in eastern territory.

Quoted July 25

Standard spring wheat bran: $29.50 at Buffalo, $32.75 at Philadelphia, $27.75 at Chicago, $25 at Minneapolis. Hard winter wheat bran: $31 Buffalo, $30 Cincinnati, $23.75 Omaha, $24.50 Kansas City. Soft winter wheat bran: $32 Buffalo, $31 Cincinnati, $26.50 St. Louis.

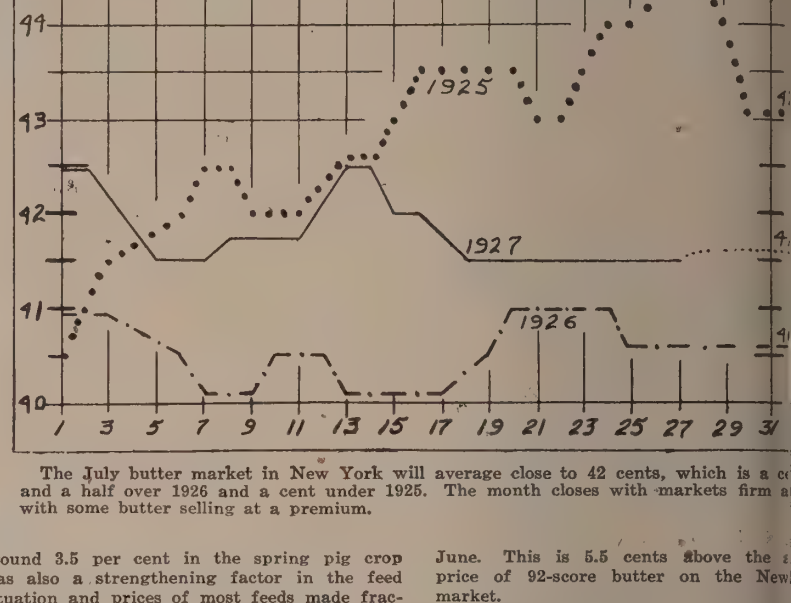
Standard wheat middlings: $35.50 Buffalo, $39.50 Philadelphia, $35 Chicago, $32.25 Minneapolis. Soft winter wheat middlings: $37.50 Cincinnati, $37.00 St. Louis. Gray shorts: $35 Omaha, $34.50 Kansas City.

Cottonseed meal (43%): $44.50 Buffalo, $45.50 Philadelphia, $41.50 Chicago, $41.10 Omaha, $39.90 Kansas City, $32.50 Fort Worth.

Linseed meal (34%): $45.50 Buffalo, $45.25 Chicago, $46 Minneapolis.

Gluten feed: $35 Buffalo. White Hominy: $38.50 Buffalo, $40.25 Philadelphia, $37.5 cinnati, $36 Chicago, $34 Omaha.

Alfalfa meal: $28.50 Cincinnati, $25. Louis, $26 Chicago, $23 Omaha, $22 City.



The July butter market in New York will average close to 42 cents, which is a c and a half over 1926 and a cent under 1925. The month closes with markets firm a with some butter selling at a premium.

Twin City June Milk

The Twin City Milk Producers' Asso of Minnesota paid $2.31 a hundred for milk delivered in St. Paul during June association handled 30,838,456 lbs. mi which 61% was surplus.

Cream patrons were paid 48 cents a for butterfat in first grade cream

Butter and Cheese in J

Butter averaged 41.8 cents in New Y the first four weeks of July, a decline o ly one cent from June. For the first ti year the monthly price is under that years ago, but it is still over a cent ab 40.5-cent average last year. Production clining slowly, but receipts since Jan the four markets are a hundred thousa in excess of the same period last year.

Cheese prices have maintained a re higher level than butter during the year, the average for July being 22.3 c June. This is 5.5 cents above the price of 92-score butter on the New market.

[Advertisement]

A Corn Harvester Now for Only

The Ziegler Corn Harvester selling for only $25.00, offe easier, quicker, better, safer w harvesting corn. It is being us thousands of farmers in all pa the country with amazing su One horse can pull it, one ma run it. It cuts tall or short corn or kaffir as fast as a horse can Has bundle tying attachment. Ziegler Harvester Co., Dept. 11 lina, Kansas, for free catalog ing picture of harvester at w the field. Shipped by expre freight. This is a thoroughly re company, in business over 30

[Advertisement]

$100,000 IN PREMIUMS

Pacific International Livestock Exposition, In
Portland, Ore., Oct. 29-Nov.

1927 Premium Lists now ready. Entries close October 10. New features, larger, more complete. Pure Bred Beef and Dairy Cattle, Horses, Sheep, Hogs, Goats. Land and Dairy Products Shows; National Wool Show; Northwest Fox Show; Industrial Exhibits. Largest Horse Show Premium List in America.

WRITE TO **O. M. PLUMMER**, GEN. MG
211 N. W. BANK BUILDING, PORTLAND, OREG

ically the same as for June. This is 2.5 above July of last year and a half cent two years ago. Production shows a sea- decline and markets for the month l firm at advancing prices.

July Milk Prices

m Report by U. S. Dept. of Agriculture)

ble I represents a comparison of the net s received by producers in 100 local mar- for fluid milk (test 3.5%) f. o. b. local ing point or distributors' country plant:

ble I—July Producers' Prices by Geographic Sections

tions	Range of prices per cwt.	Comparison of average prices 1927 July	1927 June	1926 July
England	$2.87—3.95	$3.50	$3.47	$3.27
e Atlantic	2.10—2.95	2.77	2.78	2.61
. Central	1.57—3.10	2.48	2.48	2.40
o. Central	1.49—2.62	2.10	2.09	2.13
tlantic	2.55—4.77	3.43	3.44	3.65
. Central	1.83—3.39	2.30	2.29	2.26
. Central	1.70—2.70	2.21	2.20	2.55
tain	1.70—3.20	2.39	2.39	2.29
c	1.70—3.00	2.49	2.49	2.68
d States	1.49—4.77	2.64	2.63	2.66

ces paid per hundred pounds for stand- rade milk (Grade B, 3.5%) at the deal- country receiving stations or at the pro- ' railway shipping points, as also price b. city, are given in Table III:

able II—July Prices at Country Stations

es	At country stations	Freight zone to which prices apply
Haven	$3.70*	28c rate
ington	2.91*	35c 10 gal. can
go	2.50—2.60	All
nore	2.97*	35c rate
n	2.87*	181—200-mile zone
uis	1.80—1.90	34c rate
on	2.85*	41—50-mile zone
York	2.95*	201—210-mile zone†
and	2.86*—2.93*	All
lelphia	2.91*—2.95*	51—60-mile zone
urgh	2.70*	All
ton	2.65	30c rate

sic prices for fluid milk. †53c rate.

following net prices were reported paid mbers of producers' associations supply- ie cities listed. Prices announced in ad- for such cities are usually of two class- Basic" and "Surplus," the former apply- that portion of the milk which is used id form for city wholesale and retail and the latter applying to that portion l as "Surplus," which is used for man- uring purposes:

III—Net Prices Paid Members of Producers' Associations for 3.5% Milk

es	Paid*	Period	Previously announced price for same period Basic	Surplus
ord	$3.61	May	$4.22	Butter markets
oines	2.23	June	2.55	$1.95
nore	3.11	May	3.55	Butter markets
n	2.26‡	May	2.87	Butter markets
t	2.49	May	3.00	Buter markets
ul	2.35	May	2.70	All milk pooled
York	2.22†	May	2.95	$2.30—2.56
	2.54	June	3.20	$1.90
and	2.70	June	3.24	Butter markets
urgh	2.76	June	3.45	Butter markets
ukee	2.42	June	2.85	Butter markets

. b. city unless otherwise indicated. —200-mile zone. †201—210-mile zone.

July Condensed Milk

rt by U. S. Department of Agriculture)

es paid producers for 3.5% milk f. o. b. y were as follows for July, covering factories manufacturing both case and oods:

aphic on	No. of factories	Price per cwt. Range	Ave.
ngland	1	$2.07	$2.07
Atlantic*	9	2.00—2.25	2.15
Central	76	1.73—2.10	1.97
. Central	6	1.75—2.03	1.87
Western	6	1.75	1.75
Western	10	1.66—2.05	1.81
States	111	1.66—2.25	1.91

ty-nine additional factories reported based in part on current month's ale butter quotation. Twenty-three fac- reported prices not determined as yet reported factories closed.

ufacturers' wholesale selling prices for ned condensed and unsweetened evap- milk were as follows for June:

	Range	Ave.
sed, per case	$5.60— 6.55	$ 6.03
sed, per cwt.	8.25—13.00	10.22
rated, per case	3.43— 5.20	4.40
rated, per cwt.	6.46— 9.50	8.46
sed skim, per cwt.	4.75— 7.00	5.81
rated skim, per cwt.	2.75— 6.45	3.61

New NASH Models

Leads the World in Motor Car Value

Come drive

The Easiest Riding cars you ever traveled in

The Finest, Fastest cars Nash ever built

The Smartest Looking cars you ever saw

The Most Luxurious cars ever offered in this field

The Smoothest, Quietest cars you've ever known

The Easiest Steering cars you've ever handled

The Greatest Values ever introduced

3 New Series New Lower Prices

Special Six Series		*Advanced Six Series*		*Standard Six Series*	
5-Pass. Touring	$1135	5-Pass. Touring	$1340	5-Pass. Touring	$ 865
2-Pass. Coupe	1165	7-Pass. Touring	1440	2-Pass. Coupe	875
5-Pass. Sedan (2-Door)	1215	5-Pass. Sedan (2-Door)	1425	5-Pass. Sedan (2-Door)	895
4-Pass. Roadster	1225	4-Pass. Roadster	1475	5-Pass. Sedan (4-Door)	995
4-Pass. Cabriolet	1290	5-Pass. Sport Touring	1540	5-Pass. Landau Sedan	1085
5-Pass. Sedan (4-Door)	1335	5-Pass. Sedan (4-Door)	1545	*f. o. b. Racine*	
f. o. b. Milwaukee		4-Pass. Victoria	1595		
		4-Pass. Coupe	1775		
		5-Pass. Ambassador	1925		
		7-Pass. Sedan	1990		
		f. o. b. Kenosha			

(6105)

Connecticut July Milk

The Connecticut Milk Producers' Association announces the following prices for Grade B milk delivered during July at market milk centers:

All milk sold in fluid form, 9.5 cents per quart for 4 per cent milk, and 4 cents per point allowed for other tests; all milk made into cream that is sold in fluid form, 22.5 cents per pound fat above the average monthly price of 92-score butter on the Boston market; all milk made into butter, at a price per pound fat equal to the month's average on 92-score butter in Boston.

Iowa Butterfat

The Iowa Creamery Secretaries' and Managers' Association reports that for the creameries reporting patrons received 48.64 cents a pound for fat in May as compared with 45.59 cents in May of last year. For the previous months of the current year the prices paid for fat were as follows: January, 55.50 cents; February, 58.12 cents; March, 56.47 cents; and April, 54.59 cents. Prices paid for fat in May ranged from 42.1 to 53 cents, with an average of 42,837 lbs. fat handled per creamery reporting.



HERCULES BULL TIE

Patented June 17, 1924

For positive control of most vicious bulls; safe leading; firm tying, stable or pasture; ideal show halter. Best breeders say worth twice the price. Hercules Bull Staff, the staff without a spring. Has a safety lock, operates in a jiffy. Moyer Brand show halters for Dairy and Beef stock. Leather stable halters, neck straps, rope halters for cattle. Moyer Horse halter with new style hardware. Show bridles white or colored. Write for circular and price list. Moyer products are for sale by all leading Stockmen's Supply Houses and Dealers.



JOS. MOYER MFG. CO.
STOCKBRIDGE, WIS.

League June Milk

The New York Dairymen's League reports the June net pool price at $2.13 for 3.5 per cent milk in the 200 to 210-mile zone. This is 12 cents higher than a year ago and is the highest June price in the history of the League.

A Missouri newspaper remarks: "Lot's wife had nothing much on Mrs. Dave Kirk. The former looked back and turned into a pillar of salt; Mrs. Dave looked back and turned into a telephone pole."

New! A JUNIOR Pasteurizer *and* Cooling Unit

An ideal outfit for the dairyman--a complete unit for pasteurizing and cooling that is just as efficient as larger and more expensive units. Keeps bacteria down and milk sweet for a longer period of time Designed for the dairyman--and priced for the dairyman. Write for information.

THE SHARPLES SEPARATOR CO.,
West Chester, Pennsylvania
Dept. L.

Sharples

FOR SALE—Finest Location in Michigan

for dairy and poultry farm. 120 acres nice land, small river running through, good hunting and fishing; located on Main U. S. 41 paved highway; main line C. & N. W. Ry.; modern 10 room stucco finish house; bath, electric lights, hot and cold running water; full basement, furnace heat; two stall garage, 20x20 laundry, stationary tubs, etc.; four drilled wells on property; barn room for thirty head stock, poultry house room for 500 or more; must be seen to be appreciated; low at $15,000 to close out in 60 days. Address owner.

JAMES R. ANDREWS, DAGGETT, MICH.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

News Writing for Juniors

Does your club have a newspaper reporter? Many 4-H clubs do, and every club ought to. Club work in your community can be boosted through the newspapers.

Your home town newspaper is interested in club work and especially in your club and its activities. The newspaper will be glad to co-operate with you, if you give it the right opportunity. Many papers devote much space to club work.

Get acquainted with the editor. He is human. Invite him to a club meeting or to your banquet, tour, round-up, or picnic. Even though he may not be able to accept all your invitations, he will appreciate receiving them. The instance has been known when a newspaper editor has served as a club leader.

Suppose it's your job to write for the newspaper. How will you go about it? You should know that every newspaper has a dead line—or a definite time after which no copy is accepted for publication in the next issue.

We have in mind a weekly newspaper that is dated Friday of every week. It is published Thursday and mailed Thursday night so as to be in the subscriber's hands Friday morning. The dead line is Wednesday night. The essential thing to remember is to get your copy in early in the week; the earlier the better.

The word "copy" as used in the newspaper world means something that is written for publication. Now how should copy be prepared? There are some mechanical details to be considered.

Copy should be legible—easy to read, written on one side of the paper only, with plenty of space between the lines—for the editor's convenience in editing—and room at the top of the first page, say two or three inches, for the editor to write the headlines. Copy written with the typewriter is preferable but either pen or pencil may be used. The pages should be numbered.

Be careful in the spelling of all proper names. In some newspaper offices the instructions are "Follow the copy even though it goes out of the window." In other words, if you have misspelled a name it is likely to be misspelled in print.

Write your figures plainly. When should numbers be written out and when should figures be used? Numbers under ten are usually written out, and figures used for numbers over ten. It isn't considered good form to begin a sentence with figures, the number should be written out unless it is preceded by some word or phrase such as "about," "more than," "approximately," "exactly," or "almost."

Examples of the use of numbers are as follows: Good—"Fifteen club members were present, etc.;" Poor—"15 club members, etc.;" Good—"There were six cows in the ring." Poor—"There were 6 cows in the ring."

What is news? The chief duty of the club newspaper reporter is to write reports of club meetings. There are other forms of club news which a club reporter can handle. Some of these are: achievements of club members, prizes won, unusual records made, trips taken by club members. Good project stories written by club members themselves, these may well be prize winners, are often acceptable for publication in the local paper. These may be classified as human interest stories.

How should a meeting report be written for the newspaper? The first paragraph of a news story is called the "lead." In the lead try to answer as many as possible of the questions "what, where, when, who, why, how?" Put the outstanding part of the meeting into the lead. If a new president was elected your lead might be like this "John Brounty was elected president of the Black-Jo-Ro-No Club at the meeting held last Saturday afternoon, June 16, at the home of Harold Brown." That statement answers the questions, who, where, when, what.

In the following paragraphs of your story tell about the program and give, if possible, the date and place of the next meeting. Give the names of those who took part in the program and tell a little about what they did or said. Be concise in writing your report. Don't repeat or use too many words to tell the story, but supply enough details to make your report interesting. We all like to read about what the other fellow is doing.

Why not keep a scrap book of newspaper clippings about your club and its members? A paper covered notebook will do for this purpose.

Mark the date under each clipping and the paper in which it appeared. A scrap book makes a fine record of club activities and is often a handy and valuable reference.

Carl Bjork—Going Up

When Carl Bjork was chosen as a member of the Connecticut Agricultural College Poultry Judging Team to take part in a national contest at Madison Square Garden, few people knew what a crowning achievement it was. Several years ago as a freshman in high school, Carl joined the Stratford Better Poultry Club, a 4-H group having for its aim the improvement of backyard flocks around the town. Until an unusual interest in poultry developed Carl had never known just what he was going to do but during his last two years in high school he determined to go to the Connecticut Agricultural College at Storrs and train for poultry work, specializing in diseases. His choice as a member of the state college judging team comes then as a pleasing but not unexpected development to those who knew his story.

The improvement of his backyard flock of Barred Rocks, enlarging and modernizing his poultry house, creditable performance in judging contests, exhibitions, and egg laying competitions had all marked Carl as a consistent if not phenomenal club member and with his turning over the hens to his younger brother and starting off to college a new chapter began. We are confident the story is not finished.

A. J. BRUNDAGE, State Club Leader.

The best speaker at a recent meeting was a deaf man. The best farmer in Illinois a few years ago was a one-armed man. It is great to have steam up to rise above your handicap.

A 4-H College Club

Hoard's Dairyman Juniors may be interested in the plans that are being discussed for the organization of a national 4-H club fraternity. Such a fraternity has already been formed under the name of Mu Beta Beta at the Washington College of Agriculture and at the University of Idaho, with Kenneth Hinshaw, winner of last year's Moses trophy, as acting president.

The club was organized on May 31, 1924, and Robert Polson who was



This was the original committee on the organization of the 4-H college club known as Mu Beta Beta. Left to right they are: Robert Polson, Anna Trudeson, Wesley Calkins, Leota Tucker, and Milo Davis.

then a student at Pullman, was elected president. Polson graduated from the Wisconsin College of Agriculture this June and expects to make boys' and girls' club work his life job.

Polson says, "The fraternity has been organized for the purpose of keeping together all those college students who intend to go on with club activities. Members will be selected because of superior records made in club work. Leadership is what we want to train for, so that young men and young women will go back into their communities and foster club work when they are graduated from college. Thus a reserve of local leaders will always be maintained."

Polson's home is at Montesano, Washington, and he was one of the outstanding club members in his state. In his project work he was so successful that he saved enough money in three years to put himself through two years of college. He was the first president of the state 4-H club and did much in perfecting the type of community club meetings that are now held in Washington. He superintended the boys' and girls' club work at the Grays Harbor County Fair at Elma for four years. In the six years that he was an active 4-H club member on the farm, he started 15 people out with pure-bred hogs.

Wisconsin. GUY A. PETERSON.

Exhibiting Vegetables

HOARD'S DAIRYMAN JUNIORS:—What kind of vegetables shall be selected for exhibition purposes? How shall those vegetables be prepared so that they will look well when on display? Those are the questions that are uppermost in the minds of good 4-H garden club members at this season of the year.

The largest vegetables are not always the most desirable for exhibition purposes. Large vegetable often coarse and woody and a desirable for table use. It i missible to consider size and when stock vegetables are bei lected. Table vegetables shou medium sized, regular in shap uniform in color. In fact, any table that would be ideal fro housewife's point of view wou the ideal vegetable for exhi purposes.

If the fair premium books c two specimens of a single entr to get them as near uniform in shape, and size as it is possible Select all vegetables immediatel ceding the day of the fair. V bles on display should be attra and fresh vegetables are more a tive than those which have be lected several days prior to th No vegetables should be dis that are diseased, injured by i or are blemished in any way. display is no credit to the indi exhibitor or to the club.

Onions should be small, w pened, neck firm especially a base, and clean, but not p Pie pumpkins should be m sized, thin skinned, closely r and should have a deep color un ly distributed over the pur Field pumpkins may be select the basis of size and shape. about two or three inches of st pumpkins. Muskmelons shou firm, closely netted, and ribbed. When fit for display melons pull easily from the ste flower end is somewhat sof yielding to the finger. The clo of the netting shows quality. should be displayed with the trimmed short or to pyramid The heart should be large and well up. The heads should be stems long, well-blanched, fir, medium thickness, free from ru rot, and should show no flower Ribs should not be prominent

Cucumber specimens shou smooth and carry out well towa ends. Tomatoes should be m sized, well-rounded, smooth, ev ored, and firm, blossom end Rhubarb stalks should be straight, medium sized, tender, well distributed. String bean should be long, straight, mode broad, brittle, and free from d Seeds should be well develope tender. Cauliflower should h large head, with a dense format flower, showing no tendency to heads should be pure white in and should show no small leav a few of the leaves should be l

Cabbages should be displaye two layers of outer green Heads should be uniform in si shape, not excessive in size, bu Cut off the root stock even wi bottom of the head. In pre such vegetables as beets, turnip carrots for display purposes, c tops off about an inch abov crown. Wash the vegetable if sary. Care should be exercise to rub off the skin of the veg See that all side roots are re

Arrange displays so they w attractive. Even quality produc per at a disadvantage when dis on dirty receptacles.

Wisconsin. EDW. EHL

Hitch up, start up, keep up, up.

n Boy Champion Speller

ARD'S DAIRYMAN JUNIORS:—Dean s, 13, and a farm boy of Wayne ty, Ohio, was announced the er of the National Spelling Con- held at Washington, D. C., on 24, when he spelled *abrogate* ctly and downed the Iowa con- nt, winning the $1,000 prize. an's grit and determination to he contest came after he lost .926 round-up to a Kentucky He came home from Washing- D. C., and labored for a year spelling books and the diction-

addition to his work of prepar- or the contest, Dean took care cows morning and evening, and d on a trapping business. $1,000 will go toward a college tion. Dean devoted some time elling every day for a year, ng with his teacher, Robert Es- and his mother, Mrs. Clinton

C. M. BAKER.

Our Review Column

gular feature of the junior department, ng the contents of Hoard's Dairyman previous issue. Let's talk it over.]

furher discussion of the fol- see the July 25th issue.

w did the Minnesota Co-opera- Creameries' Association decide new trade name? A contest eld offering $500 for the best stion. Some 70,000 names were ed and "Land O' Lakes" was d upon as the best adapted is superior butter. (See page

v does Land O' Lakes market tter? One of the most recent tstanding plans is that of mak- irect contact with chain store rns. A federated system of ting is employed.

y should a cow be given a va- ? Because it requires a dry pe- n addition to feed before the an give her maximum return ed consumed. (See page 723.)

at is the secret of drying off a If reducing the ration is begun enough before freshening and enforced there are few, if ows that will fail to respond.

at is the record of Ernst ider? From a nearly penniless rant to a college graduate with onsible position in a large dairy in five years is the achievement farm boy from the mountains Switzerland. (See page 724.)

ch is the best pasture crop for The highest returns per acre ent trials at the Montana Sta- ace alfalfa at the top, followed i clover, rape, rape and oats, arley, in the order named. (See 45.)

pigs need sunshine for proper n? Yes, at the Ohio station ere fed the same ration with ithout sunshine. The no-sun- group gained 1.02 lbs. daily at a cost of $6.22 per hundred gain while the sunshine group 1.2 lbs. at a feed cost of

t are some causes of loss in chicks? (1) Improper housing, improper temperature, (3) dirty (4) poor condition of feed moldy or sour; dirty drinking , etc.(See page 746.)

Junior Letters

A Texas Farm

's Dairyman Farm:—We farm 40 black land on which we plant cotton, orghum, and millet. This year we bales of cotton from about 27 acres About three acres were ruined by worms, and other bugs.

ave eight Holstein cows, two calves, bull. My dog's name is Scout. I dog trained to lead my horse and to ll with me. He goes in swimming and when I go in deep water he is afraid that I will drown if he isn't near me.

My horse is named Pinto. She will come to me whenever I call her. I can make her say yes and no. If I tell her to stand on her hind legs, she will do so. My address is Needville, Texas. Melvin W. Nowotny.

A Poem "Sunrise"

Hoard's Dairyman Juniors:—I have long been wanting to write to your page which I enjoy very much. I received my creed and button some years ago. I am sixteen years of age and live on a small farm and wouldn't exchange places with a city girl for anything. I wish you would all write to me. I like poetry. Here's some of mine:

The sun is rising at break of day,
Up from the horizon it's making its way.
A purified, golden sphere of light
Proceeding up into paradise.
The heavens are painted, a wonderful sight,
While the glimmer of morning tints through the night
Of crimson and crystal and dashes of gold,
Mother Nature's the maker of beauty 'tis told.
Above all this splendor is the deepening blue
Getting darker and deeper and of every hue;
Is dotted with beautiful white cotton clouds,
Tinged with light blush, like some angel shrouds.
The sun in its glory comes over and shines
Half covered by gloomy dark green sombre pines
Which are bended by heft of little white flakes,
As the wind whistles through the branches it shakes.
The foreground is crested with new fallen snow
Like glittering diamonds all in the sun's glow.

My address is R. 3, Box 76, Greenwood, Wisconsin. Isabelle Palman.

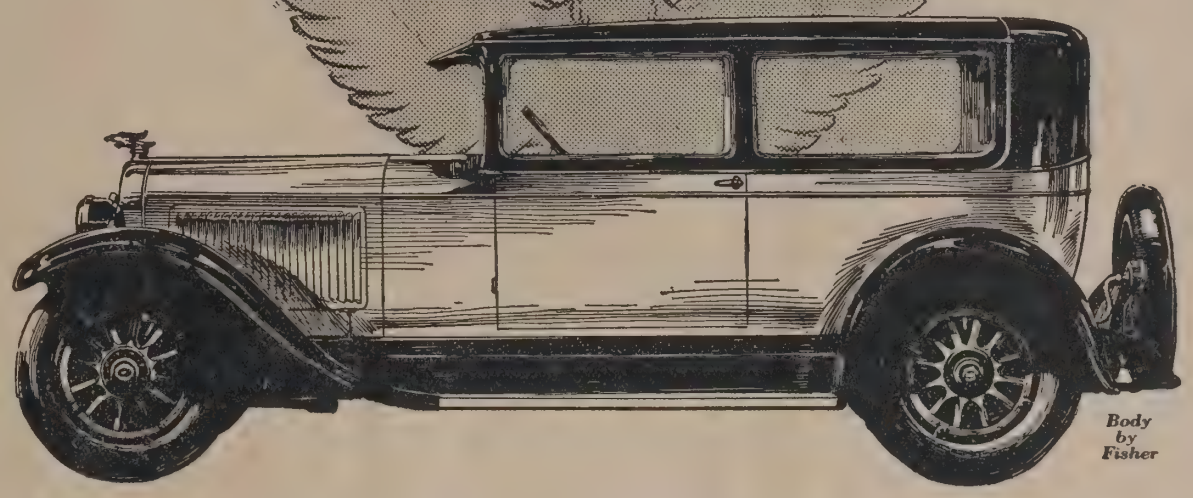
Likes Junior Page Best

Hoard's Dairyman Juniors:—I milk three cows every night now. I have a heifer calf of my own. It is a pure-bred. I also belong to the 4-H club. My father received Hoard's Dairyman tonight, and I read the paper as soon as I came home from school. I like to read the junior page best. We drive the pony to school every day now. My calf is almost all white with a few black spots. I feed it milk, hay, silage, grain, and some mineral feed. My address is Poplar, Wisconsin. Marjorie Anderson.

Announcing The

OAKLAND ALL-AMERICAN SIX

At New Low Prices!



Body by Fisher

Built to meet every American demand for Reliability, Style and Performance

All-American—that's the word! No other word describes it!

★ ★ ★

American design. American lines. American endurance for the roughest American roads—proved on General Motors' great American proving ground and built by American workmen using American precision-production methods!

★ ★ ★

A bigger, better, brilliantly beautiful car. New bodies by Fisher—new chassis—new engine. New standards of performance, endurance, and value—and . . . *NEW LOW PRICES.*

★ ★ ★

Low, graceful, fashionable lines emphasized by sweeping full-crown fenders. Arresting new Duco colors. Rich new upholsteries.

★ ★ ★

***In the chassis*—new factors of reliability and endurance—factors that people have long hoped to get—but never in a car of Oakland's price.**

★ ★ ★

A longer, deeper, heavier frame, more rigidly braced. A new and softer clutch. A new and smoother transmission. New elements of steering ease. 4-wheel brakes for safety. Smaller wheels (19″), larger tires (29 x 5.50), a longer wheelbase (117″), and an exceptionally low center of gravity for better roadability. And a new engine of 212 cubic inches displacement—the largest used in a car of Oakland's price.

2-DOOR SEDAN

$1045

Landau Coupe $1045 | 4-Door Sedan $1145
Sport Roadster $1075 | Cabriolet $1145
Landau Sedan $1265

The New and Finer Pontiac Six, $775 to $975. Pontiac Six De Luxe Delivery, $585 to $770. All prices at factory. Delivered prices include minimum handling charges. Easy to pay on the liberal General Motors Time Payment Plan.

★ ★ ★

A 78½-lb. crankshaft, counterbalanced and incorporating the Harmonic Balancer—a crankcase of bridge truss construction—Oakland's famous rubber silencing principle—and a new combustion chamber design from General Motors' Research Laboratories.

★ ★ ★

Value? None like it in all America today!

★ ★ ★

See this latest triumph of America's automotive supremacy—the new Oakland All-American Six!

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

A New Sanitary Finger Pull Cap for Milk Bottles

LOW COST A new sanitary cap that fits tight. Easy to remove from bottle with fingers. The household appeal of Kuvercaps gets new customers and holds the old. Try out a few and see how popular they are. The cost is small—they build new trade quickly. Ask your supply house for samples and prices, or write us. We also make "Midwest" Standard Disc Caps—noted for quality.



MID-WEST BOTTLE CAP CO.
P. O. Box 16 Belvidere, Ill.

Get Samples

Kuvercap

PAPEC "The Cutter That Does Not Clog"

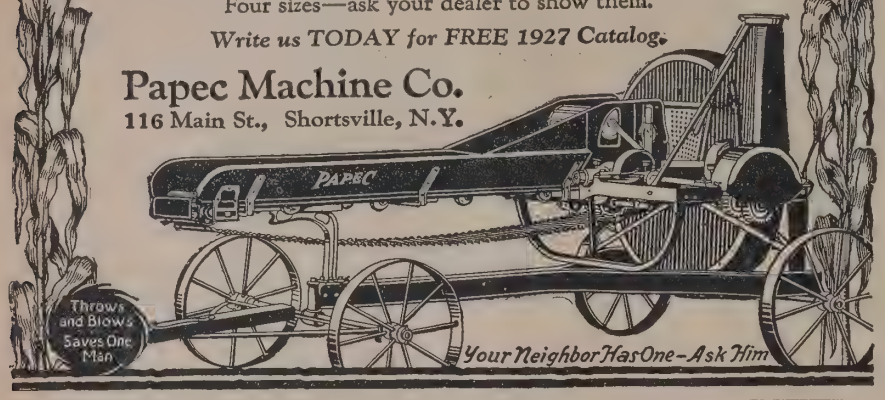
"Quality and Quantity of Cutting"

are the Papec features that most appeal to J. Smith Brundage, Superintendent of the Steuben County (N.Y.) Farms. The Papec cuts ensilage fine and even, so that it will pack firmly. It "eats up corn" as fast as a man can throw it from the wagon. Needs no man at the feeding table, thanks to the Third Roll. Fills the highest silo without stress or strain. Operates at low cost.

Four sizes—ask your dealer to show them.

Write us TODAY for FREE 1927 Catalog.

Papec Machine Co.
116 Main St., Shortsville, N.Y.

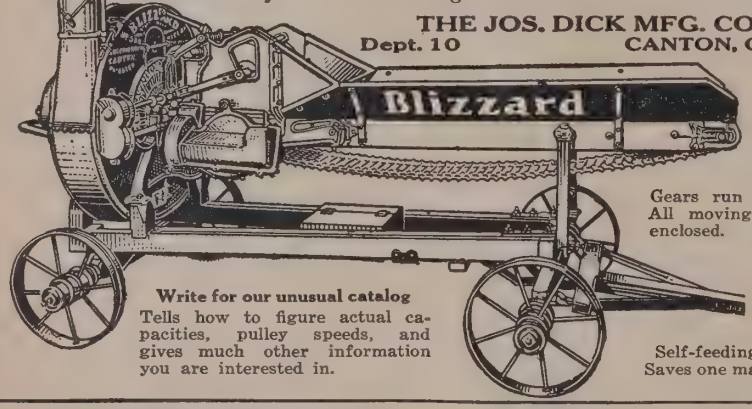


A University Test that made a University Sale

You have read much regarding University tests of different makes of Ensilage Cutters. In 1925 the University of Wisconsin made an official test of a No. 500 BLIZZARD Machine. A complete copy of that test will be furnished on request.

This No. 500 BLIZZARD Machine was afterwards purchased by the University of Wisconsin for its own use. The University has used several BLIZZARD Machines for a number of years on its farms. Could you ask for a stronger endorsement than that?

THE JOS. DICK MFG. CO.
Dept. 10 CANTON, OHIO



Gears run in oil. All moving parts enclosed.

Write for our unusual catalog
Tells how to figure actual capacities, pulley speeds, and gives much other information you are interested in.

Self-feeding. Saves one man.

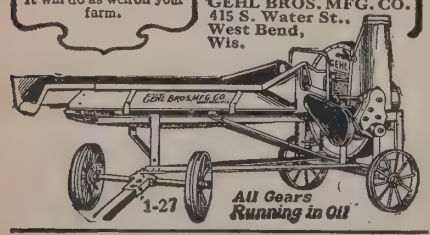
GEHL Lightest-Running SILO FILLER

Low speed means less power required, less vibration, hence longer life. The Gehl has all steel construction, non-breakable, boiler-plate fly wheel. Absolutely self-feeding. All gears enclosed—run in oil.

What a University Test Proved
A Gehl cut 19.26 tons per hour with only 13.26 H.P., elevating 35 feet and running 465 R.P.M. —the lowest power of any cutter in the test. It will do as well on your farm.

Auto Type Gear Shift for changing length of cut. Wonderful no-choke blower fills highest silos with low speed—3 H.P. and up will run Gehl cutters. **Dealers everywhere** — Write for name of nearest dealer.

GEHL BROS. MFG. CO.
415 S. Water St.,
West Bend,
Wis.



The PERFECT CORN HARVESTER

Sold Direct $21.75 JUST the THING for SHOCK or SILO CUTTING



Works in any kind of soil. Cuts stalks, does'nt pull them. **ABSOLUTELY NO DANGER.** Cuts 4 to 7 acres a day with one man and horse. Great labor saver. Sold direct to farmers. Get your catalog NOW—Be prepared. Write:

LOVE MANUFACTURING CO., Dept. 128, Lincoln, Ill.

Rowell Builds Them Right!

We have been making high-quality farm equipment since 1870 and were among the first to make an ensilage cutter.

All this specialized experience goes into the building of Rowell Trojan Ensilage Cutters. It is because of this experience that we developed a guaranteed-for-life flywheel for the Trojan—a flywheel *that will never break.*

Rowell Trojan cutters are built right, in every detail from the twist-proof main frame to the end-thrust bearings that take up wear; from the automatic feeder to the non-clog blower. Big capacity and light running. A 10 H. P. engine, or equal power, runs it.

Write for catalog and free copy of valuable Government Silage Bulletins Index.



Builders of Quality Farm Implements Since 1870.

The I. B. ROWELL CO.
1311 Lincoln Ave. Waukesha, Wis.

Buy from Hoard's Dairyman advertisers. They are reliable.

Seasonable Live Stock Notes

During the last half of August we begin to look for roasting ears in the field corn, not that they may be boiled and served with butter and salt but that we may speculate on the prospects for a matured crop. It is a time when we either are happy over the certain prospects for a bumper crop or are somewhat hopeful that future weather will make up for the delinquencies of an unfavorable season. It is a time when we already know about how much small grain and hay are to be available for feeding until another season's production is at the harvest. It is a time when we hope to relax between the finish of threshing and the advent of filling silos. All of this anxiety about the outcome of the crop harvest has its objective in the husbandry of live stock. What can we do for farm animals at this time.

Rest for Hard Working Cows

In the strictly dairy sections and somewhat in other sections where dairy cows are kept, a large number of cows are nearing the close of their lactation periods. At this time we urge the serious consideration of adequate rest periods for such cows, particularly those that have sacrificed considerable of their body weight to the production of milk because of the impulse of inheritance or of the necessity on account of insufficient feed or both. If we succeed in breeding cows for higher milk production, then by all that is fair we ought to give them a decent opportunity to live up to the impulse of that superior breeding. If we build up in one place we ought not to tear down in another and that is just what we do when we neglect or refuse to give good cows at least six weeks of rest between lactations. During this period feeding is just as important as it is when cows are at their best in production.

Sprouted Oats for Shy Breeders

Spring calves, heifers of a year ago, are nearing the time when they are to be bred for their first experience in motherhood. Frequently owners of such heifers have some difficulty in getting all of them safely settled in calf. When this occurs there is great disappointment, particularly if the failure by chance strikes the best heifer in the herd. Why such heifers fail to conceive is not usually known by the owner and, what is more, expert veterinarian examination frequently fails to ascribe a cause. Some interesting experiments have been conducted at the U. S. Bureau of Dairy Industry farm at Beltsville, Maryland, in which sprouted oats fed to such heifers and cows apparently improved conception. Our issue of April 24, page 452, gave a report of this experiment. We are calling attention to it because further trials are necessary to more definitely establish the effects of the treatment. It may be that a number of dairymen could and would try it out in an experimental way.

Time to Select Breeding Gilts

The observing swine producer already has his eye on a number of gilts that strike his fancy for breeding type. It is time to consider such factors as may govern the feeding management of gilts to be used for breeding purposes. Spring pigs are far enough developed as to indicate individual type. Should gilts that are to be used as breeders be left with the animals to be finished for market or should they be separated and fed differently? If the market herd is to be pushed rapidly to market weight on fattening feeds and scant pasture, it is advisable to select and separate gilts for breeders and feed them on rations that tend to proc growth, scale, and good quality bone. There is no objection to feeding such gilts provided they of the type that gives promise of veloping into large, smooth, ro

How to Kee Milk Swee

Bad utensils make bad bacteria
Bad bacteria make bad milk
Bad milk makes bad customers
Bad customers make bad business

Good B-K makes good utensils
Good utensils make good milk
Good milk makes good customers
Good customers mak good busin

easy

the B-K wa

WHAT makes milk sour? Authori are agreed the most common caus seeding of the milk with bacteria fr contact with non-sterile utensils, etc.

Furthermore, cans sterilized at the fact become seeded again through exposure that by the time the farmer is ready to them, they are infected. The only safe is to sterilize all cans and utensils just be using, at the farm, with a B-K rinse. T prove it kills 95% of the bacteria.

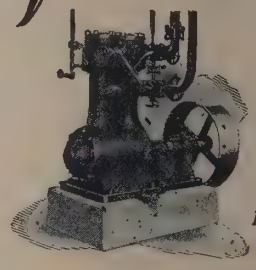
You will find it pays to use B-K. It costs on couple of cents a day to keep utensils and house sweet and clean. You'll prevent sour, flavored milk and odors.

Write Today for FREE Bulle

telling all about B-K way for quick, easy sterili of cans, buckets, separators, milking machines,

General Laboratories Dept. 10 Madison, W

Vilter Ice Machinery



For Daires and Creameri

Send for Bulletin No.2 It is FREE

THE VILTER MANUFACTURING CO
874 Clinton St. Estab. 1867 MILWAUKEE



Send for Free Silo Boo

TELLS YOU IN PICTURES ABOUT THE ROT PRO STORM PROOF, PERMANENT, ATTRACTIVE NATCO HOLLOW TILE SILO

NATIONAL FIRE PROOFING COMPAN
FULTON BLDG. PITTSBURGH

Hoosier FARM NECESSITIES

SILOS Your choice of **HOOSIER Glazed Tile** or **INDIANA Wood Silos.** The world standar

BUILDING TILE Glazed or Mat finish For alle manent buildings. Beautifu permanent, and economical.

BROODERS Hoosier round wood Brooder scientifically designed for sanitatio ventilation and heat conservation. Get our prices.

Big opportunities for agents.



at maturity and that the feeds
ited to such development. Good
e and hand-feeding concen-
at the rate of three-fourths
ull ration will usually bring de-
results. A mixture of salt, bone
and finely ground limestone,
parts, should be provided.

ick the Good Layers Now

eral years ago we culled sever-
ndred flocks of poultry in the
of three years, most of the
being done in July and August.
g this time we learned what a
ood hen looked like in com-
n with culls. It is easy to pick
ie good ones once one knows
o look for. If it is good busi-
o remove the culls from flocks
ust as important to select the
ens for breeding purposes. A
r or his wife has little time to
y good hens by trapnesting. It
a difficult matter, however,
culling the flock to pick out a
or more hens that are out-
ng for type and production.
hens should be marked and
n a breeding pen the following
. If the selection of good fe-
among cattle and swine is a
breeding practice it is worth
with poultry. If one does not
how to identify the good hens
time of year help may be had
ne's county agricultural agent.
t is a good time to pick next
breeding pen of hens.

Bad Teeth in the Horse

n a farmer's teeth begin to
him awake nights he usually
o a dentist to find out what is
and to have the offending
rs repaired or removed. When
's teeth go bad, as they some-
do, about the only thing the
as to do is to "grin and bear
il such time as the owner hap-
o discover the cause of the ap-
inability of the horse to carry
load. Bad teeth keep horses
ating full rations; this in turn
a loss of weight beyond what
idered to be reasonably good
g flesh. Horses have now been
ed to heavy work for about
onths. If there are any ani-
hat are too thin, considering
d offered and the work done, it
ood thing to have the teeth
n animals examined. In many
ad teeth will be found as the
cause of the excessive loss of

To Prevent Goiter

ections adjacent to the Great
the lack of iodine in the water
the feeds produced on dairy
is the cause of "big neck" or
in calves. The trouble may be
ed by feeding potassium io-
pregnant cows. The method
ake a solution of one ounce of
um iodide in one gallon of wa-
d one tablespoonful of this so-
daily to each pregnant cow,
ing it on the feed. It is not too
feed this to cows due to fresh-
fall. If one has experienced
ck" in calves he should feed
o the cows.

nesota Has New State hampion Guernsey

. Tenney, owner of Shorewood
Minnesota, has just completed
d of 16,173.6 lbs. milk and
bs. butterfat on his pure-bred
ey cow, Cherub's Moss Rose
ewood. This good record on
ghter of Ladysmith's Cherub,
sire of production and type,
her the highest producing cow
s B (senior four-year-old) for
e of Minnesota.—The Ameri-
ernsey Cattle Club.

ESTABLISHED REX 1896



New – Scientific Animal Spray

Here is quick relief for animals against flies, mosquitoes, fleas and lice.

The newest scientific development in the famous line of Rex insecticides and agricultural sprays is STOCKAID.

Rex STOCKAID is a double purpose spray. It kills every fly, mosquito or flea it touches, and also repels insects for 6 to 12 hours after animals are sprayed. Rex STOCKAID has many other advantages, too —stainless, pleasant odor, will not burn, blister, irritate or harm the hide. Does not gum the hair — leaves the coat fine, nice and glossy.

Rex STOCKAID will not taint milk.

Like all Rex products, STOCKAID is backed by a money-back guarantee to kill and repel those biting, buzzing, irritating insects which reduce milk production and retard normal animal growth.

Those who have used FLY-TOX, NUREXO, AFI-TOX and other REX insecticides and fungicides will need no other incentive to give STOCKAID a trial. Your retailer sells this wonderful spray.

FOUR SIZES

1 gallon cans 30 gallon drums
5 gallon cans 50 gallon drums



The Toledo Rex Spray Co.----------Toledo, Ohio
The Rex Company----------Kansas City, Mo.
California Rex Spray Co.----------Benecia, Calif.
Canada Rex Spray Co., Ltd.-------Brighton, Ont.

ESTABLISHED REX 1896

STOCKAID ANIMAL SPRAY

KILLS and REPELS FLIES. LICE *and* MOSQUITOES

"Trade in"

for a Power-Equipped Sharples SEPARATOR

You can trade in your old separator for a power-driven Sharples Tubular—you can trade it in on one of **larger capacity**, at very little cost. A power-driven separator costs only a little more than a hand-driven separator, and $20 allowance will be made on your old machine.

If your separator is too small for your needs, if it is worn, out of balance and losing cream, and you want to be free from the drudgery of it all, write today for the Sharples offer, telling us what capacity you need.

$20 allowance on your old Separator

SHARPLES SEPARATOR CO.,
565 W. Washington Blvd.,
CHICAGO, ILL. or
WEST CHESTER, PA.

RUNNING WATER WITHOUT WORK

With a good Well and a good Windmill you can have all the water you want without work, worry or expense. Water from a well costs you nothing. The cost of an **Auto-Oiled Aermotor** is moderate. The expense for maintenance is so small that it need never be given a thought.



An Aermotor runs in the lightest breeze. It will also work safely and steadily in the heavy winds.

The **Auto-Oiled Aermotor** is completely self-oiling. The double gears run in oil in a tightly enclosed gear case which holds a year's supply of oil. When the mill is running the oil circulates through every bearing. Every moving part is constantly and completely oiled. Friction and wear are practically eliminated.

Auto-Oiled Aermotors have behind them a long record of successful operation. Their merits are known the world over. For further information write

CHICAGO KANSAS CITY **AERMOTOR CO.** DES MOINES OAKLAND DALLAS MINNEAPOLIS

Watch Our Special Opportunities Page for Real Farmers' Bargains

Increase Your Dairy Profits Use BOVINOL

REG U S PAT OFF

You can increase milk production at least 10% by the consistent use of Bovinol! Agricultural experiments and practical dairy tests have proved it.

Cows waste energy fighting flies. Wasted energy means less milk. Scientists estimate that the energy used by an animal in fighting flies is equal to the food value of a pound of oats per head per day.

It will pay you to use Bovinol to protect your cows from flies. Flies may light on a cow sprayed with Bovinol but they cannot bite. They are smothered by the oil if they try it.



Care must be taken in applying Bovinol to cover every square inch of the hide. It can be done in less than a minute with the compressed air type of sprayer in which the oil is forced out by air pressure and is further atomized by an air blast. Spray against the direction of the hair so that the Bovinol will penetrate the coat.

Bovinol is a colorless, stainless and tasteless oil. It will not contaminate the milk, for it has no odor. It is non-poisonous —will not injure or irritate the hide. Spray your cows twice a day with Bovinol if you would increase your dairy profits.

BOVINOL

REG. U.S. PAT. OFF.

Sold in Cans and Barrels

Tasteless • Odorless • Colorless

A Scientific Product Characterized By All the Efficiency Customary in Products of the

STANDARD OIL COMPANY

[*Indiana*]

910 So. Michigan Avenue, Chicago

Ask the Nearest Standard Oil Agent

4703

COW TESTING ASSOCIATIONS



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Ore.	Tillamook	June	1664	1047	44.0	G. J.	14	1290	59.5	W. Hare
Wash.	Cowlitz	"	560	865	33.4	J.	5	857	53.2	C. S. Houpt
Colo.	Mesa Co.	"	348	717	27.6	R. H.	24	1243	39.6	F. Clymer
Nebr.	Lancaster	"	501	725	28.6	H.	12	1145	41.4	C. H. Borgman
Utah	Wells.-College Ward	"	514	892	31.8	G. H.	7	1261	44.8	E. H. Bankhea
Ida.	Gooding-Jerome	"	396	681	30.0	H.	3	1391	50.3	G. Epperson
Minn.	Becker Co. 1	"	307	772	31.7	H.	11	1212	39.5	W. L. Hanson
"	Long Prairie	"	452			H.	15	1112	43.8	A. J. Gerlach
"	Howard Lake*	"	416	733	32.4	R. J.	18	784	49.3	W. H. Eddy
"	Barnum*	"	389	756	32.4	G. G.	11	1050	45.9	A. Dahlman
"	Watonwan Co.*	"	388	710	29.4	H.	12	1295	44.8	H. Froehling
"	Blooming Prairie*	"	355	760	28.7	G.	10	845	39.4	T. Petersen
Ohio.	Wayne Co.*	"	326	856	32.9	R. H.	8	1712	51.1	H. Graber
"	Ashtabula Co.	"	363	770	27.6	R. H.	14	1087	38.5	F. Keep
"	Licking Co.	"	294	721	30.1		8	905	48.7	H. Voorhees
Iowa	Sac Co.	"	341	712	27.0	R. H.	10	1449	49.5	J. H. Samuels
Penn.	Gelatt-S. Gibson	"	356	800	29.0	H.	5	1076	44.0	L. J. Thomas
"	Allegheny Co.	"	445	785	30.3		67	1334	41.0	Bell Farm
"	White Deer Valley*	"	421	803	26.3	G. H.	8	1095	38.3	J. McCormick
Ill.	Ogle Co.*	"	386	761	27.9	G. G.	7	758	39.5	A. D. Heintzel
"	Henry Co.	"	417	714	28.6	S.-J.	8	982	38.6	L. Good
W. Va.*	Tri-County*	"	235	1066	37.1	H.-G.	70	1129	40.7	Quincy Dairy
Conn.	Middlesex Co.	"	500			H.	15	998	35.1	C. W. Kelsey
Tenn.	Hamilton Co.	"	640	559	24.6	G. J.	20	724	34.5	Big Oak Dairy
Va.	Loudoun 2	"	579	624	27.6	H.-G.	25	1047	41.0	H. C. Rogers
"	Loudoun 3	"	698	653	27.4	G.-H.	19	914	42.0	M. A. Ankers
Okla.	Logan Co.	"	192	753	29.3	R. J.		733	36.1	I. Elswick
Colo.	Johnstown	"	246	832	31.1		17	1155	40.7	H. F. Sherma
Kans.	Dickinson	"	339	611	22.9	S.	12	837	32.4	W. C. Ainswo
"	Harvey	"	136	711	27.4	H.	20	814	34.9	L. W. Dreier
"	Reno	"	318	712	26.8	R. B. S.	10	1029	41.5	J. J. Zimmerm
N. D.	Burleigh-Morton*	"	421	814	29.6	H.	54	991	37.2	State Tr. Scho
"	Gr. Grand Forks	"	465	728	26.3	R. H.		1081	37.6	J. Ackerman &
Mo.	Jackson 1	May	209	810	31.2	M.	19	973	37.8	Dr. E. L. You
"	Jackson 2	"	1003	942	35.2	H.	68	1114	40.0	E. C. Adams
Wis.	Union-Waupaca*	June	347	906	31.8	G.	5	768	42.3	P. Kielpinski
"	Glenwood	"	535		31.8	J.	20	796	41.0	C. E. Bible
"	Poy.-Columbia Co.	"	438		27.1					
"	Algoma*	"	483	850	34.5	G. H.	21	1535	54.1	County Farm
"	F'd du Lac-Gr. Lake	"	472	800	29.5	H.	11	1109	42.7	H. Korth
"	Westby*	"	406	491	22.8	J.-G.	5	1051	46.8	J. B. Wemmer
"	Sparta*	"	374	802	33.0	G. G.	10	760	37.6	C. Morgan
"	Cleghorn Eleva	"	437	739	30.5	H.	15	1180	42.6	J. Blodgett
"	Dousman	"				G. H.		1080	39.6	Bowe Bros.
"	Dodgeville*	"	527	804	31.6		17	1248	40.0	C. Rowe
"	Spring Valley*	"	411	808	29.7	G. H.	11	1258	41.1	A. Amos
"	Denmark*	"	453	1019	36.1	G. H.	9	1327	46.7	H. C. Johnson
Mich.	Mason Co.*	"	283	663	28.1	G. H.	3	1166	44.1	H. Agens
"	Ogemaw*	"	279	784	30.8	J.	10	768	37.8	E. Rosebrugh
"	Missaukee 2*	"	254	804	31.6	M.	7	929	41.5	C. H. Blake
"	Chippewa*	"	315	909	31.9	G. G.	10	974	47.4	O. Johnson
"	Ionia-Belding*	"	375	836	31.5	R. J.	8	919	45.4	F. Shindorf
"	N. Newaygo*	"	214	651	29.0	M.	4	846	39.3	O. Westbrook
"	Alcona 1*	"	254	831	31.2	M.	7	991	43.9	R. Briggs
"	Ottawa-Coopers.	"	314	796	30.0	M.	8	1208	41.8	J. Kishman
"	Genesee 2*	"				R. H.	5	1398	47.1	G. H. Van W
"	Lansing-Ingham*	"	249	817	31.7	H.-G.	6	1086	47.9	O. J. Becker
"	N. Berrien*	"	256	756	31.7	G. H.	7	1298	51.2	C. E. Benson
"	Macomb 3*	"	191	794	30.6	H.	11	1126	39.6	S. Badl
"	Wash.-Saline*	"	261	689	26.9	H.	8	1246	38.2	A. J. Latz
"	Leelanau Co.*	May	206	654	28.5	G. J.	6	1050	48.0	J. A. Eitzen
"	So. Kent*	June	241	721	29.2	H.-J.	10	998	40.4	J. Van Loam
"	S. Newaygo	"	228	811	34.2	G. D.	9	1163	50.1	R. B. McKinl
"	N. Antrim*	"	229	792	34.4	J.	6	924	49.3	B. Knigre
"	Mecosta-Remus*	"	206	671	31.4	J.	8	909	50.1	A. Paulson
"	Oscoda Co.*	"	221	687	32.0	G. G.	5	1140	47.6	C. Gustler
"	W. Oceana	"	226	677	31.6	J.	9	748	43.8	H. Bierwagon
"	Ott.-Allendale*	"	257	729	27.7	G. H.	8	1119	36.2	Moeke & Kru
"	Hillsdale 2*	"	250	759	32.4	J.-H.	5	1000	47.1	H. Dunmiers
"	Cheboygan*	"	194	925	35.8	J.	5	902	48.4	F. C. Fleishm
"	Barry Co. 1*	"	230	780	28.3	N.	14	1106	39.5	G. Marshall
"	Kent-Alto*	"	183	700	33.1	R. J.	7	833	47.7	D. J. Densin
"	So. Berrien*	"	290	844	32.2	G. G.	5	1066	46.0	W. Behler

*Retest rules followed.

Does It Pay Dividends?

HOARD'S DAIRYMAN:—I have had a number of men who were not C. T. A. members say, "If I thought I could only afford it, I would like to join a cow testing association."

Here is proof right in our own county. W. D. O'Brien joined the Jackson County, No. 3, Missouri, Association in January. He had at the time he joined the association 14 cows averaging 13.5 lbs. fat, making him a total profit of $55.19 above feed cost. He sold eight of these cows to market as unprofitable. In May he had 9 cows averaging 37.7 lbs. fat per month, making him a total profit of $178.87 per month. In other words, Mr. O'Brien is milking 6 cows less than he did in January; his cows are averaging 24.2 lbs. more fat and are making a net return of $123.68 more than in January. He received 3092% returns on his investment of $4 for one month test.

Another example is Sherrill Farm Company. They have a very fine herd of pure-bred Jersey cattle of finest quality. In March their 17 cows averaged 16.7 lbs. fat, with a total loss of $24.29 below feed cost. In the month of May these same 17 cows averaged 25.8 lbs. fat, or a total profit of $124.51. In three months these cows showed an average increase of 9.1 lbs. fat, and a total profit above March of $147.80. This man received as returns for the $4 he paid for the month of May for testing, a net return of 3695% on his investment.

Neither one of these men feed any commercial mixed feed or ha put in an overamount of tim their cows. These returns are proper feeding, weeding, and ing. I think this will prove r ter how small or how large you you are doing yourself, you

For healthier, happier bulls! For safer, surer breeding!



SAVES
—Lives
—Labor
—Fence
—Poten

Dr. SPENCE
BULL TAM

Success in thousand dairies. No hars ture; eat, drink, pasture and breed ju same. First all purpose control. 30 da proval. Let us send you all facts.

SPENCER BROTHERS, Inc., Savan



CLIP YOUR C
IT MEANS MO
Cleaner and Better!

Easier to keep them clea them feel more comforta keep dirt out of the milk

CLIPPING improves the of CATTLE, HORSES, M etc. Use a GILLETTE D ABLE ELECTRIC CL MACHINE. Also furnish GROOMING ATTACHME cleaning. Operates on th circuit furnished by any Light & Power Co. or make of Farm Lighting P

Price list free on req

GILLETTE CLIPPING MACHINE
129 West 31st St. Dept. M. New Yor

bunty, and your state an in-
by not joining the cow testing
ion this month.

J. A. LESTER, Tester.

A Bull Survey

Y'S DAIRYMAN:—Out of the
-bred bulls in the Reno—Har-
ociation of Kansas, seven are
ed to run with the dairy herd,
ce which is not advisable for
herd and is very dangerous;
n had paddocks in which they
rmitted to exercise; and five
re kept in box stalls, a very
licy. Bulls without plenty of
soon become slow, inactive,
ile. Two bulls in the associa-
ame sterile during the year
very reason. One was turned
a large paddock and again
a breeder; the other never
was sent to the block.

owners carry water to their
ne owners have water piped
ull pen, and seven are still
their bulls to water, usually
nd of a rope. When we see
ber of men who take unnec-
hances twice every day we
surprised at the number of
n who are attacked by bulls.
two members have "Safety
ns." By this we mean pens
er have to be entered except
ning. These pens are built to
rd use, with a paddock large
for exercise, shelter enough
the wind and shed water, wa-
l to the pen, a good manger
rack, and a breeding chute
ged that the pen needs never
ered and bull never needs to
out of the pen. With such
cross bull does not need to
d, and caring for the bull is
le trouble and you do not
take your life in your hands
ne you take care of them.
irymen consider the bull as a
nuisance on a dairy farm.
ude is not necessary if prop-
sion is made to handle the

wo members that are using
Bull Pens" built them only
of the family had been at-
y the bull. Will all dairy-
t until one of their family
hurt before taking the nec-
recautions? If interested in
y Bull Pen" write to the U.
of Agriculture for Farmers'
1412, Care and Management
Bulls.

C. H. HOSTETLER, Tester.

ontinue to Test

3 DAIRYMAN:—Many C. T.
ers at the end of their test-
cannot see why it would pay
test year after year. Does
s testing convince you that
given your herd a fair
Perhaps you have not grown
crops or have not been feed-
ced rations or you have not
inferior cow.

ast year a member of the
nt Association of Michigan
ns to believe that continued
es pay. A year ago he was
etween 20 and 24 cows and
feed or the time to give them the right care. I suggested selling about half of them and believed he would feel well repaid. The result was an auction sale, but he kept about eight of the best. At present he has 10 and tells me he is getting nearly as much in a month for his milk, is saving half the feed and labor, and is doubling his profit.

Last year in the association he finished with an average of 275 lbs. fat. This year he has set his mark at a 350-lb. average and at present is one of the leaders in the association and going strong.

FORREST BENDER, Tester.

Uncle Ab says that work is the best cure for the blues.

Monthly State Summary Table

Month	No. of ass'ns. Operating	No. of ass'ns. Reporting	No. of cows*	Ave. fat per cow* All cows	Ave. fat per cow* High ass'n.	Ave. fat per cow* High herd	High cow fat	No. of separators Tested	No. of separators Over .05%	Cows culled
				Lbs.	Lbs.	Lbs.	Lbs.			
May	7	7	2,789	32.0	36.5	52.3		125	15	8
"	105	78	20,848	3		†53.9	†107.5			180
"	33	26	8,678							
"	25	25	12,272							
June	167	138	58,827							
"	8	8	2,5							
"	84	76	27,							
"	30	29	12							

es followed. *Includes




Pat. 7-2-07 & 9-10-18

ANTI-COW KICKER

Saves your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H Topeka, Kansas



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Twenty high grade Holstein cows bred to freshen this fall and early winter. This herd made an average of 9,713 pounds of milk and 346 pounds of fat per cow in 1926, and has made an average of over 200 lbs. of fat the first six months of 1927. Records are from the St. Louis County Cow Testing Ass'n. They are T. B. tested, have excellent udders, and young. Reason for selling, barn burned on July 2 and can not give them proper care. This herd is priced at $2500, dirt cheap considering the quality. KREIDLER BROS., Route 3, Duluth, Minn.

Transmitting Bull. Don't gamble on a herd sire. Get a proven one. My "Count-Piebe" bull has first calf, grade heifers giving 9800 lbs. of milk a year. Will sell or trade for cows. J. A. THOMPSON, Brookville, Ind. 14-2

For Sale—Treadmill for bull, used six months, $50. Covered milk wagon, $75. Grade and pure-bred registered Holstein cows, $100 and up. Prices f. o. b. Butte. THE MINERS' DAIRY, Butte, Mont. 14-2

Twenty high grade Holstein milkers and springers; also a few high grade Holstein heifer calves. $20.00 per f. o. b. Waupaca. JOHN PETERSON, Waupaca, Wisconsin.

Can supply you with carload choice springing or fresh grade Holstein cows. Several with C. T. A. records up to 500 lbs. fat. W. L. BAIRD, Waukesha, Wisconsin. 2-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Three handsome Holstein heifer calves, $65.00 tested, crated. ALFAKORN DAIRY, Evansville, Wisconsin. 14-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

100 head choice Holstein cows and heifers. ORVILLE K. CRAVEN, Excelsior Springs, Mo. 15-4

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

We have several registered Guernsey bulls for sale, serviceable and younger. Good breeding and priced for quick sale. Federal Accredited herd. FAWNWOOD GUERNSEY DAIRY, H. J. Scheidhauer, Rhinelander, Wisconsin.

Guernseys—Beautifully marked, practically purelbred heifers, well-grown, good udders, bred for production and type; 8 weeks old; tuberculin tested. Shipped by express at little cost. $20.00 each C. O. D. WILDWOOD FARMS, 1092 James, St. Paul, Minn. 14-2

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

For Sale—Four line bred Valentine Guernsey bulls from 2 to 8 months old; out of A. R. dams. Price reasonable. C. H. HULBURT, R. 7, Waukesha, Wis.

Grade Guernseys. Must be good milkers and T. B. tested. Give full description and lowest cash price. Address ROOM 420, Westminster Building, Chicago.

Registered Guernseys—Females and males. Inquire LAKE COUNTY FARM, Two Harbors, Minn. 14-2

For Sale—High Grade Guernsey heifer calves f. o. b. station. N. C. PETERSON, Scandinavia, Wisconsin.

Guernsey bulls for sale—From 10 to 18 months old. GROVER KULL, Genoa City, Wisconsin. 15-2

Summer Bargains in Guernsey bulls, heifers. FRANK KLEMM, Baraboo, Wis. 15-4

Jerseys, car lots, registered or grade, Columbiana County, an accredited area. Jersey center, over 200 breeders of registered Jerseys, over 20,000 dairy cattle in the county. Few car loads available now. Quality and prices right. Buyers who come, buy. WILLIS WHINNERY, Salem, Ohio. 15-tf

Fifteen high grade Jerseys including 2 milk cows, 4 springers, 5 bred heifers and 4 yearling heifers. For information write SHERMAN JERSEY FARM, "The Home of World Champions," Charles City, Ia. 15-3

Registered Jerseys—Male calves $50 and up, sired by Fauvic's Sultan's Mac 244462, son of a Gold Medal, Silver Medal, and state champion cow. L. & C. MASON, Armington, Ill. 14-2

Pure bred Jerseys, carload cows and heifers, springers and fresh. Also yearling heifers. T. B. tested. M. A. O'BRIEN, Reedsville, Wisconsin. 15-2

Jersey heifer, 3 years, finely bred. "JERSEY," Cabinjohn, Maryland. 14-2

LIVE STOCK WANTED

Carload Guernsey or Holstein springers, a registered yearling, Holstein bull and few heifers with C. T. A. records. Retest privilege. BENTLEY ORCUTT, Lake View, Iowa.

Wanted to Buy—15 high grade Guernsey springers due September, October. Prefer installment payments; growing trade; quality milk. BOX 331, Corbin, Ky.

Cows wanted, one or two car loads a week. Write BOX 448, care Hoard's Dairyman.

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 75 cents for one cow, $2.50 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington.

POULTRY HOUSES

Poultry Houses on easy terms as low as $10 per month. Also barns, garages, homes. Write for Big Free Catalog. Dept. 50, FRANK HARRIS SONS CO., 2330 South Springfield Ave., Chicago, Ill.

MACHINERY

Small Dairy Equipment—Nine hole bottler (quarts and pints), washing vat with steam turbine, conical cooler, 25 bottle cases, 4 case trucks, 3 brush bottle washer. Good condition. A bargain. JAMESON'S DAIRY, Evansville, Wisconsin. 14-2

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For sale or trade—No. 85 De Laval milker. A. 1 condition. Used 18 months. Trade for hogs or Guernsey calves. S. L. MUNTER, 1915 North Delaware Street, Indianapolis, Ind. 15-3

For Sale—One No. 27 Sharples suction feed cream separator, new, capacity 600 lbs. Going out of business. This is floor sample, price $80.00. A. D. ELLISON & CO., Marengo, Ill. 15-2

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Hinman Valve Chambers and pumps and parts, at a very reasonable price. JOSEPH HAAG, No. 813, W. Harris Street, Appleton, Wis. 13-*

For Sale—Burton Page hand power milker. Used one season. Good rubber. Check of $40 takes it. Address BOX 439, care Hoard's Dairyman.

For Sale—Clean Easy milker units. Used about one year. $25 per unit. Address BOX 440, care Hoard's Dairyman.

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator. Ill. 6-12

For Sale—Two Hinman units $75.00. WM. SUER, Bellevue, Iowa.

For Sale—Three post, 50 ft. steel Aermotor windmill—good as new, $50.00. JOHN WICK, Menomonee Falls, R. 2, Wisconsin. 15-3

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 15-4

For Sale—Ohio ensilage cutter No. 19. Sure bargain. Write WILLIAM LOGAN, LaFontaine, Ind.

Wanted—Second hand Pine Tree Surge milker. State price. F. W. ROBBS, R. 4, Memphis, Tennessee.

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

Bottle washer, flueless boilers for sale. Bargain. FEDERAL MANUFACTURING COMPANY, Sioux Falls, S. Dak.

DAIRY BARN EQUIPMENT

Wanted—Steel stanchions and barn equipment. BRUNSWICK & GEISENDORFER DAIRY, Pittsfield, Illinois. 14-2

LUMBER

We Save Dairymen $100 per carload on lumber, shingles, house bills, etc. Guaranteed grades. KENWAY LUMBER COMPANY, Tacoma, Wash. 5-11

Guaranteed lumber and shingles sold direct. Big saving! Ask for estimate. KENWAY LUMBER COMPANY, Tacoma, Washington. 15-6

LIGHTNING RODS

Reliable agents to sell the "Diddie-Blitzen" rods in your own territory. Lightning damage can be prevented by our system. Write today for our proposition. L. T. DIDDIE CO., Marshfield, Wis. 13-6

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. ALBERT MILLER & CO., 192 N. Clark St., Chicago, Illinois. 14-*

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-tf

SEEDS AND PLANTS

Do not hesitate to plant a field of Grimm alfalfa in mid-summer. Bears three and four crops in a season. Leafier, higher in feeding value. Pure pedigreed seed; guaranteed genuine Grimm. All seeds scarified. 40c pound, less in club lots. A. R. LYMAN, Grimm Alfalfa Introducer, Excelsior, Minnesota.

Alfalfa seed 95% pure, $6.50 per bushel; scarified sweet clover 95% pure, $4.50. Bags free. GEORGE BOWMAN, Concordia, Kansas. 15-4

Alfalfa Seed—95% pure, $6.50 per bushel; Scarified sweet clover, 95% pure, $5.50; bags free. GEORGE BOWMAN, Concordia, Kansas. 27-*

TOBACCO

Better Tobacco! Fragrant, mellow! Five pounds smoking, 75c. Four pounds chewing, $1.00. FARMERS' CLUB, 250, Hazel, Kentucky. 10-8

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

For Sale—Pedigreed German Police pups, Hohendyk strain. L. D. ZIMBRICK, Beardsley, Minn. 14-2

For Sale—Shepherd puppies. Color blue gray and black and tan. GRIFF R. JONES, Wales, Wis.

POSITION WANTED

Position wanted as working manager of small dairy farm or in dairy. Agricultural college graduate. Three years experience running dairy farm and retail milk route, two years modern bottling plant. Twenty-eight years old. Married. Address BOX 457, Care Hoard's Dairyman.

FARMS FOR SALE

By Owner—Account other business occupying entire time, must sell modern 150 acre dairy farm with present income $1000.00 month. Well equipped barns, milk house, tile silo, etc., good dwelling, running water, enormous old pecan trees for shade, supply nuts. Orchard, alfalfa, sweet clover, soy beans, corn for grain and silage now growing. Will sell fully stocked with forty accredited cows, four years cow test association and all other stock and implements or will sell without stock. Whole milk sold, best markets; present price $4.18 cwt. Cooperative truck delivery. Prosperous community, excellent schools and hard surfaced roads; eight miles from William & Mary College. Two miles station main line, Chesapeake & Ohio Railroad. Come here, see for yourself, immediate possession if desired. Priced right. C. G. CROCKETT, Norge, Va.

Farm of 168 acres in Central New York for sale to settle an estate. Splendid buildings, well watered, has carried as high as 75 head of cattle. Last two years over 80 tons of hay were sold and 40 head of cattle carried each year, besides horses and other stock. Only ½ mile from church, school, depot, and milk plant. 20 miles from Syracuse on improved road. SILAS GODFREY (Administrator), Pennellville, New York. 13-7

Dairy Farm For Sale—260 acres located in Marathon County on Highway 16 near Wittenberg, Wisconsin. School and cheese factory within ¼ mile from premises. Modern building practically all built in last five years. Farm fully equipped with machinery including tractor. Fine herd of Holstein cows, four horses and other miscellaneous items for $26,000.00. For complete information write the KNOKE LUMBER COMPANY, Appleton, Wisconsin. 14-3

200 acres, 3 acres in beautiful timber. 20 minutes from Frederick, Maryland, three minutes from small town, trolley line, stores, churches and high school. This fine farm is improved with good frame house, excellent barn 50x108, silo 13x36, perfect cow stables most modernly equipped, and all necessary buildings for an up-to-date dairy farm. Owner will finance purchaser. POTTS & GRIFFIN, Frederick, Md.

You, Mr. Tenant Farmer, will never again have the opportunity to own your own farm home at the price and easy terms which the farmers' own bank is now prepared to offer you—farms in North Dakota, Minnesota, Wisconsin and Michigan. Write for information, giving location and size of farm desired. FEDERAL LAND BANK, Dept. 16, St. Paul, Minn. 14-*

Dairy and Stock Farm at sacrifice: 1164 acres highly improved, modern equipped, upper Loudoun County, Virginia; 57 miles National Capital; unsurpassed milk market; 600 acres blue grass; 150 valuable timber; smooth land, abundantly watered; $65 acre; terms. BUELL FARM AGENCY, Realtors, Herndon, Virginia. Phone 38.

$1100.00 monthly income. Close to New York markets. Ninety acres corn, oats, wheat, barley, potatoes, millet. Possession to suit purchaser. Other farms. Deal with owner. Save commissions. PARSONS, 504 Kilmer Bldg., Binghamton, N. Y. 14-2

For Sale—Best dairy and stock farm in the world at the price. Good land, good pasture, good water, all fenced, full set of buildings. Easy terms. Owner, MASON BOOTH, 5324 Abbott Avenue, Minneapolis, Minnesota. 15-2

For Sale—Established wholesale dairy business and farm—70 head good cattle, 50 milking—150 acres excellent land. FRANK W. COLE, 1970 Higbee, Memphis, Tennessee. 14-2

160 acre improved farm. Complete buildings. Priced to sell. TARR BROS., New Auburn, Wisconsin. 11-*

160 acre Dairy Farm, excellent roads, soil, markets. Will rent on shares. All particulars on request. KNOPKE AGENCY, Bemidji, Minn.

Improved Barron County Dairy Farm—200 acres, 2½ miles to excellent market. By owner. OLE LUNDEN, Barron, Wis.

Improved Mississippi farm; $25 per acre. L. EMORY SMITH, Baton Rouge, Louisiana. 15-2

WANT TO RENT

Wanted to rent—Good equipped dairy farm, share rent, in Wisconsin or Minnesota. Reliable farmer. Address BOX 442, care Hoard's Dairyman.

Wanted to rent or manage equipped farm. Address BOX 451, care Hoard's Dairyman.

EXCHANGE

Have several farms for exchange for Eastern farms. Some for Western. WALTER MILLER, Carpenter Bldg., Milwaukee.

FOR RENT

Improved farms for rent in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Make a trip and see the growing crops. Cheap round-trip homeseekers' tickets. Write for Free books. E. C. LEEDY, Dept. 982, Great Northern Railway, St. Paul, Minn. 13-*

Wanted—Experienced man to operate 171 acre dairy farm, fifty-fifty basis. Stocked pure-bred, grade Holsteins. Operator furnish horses, machinery, buy one-half feed, alfalfa, silage. Possession November 1st. I. M. HUDSON, Benson, Minn. 14-2

PARTNER WANTED

Wanted—Working partner to operate hundred cow dairy. Expect to have it going by October. MAYBANK FARM, Hattiesburg, Mississippi. 13-3

SILOS

Wanted—Good, used, wooden silo 14x40. M. J. GILLEAS, Cherokee, Iowa.

WANTED

Wanted—Some one who is interested in a cheese factory in the best milk and cream country west of the Mississippi river. Write DR. W. F. FINLEY, Pres. Commercial Club, O'Neill, Nebraska. Mention this paper when answering. 15-2

Expert cheese and butter maker with $2,000 to $4,000 to invest in cheese and butter factory. Fine opening for right man with opportunity to become sole owner. HAMILTON ICE & LIGHT CO., Hamilton, Texas. 15-2

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*



Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Wanted—Working Jersey herdsman, married, no children preferred. Good feeder, calf raiser and milker. Well settled man of clean habits. Active, mechanical and able handle help to good advantage. Exceptionally good opportunity for a man that fits the job. State full particulars. OLD HOMESTEAD FARMS, Warsaw, Ky.

Wanted—Married man as herdsman in Guernsey herd. Must be thoroughly capable and ur[illegible] feeding and care to get results. Wife to [illegible] men. Ever[illegible]ing furnished. State [illegible]

HELP WANTED

Wanted—A working foreman who thorough[ly] stands all kinds of machinery, good tractor one who can handle men successfully. Must class references. Apply PABST FARMS, Oco Wisconsin.

Wanted—Experienced creamery man, ma single, who understands all branches of we clean milk is produced for city distribution proposition for the right man. Address care Hoard's Dairyman.

Wanted—Dependable, married cow man ar with grown boy with good cows and clean Dixie Highway adjacent city. Describe self ily; state experience, pay wanted. CL DORSEY, Box 331, Corbin, Knox County,

Help Wanted—Single dry hand milkers. ing conditions; chance for advancement. Ca married men with small families. HARTMA FARM, Columbus, Ohio.

Wanted—Two first class men for dairy far be capable of milking 15 cows twice daily care of dairy barn and small milk house. HARDY, Rochester, Michigan.

Wanted—Married herdsman, without child to help with general housework. Man to ta of 25 milking Holstein herd, producing Grad Address RULONDALE FARM, Janesville, W

Wanted—Experienced herdsman milking cows the year around. Surge milker. St and reference. JACOBS DAIRY, Emmetsbur

Wanted at Once—Married man to work handle 25 or 30 cows. Name price in first want a share crop. Address BOX 455, ca Dairyman.

Wanted—Single assistant herdsman; small herd; good living conditions; preferable with experience. State wages. Apply CANTIGN care Herdsman, West Chicago, Ill.

Experienced single man for milk room dairy. $75.00 board and room. HORD BR west, Wyoming.

Wanted—Single experienced man for dair Holstein farm, in Illinois. Apply with ref BOX 450, care Hoard's Dairyman.

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Wanted—Management of large farm whe date methods will be appreciated. 22 years on up-to-date dairy farms producing A. A. specialized in cows, hogs, poultry, alfalfa, ver, and general field crops. At liberty Sept Farm on which I am located is sold. Pre will manage farm himself. American, ma have three children. G. E. EMSTROM, Farms, Newark, Delaware.

Energetic working farm manager wants responsibility on large modern farm of est ried; 2 children. Operate power machine stand crops and crop rotation, production feeds and feeding, showing, testing. Oppo advancement essential. References. State in first letter. Address BOX 453, ca Dairyman.

Herdsman, owing to sale of herd, forced Prefer small private herd. Good butter would take charge of test cows in large he sey only. Three world's records, 15 years' single, 49. Salary $125.00, room and bo September 1st. East preferred. Personal in sired. W. C. BURDICK, Mendham, N. J.

Position Wanted—Two single men both 2 Swiss, one with 10 years creamery experie ences, want position to take charge of dair farm. No bad habits. Anywhere in Mi JACOB ZOLLINGER, 309 Mosly Street, Michigan.

Married man of 37 wishes position as thoroughly familiar with feeds and fee raising; handling and producing special willing to help with house work and cool particulars in first letter. Address W. D Route 3, Georgetown, Ohio.

Position wanted as working manager or before October 1st, by married man, no chi perienced in general dairy farming, pro Grade A milk and A. R. records. Refe nished. All replies answered. Address BO Hoard's Dairyman.

Wanted—Position as herdsman or mana istered dairy herd, where records count. ence with dairy cattle. Eight years experi tester. Age 25. Married. No children. cept position in near future. Best of STEWART RIVERS, Leesburg, Virginia.

Experienced herdsman, married, wishes with unmistakably upright, first class party job adequately repaying highest quality, dependable services. Sterling references. Address BOX 456, care Hoard's Dairyman.

Superintendent—Open for large propositi ranch or estate. Have handled 20,000 acre $300,000.00 annual business. Highest recom Go anywhere. Address BOX 454, ca Dairyman.

Wanted—Position as farm manager or young college trained, experienced man. in Advanced Registry, Grade A milk. Available September first. Address BOX Hoard's Dairyman.

Want fully equipped modern dairy farm on salary or rent on share basis by an Swiss, age 36; married, small family; do smoke; lifetime experience; prefer Wiscon references. Address BOX 444, care Hoard'

Position wanted as manager or herdsm farm. 27 years old. Spent most of life on Have had some creamery and college train rienced tester. References furnished. JORGENSEN, Doran, Minnesota.

Position wanted as manager or herdsm year old American, single, experienced in Grade A work and general farming. Ref nished. Address BOX 443, care Hoard's

Position wanted as herdsman or test mil Years of experience on large dairy farms good calf raiser. Can give good referenc BOX 446, care Hoard's Dairyman.

Farm and dairy superintendent now emp to make change. Married, age 38, colle Thoroughly experienced in all branche BOX 449, care Hoard's Dairyman.

Wanted—Permanent position, 10 years' dairying, hand milking and machine, fi raising, and milk house work. Addres care Hoard's Dairyman.

Wanted—Position at once as farm ma married, one child, good dairyman knows all farm machinery, wife willing help. FRANK ROEPOR, Baileys Harbor,

Position wanted by a married man, ex years both as herdsman and dairyman. 447, care Hoard's Dairyman.

Wanted—Position as cow tester. South preferred. L. L. I., Box 325, Marion, Indiana.

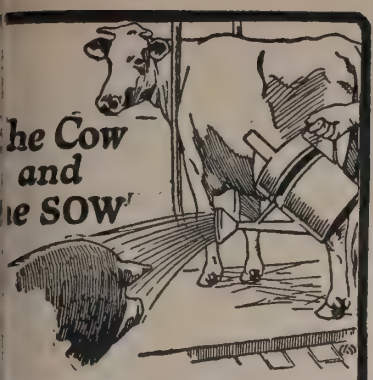
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EMEMBER, it's but a short istance from your cow's dder to the cream pitcher, utter plate or nursing bottle.

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RONER, Route 2, Hillsboro, Oregon



Growing Gilts for Breeding Purposes

It is now time to give some extra consideration to the gilts from the spring farrow that are to be used for breeding purposes. Breeding stock should be well grown and strong in every respect if they are to perform the functions of motherhood in a highly efficient and desirable manner.

Their selection at this time should be made with great care. The herd has developed enough now that one may choose the animals that nearest approach the desired type, eliminating those that are undersized, poorly developed, and offtype. The larger, more stretchy, more growthy gilts that are well balanced in proportion, strong in the back with straight, well set, strong legs and good pasterns and feet are the desirable kind.

One should examine the teat development of gilts both as to number of teats and as to whether all of them are free and correctly formed. Swine husbandmen have recently discovered that many of the teats of gilts are tied up closely to the abdominal wall by a hard central cord and that these teats do not develop into good milk producers. Gilts with many teats like this should not be saved for breeders.

Gilts for breeding purposes should be well grown but not allowed to become too fat as would be the case where they are left in the general herd eating from self-feeders or being hand full-fed. If the general herd is being carried along on somewhat restricted grain rations on pasture, such as would give good growth without producing too much fat, the gilts could well remain in the general herd for another month or six weeks. If, on the other hand, the general herd is being fed from self-feeders or is being full fed by hand, the gilts should now be separated from the general herd and placed on rations that will continue their growth without making them excessively fat. For good growth the gilts should have more protein in their rations than is necessary or advisable in the rations of the pigs being pushed rapidly to an early marketable weight.

It is thought that the feeds more bulky in character and of less extreme carbonaceous content are more desirable for developing gilts. Good pastures are highly desirable partly because an element of exercise is induced because of their use. Skimmilk or buttermilk properly pasteurized or from a clean herd of cows is prized very highly by men successful in developing gilts. The grain mixtures may be simple. If plenty of skimmilk is available a grain mixture composed of half shelled corn, or ground barley, or of any of the grain sorghums ground, and oats or standard middlings is satisfactory. Where the pastures are not very good, and no skimmilk available, a grain mixture composed of 40 parts corn, or ground barley, or grain sorghum, 30 parts ground oats, 20 parts middlings, 5 parts linseed meal, and 5 parts tankage is very good. The quantity of any ration to feed daily should be according to the growth and condition of the gilts fed. To keep them growing without getting too fat is the ideal to strive for. Attempts have been made to use the self-feeder in developing breeding stock with varying success. The method is not generally successful because it is difficult to mix feeds of the right kinds, proportion, and consistency to prevent the gilts becoming too fat. Hand feeding according to condition is best.

One should provide a mineral mixture including salt. A mixture composed of 20 parts common flake salt, 40 parts finely ground limestone, and 40 parts steamed bone meal is good. Later after the gilts are pregnant it is advisable to add potassium iodide especially in sections where the lack of iodine causes hairless pigs.

Alfalfa Hay Versus Alfalfa Meal

In an Ohio pig feeding experiment bright green alfalfa hay fed in a rack proved fully equal to alfalfa meal in rate and economy of gain. One lot of 40.5-lb. pigs was fed corn, tankage, salt, limestone, linseed meal, and alfalfa meal. The pigs gained 1.21 lbs. daily, consumed 385.7 lbs. feed per hundred pounds gain, at a cost of $5.87. The pigs consumed 13.6 lbs. alfalfa meal for each 100 lbs. gain. Another lot of pigs had the same feeds except that alfalfa hay fed in racks was substituted for the alfalfa meal. These pigs gained 1.32 lbs. daily, consumed 396.2 lbs. feed for each 100 lbs. gain at a cost of $5.88 per hundred pounds. The pigs consumed 27.4 lbs. of alfalfa hay for each hundred pounds gain.

The difference in the quantity of alfalfa consumed made only 1.8 lbs. difference in the amount of tankage and linseed meal consumed.

Bone Meal Versus Acid Phosphate

Swine rations composed of grains and high protein supplements from plant sources are made more efficient by adding certain minerals. Corn and soy bean oil meal or soy beans is such a ration.

The Ohio Station found that the addition of salt and ground limestone brought about some improvement. A mixture of salt, limestone, and sixteen per cent acid phosphate brought about greater improvement but not as much as one of salt, limestone, and bone meal. A mixture of salt 1 part, ground limestone 2 parts, and bone meal 2 parts gave excellent results.

Ground rock phosphate, frequently recommended and used in mineral mixture for hogs, proved detrimental rather than helpful.

A man who hides behind a woman's skirts today is no coward—he is a contortionist.

The Right Salt saves feed



and reflects its worth in the market value of the animal

PROPER feeding—and this involves the salt which is fed to livestock—has an important bearing upon profits when it comes to marketing.

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There is a Diamond Crystal Salt for every farm use—for table and for cooking, for livestock, for canning, for butter and cheese-making, for curing meats. Ask for Diamond Crystal at the store where you trade.

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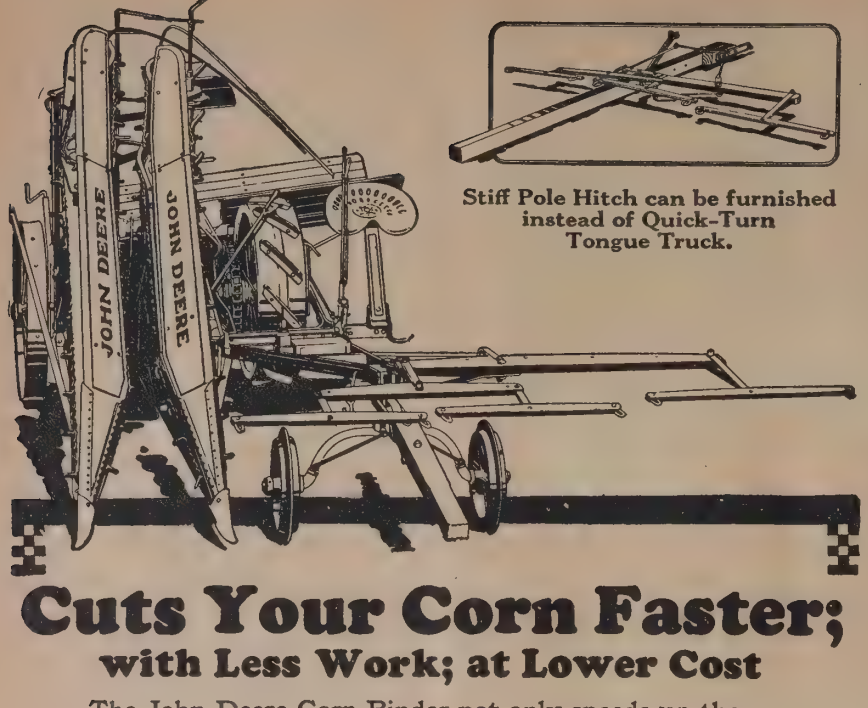
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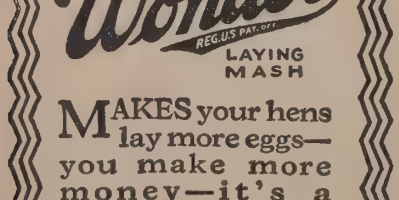
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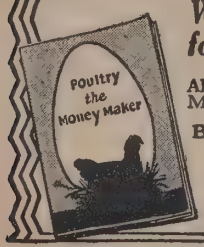
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A pound of De Soto Condensed Buttermilk mixed with water makes 4 gals. of pig slop. For poultry feed, use one lb. to 3 gals water. Satisfaction guaranteed.
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Heavy Assorted Chicks, $10 per 100 straight. Light Assorted, $8 per 100. There is still time to put in these FAMOUS NABOB 18K CHICKS this season if you ACT QUICKLY. Get our Big, Illustrated 60-Page Catalog for further information on Rare Varieties, etc. Member International B. C. A. Bank Reference.
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Poultry on the Dairy Farm



Parasites and Others

So much has been said about intestinal parasites this spring that we are apt to forget about the external variety, a crop of which one can harvest during hot weather.

There was once a man that kept a few lice on his birds, mites in the house, and fleas on his hound hog, because he claimed it kept them active and ambitious. That is false philosophy, for any action requires power and power is generated by feed. Feed should be used only for productive purposes.

There is a distinct difference in the appearance, habitat, and treatment for lice and mites. This point is often forgotten by flock owners. They expect one treatment to control both classes.

Lice limit their activity to the body of the bird. The eggs are deposited on the feathers, particularly around the abdominal section, and are found as clusters of grayish dust-like material attached to the quill. The most common louse is the rather long bodied, whitish, spotted variety that in color resembles a Holstein and in sufficient numbers makes one think of a herd.

Since time began people have been recommending louse treatments. These controls have run the line from powders, liquids, gases, vapors, and bottles to banana stalks and pills. Out of this motley collection one can select sodium fluoride for year round use as one method to follow.

For summer uses the powder may be used to best advantage as a dip. On a hot day the powder may be mixed with water at the rate of one ounce to each gallon. A large tub is advised and a pound of sodium fluoride to 16 gallons of water is sufficient to treat from 150 to 200 hens.

The entire flock should be treated at one time. Any stray individuals will be a source of supply and may reinfest the entire flock. Each hen must be thoroughly saturated with the solution down to the base of the feathers.

Grasp the fowl by the legs and the wings. Immerse her into the solution tail first and, when in the water, release the hold on the wings and work the solution into each section thoroughly. Before releasing, duck the head under water. Run your hand over the body to remove excess water and turn her loose. A hot day is required to prevent the flock becoming chilled and contracting colds.

For winter and colder weather use, the powder may be mixed with unsalted lard or vaseline at the rate of 50—50 and applied to the surface below the vent.

In some instances the powder is applied as a dust, but this method is harder on the operator than the lice on the birds. It tends to irritate the membrane of your eyes, ears, nose, and throat and is, on that account, objectionable.

The time of treating or retreating is dependent upon the weather and necessity. During extremely hot weather the lice become more numerous and treatment is demanded. A heavy parasite infestation results in a lowered production and a lowered profit. A dusting place do assure complete success. Some means is demanded.

Mites

Mites are found around the and nests or other roosting It is impossible to treat the and control mites. In fact it is ly possible to find mites on They go on her body while ro or nesting but go back into the and crevices of the wood to liv and reproduce. One can identify mites by the grayish powder that is found on the s of the wood when they are pre

Some good penetrating woo servative is the best treatment. best because only one applicat demanded each year. Other n als such as kerosene and waste case oil will give temporary but the material must be a too often. A wood preservati soak down into the wood, prev the eggs from hatching, remain longer period, and permit few plications.

When this material is applie a brush, undiluted, to the roos nests once yearly, these parasit be controlled. It is foolish some dilutant and expect to us a spray. The heavy base is re

For a spray in the colony on range, one can use some c product to best advantage.

Scaly leg mites are another site commonly found. These c roughened appearance to the of the older birds particularly. mite can be controlled by the cation of some oil or by dipp shank in kerosene and then t with a grease.

Summer Suggestions

Trees make the best possible ing place for young stock. Th sibility of theft is increased, b results otherwise are beneficial. means for young stock, not hens.

When the colony house is us roosting, a sufficient amount of must be given. This usually that the entire house should be over to roosts. Even the co tion of a building with a r with wire covered sides is oft visable. These structures wor ly for the larger pullets that housed earliest.

Under all conditions one m member that the space requir six-week-old chicks is not enou three-pound pullets. Remov cockerels, supply more roost nish additional houses or roosting in the trees to p crowding, beating, and slower g

Keep the pullets on clean, r succulent range until fall. T of a cultivator around the house as well as the colony ho seeding to oats or barley is while. During the summer the feed can become coarse, wood decidedly unpalatable. Gree is an essential to the ration of growing stock or producing bir good, well grown, fully matur let can make a profit any year means a pullet that is grown turity and not a half finishe pound broiler size that start ing at about 3 months.—J. B. A

pe Smoker Waxes oetic Over His avorite Tobacco

tuckian submits verse that expresses his feelings on pipe-satisfaction

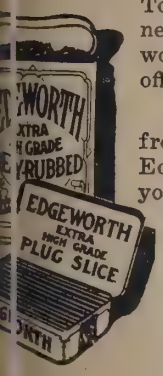
smokers express their satisfac- in various ways. As a matter of not a day passes but what sev- interesting letters come to us Edgeworth Club members in and far corners of the world.

casionally some poetic-minded er breaks into verse. Sometimes easure and rhythm leave some- to be desired. Here, however, is of pipe-smoking sentiment pret- ell expressed, in our opinion:

"A Prescription"

Have you ever noticed
right after a meal
How tired and lazy
you always feel?
'm telling you folks
it isn't a joke,
t will freshen you up
if you try a good smoke.
But whatever you do
these lines you must heed,
There's a certain tobacco
of course, that you need.
t's packed in a tin,
the tin's colored blue.
Not only the smoking
but the chewing kind too.
f course if you never
are bothered this way,
ust keep the prescription
for some other day.
sk for tobacco,
the best that's on earth;
o shorten the story,
just call it "Edgeworth."

Chas. J. Butler
Owensboro, Ky.
Feb. 2, 1927.



To those who have never tried Edgeworth we make this offer:

Let us send you free samples of Edgeworth so that you may put it to the pipe test. If you like the samples, you'll like Edgeworth wherever and whenever you buy it, for it nev- nges in quality.

te your name and address to r & Brother Company, 15 S. 21st e, Richmond, Va.

ll be grateful for the name and d s of your tobacco dealer, too, if re to add them.

Edgeworth is sold in various sizes s the needs and means of all c sers. Both Edgeworth Plug e and Edgeworth Ready-Rubbed cked in small, pocket-size pack- s n handsome humidors holding a m and also in several handy in- w n sizes.

To Retail Tobacco Merchants: If obber cannot supply you with g orth, Larus & Brother Com- y will gladly send you prepaid by c post a one- or two-dozen carton a size of Edgeworth Plug Slice Edgeworth Ready-Rubbed for the n rice you would pay the jobber.

[U - radio—tune in on WRVA, Richmond, Va. Edgeworth Station. Wave length (254.1 meters) 1180 kilocycles.]

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Georgia Abortion Work

We note with considerable interest that promising results have been had at the Georgia Experiment Station by the use of acriflavine as a remedy for the contagious abortion disease. The drug mentioned is chemically known as diamino-methyl-acridum chloride hydrochloride, which we do not ask our readers to remember. The cows used in the experiment had all aborted on one or more occasions and had all given positive reactions to the agglutination test in dilution ranging from 1 to 50 to 1 to 500 and higher. Three successive intravenous injections of the acriflavine in physiological saline solution, in dilutions of 1 to 500, 1 to 350, and 1 to 200, respectively, were given one week apart. The cows were divided into three groups of two each, and those in the first group received 100 cc., the second 150 cc., and the third 200 cc. of the solution at each injection. Three tests of the presence of the disease in the experimental cows were employed and are given as follows in the experiment station record: (1) the agglutination test of the blood sera of the cows; (2) the intraperitoneal injection of milk from the cows into guinea pigs; and (3) the calving records of the cows. It was found that within one year after the work was started the reaction of the blood from one of the cows gradually became less markedly positive, and in 14 months it was negative to the test. The blood from all other cows was gradually losing its power to agglutinate the organism.

The calving record is perhaps the most important of all from a practical standpoint. All cows receiving the two larger doses have bred and produced normal calves following a normal gestation period. Two of these cows had previously become non-breeders from the disease. The two cows in the group receiving 110 cc. of the solution were non-breeders and did not breed following the treatment. This would seem to indicate, according to the experts who made the tests, that large doses of the chemical are necessary. The use of acriflavine had no apparent effect on the cows except to reduce the flow of milk for a few days. Swellings were produced along the jugular groove, by injection of the drug, and persisted for some time. This swelling was probably due to a needle of too large caliber being used for the first injection, allowing a slight leakage at the point of puncture in the vein. These swellings appeared within a few hours after the injection of the acriflavine, and while they remained for some time they did not seem to cause any physical reaction of the animal.

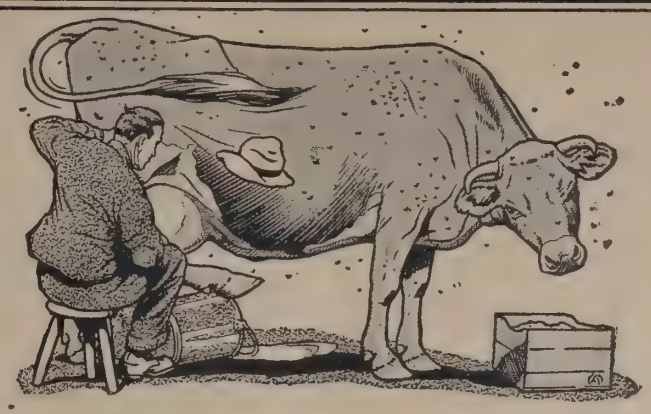
Further reports on this subject will be awaited with interest. They are somewhat on a par with those made with neoarsphenamine at the Iowa Experiment Station for the retarding or cure of periodic or recurrent ophthalmia, commonly called "moon blindness," of the horse. In the use of that drug most troublesome swellings resulted when some of the solution happened to get into the muscles around the jugular vein instead of into the vein itself. So far, the treatment has given fair results. We hope the acriflavine treatment may prove as useful for abortion control.

Sweet Clover Poisoning

A local veterinarian told me that sweet clover would affect the blood of live stock so that it would not clot and that cows would bleed to death when dehorned. It didn't sound reasonable to me as I thought that you would have mentioned it in boosting for sweet clover for pasture. Have you any positive information on this point?

Ellendale, Minn. J. L.

As several times mentioned here, old, moldy, or otherwise damaged sweet clover hay is liable to prove poisonous and so affect the blood that it fails normally to coagulate. When cattle have been eating such hay for an extended period, dehorning or castration will be likely to be followed by fatal bleeding. Many instances of that sort have been reported. Fatal hemorrhage within the tissues may also occur although no operation has been performed. It is therefore dangerous to feed moldy sweet clover hay. The green plant is harmless as probably is sound hay; but it would seem best not to make any sweet clover hay the sole roughage ration when cattle are to be dehorned or castrated.



Dr. Hess Fly Chaser

makes cows milkable

They relax. They let down. You get the last drop. It is long lasting.

Dr. Hess Fly Chaser has the odor of the pines. Because of this odor it serves a threefold purpose:

First—It is the most effective fly and mosquito repellent known to science—quick in action, long lasting.

Second—It is an excellent disinfectant. Therefore, while it is keeping the flies away, it is also destroying the disease germs that attack your cow's body—disinfecting your barns, and injecting into the atmosphere a most healthful odor.

Third—No herd sprayed with Dr. Hess Fly Chaser ever suffers from warbles, which cause a great annual loss to dairymen and farmers.

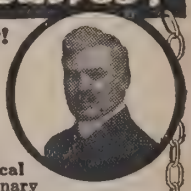
It does not blister—does not stain the hair—does not taint milk. Applied to the hands and face, it keeps the mosquitoes away.

If Dr. Hess Fly Chaser does not prevent the milk slump, make your cows milkable in fly-time, save your horse-flesh all summer long, it will not cost you one cent.

DR. HESS & CLARK, Inc., Ashland, Ohio



Are Your Cows Losing Their Calves?



If they are, you are losing money! You can stop this loss yourself AT SMALL COST

Write for FREE copy of "The Cattle Specialist," our cattle paper. Answers all questions asked during the past thirty years about this trouble in cows. Let us tell you how to get the "Practical Home Veterinarian", a Live Stock Doctor Book, without cost. Veterinary advice FREE. Write us tonight about your live stock ailments. A POSTAL WILL DO.

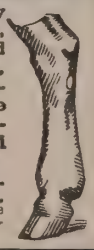
Dr. David Roberts Veterinary Co., Inc., 195 Grand Ave., Waukesha, Wis.



Now is the Time **All wise Dairymen get their orders placed for Baled Shavings.** They are plentiful now and can be bought at a reasonable price. Don't wait until they are scarce and high and be left without them. Write us today and reserve a shipping date and it will save you money.

FRANK MILLER & SONS (*The Sawdust Millers*) **3613 Auburn Ave., Chicago, Ill.**

REDUCE PUFFED ANKLES



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Grateful user writes: "Have tried everything. After 3 applications of Absorbine, found swelling gone. Thank you for the wonderful results obtained. "I will recommend Absorbine to my neighbors".

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TRADE MARK REG. U.S. PAT. OFF.

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Order Now

For bedding, most convenient, serviceable and sanitary. Write for special, delivered prices.

Jagerson Fuel Company, Neenah, Wis.



Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.

The Newton Remedy Co. Toledo, Ohio.

What Co-operation Must Be

(Continued from page 768)

ing. But these generalities are the trend of co-operation and the guide-posts by which organizations may progress to success. They fit every situation, every commodity, every market. In the method of their following, each association will adapt itself to the situation. These conclusions are the message carried back to their organizations and their membership by those who attended the conferences. They were brewed from the mixture of the experience, knowledge, and opinion of all. They tell the co-operative world to expand in size, but to expand to co-operation with the handlers and consumers of the product; to expand with watching, understanding, and following the continual flow of change characteristic of the modern economic world, and to realize and act upon it; that not only is co-operation a business proposition, but that it is, like other business, successful only when directed by the best of business men.

Prizes at National Dairy Show

The prize list for cattle at the twenty-first annual National Dairy Exposition, often called the "court of last resort" for the dairy breeds, is now being distributed. The sum of $5,240 is offered in prizes by the association in each of the five dairy breeds—Jersey, Ayrshire, Brown Swiss, Guernsey, and Holstein. In addition, the Holstein-Friesian Association of America offers $2,500 in special prizes for that breed and the Brown Swiss Cattle Breeders' Association offers $550 in special prizes, making a total offering of $29,250 in cash prizes.

The dairy cattle classes of the Tri-State Fair at Memphis, with which the Exposition is to be held, have been discontinued in favor of the National competition, with the exception that special classes are offered for Jerseys, Guernseys, and Holsteins, with liberal prizes in each class. Entries in all classes close September 24.

Early interest indicates a wonderful cattle show, including a large representation from the South as well as many of the large herds which exhibit regularly. Jersey exhibitors in Texas already have made plans for taking their state herd direct to Memphis after the judging at their state fair at Dallas the week previous to the Exposition.—National Dairy Association.

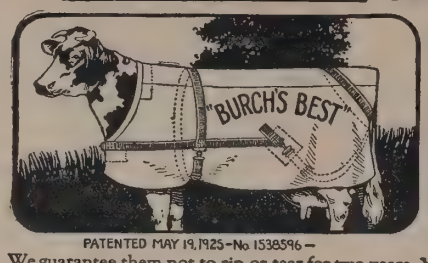
Meridale Jerseys Average $881.41

Meridale Farms' annual Jersey sale held June 17 at the farm at Meredith, N. Y., was very much of a success as their sales always are. This one broke all sale records for the breed for the past three years by bringing an average of over $881 for 39 head that were purchased by 14 buyers from 9 states. The top price, $5,700, was paid for the champion imported butter cow of the breed, Dairylike's Madcap, that produced 960.72 lbs. fat from 15,571 lbs. milk in a year. She was purchased by W. R. Kenan, Jr., of New York who has more than a few heavy producers in his herd.

Nine animals sold for $1,000 or more and only 5 for less than $500.

An English clergyman was telling his flock about the terrible effects of strong drink, and concluded with the words: "I hope the day will soon come when every bottle of this cursed liquor will be taken away and emptied into the nearest river. . . . We will now sing Hymn No. 204: 'Shall We Gather at the River?'"

You can't beat Burch's Best Cow Blankets



PATENTED MAY 19, 1925—No. 1538596—

No Sir! There's not a cow blanket made that equals "Burch's Best." Hundreds of fine herd owners cover their winners with this patented blanket. Has ten exclusive features. Combines beauty, praticability and low price. Made to fit every animal perfectly. Every blanket covered with

Our Ironclad Guarantee

We guarantee them not to rip or tear for two years. You *must* get perfect service. No other blanket is so fully covered. None can be, for none are made so well. Well send a sample on request to convince you.

Where Burch Blankets Will Be Used This Year

These herds will use Burch Blankets this year: Carnation Farms and Pabst Holstein Farms, Oconomowoc, Wisc., Corium Farm, (F. J. Rueping, Pres.) Fond du Lac, Wisc., Fern-Dell Farm (A. W. Fox, Mgr.) Green Bay, Wisc., Elm Hill Farm, Brookfield, Mass., Rock County Herd, Janesville, Wisc., and many others.

Send your name and address today for free descriptive booklet, prices, etc.

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Show Blankets Our Specialty



Pat. Nov. 23, 1909 Nov. 29, 1921

Try a Sample Order Today

R. LAACKE COMPANY,

Where Quality Determines Choice

KANT-KOM-OFF Blankets Predominate

A check-up of blankets seen on prize cattle at one of the Fairs last summer showed KANT-KOM-OFFS on 663—next nearest 284, next 142. This is Typical of the Preference Shown for Laacke's KANT-KOM-OFF Blankets everywhere.

Order From This Adv. Satisfaction or Money Back

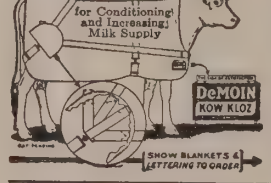
Prices F.O.B. Milwaukee

STYLE	To 48 in.	50-68 in.	70in.up
12oz. Satin Finish Burlap	$2.90	$3.20	$ 4.40
Khaki or Gray Duck	3.40	4.10	5.60
Wool Felt (all colors)	8.90	10.90	13.90
Lining (extra, each)	1.40	1.75	3.00

Lettering, Stenciling, Trimming, Extra. Discounts for Quantity.

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DeMOIN Kow Kloz



All Purpose **Cow Blankets**

Thousands in use thru-out the world. Stays in place. Comfortable fit (no strain) Built for hard service.

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Des Moines Tent & Awning Corp. 919 Walnut Street Des Moines, Iowa

Buy a Vest Pocket Herd Book

JERSEYS

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

"SYBILS and MAJESTYS"

Offering a few choice bred heifers due to freshen in the fall. The right combination of Sybil and Majesty breeding predominating. Moderately priced. Write for particulars.

CEYLON COURT FARM
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

FOR SALE
Senior 2-Year-Old Bull
MODESTY'S OXFORD RALEIGH 259550 Tattoo 132

Dropped February 8, 1925, solid color, black tongue and switch. The dam of this bull is Raleigh's Castor Daise 361899 in R of M with 539 lbs., 9 oz. 85% butter. Both grandams of this bull are heavy producing R of M cows.

Price $300 F. O. B. our Station
Herd Accredited and Free of Abortion
Send for Pedigree

RAVINE FARM, Est. 1913, PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle

Easton Farm
-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

JERSEY BULL

Dropped Feb. 18, 1927, solid color, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

AMBERG FARM, HILLSBORO, WIS.

Belswood Jerseys
A. F. Block, Waukesha, Wis.

JERSEYS FOR SALE

YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.

H. S. HAGER, PRAIRIE DU SAC, WIS.

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

The Friendly Breed



The Jersey cow has "made good" in every section of America under the greatest variety of conditions. She is a true friend of the dairyman, for she sticks to her job and does it efficiently.

Write *now* for free illustrated booklets on the Jersey cow.

THE AMERICAN JERSEY CATTLE CLUB, Dept. B
324 West 23d St., NEW YORK, N. Y.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Sale Announcements

Sept. 2—Cayuga County Guernsey Breed Sale, Auburn, N. Y. The Herrick Merry Sales Co., Mgr.

Sept. 12—Guernseys. The First An Mayowood Farm Sale at Rochester, M Melin—Petersen Co., Sale Mgr.

Sept. 13—Holsteins. The First An Mayowood Farm Sale at Rochester, M Melin—Petersen Co., Sale Mgr.

Oct. 3-4—Holsteins. Dispersion of H hock Farm Holsteins at Dousman, Wis. M —Petersen Co., Minneapolis, Minn., Sale M

Oct. 5—Guernseys. Louis Merryman's ond Annual Grade Sale, Timonium, Md. Herrick Merryman Sales Co., Mgr.

Oct. 6—Guernseys. Louis Merryman's Semi-annual Sale, Timonium, Md. The Her Merryman Sales Co., Mgr.

Oct. 6—State Guernsey Sale, Minne State Fairground, Mankato, Minn. Dr. M Wood, Mankato, Minn., Mgr.

Oct. 6—Jerseys. Dispersion of Vergev Jerseys at Holmen, Wis.

Oct. 8—Jerseys. First Annual Sale of vine Farm Jerseys at Prairie View, Ill. Lawrence Mills, Owner.

Oct. 12—Ayrshires. Consignment Sale Edgerstoune and Monstone Farms Ayrsh at Springfield, Mass. J. G. Watson, Sale

Nov. 3—Guernseys—Wis. State Guer Sale at Sale Pavilion, Waukesha, Wis.

Nov. 8-9—Fond du Lac Holstein Breed Consignment Sale, Fond du Lac. Wis. S. Bird, Mgr.

Nov. 15-16-17-18—Holsteins. United St National Holstein Sale at Waukesha and tertown, Wis.

AYRSHIRES

AYRSHIRE BULLS-$35 and



Edgerstoune Wide Awake

Nicely marked, deep bodied, str bull calves from dams with 1 lbs. milk or better. By such sir Edgerstoune Wide Awake, Howie's Wait and See, Imp. Hov Ringmaster and Imp. Fav Beauty Champion, sires that over 15,000 lbs. milk back of t for 5 generations. Bulls are p low because we need the room. $35.00 and up. under State and Federal supervision. Write.

BOOTHSTOCK FARM, Roy F. Booth, Mgr., Northville,

BUY A BABY BUL

Ayrshire bull calves from heavy-producing, goo uddered cows at bargain prices.

Let us help you find one.

Ayrshire Breeders' Association
10 Center Street, Brandon, Vermo

AYRSHIRE COW
FULLY ACCREDITED
300 Head in the Her

Present offering: Fresh cows—springers calf to our noted herd sires—yearling hei —heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSE

A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all wh Sire: Penshurst Rising Star, 20922, A. R. 260, 38 daughters having 52 records averaging 10,900 milk, 440.72 lbs. fat, 4.04%, winners of 3 Fr Cups, 1 Association Cup, 1 Gold Medal and 6 S Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three R. records averaging 11,857 lbs. milk, 462 lbs. fat three R. of H. records averaging 11,642 lbs. 450 lbs. fat. Six World's Champions in six ye

GLEN FOERD FARMS TORRESDALE,

Spring Valley Ayrshir
(*Accredited Herd*)
BULLS FOR SALE!

We still have for sale a few good yo bulls, with the best of type, backed by g breeding and production. Priced right.

SPRING VALLEY FARM, Warren,

PENSHURST AYRSHIRE

Accredited certificates recently renewed both tuberculosis and abortion. 235 h tested. Penshurst Man O' War heads herd. His dam is world's champion Ayrsh producer and reproducer. Sire's dam champion (their records average 24,025 milk.) His progeny is excellent. Write for the best in Ayrshires.

PENSHURST FARM, Narberth,

PROFITABLE — PRACTICAL
AYRSHIRE

The home of Mistress Thistle of South Farm, Wor Champion Jr. 4 yr. old, and Boggie of Eastside, S Champion and ex-World's Champion R. of H. 3 yr. old. Each of these famous cows has a son service in our herd. If you want bull calves out big, heavy producing cows with long teats, at reas able prices, write us. Federal Accredited Herd.

SYCAMORE FARMS, Douglassville, Berks Co.,

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we offering for sale 12 yearling heifers and senior calves, good ones, many of them sh prospects. Most of them are by Aldeba Victor, a son of Highland Polly, 15,700 milk as a junior 3-year-old. Priced to s Herd under federal supervision. Write come to the farm.

ALDEBARAN FARM, E. J. Nelson, Mgr., Racine,

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year- State Champion heifer, 13,280 lbs. milk, 475 lbs. in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Center,

ears may be a long e, but—

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UERNSEYS

Big Parade On Tanbark Trail--

rominent Guernsey breed- e described the Fair Cir- as "the show-case of our in trade."

spective buyers of dairy will profit by seeing and ng about Guernseys at the . Don't miss your local tate Fairs, and take in the nal Expositions and the nal Dairy Show, too.

rnsey show cattle are able producers. Let us tell ore about them.

Ask for "he Story of the Guernsey"

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HERD SIRES—

—A son of Ne Plus Ultra.

Ultra Noble—A grandson of Ne a out of a 920-lb. cow.

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M. P. SMEDLEY, Manager

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CENT STAMP CAN SAVE YOU rom $100.00 to $500.00

R SALES LIST—FINEST BLOOD

Rose through King of the May, cret, Langwater Cavalier; Bell- ance, Glenwoods. Greatest group s in any herd. A. R. records up fat.

AWA DAIRY FARMS,

d St., Philadelphia, Pa.

AIN BULLS *produce* LASS LEADERS

reeders' Journal says in Feb. 1st NEW CLASS LEADERS— od's Diana, 20,006 lbs. milk ROOKMEAD'S BANNER A. R. *ight unseen as a youngster.*

Write for Sales List

FARM, 526 Land Title Bldg., PHILADELPHIA

ENN. GUERNSEY SALE

2—WASHINGTON, PA.

D GUERNSEYS. Langwater, May Rose, r breeding. For catalogs write G. W. nes & Laughlin Bldg., Pittsburg, Pa., Reed, Coal Valley, Pa.

SON FARM GUERNSEYS

ering at attractive prices a few sired by RADISSON'S GOLDEN 91632, whose get was awarded at Dairy Cattle Congress in 1926. of GOLDEN CORONET OF JEAN 81283, world's champion Guernsey A, 968.80 lbs. fat.

IVERSON, Herdsman,

Radisson, MINNEAPOLIS, MINN.

Hill Farm Guernseys

Have several high class Guern- sey bulls at reasonable prices. May Rose and Glenwood breed- ing. Dams have records up to 700 lbs. of fat. Write for sales list to

ESING, Deerfield, Illinois.

FOREMOST GUERNSEYS

We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM

HOPEWELL JUNCTION (Dutchess Co.) N. Y.

J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Bulls FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

Bonnie Brae Guernseys

Herd Sire—Itchen King 49803 A. R. Sire of 8 A. R. Daughters that will average 640 lbs. fat. Sons of Itchen King for sale out of A. R. Dams of popular breeding. Priced reasonable.

BONNIE BRAE FARM, Clinton, N. Y.

Your Next Herd Sire Need Not Be Expensive

But he must improve your Production and Individuality

WRITE FOR OUR LIST OF BULL CALVES

They will interest you!

LOMA FARMS

W. W. Blake Arkcoll, Mgr.

MARQUETTE MICHIGAN

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.

A Federal Accredited Herd

Luxerin GUERNSEYS

(SHERIDAN'S)

FOND DU LAC WISCONSIN

We have only a few Glenwood bull calves up to 3 months old for sale at present. They're priced to sell.

GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

FOUNDATION GUERNSEYS

FOR SALE FROM A CLEAN HERD

Langwater Juvis, a son of Langwater Warrior from a good record May Rose dam is our senior sire. We have for sale a few high class registered cows and heifers as well as some excellent young bulls. They are priced to sell. Write.

ELM FARM, DEERFIELD, ILL.

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO IOWA

BUY HOLLISTON SIRES

LANGWATER HOLLISTON, our famous senior herd sire, now has 23 A. R. daughters and 7 A. R. sons. His daughters are unusually persistent milkers and have what many call the foundation type and character. Langwater Holliston is out of a superior daughter of Imp. King of the May and he is sired by Jethro's May King of Linda Vista.

NOW OFFERING FOR SALE TWO YOUNG BULL CALVES

that will be ready for service next winter. Dam of one now on test will make 600 lbs. fat. Dam of other made 583 lbs. fat in GG.

D. G. TENNEY, 15 West Fourth St., NEW YORK CITY

FARMS AT SALEM, N. H., AND METHUEN, MASS.

FERN-DELL

Announces winnings at
- North West Fair, Minot, No. Dak., July 5, 1927.
- North Dakota State Fair, Grand Forks, No. Dak., July 12, 1927.
- North Dakota State Fair, Fargo, No. Dak., July 20, 1927.

ALL CHAMPIONSHIPS—Junior, Senior and Grand. (Both male and female.)

41 FIRST PRIZES, 14 SECOND PRIZES (First in these classes also won by Fern-Dell.)

Most of these prizes were won by 11 sons and daughters of Danny Duff (70839) — a wonderful combination of type and production.

See the progeny of Danny Duff at the following fairs:

Central States Exposition, Aurora, Illinois, August 12-19.
Illinois State Fair, Springfield, Illinois, August 20-27.
Wisconsin State Fair, Milwaukee, Wisconsin. Aug. 29-Sept. 3.

Write for new bull sales list — Good bulls as low as $150

LARSEN'S FERN-DELL FARMS, A. W. Fox, Mgr., Green Bay, Wis.

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 61) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

Special Offer of Registered GUERNSEYS

NINE COWS most all young, and fifteen HEIFERS and CALVES, from four months to past a year old, choice of registered bull calf, no relation, to go with them. The twenty-five head for $3,500. T. B. tested, f. o. b. car, all papers furnished. Must sell at once.

H. R. LOBDELL - - MUKWONAGO, Waukesha County, Wisconsin

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N

F. E. FOX, Sec'y WAUKESHA, WISCONSIN

OUR GUERNSEY SIRES

Combine Type and Production

PRINCE CHARMING OF SHUTTLEWICK. Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 yrs. Sold for $22,000. Her dam, Langwater Levity, grand champion at 1923 National. CINDERELLA'S FAME OF MOUND CITY. Dam, Cinderella's Josephine, 909 lbs. fat. YOUNG BULLS for sale by these sires and from A. R. dams; also a few bred and open heifers. Accredited herd. Write.

LINWOOD GUERNSEY FARM

Homer Rundell, Owner, Livingston, Wis.

A High Class Bull

A. R. DAM—PRICED TO SELL

CHERUB'S SPLENDOR OF CHIPPEWA is for sale. Born Aug. 15, '26. Growthy, good type. Sire: Proud Prince of the Prairie is a prize winning son of Cherub's Prince. Dam, a Glenwood cow with 415 lbs. fat in F. F. Priced right. Write today.

L. P. MARTINY, Chippewa Falls, Wis.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.

J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION

Vilas E. Young, Sec. West Salem, Wis.

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N

Geo. O. Hill, Sec. ROSENDALE, WIS.

BUTTERGOLD GUERNSEYS



HERD SIRE

Federal Accredited No Abortion

Offering TWO CHOICE TYPY BULLS sired by 1922 National Grand Champion and out of tested dams, born last August and November. Two choice senior heifer show calves out of tested dams and sired by son of National Grand Champion whose dam has just completed a record of over 700 lbs. fat, not yet verified. Boss' daughters on test are doing very well. One in A is going at 800-lb. clip, has made as high as 3.26 lbs. fat in one day and retest requirements her 4th, 5th, 6th mos.

TARR BROS., NEW AUBURN, WIS.

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,

INGERSOLL-TILDEN FARMS, Delavan, Wis.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

GEO. E. LARSON, AMHERST JCT., WIS.

HERD SIRE FOR SALE

Valentine's Count of Four Pines, my 4-year-old, line bred grandson of King of Chilmark, is for sale. A splendid bull with good type and backed by excellent production. Guaranteed right. Clean herd.

J. M. HARVEY, R. 2, WAUKESHA, WIS

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

Feed Cost of Heifers

HOARD'S DAIRYMAN:—Feed cost records were kept on heifers in a number of the association herds in the Gooding—Jerome Cow Testing Association in Idaho, from March, 1925, to March, 1926, to determine what it was costing the members to raise their heifers to producing age. Ages were based on the age of the animal in March, 1926, and are divided into three groups as follows:

Group I—2 years old, 12 to 24 months inclusive.

Group II—18 months old, six to 18 months inclusive.

Group III—One year old, birth to 12 months inclusive.

Feeds consumed were based the same as in cow testing records, hay was based on the assumption that an animal will eat three pounds of hay daily for every hundred pounds live weight. When succulent roughage was fed, less hay was consumed. No hay was charged to the calves until they started eating it. Silage, grain, skimmilk, and whole milk were weighed once each month, as it was fed; no uneaten feed was weighed back.

Alfalfa hay, the only dry roughage fed, ranged from $5 to $10 a ton; corn silage from $4 to $5 a ton; mangels or carrots, $4 a ton; the various grains ranged from $1 to $1.50 per hundred, barley being fed for the most part with some mixtures of oats and corn. Bluegrass pastures were used for the most part, with a few members having sweet clover. Pasture was figured at $2 a head a month for mature cows, the heifers being charged according to their size. Group I was charged two-thirds full price; Group II, one-half full price; and Group III, three-eighths full price.

The following table gives the detailed results of year costs of feeding heifers of different ages:

	Group I	Group II	Group III
Number of heifers	40	39	15
Age at start in months	12	6	1*
Succulent roughage, lbs.	253	181	30
Dry roughage, lbs.	1878	1329	949
Concentrates, lbs.		6	6
Skimmilk lbs.		1527	2638
Whole milk, lbs.		30	188
Days on pasture	182	172	154
Cost of roughage	$15.17	$11.55	$9.68
Cost of grain		.02	.07
Cost of skimmilk		$4.58	$7.91
Cost of whole milk		.55	3.68
Total cost of feed	$15.17	$16.70	$21.34

*Or less than one month old.

Idaho. T. E. SPEEDY.

Serradella Holstein Records

Six heifers, seniors yearlings and junior two-year-olds, in the Holstein herd at Serradella Farm, Michigan, have recently completed year records that average 13,920 lbs. milk, 453.5 lbs. fat (566.9 lbs. butter).

WHITE COLLIES For Sale!

Litter of eleven, born May 31. Strong, lively white Collie puppies. A few left with only a spot or two of coloring. Mother and father registered and work on our herd daily. Prices: males $15.00, females $10.00, F. O. B. Fort Atkinson.

Hoard's Dairyman Farm
Fort Atkinson, Wisconsin
Will furnish papers for registering.

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM
MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)
Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

HOLSTEINS

K.P.O.P. HEIFERS
Can spare a car of dandy Registered Holstein heifers 6—18 months old from 1,200-lb. K. P. O. P. bull. Just the thing for calf club work.
BOSTWICK & SON, Ardmore, Okla.

High Grade Holstein Springers
If in the market for big production these cows will please you. Tuberculin tested. Address
RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

K. P. O. P. Bulls
If you will need a new sire during the next year get in touch with us. We can offer you just what you want.
HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write
L. E. FERGUSON, LAURENS, IOWA.

STATE and FEDERAL TESTED **HOLSTEINS**
BUY FROM AN AREA TESTED COUNTY
The county that furnished both Grand Champions National Dairy Show 1926. 50 pure-bred bulls—serviceable age, priced from $125 to $1000. Two entire pure-bred herds—owners have some of the best blood but for good reasons are quitting farming. 500 herds of the best bred grades to select from.
Write or wire for information or appointments.
WAUKESHA COUNTY HOLSTEIN-BREEDERS' ASSOCIATION
133 Barstow St., Waukesha, Wis.

ABORTION FREE HOMESTEADS
We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.
T. B. under Federal Supervision.
MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA WISCONSIN
E. C. Thompson, Farm Manager.

Come to Sheboygan County for Holsteins
We have choice grades and purebreds to select from. Write your wants to:
SHEBOYGAN COUNTY HOLSTEIN ASS'N.,
Frank Ubbelohde, Secy., Plymouth, Wis.

Jefferson County Holsteins
Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.
JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

Buy that herd bull from a Hoard's Dairyman advertiser. You'll be better satisfied.

There Are Few Opportunities to Buy A Bull Like This!



Nine daughters of Segis Walker Matador have complete year records to date. These nine average 1,042 lbs. of butter in a year. Three more are now on test, all going at a 1,000-pound rate.

Here is a bull from a 21.9-pound 2-year-old daughter of Segis Walker Matador. Her older full sister made 1,027 pounds of butter as a 4-year-old.

The sire of this bull is the oldest son of the World Champion cow, Segis Pietertje Prospect. This bull is a paternal brother to our popular junior sire, Carnation Prospector, and looks for all the world just like he did at the same age.

Unless the dam increases her record before you buy, you can get this bull at a reasonable figure.

We advise you to write us immediately.

Address all correspondence to
811-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN
HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA MATADOR 6TH and PROSPECTOR



Sir Bess Ormsby Fobes

"Sir Bess" is Dea
A Few of His Sons L
Sir Bess Ormsby Fobes died June 25th, so the n of his sons left to be sold is limited. We still have good ones left. Better write us today for infor about one or come to the farm and see them.
HOLLYHOCK FARMS, 2 miles south of Oconomowoc, (Waukesha, Co.) DOUSMAN
GUSTAVE PABST, Owner, F. J. SOUTHCOTT, Mgr.
A clean herd under State Supervision.

NORRIS FARMS *Now Offering* — a September '2 whose two nearest maternal dam over 31 lbs. Dam now on year test. Sire, a well-bred Creator-Prilly bull for all details of a mighty good calf. NORRIS FARMS (Fully Accredited) Mukwona

Clover Lawn Ormsby Fobes
Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Dicmere Holsteins
30-LB. SHOW BULL
We are offering a very typy January calf from a 30-lb. 3-year-old dam. His sire, Walcowis Ollie Abbekirk, is a 968-lb. son of that grand champion, Iowana Sir Ollie. The herd is federal accredited. Write today if you want a good bull at a reasonable price.
H. E. DICKINSON, Oconomowoc, Wis.

YOUNG BULLS
sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

SERVICEABLE BULLS—FOUNDATION HEIFERS
Have a number of good bulls between 9 and 12 mos. of age. Would sell a ½ interest in some of the best ones to the right parties. Can spare several pure-bred females, some bred to the 1926 National Grand Champion Holstein bull.
BAIRD BROS., Box 177, WAUKESHA, WIS.

Our Surplus Purebred And Grade Holsteins
have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.
DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

Milford Meado
Calves from SIR TRIUNE PANSY and are everything we hoped for. To have 12 heifers and 5 bulls and all ve alike, straight and evenly marked. of every calf will have a record.
Ask us about them.
W. W. KINYON, LAKE MILL

Ormsbys and O
We are not showing this year—can few very choice bulls and females- time show bull at two years old in Cows milking over 100 lbs. daily—th olds up to 33 lbs. One of the best the state—bar none. Look them ove
F. H. BOYLE, Owner, PEEBLE
L. F. Murphy, Mgr.

BULL CALVES $75 to $
Six choice bull calves 4 to 7 months old. 996-lb. grandson of Iowana Sir Ollie and producing daughters of a 1040-lb. Homes Accredited herd. Write today.
CHAS. HUGHES & SON, NEEN,

Purebred and Grade Hol
The best place to get them is at Randol Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIAT
S. W. Pierce, Sec'y., Randolph,

Jefferson County Holstein Sales Ass
can assist you in purchasing good, clean d Grade or pure-bred in any number you wis all correspondence to A. F. GAFKE, secret FERSON, WIS.



HOLSTEINS

are producers of

BUTTERFAT

Holsteins lead the world in production of butterfat—the largest factor in dairy profit. Eighty per cent of the cows which have produced 1,000 lbs. or more of butterfat in a year are Holsteins.

Write for our booklet—
"The Holstein-Friesian Cow"

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN

...0 E. Ohio St. *Association of America* **CHICAGO**
ROOM 601

GOOD COWS!

We can now furnish car lots of clean Springers, all breeds. We ship direct and can save you money on good cows.

CHICAGO DAIRY COW EXCHANGE, Inc.
...EID MURRAY, Mgr. Union Stock Yards, CHICAGO, ILLINOIS

...ealthy Holsteins

...re in the market for grade or registered Hol... ...om tested herds write us today.
...LINOIS HOLSTEIN-FRIESIAN ASSN.
...earborn, St., CHICAGO, ILL.

...rmsby-Homestead Bulls

...ve for sale 2 very good calves born ... and Dec. 27, sired by Rawleigh Ormsby ...e Posch, our 41-lb. Ormsby sire. They ...m 24- and 25-lb. 4-year-old Homestead ...with good year records, one a state ... cow. Priced to sell. The herd is ... Write
...E W. T. RAWLEIGH COMPANY
...Rawleigh's Ideal Farm, FREEPORT, ILL.

TAKE TIME!!

...are saving $50 to $100 by purchasing ...t summer Holstein bull calves NOW. ...n better. Every cow has C. T. A. ... Many have official records. Some ...sired by 1,138-lb. bull whose dam tested ...2%. A card brings list.

...ck River Farms, Byron, Ill.

...lo Creek Farm Holsteins

...e offering BULL CALVES rich in ... breeding from tested dams. These ...m six to eleven months old. Some ...as low as $100.00. Write for pedigrees ...ther information. Herd under federal ...sion.
...AM BROS., Arlington Heights, Ill.

...ULL BORN SEPT. 23, '26

... a 24-lb. two-year-old with 460 lbs. of ...e is sired by a good proven bull. He is ...4 white and a real individual. Send ...igree and price.
... ELLWOOD & NELSON
...KLB ILLINOIS

...DE PARK FARM

...S PARK, - ILLINOIS
Offers BULL CALVES
...y an outstanding 35-lb. son of Mata... ...m Fully Accredited Registered Yr. ...with leading cow testing association ... $100.00 up for typy individuals.
...A. CARROLL WILLIAM EDGAR
Owner Herdsman

...HIO HOLSTEINS

...ered COWS, HEIFERS and BULLS. ...choice Calf Club CALVES. We have two ...gents in the field all the time who can ...are of all orders in fine shape. All in... ...s are referred to our entire membership.
...HIO HOLSTEIN-FRIESIAN ASS'N
...2. 102nd St. Cleveland, Ohio.

...OLSTEIN BULLS

FOR SALE
...Brook Bess Burke 2d - Ormsby
BREEDING
...TE FOR SALE LIST—JUST OUT
...nder Federal and State supervision for ...losis—blood tested for abortion.
...RTHUR FARMS, Winterthur, Del.

BIG PRODUCTION HOLSTEINS

The Femco Farms herd now consists of 250 registered Holsteins. Twelve cows in the herd have yearly butter records from 1,000 to 1,426 lbs. Three have milk records from 30,000 to 34,000 lbs. Many heifers with records in proportion.

HERD SIRES

PRIDE OF SIR PIETS—Son of Wisconsin Pride 2d, highest record daughter of "37th" with 1,327 lbs. as a 3-year-old. By the highest record son of K. P. O. P.

DUTCHLAND CREAMELLE COLANTHA LAD—Sire of seven 1,000- to 1,426-lb. cows, including two with milk records over 33,000 lbs.

MANKATO FLOA ORMSBY KORNDYKE LAD—The only bull in service whose dam and sire's dam are 1,000-lb. 2-year-olds. Combines the blood of the world's greatest sires of 1,000-lb. cows.

Write us for pedigrees of choice bulls for sale.

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by **KING PEITERTJE MERCEDES ORMSBY**, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

A GOOD BABY BULL

Sired by **ST. OLAF ORMSBY SENSATION** No. 346641, the Show son of Ormsby Sensation. Dam of calf a wonderful daughter of Dean of the Ormsby's. What more could be desired? Born December 21st; about half white. For information write

ST. OLAF COLLEGE FARMS, Northfield, Minn.

MAYOWOOD HOLSTEINS

We can offer a few serviceable bulls, including several splendid sons of White Hope out of high-record dams. We are also quoting some very excellent calves at strictly farmer's prices. Write us for extended pedigrees.

O. C. JENSEN, Supt. Rochester, Minnesota

STEELE COUNTY HOLSTEINS

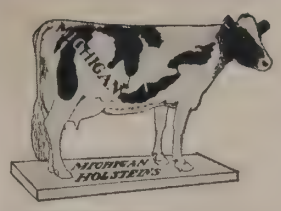
are noted for their size, type and production. Pure-breds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

AKONA HOLSTEIN FARM

BULL CALF born Nov. 24, 1926. **Sire's dam 1,024 lbs. butter in year. Dam's** cow testing association record **421 lbs. butter in 10 months** as a jr. 3-yr.-old. **Price $100.** Accredited herd.

B. A. NORRIS, Anoka, Minn.



Come to Michigan for Holsteins

SUMMER BUYERS given every help to locate good **PUREBRED** Holsteins. Fifteen County Sales Managers eager to help you at no cost to you. Let me know what you want and I will ask these Sales Managers to quote you.

J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

Write Serradella Farm Before You Buy Your Next Herd Sire!

We have for sale some excellent sons of Sir Dutchland Colantha Denver (a 36-lb., 1300-lb. sire) from good 7-day and year record dams. Our prices are right. The herd is healthy.

SERRADELLA FARM, (Federal Accredited Herd), **Oscoda, Michigan**



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

Echo Sylvia King Model 266177

Leading Honor List sire 1925-26 and 1926-27. The only sire to achieve this distinction for two successive years.

Bred for production. A grandson of May Echo Sylvia from a 36-lb. daughter of a twice 37-lb. cow.

He transmits production. He now has 87 A. R. O. daughters including a 34.71-lb. cow with a 305-day record of 907 lbs. butter as a Junior 4-year-old and 8 others from 30 to 33.76 lbs.

Let one of his sons insure production in your herd.

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.
"The Herd With Straight Top Lines and Perfect Udders"

MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, **SIR WALKER SEGIS HOMESTEAD,** a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, **LASHBROOK JUNE WALKER ORMSBY,** an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of **Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.**


Sir Walker Segis Homestead

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.

---

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

AMAZING, *New* Spreader Boosts Crops and Profits



Spreads like a carpet . . Insures quick absorption . . Prevents burn-outs

THE Superior Blackhawk Spreader has an amazing record for helping farmers increase crop yields. It is helping them get thousands of dollars in extra profits. It is helping them get earlier crops, bigger crops, better crops—crops that bring the highest market prices. And what the Superior Blackhawk is doing for others it will do for you! *It will pay for itself many times over in actual cash returns*—not to mention the time and work it saves.

If you are hauling and scattering manure by old, slow, costly and laborious methods; if you are using a spreader that wasn't built right to start with—or one that has seen its best days—read why it's real economy to replace it with a Superior Blackhawk now.

Only the Superior Blackhawk Can Give You All These Features

Don't confuse the Superior Blackhawk with other spreaders. See it at the nearest Superior agency—or on some neighboring farm. Note the difference. *The Superior Blackhawk has features that are revolutionary.* Many of them are patented.

The Superior Blackhawk is built low for *quick and easy loading.* It is the *easiest hauling spreader* ever built. Alemite lubrication keeps all working parts in perfect condition. Automobile type mounting in front gives a *shorter right-angle turn* than any other spreader.

Think what it means! It means less work for you. It means less work for your horses. You can haul more loads and cover more ground in a single day. And that is not all.

No Other Spreader Like It

The Superior Blackhawk completely pulverizes every particle of the manure. It spreads it over the field in a broad, smooth layer. None is wasted. No part of the field gets too much. No part gets too little. The manure is spread as smooth and even as a carpet. All of it becomes available as plant food. And how crops grow! This is the most effective method of fertilization known today.

The Biggest Value for Your Money

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Be Sure It's a Superior Blackhawk

See the Superior Blackhawk at your dealers. See for yourself why it's better. See for yourself why thousands of farmers are buying it in preference to all other spreaders.

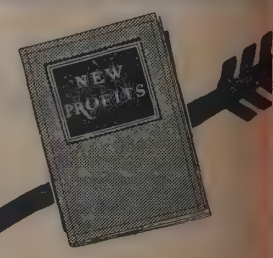
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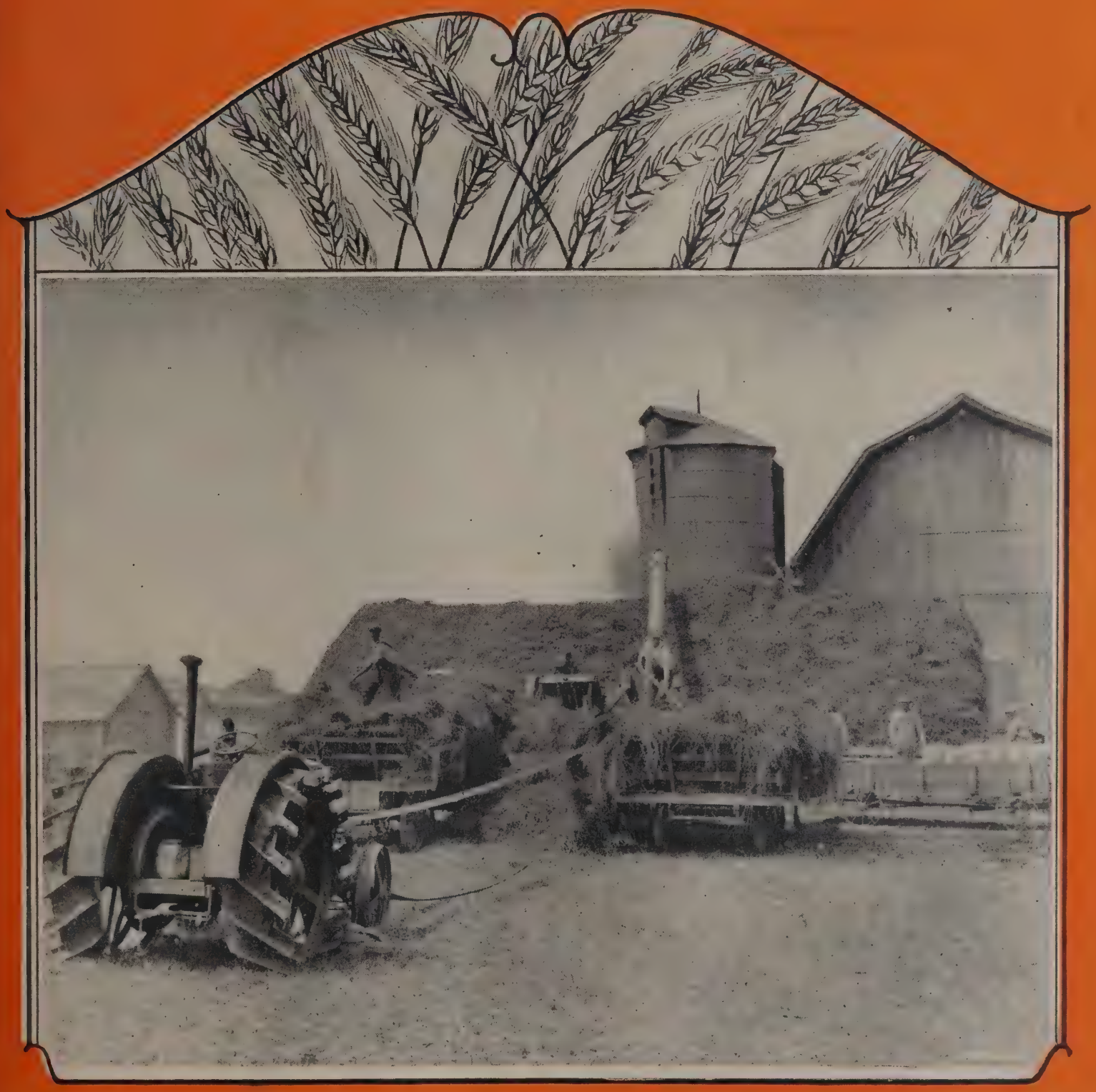
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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



ume 72, No. 16 Fort Atkinson, Wisconsin August 25, 1927



Polarine

THE PERFECT MOTOR OIL

(Special Heavy)

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YOU can trust your tractor to the care of Polarine. For Polarine is a faithful friend — never varies from one year's end to another. Whenever — wherever you buy it you know what you're getting. Polarine never disappoints you. It's one of the few *sure* things.

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Polarine—Special Heavy—is the right oil for your Fordson. Polarine—Special Heavy—was made for it. The lubricating engineers of the Standard Oil Company (Indiana) made a special study of the Fordson tractor and its requirements in order to develop a lubricating oil that would be *exactly right.*

There are other grades of Polarine for other makes of tractors. If you want to get maximum work out of your tractor — at a minimum cost — use Polarine—of the correct grade.

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ed at Fort Atkinson, as second class matter.

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olume 72 FORT ATKINSON, WIS., AUGUST 25, 1927 Number 16

PROTEIN—NEW ENGLAND'S HANDICAP

FORD S. PRINCE, NEW HAMPSHIRE

may be stretching the truth to ay that Yankee farmers are agi- ated over anything. But it cer- y is a fact that many New Eng- dairymen are beginning to be- their milk costs are too high. does not have to travel far to the atmosphere which would lead to believe that there is consider- worry and much thought about to solve the problem of ring more protein on the ıs of New England.

would be a long story to now a situation has de- ɔed whereby these same cee farmers have passed a position of independ- in their feeding opera- to one of absolute de- ence upon grain grown ɔther states to furnish ein to their herds, until are spending nearly fif- nillion dollars annually the grain necessary to nce their dairy rations maintain a fairly high of milk production.

hile this staggering to- ıay mean little to the or- ry reader, translated in s of expense it means verage annual outlay of dollars for every cow in section.

ese same Yankee farm- probably never read ster's definition of pro- as, "an alkali albumi- formerly supposed to be basis of all albuminous ances." They would de- protein as an expense e necessary to balance feeds they now grow.

ıce, when labor was p, they had it in abun- e. Now they buy it. And are beginning to won- f there is not some way rowing more of it on own farms to ease up ıe daily feed bills.

ıe growing of grain on a e scale is not coming into most sections of England. The topog- y of the land and high costs seem likely to ude that possibility. ns adapted to such ures can usually be put ish crops in which there is a er profit.

ıe problem of protein narrows it- down to one of growing better hage, for New England farmers produce more protein per acre igh quality roughage than they n grain.

comparing, for example, a three- crop of alfalfa hay with corn or we find it would take three acres rn or four acres of oats to pro- as much protein as is found in ıcre of alfalfa.

ıis fact is beginning to run riot amongst certain dairymen in New England and many are making a modest start in the alfalfa game. Some few have even gone as far as they can with it and are producing all the alfalfa hay they need.

James Monahan, New Hampshire, is such a man. He has twenty-five acres of alfalfa, gets two cuttings a year, and has an abundance of this high quality forage to feed his cows. "I'm not feeling too badly," he said last January, "over the fact that I still have forty tons of alfalfa hay in the mow."

Instances like this might be multiplied indefinitely to show how certain farmers are saving from one-third to one-half their grain bills by utilizing alfalfa hay. The progress that is being made is not confined to this crop. More lime is being used to get clover and where lime is applied clover lasts longer and makes for better quality hay in succeeding years.

Not enough attention has been paid to alsike and mammoth clover where lime is not used. These two clovers are less sensitive to acid soils than red clover and should find more of a place on those farms where liming is not a general farm practice.

A. B. Wood is one of the farsighted dairymen in New England who recognizes these principles. He uses a mixture of oats, peas, and vetch for seeding down. This gives him a high protein annual hay crop. He sows alsike in all his mixtures and especially so if the soil has not been limed. He is also making use of alfalfa on those fields which have been limed and are adapted to the crop. Mr. Wood is one of the men who believes in cutting all hay earlier to get greater palatability and a higher protein content. He cuts his oats just after the heads appear for this reason.

C. T. Rossiter feels that the earlier cutting of all the hay in New England would add a great deal to its feeding value and analyses which have been made prove that he is right in this respect. There is, no doubt, much that can be done to improve the quality and yield of the grass hay which now forms the greater part of all hay fed in New England. Earlier cutting, the use of lime on seeding down, and top-dressing with nitrogen fertilizers will all help the situation. Cheaper nitrates give much to hope for in this regard.

Farmers are thinking not about the feeding value of their hay alone. They are also beginning to wonder about their pastures. There is no doubt but that pastures are deteriorating. They have had no attention for years, most of them, either in fertilizing, cleaning out brush, or reseeding.

Present labor charges seem to indicate that pasture improvement should be confined to small areas which can then be seeded to sweet clover.

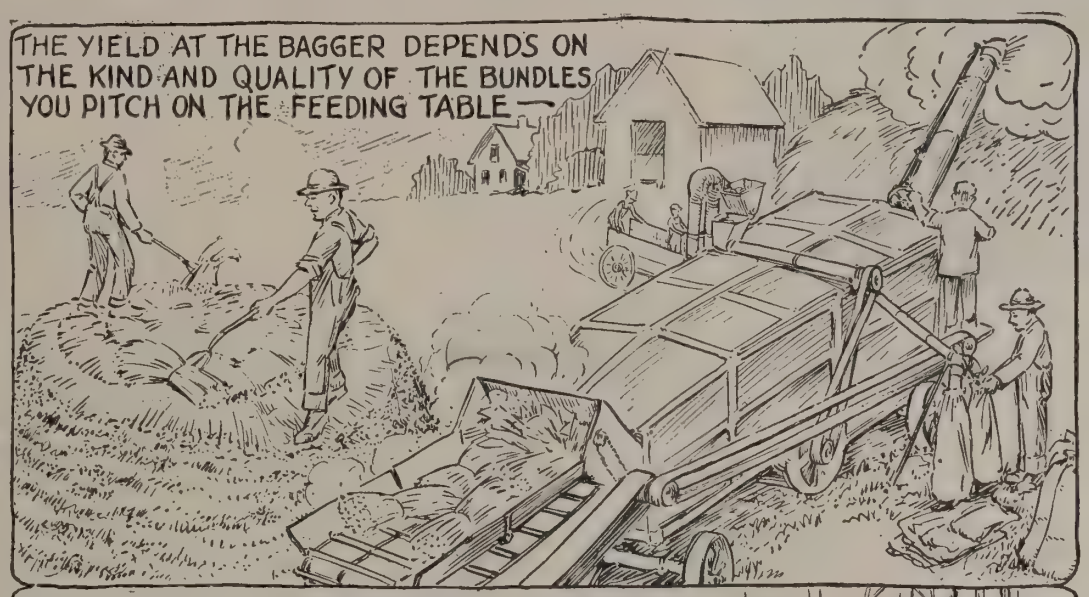
J. R. Graham, formerly a civil engineer but now one of New Hampshire's leading dairymen, is making use of this system. Last year he had seven acres of sweet clover for pasture. It furnished so much feed that he is planning to seed over twenty acres in 1927, enough to pasture his entire herd. With no green feed to cut and carry in the short pasture months of all the fall and with a high protein pasture crop like sweet clover saving part of the grain bills, quite a strain can be taken off the financial and labor end of the dairy business at that season of year.

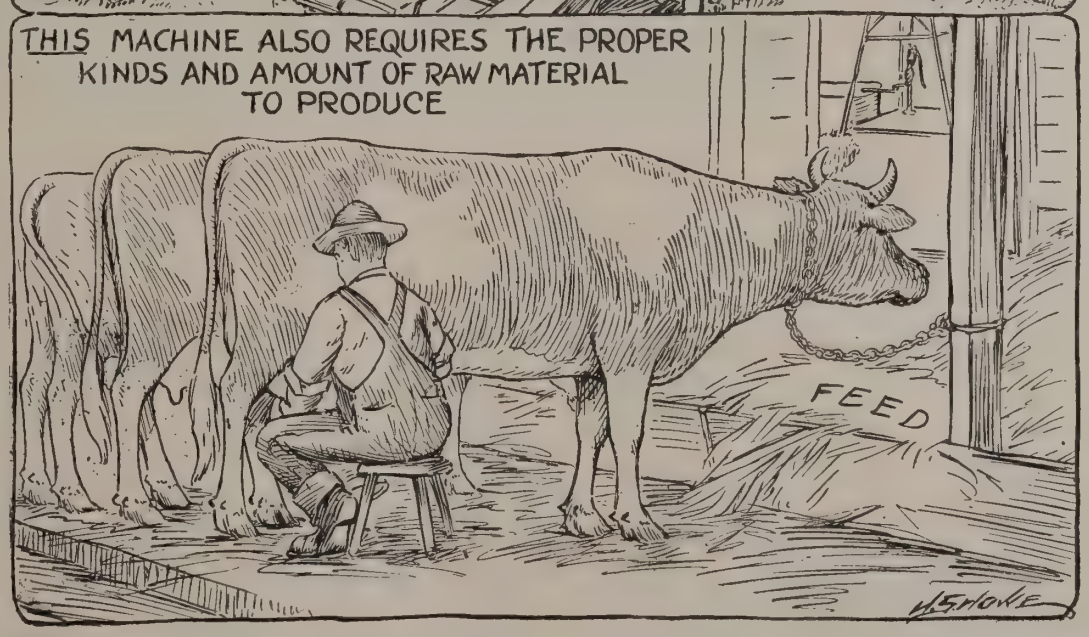
The use of more agricultural lime seems to be the key to the raising of more protein on New England farms. Cheaper lime is needed to aid this progress. There is now a minimum freight rate in New England on lime of $1.80 per ton. Compare with this the minimum in Minnesota of sixty cents per ton!

High freight rates are not alone to blame. Nearly all lime shipped in New England is in bags, for which a charge of at least $1.50 per ton is paid. It would seem that cheaper freight rates to be comparable with those of other states, the use of bulk lime, and a greater volume of business for the limestone companies ought to

(Continued on page 818)

MACHINE EFFICIENCY PLUS WHAT





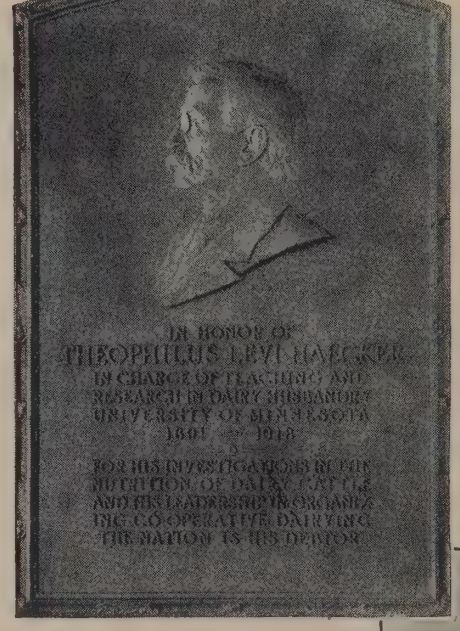
LIFE AND WORK OF T. L. HAECKER

No. 4

Observations on Handling and Feeding the Herd

WE come now to a very interesting and very important part of Professor Haecker's career—that period of devoted study to the scientific principles underlying the problems of feeding dairy cattle, and the practical application of these principles. Over a long period of years Professor Haecker constantly observed with a keen mind the practices of feeding cows, and from his observations made some big contributions to the cause of better and more economical feeding of the dairy cow.

We have seen how Professor Haecker related form to function in the cow, and how he diligently dug for facts on the cost of producing butter. His comment on the selection of records for experimental work shows the great pains taken to make the conclusions accurate, tells of his constant search for those practical truths which should be of the greatest benefit to the dairy farmer, and throws light on proper handling of the herd.



Things That Influence Production

"Not all of the records can be used in calculating cost of production or in forming groups based on conformation. It is found that immature cows cannot be used in making comparisons in cost of butter production, because the growing heifer always uses part of the nutriment of the feed in building the body.

"It sometimes happens that a cow in her prime does very unsatisfactory work during a whole period of lactation, simply because she did not start under favorable or normal conditions. Old cows with defective udders, impaired digestion, or unsound teeth cannot be used when careful work is intended. But if an old cow is sound, she can do as good work when twelve years old as she could when younger.

"A cow's annual yield will vary because of the different conditions which exist from year to year. Again, a cow may be temporarily out of condition sometimes during her period of lactation and thus fail to do an average year's work. Some are very sensitive and when under the care of a gruff or careless and indifferent attendant or milker will not do normal work.

Handling the Herd

"There are numerous instances where whole herds of selected dairy cows, representing the finest breeding and individually well adapted for dairy work, have proven a failure both as breeders and milk and butter producers simply because they were kept with and handled by attendants who had been accustomed to the care of beef cattle and who gave the sensitive dairy cow the same kind of treatment that they were in the habit of giving the beef animals. So it follows that there will always be a considerable diversity of opinion in regard to the merits of different breeds and types of cattle, even where the opinions are based upon actual experience and demonstration.

"It has been the purpose from the establishment of the herd to so handle the cows that they will give the greatest amount of dairy products for the maximum time at the minimum cost. With this object in view neither the herd nor a single member of the herd can be fed above a fair average ration for even a week, for by so doing her future usefulness would be in peril and the time of her dairy work shortened."

Does it make a difference as to which cows are milked first? Is there a need for milking the cows at the same time every day? How should the herd be handled for best results? These questions were answered by Professor Haecker in describing methods employed at the Minnesota Experiment Station.



HAECKER HALL AT THE UNIVERSITY OF MINNESOTA, AND ITS INSCRIPTION TABLET

Said a big metropolitan newspaper two years ago, "Five words on a bronze tablet at University Farm sum up the work of Theophilus Levi Haecker, the man who has done more than any other man for dairying in Minnesota. The words are: 'The Nation Is His Debtor.' Mr. Haecker's work, covering 27 years, was recognized recently by dedicating the new $275,000 dairy building in his honor and naming it 'Haecker Hall.'"

Professor Haecker's work dealt with every field of the dairy industry from the care of the herd to the manufacture and sale of the finished product. His leadership for the co-operative creameries made Minnesota the greatest manufacturing state in the Union of creamery butter and of the highest quality butter in the world.

His work on feeding dairy cows places him among the greatest scientific men on agricultural subjects, and yet he made his work so plain that it was understood and used by thousands of everyday farmers. It was recently said by Dr. C. H. Eckles that Professor Haecker did more to popularize the scientific feeding of dairy cows than any other man who has ever lived.

He was a lover of mankind. His sympathy went out to the men and women and to the boys and girls who were having a hard time to get along. He would make every man's road an easier one to travel. He believed in co-operation as an important factor in business because he believed in the consideration of "the other fellow." He believed that it is only through considering the welfare of others that peace and true prosperity can finally come to a community and to a nation and to the world.—A. J. McGuire.

Order of Milking

"A strict routine is observed in all the work. Feeding and milking are done at exactly the same time each day. The cows are milked quickly but gently and in regular order. There are generally some cows in a herd that manifest a desire to be milked first. Some even will begin to lose their milk if they are not first, and the order in which the cows are milked is always adjusted to these individual peculiarities. All animals are treated with kindness and no loud talking or rough handling is permitted.

"No such thing as a kicking cow or heifer is known in the herd. Heifers soon to come in are handled with great kindness and their udders manipulated to get them accustomed to being milked, and they show as great satisfaction in being milked the first time as do older members of the herd."

Will a cow eat more feed than she can make use of if given the opportunity? Based on experiments conducted up to the fall of 1895 Professor Haecker stated, "It is generally supposed that cows will eat m than they can make use of. Su however, has not always been our perience, if judicious and lib feeding is properly inaugurated continued without interrupt through the year and through a se of years. The first year a cow take more than she can make use but later she, as a rule, will not more than she needs.

How Much to Feed

"It should not be understood cows are fed without regard to qu tity. On the contrar is weighed out great care when she comes into the herd ways beginning wt several pounds below estimated feeding ca ity and very gradu increasing, keeping watch as to her appi and digestion. It t time to teach a cow she will receive feed when she nee and that there is no son for her to eat than she really wa but she will learn the course of the ye strict regularity is ni tained."

Experiments con ed during the winte 1895 led Profes Haecker to say, " methods of feeding a based upon the idea a cow well and regularly fed thro out the year and from year to would eat no more than she actu needed, and that such liberal fee would develop both her feeding and gesting powers. But in examining table with reference to the am of dry matter required by the die ent cows for a pound of producta ter deducting that required for ni tenance, it appears that those consumed relatively a large ra used nine pounds or over of dry a ter; while those that required than nine pounds consumed rela ly a small ration, which indicates some cows will eat, and appare relish, a larger ration than they digest and assimilate."

She Does and She Doesn't

All of which leads us to bring a very apt phrase coined by Pro sor Haecker—"Surely the way the cow are very strange. She and she doesn't, and then again does neither." These words written about an experiment tod

(Continued on page 814)

Honorary Recognition by University of Wisconsin

Theophilus Levi Haecker, pioneer organizer of co-operative dairying and tireless investigator of live stock problems, has in his life of service made a contribution to agriculture which marks him as an outstanding figure wherever the industry of dairying is practiced.

From Wisconsin, the state of his nativity, he carried to Minnesota fresh knowledge of dairying; and it was through his far-seeing application of modern methods to that industry that that state became the leader in butter production. In spite of the handicap which he experienced in a lack of educational opportunities, few men have done more than he to advance the sciences of dairying and animal nutrition. His example most emphatically illustrates the possibility of accomplishment which energy and perseverance can achieve here in America.

In recognition of his work and influence as one of the world's great leaders in co-operative dairying and live stock husbandry, the faculty of the College of Agriculture has chosen to honor him, and I present him to you, Mr. President, to receive the testimonial of honorary recognition awarded by the regents of this university.

THE VETERINARY SITUATION

Welfare of Live Stock Industry Endangered as Shortage of Trained Veterinarians Approaches

D. S. BURCH, WASHINGTON, D. C.

A CAREFUL appraisal of conditions within the live stock industry and those dealing with eterinary education points to a se- ous shortage of trained veterinarians ithin a few years. In some fields the iortage is already here and being lt. This forecast of inadequate pro- ction to the live stock industry, at ast for a considerable period, is sup- orted by very definite evidence. It is situation that demands the earnest tention of stockmen and probably ill be remedied only by greater in- rest among young men in the vet- nary profession, when its oppor- nities become more apparent.

Meanwhile stock owners must pre- are for a shortage of ained men in this pro- ession until the law of pply and demand re- ores normal equilibri- m. On the basis of the our-year course of aining now given by 1 veterinary colleges the country, an up- ard trend in supply can ot occur before 1931 nd may not come until onsiderably later.

eterinarian Invented neumatic Tire and repared Way for Auto

As a profession, that f veterinary medicine nd surgery has had a ost eventful career. s beginning occurred France about 1762 ith the object of train- g men to save horses jured in war. In time e veterinary schools, tablished for that pur- ose, extended their field include means for ombating destructive iseases that were rav- ging the country.

The first veterinary college in the nited States was established in New ork City in 1857, primarily to give struction in the treatment of horses.

Curiously it was a veterinary sur- eon who, in 1888, made the first neumatic tire which was the fore- nner of the bicycle and the modern xurious automobile. Having a son ffected with spinal trouble this veter- arian, John B. Dunlop of Belfast, eland, fastened three crude circular irbags to his son's tricyle wheels to ften the sidewalk shocks. With the evelopment of the pneumatic tire in- ustry and motor transportation re- lting from those tricycle tires, horse ractice, the mainstay of the veterin- ry profession, began to be threat- ened. But at the time there was no means of knowing what the future had in store.

Meanwhile, by 1892 four veterinary colleges in the United States were giving courses and by 1916 the number had increased to 21 with an enrollment of nearly 3,000 students.

Colleges Close and Enrollments Decline

By a strange psychology the name "horse doctor" had made an indelible impression on the public mind. And with the gradual disappearance of livery stables and other evidence of horse travel, veterinary training began to go into eclipse. One by one the 12 private veterinary colleges closed their doors for lack of students. The last of the private institutions, now having only four students, will go out of existence this year. Only state colleges giving a full four-year course of study in veterinary medicine and surgery now remain.

From enrollments totalling nearly 3,000 students ten years ago, the number of young men taking veterinary courses in the thirteen colleges in the United States and the one in Canada dropped to only 582 last year. This was the total for all classes—freshmen to seniors. Graduates from the same colleges in 1926 numbered only 132, or 11 less than in 1925 and 28 less than in 1924. Records for the period from about 1910 to 1918 show that the veterinary colleges were graduating about six times as many students then as now, though it is proper to say that the course of study now is longer and the requirements for graduation are stricter. But the decline in graduates and of interest in veterinary education form one of the most serious conditions which the live stock industry faces today.

The present number of graduates is less than enough to fill the vacancies in the U. S. Bureau of Animal Industry alone, which needs trained veterinarians for its federal meat inspection, for tuberculosis eradication, and many lines of highly important inspection and quarantine work at public stockyards and at seaports. This federal service is also essential as a basis for our exports of meat and it has been chiefly responsible for protecting American live stock from foreign plagues and the spread of diseases from one state to another.

The Bureau of Animal Industry alone employs about 1,350 veterinarians, and their resignations and separations average about 10 per cent a year. So it is plain that with only about 132 graduates altogether and 135 new positions each year in this one field, to say nothing of many other fields, a good veterinarian will soon be at a premium. As evidence that the shortage is already at hand, the U. S. Civil Service Commission in its recent announcements of examinations for junior veterinarians at an entrance salary of $1,860, stated, "As the commission has had difficulty in securing sufficient eligibles for this position, qualified persons are urged to apply." This virtually amounts to recruiting for veterinarians.



PREPARING TO MAKE AN INTRADERMIC TUBERCULIN TEST

This branch of veterinary service has become extremely important in recent years in view of the strong public sentiment for tuberculosis eradication.



Horses in the United States still number about 17,000,000, a sizable equine population in spite of motor transportation. There is only one trained veterinarian for every 1,700 horses, according to best estimates, to say nothing of veterinary requirements for cattle, sheep, swine, and smaller animals.

The Lesson From Last Year's Serum Shortage

From the standpoint of the average live stock owner, the situation may seem to involve no immediate concern or preparation. "Oh, well, I'll manage to get along," is probably the natural reaction. That was evidently the sentiment among swine owners early last September before hog cholera ran amuck. But in the crisis, apparently unaffected by the law of supply and demand, the supply of the protective serum ran out. Nor could any human power make serum over night. It is a process normally requiring about two months. And before serum enough could be made, about 1½ million hogs in the corn belt died of cholera.

How much more serious, then, is a shortage of men trained in veterinary medicine and surgery, a profession that requires at least four years of in-

(Continued on page 817)



BACON HOGS FOR EXPORT

The export trade of the United States in meats and meat products is based on federal meat inspection, which is essentially a veterinary operation.



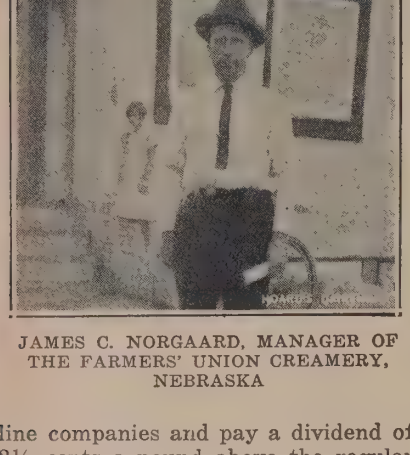
INSPECTING IMPORT CATTLE FROM MEXICO FOR SIGNS OF DISEASE, CATTLE TICKS, AND OTHER PESTS

Important work of this kind is entrusted only to trained and experienced veterinarians.

Successful Co-operative Centralizer Creamery

GUY A. PETERSON, WISCONSIN

JAMES C. Norgaard, manager of the Farmers' Union Creamery at Superior, Nebraska, is proving that farmers can operate a centralizer creamery in competiton with the old line companies and pay a dividend of 2½ cents a pound above the regular market price as set by the private companies.



JAMES C. NORGAARD, MANAGER OF THE FARMERS' UNION CREAMERY, NEBRASKA

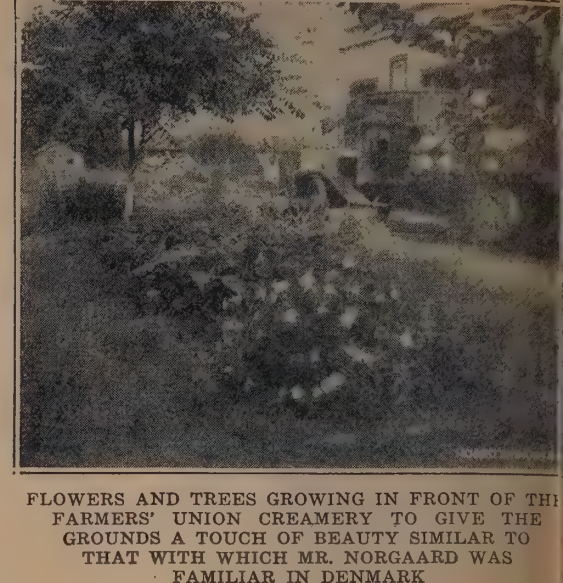
This co-operative creamery was organized in 1918 when 29 stockholders furnished the funds to get a little 600-pound a week plant started. Today the organization boasts a thousand stockholders, six thousand patrons, and an annual output of more than two million pounds of butter.

Mr. Norgaard has been the motivating influence in this phenomenal growth. He was born in Jutland, Denmark, in the community where the world's first cow testing association was organized. It was here that he learned some of the essentials for success in dairying because he was at one time the youngest government cow tester in Denmark. Just before the outbreak of the world war he emigrated to Waupaca, Wisconsin. He couldn't learn English there, however, because nearly everyone he met spoke Danish, so he got a job in New London, Wisconsin. He had been living with a German family on a farm near that town for some time before he discovered that it was German they were speaking instead of English. Finding it difficult to learn the American language in a community where so many people spoke German, he secured employment in the Green Bay co-operative creamery where he worked until the autumn of 1915 when he left for the Wisconsin College of Agriculture to take the butter and cheesemakers' course. So well did he acquit himself in this work that he was offered the managership of a small creamery in Harbor Beach, Michigan. Harbor Beach is a summer resort that is visited by great numbers of well-to-do people from Detroit. These visitors got a taste of the good butter that Norgaard was making and not wishing to be deprived of it upon their return, they asked if they could get it by parcel post. As a result, the entire output of the creamery is now either sold locally or in five-pound parcel packages. Up until the time that Norgaard left in 1917 to become an instructor in the dairy department at Madison, Wisconsin, the Harbor Beach creamery plant had never lost a penny on a bad account.

Goes to Nebraska

At the close of the dairy course in 1918, Norgaard accepted the call to manage the little creamery in Nebraska that is the subject of this sketch. He had hardly gotten things started, however, when a fire burned the plant to the ground in May, leaving him without a place to work. He finished out the season inspecting navy butter in Minnesota, but he came back to Superior the next year to reorganize the co-operative that he now manages.

At first Norgaard had the usual fight with the old line centralizers. He said that more small centralizer factories and co-operative creameries have gone bankrupt or stopped operating in Nebraska than in any other state. He told us that nearly eve small town in the state has had creamery at one time, which in m instances nad been started by a p moter who wanted to sell creame equipment, but who took no troul to find out if such a plant could economically operated.



FLOWERS AND TREES GROWING IN FRONT OF THE FARMERS' UNION CREAMERY TO GIVE THE GROUNDS A TOUCH OF BEAUTY SIMILAR TO THAT WITH WHICH MR. NORGAARD WAS FAMILIAR IN DENMARK



FARMERS' UNION CREAMERY AT SUPERIOR, NEBRASKA, THAT IS NOW MAKING APPROXIMATELY 2,000,000 LBS. BUTTER ANNUALLY

Need Large Volume

"A centralizer creamery in Kans and Nebraska," said Norgaard, "h to make at least a million pounds butter in order to properly grade and secure the advantages of car shipping. Shipping by car load ra makes a difference of 1½ to 2 cen a pound, so we are saving the farm $20,000 in freight alone by being a to ship that way. Save for a few ex ceptions, the farmers around he milk cows mainly as a side line, so is naturally more difficult to p across a grading program, but we a gradually working toward the goal payment according to grade. It co three cents a pound to handle cream at the cream stations, abo two cents for transportation, and e have to pay cash for the cream o keep our customers from selling o the old line buyers.

"We divide the cream into the grades as it comes in from the s-

(Continued on next page)

An Interview With Lightning

A MANUFACTURER of lightning rods has issued a short pamphlet in which he presents an interview with lightning as though it were some noted person in whose personality and activities people are interested. This personified lightning answers questions about himself such as occur in the minds of property owners and his answers tend to do away with misunderstanding as to the causes and effects of the so-called and miscalled lightning stroke.

We take pleasure in presenting this interview to the readers of Hoard's Dairyman, many of whom will not have the opportunity of seeing the original pamphlet. It is as follows:

Question: How old are you, Lightning?

Lightning: Many centuries—as old as the Universe.

Q. Where do you live?

Lightning: During normal electrical conditions my home is in the earth, but during abnormal electrical conditions such as storms, I am in the clouds as well as earth.

Q. What are you?

Lightning: I am electrical energy existing in positive and negative forms which, when divided, attract each other.

Q. Why do you jump to the earth?

Lightning: Because the atmosphere is a dielectric and offers resistance. I build up a large quantity of positive electrical energy in the clouds; the attraction of negative energy in the earth attracts and enables me to break down the atmosphere, and this breaking through the air has been named after me—Lightning!

Q. It seems you have had unlimited power. Who first interfered with this power?

Lightning: Benjamin Franklin discovered that I was a form of electrical energy and could be controlled. He then erected metal conductors over buildings, making it impossible for me to damage them. These conductors were called lightning rods.

Q. Why the lightning stroke?

Lightning: It is the result of these abnormal electrical conditions similar to the breaking of a dam or a water flood as an overcharge of energy is seeking an opposite electrical energy in the earth. In the form of flood this energy breaks through, developing into a lightning stroke.

Q. Why the fire?

Lightning: When I break down the atmosphere and rush through objects such as wood, trees, etc., almost instantaneously a fire is produced on account of great resistance.

Q. Then if there is no resistance, you cannot do damage?

Lightning: No, I cannot do damage. When lightning rods are on buildings they afford an easy, free path. They allow electrical energy to waste away from the points of the lightning rod and prevent the electrical energy from storing up in the building and attracting me from the cloud.

Q. Do trees protect buildings?

Lightning: No, they are not good conductors and add a danger if closer to the building than its height. Such trees should also be protected with lightning rods.

Q. Does metal attract you?

Lightning: No, the only thing that might be said to attract me is the opposite electrical energy stored up on the surface of earth and on buildings.

Q. Do all metals have the same conductivity?

Lightning: Copper is best as it is six times better conductor than iron. Furthermore, copper does not rust. It is very permanent and efficient.

Q. Why do you usually burn barns when you strike?

Lightning: Hay is of a very combustible nature and especially when barns are filled with new hay. This being damp, often a gas accumulates which a very small spark will ignite. The new hay adds to the storage capacity, allowing electrical energy to bunch up. Horses and cattle in barns add to this hazard and are usua burned to death. A lightning str fires the barn in several places once, making one of the most difficl fires to put out.

Q. What do you know of insura companies?

Lightning: They are proving a handicap to my fire waste by ad ing the use of lightning rods and charging a lower rate of insura on farm buildings when protec with standard lightning rods.

Q. Tell us how we may kn standard lightning rods.

Lightning: The Bureau of Sta ards, Washington, D. C., has p pared a code known as the Natio Lightning Rod Code approved adopted by the National Board Fire Underwriters and Underwrit Laboratories. The U. S. Weather B reau has issued a 35-page Booklet, 1512, devoted entirely to lightn rods, strongly recommending the of the best type of equipment. Su important approval makes the lig ning rod business a scientific very important industry, capable preventing me from damaging destroying buildings.

"Here is a letter for you with a black border!"

"Alas! My poor brother is dea"

"How do you know? You have't read it yet!"

"No—but I recognize his ha writing."

Successful Co-operative Centralizer Creamery

(Continued from page 794)

ons and make three grades of butter om it. These are 90 score, 89 score, id 87 score. This is not so good as made in sweet cream factories here the farmers make dairying eir chief occupation, but it is bet- r than it formerly was and we are oking forward to improvements as ir educational program goes on."

Acting on the assumption that it is ser to proceed slowly and surely an to attempt the more spectacular ethods, Norgaard is not trying to volutionize the cream handling ethods all at one time but his simple tter dairy rules as printed on the erature that went out from his fice the day we were there were ese:

"United we stick. Divided we are ick."

"Deliver your cream often; every her day if possible."

"Keep your cream cold."

"Keep your separator clean."

"Scald your cream can before fill- g."

"Don't mix warm cream with cold."

Install Butter Milk Condenser

As the creamery grew, the problem disposing of the liquid butterm l came a serious one because the re not enough nearby farmers to e it as fast as it was produced. rgaard persuaded the directors to tall a condenser. He even offered work for a year at a salary equal the dried buttermilk sales less st of operation. Some doubted the sdom of the move but the plant s installed at a cost of $15,000 and s so arranged that the buttermilk used to cool the pipes of the ice chines before it is pumped up to condenser. After three-fourths the entire creamery coal bill, three- rths of the creamery water bill, per cent depreciation on the ,000 worth of equipment, eight per t on the investment, fireman ary, cost of barrels, and all sales penses had been charged up to the termilk department and paid, re still remained a $5,000 profit the t year over and above what had merly been received for the liquid termilk. Here is another instance ere the volume of product makes economical handling, because all creameries could not hope to similar results by installing such ipment.

Fights Fire With Fire

Norgaard said that Kansas and braska need a dairy law similar to one in Minnesota that prohibits am buyers from paying high prices some communities to stifle com- itors, and from making up their ses by paying low prices in other ces where no competition exists. found this practice to be the ue in this territory, so rather than t these competitors by paying re than the market price on cream his own territory, he started a few all cream shipping stations way side of the economical territory the Superior plant, so he could up discord by offering higher es for a small quantity of cream the territory then controlled by centralizers. He published cream cks paid by these companies show- that they were paying high prices towns where the Farmers' Union amery had stations and low prices owns where there were none. The e outlying cream stations "did work" and the private companies ed off the war. As a result, there very prospect that the creamery grow bigger and better for a time to come, because more and e of the farmers who patronize it are finding dairying a more profitable enterprise. They are sowing sweet clover and alfalfa pastures to withstand the drouth that is so often experienced in this territory and they are digging more pit silos in which to store succulent feeds for their herds which are growing not only in number but in quality as well.

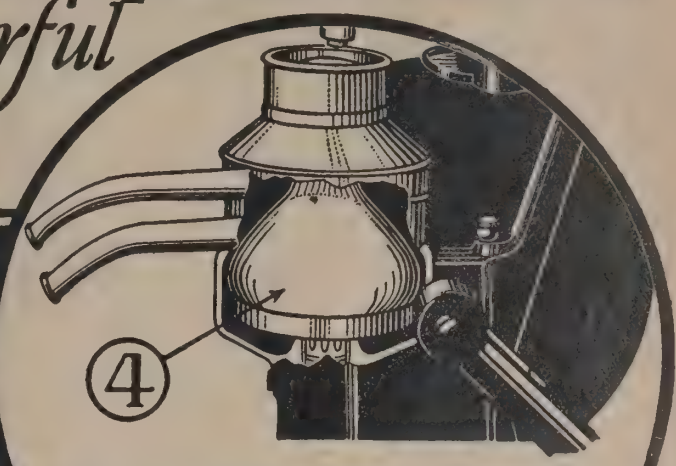
This writer does not wish to minimize the good that the old line creamery companies have done for the scattered dairy farmers in the states where dairying has not yet become generalized, but he does deprecate the discriminatory practices that have been and still are followed to suppress competitors or quell co-operative companies. Therefore, whether Norgaard is to be complimented or condemned for using the old line tools is a question, but one must give him credit for beating the trust at its own game.

Selling C. T. A. Memberships

One of the most ardent advocates of cow testing association work we have ever talked with is Fred Vander Mulen of Missaukee County, Michigan. When the Falmouth Association was first organized, Fred took upon himself the greater part of the burden of selling memberships to the required number of farmers. He drove a good many miles and presented his selling arguments to a good many farmers without encouraging returns. Finally he hitched a new argument on as a final word and thereafter was encouraged.

"I told the farmers to try it a year," said Fred, "and if at the end of that time they were not satisfied the benefits are worth more than the costs, I will pay all the costs myself." He took great delight in telling us that "none of them have come after any money."

The 1927 SERIES De Laval Separators have the wonderful Floating Bowl



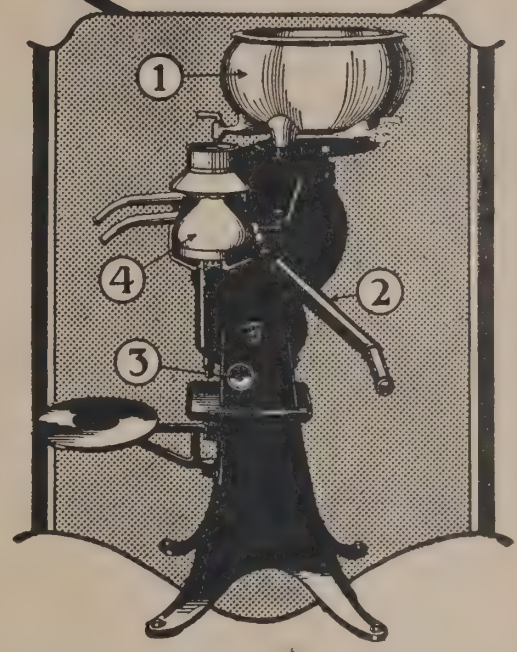
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FREE 25 Gals. Enough Diversol To Make of Sterilizing Solution

Destroys The Bacteria That Cause Milk Trouble

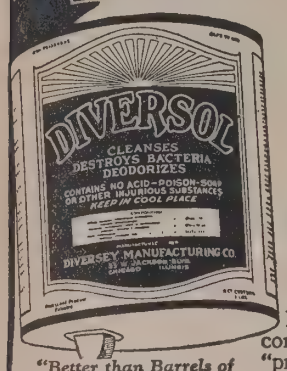
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Sour Milk | "off flavors"
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Diversol now makes it *easy* for you to keep bacteria under control and *economically* produce clean, low bacteria count "premium-priced" milk. 85% of bacterial contamination comes from milk utensils and equipment. Diversol now makes it EASY for you to keep them fresh and clean and free of the bacteria that spoil your product.

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Diversol does *more* than any washing compound or sterilizer—it destroys bacteria as it cleans, and removes foul odors—instantly with ONE operation. You don't need steam. One warm or cold water rinse with Diversol—and you're through! You make your own solution—easily and quickly with cold water. *Very economical!* One pound makes 100 gallons of sterilizing solution. Keeps forever. Never deteriorates. Non-poisonous. Never injures hands.

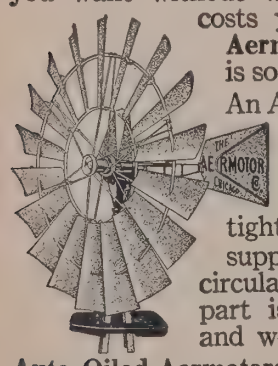
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Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound

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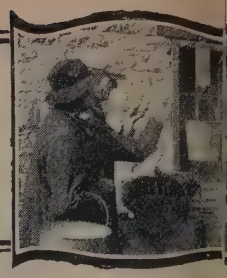


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COW TESTING ASSOCIATIONS



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Ida.	Pioneer	June	400	717	28.2	R. J.	9	839	39.5	P. D. Neer
Ore.	Central Oregon	"	513	619	28.2	J.	9	853	47.8	R. L. Brewster
"	Coquille Valley	"	839	847	40.2	G. J.	22	1111	50.1	C. A. Carlson
"	Melowest 2	"	650	1054	41.9	G. J.	14	1316	56.4	A. H. Collver
"	Melowest 1	"	806	990	38.2	H.-J.	3	1270	60.0	C. Dungan
Ill.	Moultrie Co.*	"	233	641	32.3	R. J.	4	873	45.7	F. Lavery
Vt.	Lamoille Valley	July	497	503	23.5	J.	4	835	42.7	W. C. Hadley
Minn.	St. Louis Co. 1*	"	337	805	30.8	G.	4	764	41.9	H. Larson
"	So. Houston	June	309	655	29.1	G. G.	14	854	44.6	O. A. Myhre
"	Pope Co.	"	330	650	25.8			786	39.0	H. Yenter
Tex.	Wise Co.	"	390			G. J.	10	909	41.0	J. W. Taylor
Iowa	O'Brien Co.	"	304	911	32.3	H.	7	1323	45.9	J. K. Henderson
Calif.	Arcata	"	1418	924	41.4		36		59.4	
Tenn.	Knox Co.	July	469	509	22.3	R. J.	26	691	33.6	G. W. Callahan
Mich.	Van Buren Co.*	"	278	687	32.7	H.	11	1283	38.2	C. W. Maxam
"	Miss.-McBain*	June	216	856	33.6	M.	11	1034	43.0	H. Hamming
"	N. Newaygo	July	191	544	24.9	R. J.	6	742	38.4	W. Cornett
"	Otis.-Genesee'	June	261	806	33.3	G.	3	1106	51.3	R. Maxfield
"	Alpena-Leer	"	268	703	29.9	H.	4	1508	48.6	G. Manning
"	Miss.-Falmouth*	"	197	916	32.7	J.-G.	6	1048	43.6	W. Spitsbergen
"	Midland Co.*	"	299	779	26.4	R. G.	5	1085	40.0	C. C. Rix
"	York-Jackson*	"	215	852	31.2	G.	12	790	39.4	S. Rettinger
"	Leelanau Co.*	"	209	718	30.5	J.	7	834	44.2	J. Hilbert
"	S. Ionia*	"	260	715	30.7	H.	11	1247	40.9	J. Keilen
Wis.	Stanley-Thorp	"	514	894	33.1	H.		1183	41.1	M. Kuhn
"	Endeavor*	July	411	610	23.1	J.	6	771	34.9	W. Moss
"	Merton-Lisbon	"	488	677	25.2	H.	31	1018	34.2	I. J. Harness
"	Ced.-Grafton	"	294	844	30.3	R. H.	13	1163	38.4	B. Kohlwey

*Retest rules followed.

Doing the Job

HOARD'S DAIRYMAN:—The average production of the 424 cows in Caledonia—Mt. Pleasant Association of Wisconsin was 8,481 lbs. milk containing 312 lbs. fat. This is a slightly higher average than for the previous year.

Harold Proeber, a young breeder starting in pure-bred Holsteins, has given us something to think about during the past year. He is a very capable worker and at first spread his work over many enterprises. He is on a medium sized farm with little extra help. Cabbage was at first a large item but it interfered in many ways with the activities on a dairy farm. Cabbage planting interfered with the necessary cultivation of corn and cutting of alfalfa hay in the spring, and at silo filling time cabbage cutting and hauling interfered again with the filling of the silo at the proper time. The results obtained by Mr. Proeber prove, I believe, that quality feeds and proper care pay dividends when applied to the dairy cow. Comparisons of the results obtained in his herd for the past two years follow:

	1926	1927
No. of cows	14	10
Ave. lbs. milk	7,667	10,218
Ave. lbs. fat	255.0	340.1
Cost of feed	$1,229.32	$1,025.51
Profit	$1,468.37	$1,682.81

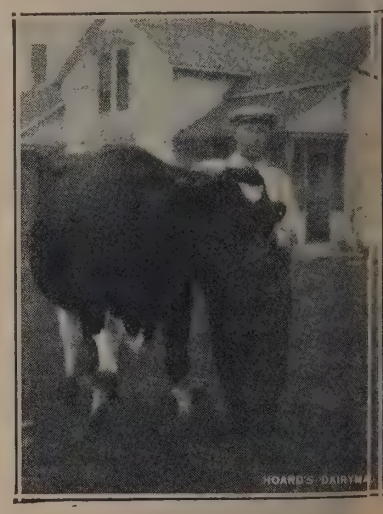
The profit with four less cows during the second year is over $200 greater than the profit of the year before. This is undoubtedly due to feeding a better grade of roughage which was put up at the proper season, to a ration balanced with proper concentrates, and to more uniformly good care of the herd. Less hired labor and other items of expense added still more to the profit the second year when no cabbage was raised. Diversification operates very nicely when two crops do not conflict as to time required in their care.

A specialist has been defined as "one who knows more and m about less and less." An equally plicable definition might be "one gives more and more active labo fewer interests." In either event is better paid than the Jack of trades, and is usually more satis in his environment.

FLOYD G. WIEDRICK, Teste

Daughter and Dam

HOARD'S DAIRYMAN:—Rhoda is daughter of Rosie, a grade Hols cow that made 663 pounds fat in



RHODA AND R. A. KLINGBEIL'S HER OWNER

This 2-year-old grade Holstein made lbs. fat in one year. She is not a spt but comes by her production through heritance. Her dam has a mature rec of 663 lbs. fat. Figured to a ma basis, Rhoda should be credited with lbs. fat, exceeding her dam's record 57 lbs.

year, according to the records o Blooming Prairie, Minnesota, Testing Association. Her sire Sir Pride De Kol Ormsby.

Rhoda freshened in the herd A. Klingbeil on January 10, 192 the age of 28 months. She mad pounds fat for the remainder of a uary, continued with 54 pound February, and at the close of th

Annual Association Reports

State	Association	Year ending	Total cow years	Ass'n Ave. Milk Lbs.	Ass'n Ave. Fat Lbs.	Cows culled	300-pound Cows	300-pound Herds	Fat records High cow Lbs.	Fat records High herd Lbs.	Tester
S. D.	Marshall Co.*	July	383	5,522	221	53	40	1	401	324	H. Sckerl
Mich.	N. Wexford	"	176	6,247	286	15	66	11	485	416	E. Hofer
"	Macomb 2*	May	250	8,140	303		68	15	731	419	E. Jackso
"	Macomb 3*	Mar.	19	7,947	311		50	11	718	564	G. J. Hok
"	Lansing-Ingham*	Feb.	242	8,885	362	18	133	20	593	499	L. A. Wil
Wis.	Algoma*	Apr.	395	7,547	310	10	169	12	574	410	H. C. Bea
"	Thiens.-Lakefield*	Mar.	391	7,776	319	18	190	15	659	414	J. Rezach
"	Cale.-Mt. Pleasant		424	8,481	312			15	547	405	F. G. Wielch
Tenn.	Knox Co.	July	320	5,470	262	78	87	2	502	325	B. R. Farr

*Retest rules followed.

ar was credited with the good rec-
l of 503 pounds fat. During this
ie she increased her weight from
)0 pounds to 1400 pounds. She will
shen again this fall and is still
oducing at the rate of better than a
ind of fat per day.
Rhoda is the result of feeding,
eding, and breeding by the cow
ting way.

W. W. CHRISTENSEN, Tester.

What the High Herds Received

HOARD'S DAIRYMAN:—Of the ten
h herds in the Sac County Asso-
tion of Iowa, 10 received a high
tein concentrate, 7 received a bal-
ed ration, 9 received grain on pas-
e, 3 were supplied with commer-
l feed, 8 had alfalfa, and ? clover
.

t will be noted that all received
ume hay and in general had been
l fed. Improvement could be
de in succulence, as only four
ds were supplied with silage.
These herds ranged from 326 to
lbs. fat per cow. From these
herds there were 10 cows sold for
f and 13 for dairy purposes.

LAWRENCE STAUFFER, Tester.

Testing Pays in California

Writing in the annual report for
Los Angeles County, California,
v Testing Association, C. V. Cas-
who compiled the report, has the
owing to say about the money val-
of cow testing:

'It is hard to absolutely get at all
values of cow testing. I know a
n that tested his cows for a year
a northern state. During that
e he paid but little attention to
at his cows were doing. He never
ed a cow. He did not change his
d. His production remained the
ie. At the end of a year his herd
as poor as at the beginning. He
l he didn't get anything out of the
ociation. He didn't.

'I know another man in a cow test-
association. He had gone broke
another business through no fault
his own and he had to start the
y business on a shoe string. He
ght up cheap cows that dairymen
in a cow testing association were
ing by guess. He didn't guess.
tried each cow he bought by the
les and Babcock test as he be-
ged to a cow testing association.
sold many cows to the butcher,
out of other people's culls he
lt up a good herd and improved
herd by using the best pure-
d sires. His cows were fed ac-
ding to production and conse-
ntly economically. He made mon-
and he will tell you that cow test-
pays.

There are a number of herds in
county that can show a good in-
ase in production the past year,
that increase when translated
dollars and cents makes it ap-
r that cow testing is worth while.
e are the results in three dairies:
In one herd 32 cows averaged
.9 lbs. fat last year and 34 cows
raged 439.7 lbs. fat this year, or a
gain of 85.8 lbs. for each cow
ch when translated into dollars
cents was $2,625.48.

In another herd 34 cows aver-
d 297.3 lbs. fat last year and 53
s averaged 380.5 lbs. this year or
in of 83.2 lbs. per cow. The in-
ase was worth $3,963.24.

A third herd of 30 cows averaged
.9 lbs. fat last year and 37 cows
raged 441.8 lbs. this year or a
of 55.9 lbs. per cow. The gain
roduction was worth $1,861.47."
is recognized that increases such
given are considerably above the
rage to be expected; nevertheless,
lit for them must be given largely
to the influences of cow testing association work. These herds were undoubtedly owned by men who get all the value out of the work possible.

Silage Measuring Tables

HOARD'S DAIRYMAN:—In your issue of July 10 there appears an article, "Are Silage Measuring Tables Correct?" The experience of Howard T. Greene in weighing a measured amount of silage shows much variation.

I am a cow tester in Tuscola County, Michigan, and incidentally have weighed the silage taken from silos one day each month throughout the year. As is our method the total is based from this weight as an average. I have always been under the impression that they did not weigh up to the tables.

Much data could be had from testers by sending out a questionnaire. The cow test books from previous years should give interesting information if taken only from herds in which all animals fed were on test. It would get information from all parts of the country and over a very large number of silos.

Kingston, Mich. W. A. S.

(EDITOR'S NOTE:—We would be pleased to have testers report on this.)

An Investment Return

HOARD'S DAIRYMAN:—The size of the average herd in the Texas Cow Testing Association is 15 cows, and the average increase in production in 10 months' time was 23.5 lbs. milk and 2.5 lbs. fat, or an increased profit per cow of $12.50. On the herd the increase would be $187.50, or $151.50 net in 10 months' time from a $36.00 investment.

Does cow testing pay in Texas? You answer.

T. H. ROYDER, Tester.

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Coming Events

Sept. 26-Oct. 2—Dairy Cattle Congress, Waterloo, Iowa.

Oct. 15-Oct. 22—National Dairy Exposition, Memphis, Tenn.

Oct. 24-Oct. 29—Dairy Industries Exposition, Cleveland, Ohio.

New French—Canadian Record

Another breed record for the French-Canadian cattle in the mature class of the 365-day division has recently been established. "Blandine," bred by Romeo Sylvestre, Quebec, and owned by Joseph Champoux, of the same province, is the new champion with an official production of 15,860 lbs. of milk and 658 lbs. fat. "Aromaz" 1597, the ex-champion, had a production of 13,218 lbs. milk and 631 lbs. fat and was owned by the Dominion Central Experimental Farm when she made her record in 1917.—French-Canadian Cattle Breeders' Association.

Minnesota Holstein Company Makes $1066 Average

THE Minnesota Holstein Company dispersion at Austin, Minn., July 29, was the best Holstein sale since the Erickson dispersion in 1924 and one of the best sales we have ever attended because it stood out so far above all other Holstein sales of the past two or three years. The 61 head making up the Minnesota Holstein Co. herd brought $65,050, an average of $1,066. There were, in addition, eight other animals consigned, most of them partnership owned bulls, that raised the total to $68,700 for the 69 head, an average of $995.

It was a most successful sale from any standpoint and there was every reason for it being so. The herd was one of the very best in the country, of course, and every animal was in sale shape; the sale was managed by Melin and Petersen as such a sale should be, and the weather man was kind enough to furnish a perfect day. The buyers, the final necessity for any successful sale, were very much in evidence. We don't know exactly how many states were represented at the ringside, but we do know that when the sale was over the herd had gone to new owners in South America, Canada, and twelve states.

The sale was a deserved tribute to V. S. Culver's success as a Holstein breeder. He came to Minnesota from Nebraska in 1913 bringing 18 registered Holsteins, the foundation for the herd which was sold July 29; and in 1915 he made what was unquestionably his most important purchase—a half interest in Piebe Laura Ollie Homestead King, the bull which later proved himself an outstanding Holstein sire. This bull and that great old cow, South Side Inka De Kol, dam of Sir Inka Superior Segis, a later sire, were remarkably good Holsteins that contributed greatly to the upbuilding of this herd which has established a very enviable record in the show ring and at the pail. In 1919 Mr. Culver took his herd into the partnership with A. L. Eberhart to form the Minnesota Holstein Co. of which he has since been secretary and manager.

Exactly 20 of the 69 animals sold brought $1,000 or more, 7 head went to $3,000 or above, a yearling bull sold for $6,200, and a 2-year-old heifer for $7,100.

May Walker Ollie Homestead, the 12-year-old champion butterfat producer of the United States, was purchased by Nan Connoly of Minnesota for $4,000. Her yearling son, Sir Bess Ormsby May, sired by Sir Bess Ormsby Fobes, went to W. S. Kellogg of Connecticut for $6,200 with a syndicate of Minnesota breeders the last contending bidders.

May Walker Inka Segis, the 2-year-old daughter of the champion



MAY WALKER INKA SEGIS, 2-YEAR-OLD DAUGHTER OF MAY WALKER OLLIE HOMESTEAD
She topped the sale at $7,100.



MAY WALKER OLLIE HOMESTEAD, THE U. S. CHAMPION BUTTERFAT PRODUCER, BRED AND DEVELOPED BY THE MINNESOTA HOLSTEIN COMPANY
This 12-year-old cow sold for $4,000 and her 2-year-old daughter brought $7,100; her yearling son, $6,200.

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producer, was from the first rec-
nized as the outstanding individual
the herd. She was the All-Ameri-
senior yearling last year, is mak-
a very good junior two-year-old
ord now, and came into the ring
king like a champion. Any breed-
would have been proud to own her
l at least several of those present
re willing to go well into four fig-



. S. Culver who was responsible for success of the Minnesota Holstein mpany as a breeding institution.

to get her, so it was not until bid reached $7,100 that she was ck off to A. C. Hardy of Ontario. Maytag Farm of Iowa was the contending bidder.

ack, Thompson, and Kraschel did selling with G. R. Melin in the

ne following list includes those ials selling for $750 or more and rs:

Connoly, Minnesota	
lay Walker Ollie Homestead	$4,000
rlene Inka May	1,500
Hardy, Canada	
ay Walker Inka Segis	$7,100
t Creamery Farms, Michigan	
ay Walker Fobes	$4,500
Kellogg, Connecticut	
r Bess Ormsby May	$6,200
ess Fobes Homestead	3,200
r Piebe Inka May	1,000
Thompson, South Dakota	
ay Walker Piebe	$850
Griffith, Oklahoma	
ar Segis Homestead	$2,050
ss Homestead Segis Fobes	1,025
iss Lassie Ormsby	3,950
saeta, South America	
r Mooie Inka May	$975
r Phoebe Inka May	1,025
r Inka Rue Homestead	1,050
r Inka Pontiac Piebe	1,025
Rasmussen, Illinois	
oebe Cornucopia Fayne	$1,125
thur Farms, Delaware	
audlene Segis	$1,250
Ahrens, Missouri	
audlene Inka May	$1,450
Maytag, Iowa	
udlene Superior Segis	$1,475
ss Inka Rue	3,000
ss Piebe Inka Homestead	1,125
ord Farm, New York	
ss Parthenea Homstead Segis	$825
nd Farm, Wisconsin	
Inka De Mar Wren Ormsby	$1,000

Land Banks

eral Land Banks, organized to money to farmers at a reason-rate of interest and on easy have been making exceptional ess. In the first decade the 12 al Land Banks loaned approxi- $1,332,000,000 to farmers, g them, with the 4,665 National Loan Associations, the largest age system in the world that serves about 380,000 farmers with "amortized loans."

These banks take mortgages on farms and then issue bonds against the mortgages and sell them to the public. These bonds have the confidence of the investors because the land has been conservatively appraised and the banks themselves have a capital of $57,000,000 and a surplus and reserve of more than $12,000,000.

Farms which come to these banks on account of foreclosure are charged off against the surplus. The total foreclosures to date amount to less than one per cent of the loans.

Recently the Federal Land Banks floated a bond issue of $100,000,000 bearing 4¼ per cent, which brought a premium of one and one-fourth points. This shows the public has confidence in this co-operative system in which each of the 12 banks guarantees the bonds of the others. Federal legislation in the past few years has brought about a system of lending money to farmers that meets well the requirements of this great industry. Credit alone is not enough to place this industry upon a proper basis, but without it there is little opportunity to inaugurate any plan which will serve agriculture adequately and well.

The South to be Represented at Dairy Show

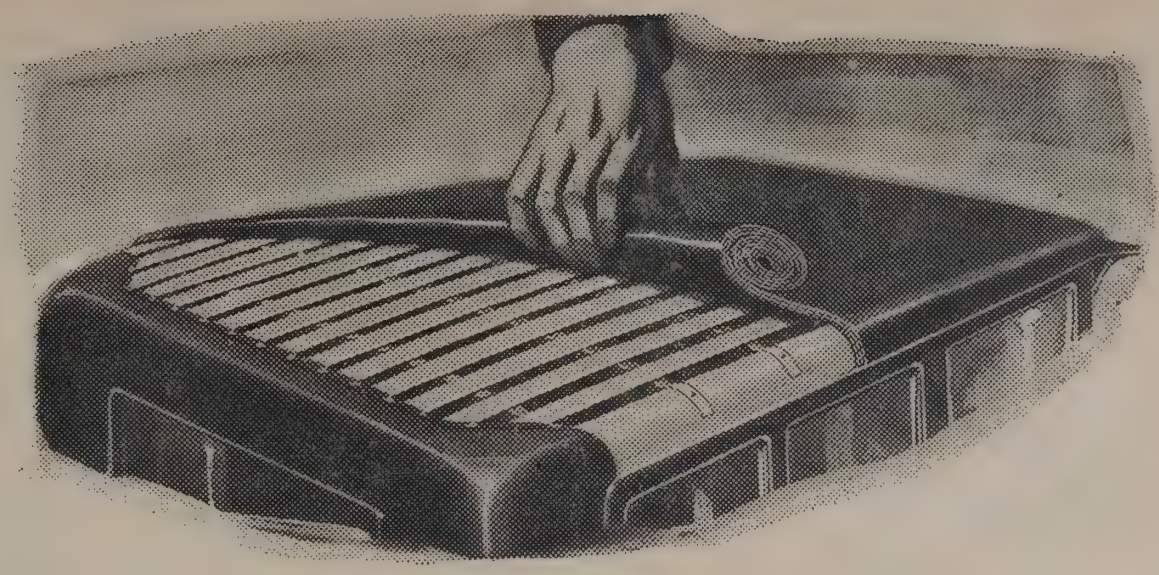
Dairymen, railroad development agents, college workers, and business men held an enthusiastic meeting in Montgomery, Alabama, July 19 to formulate plans for promoting attendance from the Southeast at the National Dairy Exposition in Memphis next October.

President E. S. Center, Jr., of the Southeastern Railway Development Agents, called the meeting, with the co-operation of Extension Director Duncan of Alabama State College and Secretary Black of the Montgomery Chamber of Commerce. Practically every leading railroad in that section had one or more representatives present.

It was agreed that the exposition deserves the support of all interests concerned with the growth of diversified agriculture in the South. Railroad men present said they would use every means at their command to give publicity to the exposition and to organize trips and parties to attend. Extension workers from the colleges, leading milk dealers, ice cream manufacturers, and other handlers of dairy products will co-operate in reaching dairymen and farmers. A special effort will be made to enlist the support of bankers and business men because of the economic importance of dairying and its sure cash returns.

Director Duncan was pledged such support as might be needed in the development of an Alabama state exhibit as a part of the "Dairying in Dixieland" feature being prepared by some ten southern states. Plans were also discussed for insuring like exhibits from Georgia and Florida.—National Dairy Association.

"Make the best of everything; think the best of everybody; hope the best for yourself."—GEORGE STEPHENSON.



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FISHER BODIES

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EDITORIAL COMMENT



A BRIGHT young boy once said he had a farm which was exempt from taxation, not subject to execution, and equal in value to any other of three times the area. "Where is your farm?" he was asked. "Under my hat," he replied. And he was right; every industrious, ambitious, and deserving young man has that kind of a farm by divine inheritance.

TUBERCULOSIS FREE HERDS

Considerable variation is found in the percentage of animals affected with tuberculosis in the various sections of our country. Many counties have already been tested once and many are on the accredited list. Some counties that are free from tuberculosis, quarantine against cattle coming in from other counties unless known to be free from tuberculosis. This is becoming quite the general practice in counties in our southern states where only a small percentage of animals are affected with tuberculosis and in those counties where it is found the tubercular infection can be largely traced to cattle shipped in.

We think it wise for counties practically free from tuberculosis to quarantine against the importation of cattle unless they know they are from tuberculosis-free herds. The sooner the live stock interests of this country appreciate that traffic in diseased animals is closed, the better it will be for this great industry. Too strict rules can not be made in governing the movement of cattle. These rules may seem to be unreasonable and place the shipper at a disadvantage, but the more exacting the regulations are concerning the movement of cattle, the quicker will tuberculosis be eradicated.

GAS TAX IS JUST

Why anyone should be opposed to a small gasoline tax for maintaining and building good roads passes our understanding. It has been shown that a gasoline tax is a good investment. Good roads save the wear and tear on automobiles and trucks, save time, and make motoring a pleasure. The average automobile consumes one gallon of gas in 15 miles. We believe very few motorists would object to the tax of two cents a gallon if they reflected upon the saving effected by good roads and the increased pleasure of motoring.

The Inquiring Reporter in the August 2 issue of the Chicago Daily Tribune asks the question: "How do you like being taxed for your gasoline?" One motorist replied: "I don't like it. It's an imposition on the automobile owners of Chicago, because we will be paying about 70 per cent of the tax of the whole state. They should tax farmers as well as city people. Farmers are free from the tax on account of their farm machinery, but they use the country roads more than city people do."

We hadn't observed that the Illinois gas tax law relieved farmers from paying this tax when gas is used for driving automobiles or trucks on the road. Further, we have no evidence to show that farmers use the roads more than city people. In the Year Book of Agriculture, 1926, page 414, we find the following paragraph:

" 'Very well,' says the farmer reader, 'the money spent for the state roads seems to be pretty well justified, but how much do farmers use them?' The answer is definite and clear—very little. The traffic on the state highways is largely a traffic of city-owned vehicles. In the Maine and Pennsylvania traffic surveys only 5.4 per cent of the passenger cars observed on the state highways were farmer-owned. In Ohio the percentage was 12.4, and in a count of the traffic on the Bankhead Highway at the Georgia—South Carolina line the farmers' cars made up only 8.9 per cent of the total number. A similar situation is found with respect to the motor trucks."

It will be noted that the percentage of Illinois farmers using roads compared to city users is not given but it is safe to assume that there would be no higher percentage of farmers using the roads in Illinois than in Ohio. If this be true, the people of the city of Chicago have little reason to complain even though they pay 70 per cent of the gasoline tax. Those who use the roads most should pay the most for their upkeep. Further, if it is found that too high a percentage of gas tax raised in Chicago is being used for roads, it could be directed to building and maintaining streets.

It is the height of selfishness upon the part of city people to expect farmers to build and maintain highways for them when statistics show that in several states traffic of city-owned vehicles ranges from 87.6 per cent to 94.6 per cent. Statistics gathered by the Illinois Agricultural Association show that the farmer is paying a relatively higher real estate tax than the people living in Chicago. The daily press of the city that calls upon the federal government to extend justice to agriculture should follow its own advice by supporting a fair system of taxation in building and maintaining roads.

MILK IN FACTORIES

In England the men in offices have their afternoon tea but here in America there are working men who go them one better by having fresh, wholesome milk both morning and afternoon. This has become an increasing practice in factories and offices and it has been found profitable for the management as well as desirable for the employees. It has been found that it relieves fatigue, reduces absences due to illness, and helps to avoid accidents.

One of the latest of these reports comes from the Maytag factory at Newton, Iowa, which is said to be one of the largest washing machine manufacturers in the world as it turns out 1,400 washing machines daily from its splendidly equipped plant. Each morning a milk wagon delivers a thousand bottles of milk at the factory, placing them in five large ice boxes stationed at convenient points throughout the factory. There are 2,000 workmen employed and as the recognition of the trial and value of milk spreads it is reasonable to expect the number of milk fans to increase.

The president of the Maytag Company is Mr. E. H. Maytag who is farm raised and now operates a dairy farm where pure-bred cattle are kept under ideal conditions. Perhaps it was his prejudiced influence as a dairyman that influenced the establishment of a milk service in his factory; however, the experience of other factory managers would have been sufficient inducement for its trial and final decision to continue the daily service of milk. Where it has been given adequate trial, factory management has found it desirable.

Milk dealers can increase their sales in their own community if they will only seek to have their local factories try out the plan. It not only increases sales of milk used by employees in the factory and office, but it also tends to increase the home consumption of milk by the publicity given.

DAIRY PROGRESS

At the American Institute of Co-operation, Dr. C. W. Larson, Chief of the Bureau of Dairy Industry, outlined a program to meet the demand for an adequate milk supply and also to increase the dairy farmer's income. He said the average cow now produces 4,500 lbs. milk containing 180 lbs. butterfat per year. This, he declared, was too low and pointed out that the average cow in cow testing associations produces 7,500 lbs. milk per year containing about 285 lbs. fat. This increased production of cows being tested is brought about through selection, feeding, and the use of good bulls.

"High producing cows are economical in the use of feed. A tabulation of more than 100,000 individual cow records shows that cows producing 9,000 lbs. milk per year did not eat twice as much as cows that produced 4,500 lbs. Instead they ate approximately 40 per cent more feed in dollars worth of feed per cow to produce twice as much milk and butterfat. Another tabulation show that the cows in the 9,000-lb. production class at only about 40 per cent more digestible nutrient than cows that produced half as much."

Dr. Larson also stated that on January 1, 192(there were 330,000 fewer cows than on the pre ceding January 1. We are increasing our popu lation at the rate of about one and one-half mi lion persons per year. The cow population has de creased, but we have increased production of mil to take care of the increased demands. Thi shows that the dairy industry is making progres We now have approximately 22,000,000 dair cows, and Dr. Larson says, "As a matter of fac if we were to increase the production of the ave age cow only 100 lbs. of fat per year in the ne 40 years, we could supply our increased popul tion without increasing the number of cows."

We are sure the attention of the progressiv dairyman will be challenged by this statement an reveal to him the large opportunities to increas the dairy farmer's income through better feedin selection, and breeding.

NEWAYGO COUNTY

The first cow testing association in the Unite States was organized in Newaygo County, Mich gan, in 1906, under the direction of Helmer R bild who was then with the Dairy and Food Con mission of Michigan. In the 21 years that ha elapsed, the dairy industry of Newaygo Count has met substantial progress and much of its a complishment is attributed to the good work of th cow testing association.

It required hard work to organize and to co tinue the cow testing association. The dairy lea ers of the county devoted much time in assistir to keep its membership interested and to point o the value of milk and feeding records of each co in a herd.

At a recent dairy field day meeting held by th breeders of dairy cattle in Newaygo County, th effects of cow testing work were clearly show Nearly 200 head of dairy animals, including Je seys, Holsteins, and Guernseys, were exhibit and judged. Fathers and their sons competed f honors in the show ring. No cash prizes were o fered but the winners received ribbons as recogr tion of the places their animals won. This w highly satisfactory for the honor of winning w really what created the interest and brought large number of people together on this occasio

We talked with several dairymen who belong to the first cow testing association, and it was wi considerable satisfaction that we found most them in good financial condition and pretty w satisfied with their accomplishments. Of cours they would like to receive a better price for dai products, but this is not at all an unnatural d sire. Dairy products are worth more and wh we can get the consumer to appreciate their hi food value, we may look forward to relatively be ter prices.

It was with considerable satisfaction we not that all the animals, except two, of this good loc exhibit were brought there in trucks, and all th families came to this picnic in automobiles a over splendid roads. We could not help but r flect upon conditions now and as they were 1 years ago when the first cow testing associati was started. There has been a marked improv ment in every way in the development in th county. There is no indication of the developme of the peasant type of farmers. On the contrar this county is improving its dairy practices, bree ing better cattle, looking for a better market f is products, and is enjoying the fruits of its labo At this local dairy field day there were more catt exhibited than there were at the first Nation Dairy Show 21 years ago.

Those who feel that nothing can be done to i prove the agricultural income of this country m well consider what the dairy farmers of Neway County have done and are doing to bring abo better dairy conditions and larger incomes.

An Electric Cooling Unit

Can you give me any information on making an lectric cooling unit to operate in my milk cooling ank? I know very little about electric refrigera- ion but think it would be possible to install cop- er tubing in the tank and circulate brine by neans of a small electric motor and pump.

Rising Sun, Md. E. R. ENGLAND.

Mr. E. R. Meacham has given the following re- ly to this inquiry:

"I do not think it will be at all practical to at- empt to make such a unit, but the leading electric efrigerator concerns supply units specially de- igned for this purpose. The cooling element of ny first-class refrigerator can be submerged in he milk cooling tank. If the tank is made with roper insulation in the walls and cover, an elec- ric refrigerator so arranged will produce very low emperatures in the tank. In fact, there will prob- bly be a layer of ice about the cooling element at ll times. Where this arrangement is used, it is ot necessary to install a pump to circulate the rine. The temperature of the water throughout ne tank may not be absolutely uniform, but there hould not be a variation of more than a very few egrees.

"The 'proper insulation' usually recommended is ork board three inches thick. The size of the re- rigerating unit necessary will depend upon the mount of milk to be cooled, the temperature ange desired, the condition of the tank, etc. No pecific size can be recommended without knowing ese points. Definite advice should be sought om the manufacturers or the local refrigerator ealer."

(EDITOR'S NOTE:—A description of an insulated ank such as is most often used where mechanical efrigeration is used will be found in our issue for lay 25.)

Defining Economical Production

HOARD'S DAIRYMAN:—"This herd on test for conomical production" appears on the member- ip card issued to C. T. A. members by the Wis- nsin Dairymen's Association. What does it ean? Does it refer to feed cost per unit of oduction?

My experience convinces me that the items, eturns per $1.00 expended for feed" and "feed st per pound butterfat," even though of great lue are, to those not familiar with their limi- tions, very misleading. Applied generally these gures convey the correct impression, but applied ecifically they are very misleading. Generally eaking food costs per pound of butterfat vary versely with the production.

Between herds whose feed costs per cow vary dely, figures on the feed cost per pound of tterfat and return per $1.00 expended for feed ve little significance. A small amount of grain pasture will double the feed cost, yet unless the oduction doubles, the feed cost per pound of tterfat will rise materially. However, simple ithmetic tells us that only a slight increase in oduction will more than offset the limited feed st on pasture; therefore, below certain limits oduction costs per pound fat have little rela- n to net returns. A case in point follows:

Mr. A's herd on pasture is fed concentrates in oportion to production while B's herd gets pas- re only. The record for one month is as follows:

rd	Lbs. fat per cow	Feed cost per pound fat	Returns per $1 expended for feed	Net return above feed
A	42.8	18.0c	$3.20	$17.06
B	20.5	9.2c	5.95	9.90

From the above figures "B" concluded that ice the cost of production had doubled where ncentrates are fed on pasture, it did not pay to ed them, notwithstanding the fact that "A" ac- ally made the most money.

Another case in point: "C" and "D" have iden- al production costs per unit of butterfat, name- 22.6c per pound; yet "C's" well fed herd of 24 ws clears 2.5 times as "D's" herd of 40 cows fed cornstalks, silage, and a handful of oats. These ses are by no means isolated or unusual.

Feed cost per pound of fat figures are reliable ly when considered in conjunction with the av- age herd production and the price of a pound butterfat. Figures on the return per $1.00 ex- nded for feed are reliable only when consid- ed in conjunction with the amount of money tually spent for feed.

Is economical production to be defined as pro- ction at the lowest possible cost per unit, or production at such a cost that it will reap the larg- est profit per cow? Is there not some sort of a law of diminishing returns to be applied to the feeding of dairy cows?

Wisconsin. HARVEY L. BECKER, Tester.

Shotgun Alfalfa Seeding

A number of reports from farmers, particularly those located in the state of Wisconsin, indicate that there was a very considerable percentage of last year's seeding of alfalfa that had to be plowed under this spring because of the extremely poor stand. There are varying explanations of this, some of which ascribed it to a poor growing season last year that brought the alfalfa into the winter in a thin stand and a light growth. Added to this, reports indicate that ice did a considerable amount of damage in smothering out the alfalfa that remained, although this damage did not seem to show so plainly on the older seedings. One man is of the opinion that his top soil is slightly acid and that this combined with the relatively poor growing conditions last year caused the loss of his seeding. It is his opinion that in a good growing year the alfalfa is able to overcome the disadvantages of the slight acidity, as his subsoil is very rich in lime.

One peculiarity that has been noted is the fact that while a considerable percentage of the alfalfa seeded last year has killed out, last year's seeding of red and alsike clover has made an unusually heavy crop. In driving through the country we have seen fields of clover with cocks so close together that it was impossible for the wagon to pass between them.

In discussing these conditions with one of our neighbors he stated that it had been his custom for some years to seed a mixture of 8 lbs. alfalfa, 8 lbs. red clover, 6 lbs. alsike, and 4 lbs. timothy to the acre. While he says this is an expensive seeding, yet experience has shown him that where the alfalfa does not make a good catch the other grass seeds will come in and fill up those blank spaces, with final results of a heavier total yield per acre. He has also noted that where the soil conditions appear to be right for alfalfa, the alfalfa seems to have a considerable advantage in growth over the other grass seed.

We would be pleased to have the opinions and experiences of other readers as to this shotgun method of getting a stand of legume hay where alfalfa is not always a sure and certain crop.

Making Alfalfa Hay

I'm a new beginner with alfalfa and I guess I stacked it too wet. I let it stand in small cocks a week. I thought it was cured enough, but now the stack is so hot that I can't hold my hand in it and the hay is brown as tobacco. I don't suppose that hay will be worth anything. Please let me know if there should be anything done with it, or shall I leave it the way it is. What is the best way to cure alfalfa to keep it from heating and keep the green color? How long can shocks stand on the field without hurting the stand?

Winger, Minn. O. J. J.

Our usual recommendations for the making of alfalfa hay are to cut the hay in the morning after the dew has dried off and allow it to stand in the swath until it is well wilted. This permits raking up some time in the afternoon as a usual thing. If a side delivery rake is available, put the hay into windrows and allow it to stand in a windrow some twenty-four to forty-eight hours. It may be desirable to turn over this windrow some few hours before hauling in, but this is not always necessary unless the hay is very heavy. However, it is difficult to give definite instructions as to the length of time the hay should stand in the windrow because of the great variance in the drying weather that prevails. For instance, this year we had to allow our hay to stand in the windrow for five days before it got as dry as we like to have it. Ordinarily, if rain does not intervene, we will haul it to the barn within some 36 to 48 hours after it is cut.

Where the hay is put into cocks, about the same rule prevails as when put into windrows except that it is desirable to open up the cock or tip it on its side a few hours before the hay is hauled to the barn. In both cases when rain intervenes, the hay will have to stand until it has dried out again. This means, in the case of the windrow, turning it over with the rake after the top has dried out; and with the cocks, they may have to be opened up and spread out.

This does not make perfectly dry hay and it will often heat in the mow, particularly immediately under where it falls from the fork. Considerable heat may develop in the mow and the hay turn brown or dark colored. However, if this hay is fed to cows rather than sold, this is no disadvantage as the cows really like brown or dark colored hay better than the green alfalfa. If the hay turns musty as a result of having too much moisture due to rain on it, this is undesirable and depreciates the feeding value of the hay.

It has been the recommendation of some men that it is desirable to open up a stack or mow of hay that heats up badly. We question the desirability of this practice not only because of the labor involved and the fact that the heating is not likely to do any damage, but also it is our opinion that there is great danger of spontaneous combustion if the hay is loosened up so that the air can get to it. In this connection, we would suggest reading the answer to an inquiry that appears in our June 10 issue concerning spontaneous combustion.

If the hay cocks are left in the field for a considerable time, they should be moved within a week's time or less in order to keep the hay from smothering out the alfalfa plants. Personal observation as to the growth of the alfalfa will be the best guide as to when the alfalfa should be moved.

Destroying Rats

Some time ago I read of the use of cyanide potassium gas for killing rats. How is it used and where can I get it?

Barron, Wis. J. L. R.

Calcium cyanide dust is of outstanding usefulness in destroying rats. Calcium cyanide is a compound that rapidly gives off hydrocyanic gas when acted upon by the moisture in the air. This gas is extremely poisonous and in sufficient concentration is destructive to most animal life.

Calcium cyanide dust may be used to advantage in destroying rats in open burrows in fields, along ditch banks, under sidewalks, around the exterior of buildings, under pavements and tight floors, in corncribs. It is particularly suited for use on farms and poultry plants.

The dust is used most effectively by forcing it into rat burrows or other harbors by means of a portable dusting pump or duster with a flexible hose attached. The large foot pump is most satisfactory. A few strokes of the pump will fill most rat burrows with a smokelike dust, which will emerge from all connecting openings and thus indicate the extent of the system. All openings through which the dust escapes should be closed with earth, sod, or other material.

In double walls of farm buildings, lumber piles, or corncribs, where the escape of the gas can not well be prevented, it is necessary to use much more dust than in an air tight burrow. Dusting should be done on a still day, so that drafts or air currents will not quickly carry the gas away.

In dusting corncribs some of the powder should be forced into the corn about midway between the top and bottom of the crib and then should be pumped in all around near the bottom at 3 or 4 foot intervals. There is little danger attending the use of calcium cyanide dust in corn or other edible products, because the gas becomes entirely dissipated in a few hours and the residue is non-poisonous. To be entirely safe, however, the corn should not be fed for several days after dusting.

We had several spectacular demonstrations in Jefferson County last spring. At one of them we pumped the dust into holes into a stone floor of a tool shed. Some of the rats were able to get out, but were so badly poisoned that they could not get very far. We raised some of the stones in the floor, and found a goodly number of rats dead in the burrows.

Both the calcium cyanide dust and crystals and the hydrocyanide-acid gas given off by them are extremely poisonous and should be handled with the utmost care. This poison should not be used in inclosed buildings or transferred from the container to the duster indoors. Avoid breathing the gas given off, and always wash the hands after handling the poison. The dust rapidly deteriorates upon exposure to air, so that the cans should be quickly and tightly closed after removing part of the contents. Store in a safe place away from the house and out of the reach of children, irresponsible persons, and live stock.

If the local druggist or hardware dealer does not have calcium cyanide dust and the dusting pump, he should be able to secure it from his wholesaler. If not, write Hoard's Dairyman.

Wisconsin. J. M. COYNER.



Buy 6-ply tires--it pays

THE Kelly-Springfield 4-ply balloon is as good a 4-ply tire as it is possible to build today, and for city use, where road conditions are ideal, it is giving very satisfactory service on light cars.

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Hoard's Dairyman **Fort Atkinson, Wisconsin**

News from Washington, D. C

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, D. C., August 9—With the closing of the production season in the southern hemisphere and the facts of production and world trade in dairy products pretty well in hand for the year 1927, it seems apparent to the experts in the U. S. Department of Agriculture that there is a tendency in producing countries to still further increase production, while in the chief consuming or importing countries there seems to be a halting of the upward tendency and a consequent price stagnation which they are inclined to look upon with some misgiving.

Reports at hand from American observers in New Zealand indicate that there has been a good season in production, but not very satisfactory as to either British or Continental European outlet and some comparatively low prices. The Argentine production has not been as large as was anticipated. Weather conditions were not entirely satisfactory in Australia. However, both Denmark, Holland, and other north European countries seemed to be showing increases in production, while Germany, rated as an importing nation, showed a decided tendency to increase the home production of dairy products.

Weakness in both German and English markets adds to the generally depressing price situation.

Contrasted with this is the generally good demand for milk, butter, cheese, and most other dairy products in this country, little or no evidence of undue increase in production, and at this time at the end of the storage season only just about a normal amount of butter in storage. Storage stocks, while larger than a year ago, are not sufficiently larger to provide for what was a self evident shortage in storage last January and February.

Your correspondent has been making inquiry recently into the progress of work in the study and control of contagious abortion. Dr. Buck, in charge of this work, made a very teresting address on the subject the Dairy Pilgrimage in the spri He now indicates further work, pecially as to results of inoculat which indicate progress toward c trol when the animals are taken time. There is growing interest this work, evidenced by inquiries a communications which are receiv An appropriation of about $40,00 used principally to carry on the wo It is also indicated by the inquir that have been made that grea progress could be made if more c were available for investigations, Dr. Buck could have some more cl ical and junior technical assista There is some possibility of an larged project being prepared presented as a part of the next ye research program.

A survey of city and village hea ordinances to show to what extent B. testing and pasteurization are r being required has been set in mo by the Public Health Service, the reau of Animal Industry, and the reau of Dairy Industry. Special quiry will be made by agents of or the other of these federal serv in every municipality having a he ordinance and an enforcing offi The results will be summarized classified for the guidance of the partments and Congress for year's work.

The inquiry is made on blanks pared by Drs. Frank of the Pu Health Service, Mohler of the Bur of Animal Industry, and Larson the Bureau of Dairy Industry, signed to get just the specific in mation wanted, without confusin with other matters. These bla will be sent to every city and vil health officer to be filled out.

The purpose of the inquiry e cially is to assist Congress in viding funds to carry on T. B. t ing, so that the dairy industry be prepared to meet the growing mand of cities and villages for T free cattle for their milk supply.

Big Increase in Milk Production Last Year

The quantity of whole milk produced in the United States last year increased four billion pounds over 1925, according to estimates by the United States Department of Agriculture. Most of the increase was consumed as fluid milk in households, and used in the manufacture of butter and ice cream.

The Department places the quantity of whole milk used in 1926 as 120,766,487,000 pounds compared with 116,505,395,000 pounds in 1925. The quantity of this production used in the manufacturing of creamery butter was 30,487,086,000 pounds of milk compared with 28,592,046,000 pounds the preceding year; condensed and evaporated milk 4,333,760,000 pounds compared with 4,394,645,000 pounds, and ice cream 4,464,144,000 pounds compared with 4,437,524,000 pounds.

The quantity of milk used for household purposes is estimated at 56,417,000,000 pounds compared with 54,325,776,000 pounds in 1925. The increase, however, has been due entirely to the increase used by the city population, the per capita consumption being 55.3 gallons, as compared with 54.75 gallons in 1925.

Of the quantity of dairy products manufactured, the production creamery butter was 1,451,766 compared with 1,361,526,000 po the preceding year.

Cheese production is placed at 4 416,000 pounds compared with 4 514,000 pounds the preceding y condensed and evaporated milk 1,3 504,000 pounds compared with 1,7 858,000 pounds; powdered milk 0 768,000 pounds compared with 8,9 000 pounds; powdered cream 1 000 pounds compared with 33 pounds; malted milk 20,673,000 po compared with 18,050,000 po canned sterilized milk 1,28 pounds compared with 1,57 pounds; and ice cream 324,66 gallons compared with 322,72 gallons.

It is estimated that 3,941,60 pounds of whole milk were fe calves last year, compared 4,047,105,000 pounds in 1925, there was wasted some 3,622,48 pounds compared with 3,495,16 pounds in 1925.

Approximately 47 per cent of total quantity of whole milk used year was consumed as milk for h hold purposes; 25 per cent was ufactured into creamery butter per cent into farm butter, and s er percentages for the other ucts named.

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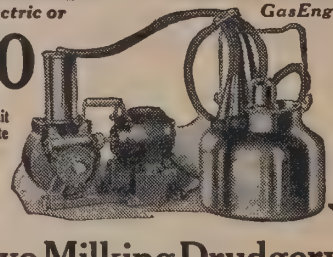
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Wayside Musings On Friendship

JOSEPH S. MORRIS, WISCONSIN

THERE is a large place for friendship in the life of the world. Friendship has a work to do and a work that is of the utmost importance. We may be friendly to a person or to a cause and that may mean only that we are not hostile to the person or to the cause. Friendship cannot be considered so negative a thing as that. True friendship is built upon mutual possession of right principles, virtuous character, and true life. Said Jesus, "Except two be agreed how can they walk together."

In our ordinary, everyday life, how much we gain from true friendship; in the give and take, in the exchange of ideas, in the mutual self-sacrificing helpfulness, in the mutual concern for each other's welfare, in speaking well of each other. It is a most comfortable and happy feeling to know that there is one upon whom we may depend at all times.

Love does not always depend upon common ideas and ideals. It is possible to love even when there are many things in the object of our affection of which we do not approve. But friendship must have as its foundation common likes, common hopes and aims, common tastes, common integrity, and open-mindedness.

And there is a wonderful law of growth in friendship. As we live and learn, think and work, build our philosophy of life, we are weaving the pattern out of our own experience and out of the free-flowing intercourse of friendship.

The general idea of friendship is a poor apology for the real thing. Much that is called friendship is mere acquaintanceship.

In friendship there must be the utmost of freedom. A friend of mine failed to keep an appointment with me and on my reproving him for his apparent neglect he countered by saying, "I did not think it necessary to explain myself to so good a friend." That is just it. True friendship must think the best at all times, put the most generous and charitable construction upon actions; in a word, trust to the very end.

In the 14th and 15th centuries in Germany there was a band of mystics who called themselves the Friends of God. They had banded themselves together to seek a more vital religion, a religion based upon abiding trust in God and a constant intercourse so that the life of the lesser might be heightened and made effective by life of the greater.

One of the most beautiful pic of friendship is that of Jesus sa to His followers ". . . but I called you friends; for all things I have heard from my Father I made known unto you." He ha "shut them out." He was no l calling for blind and unquesti following. He had taken the once into his innermost heart.

Men are made by the high e iences in which they strike ha hand and pledge undying dev or by the unexpressed but mut understood compacts of loyalty.

In our human institutions the those who take lightly their pl of friendship and devotion. W annoyed by them, and yet, is i true that they get just so mu they give and no more? Can w pect large loyalty to friendship people who live small mental spiritual lives?

I like the story of the litt whom a wealthy and cultured was arranging to adopt from phan asylum. The lady told the girl of all the wonderful thing intended doing to make her and was dumbfounded when the girl expressed uncertainty abo ing with her. Pressed for her r she said, "But what am I goi give for all this that you are me?" She was right. True f ship in her new home could only from the contribution each w make and the wise lady said, pect you to love me in return f love to you; that will be my re

Friendship may be found where. Life-long friendships grown up between neighboring ers, between men and women ing next to each other in fac between men and women enga office work, between men and in the professions, between m women in social life.

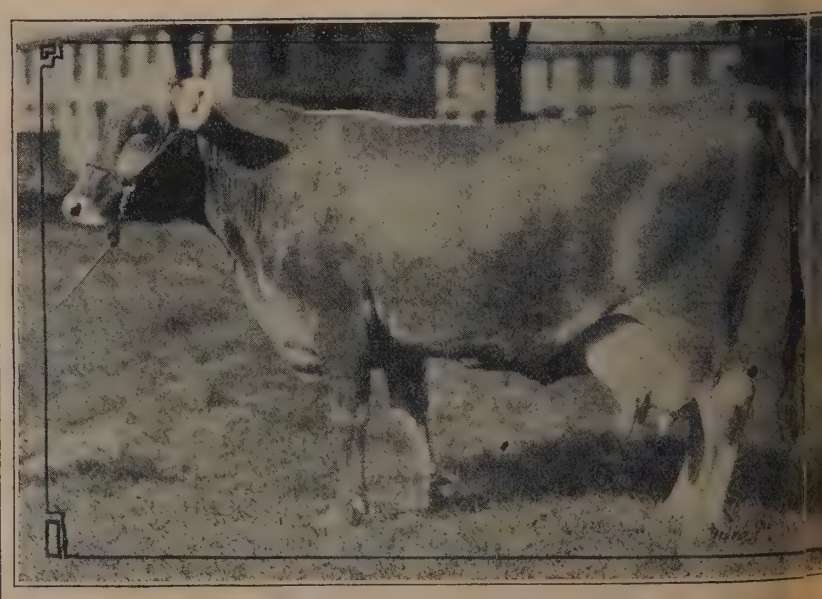
Friendship is a flower tha grow anywhere, given the s common tastes, common hopes, al sacrifices and helpfulness, trust and faith.

You may have many friends is quite likely that you will ha one abiding and undying frien

---

Dickey: "My dad is an Elk, a Moose, and an Eagle."

Mickey: "Gee, what does it see him?"



GOOD FAITH, A SWISS RECORD BREAKER

Good Faith, a 5-year-old cow owned by the University of Wisconsin, has just finish 10 months' record of 15,831.9 lbs. milk, 703.36 lbs. fat which entitles her to first place in her class. She was bred by B. H. Hibbard of Wisconsin.



They don't *come* any better

I DIDN'T know it, but Prince Albert was just the tobacco I had been looking for all the time. I hate to think of the time we lost getting together. But let that go. We're all set now—me and the pipe and P. A. We've been pals from the very first puff.

I had a hunch I was going to like P. A. the minute I got that breath of Nature's noblest gift to pipe-smokers. What a treat! It made me think of a hike through the woods, when the trees and the vines are in full leaf. I found the taste "as advertised" by the aroma.

Cool as a customs-inspector. Sweet as the thought you have nothing to hide. Mild as a milk-shake, yet with that full-bodied flavor that satisfies your smoke-taste right down to the ground. That's Prince Albert, Fellows. They don't *come* any better.

No matter how set you appear to be on a smoke-program, try P. A. I give you my word, no other tobacco that ever came down the pike ever brought so much downright satisfaction out of a pipe. "That fellow knew his groceries," you'll say, or words to that effect.

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



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NOTHING would be more suitable for the kitchen (that most lived-in-room in the house) than this lovely rug of Armstrong's Linoleum in the green-and-white tile pattern. Colorful, simple in design, clean looking, it is far prettier than that old wood floor, and much easier to keep clean! Just a light mopping keeps it bright, shiny, and new-looking.

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Besides the tile pattern illustrated for the kitchen, there are 19 new patterns of Armstrong's Linoleum Rugs now being shown in the stores. These new rugs are more than merely new designs. They are really new creations in beauty and coloring. Rugs of genuine Jaspé linoleum with an overlaid border, rugs with a single all-over design without repetition, patterns you must see to realize fully their unusual attractiveness.



In the main illustration:
Pattern No. 867
Above: *Armstrong's Jaspé Linoleum Rug, Pattern No. 727*
Right: *Pattern No. 960*

Now, with these new Armstrong Rug patterns, you can have the beauty of design and charm of color together with the practical advantages of a smooth-surface rug. . . . Not only in the kitchen, but the best rooms in the house—living-room, dining-room, bedroom. Many of these new patterns are made in the extra-large sizes, 12 ft. by 12 ft., and 12 ft. by 15 ft., as well as the usual smaller room sizes.

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"Rugs of Practical Beauty" shows a charming array of these new Armstrong Linoleum Rugs in full color. You will enjoy making your selection before you go to the store. There is no charge, simply write for this booklet to the Armstrong Cork Company, Linoleum Division, 1018 Jackson Street, Lancaster, Penna.

Armstrong's Linoleum Rugs

they wear and (A) *wear and wear*

Look for the CIRCLE A *trade-mark on the burlap back*



Worth-while Books

I don't believe that ever a month sses that I don't hear someone shing that she knew the worth- ile books either for herself or for r children to read, and never such time goes by that I do not wish that night broadcast to all farm families e rich possibilities that exist in any states for such reading. The ght of fine private libraries owned people who have no real interest books and the terrible book-hunger at exists in so many people who are ancially unable to own books, akes me think sometimes that hings just ain't right, someway" as e old lady said in the story.

My attention has been called again a little pamphlet entitled 100 orth-While Books, gotten out a few ars ago by a committee of 96 edu- ted men and women and containing les of 100 books they thought ery person between the ages of 20 d 45 ought to read. The list is aded by the wise caution, "Better ad the best books first or you may t have time to read them at all" d the list is arranged in the order of e popularity of the books with the mmittee. You would guess, then, at early in the selection are such oks as David Copperfield, Ivanhoe, e Scarlet Letter, Franklin's Auto- graphy, Treasure Island, and other ch standbys dear to the heart of ery generation, tapering off at the d—I do not mean to be uncompli- entary to these books—to the ones at were most contested by the com- ttee.

The books on this list are more or s the standard classics and not the est books. If you happen to live the state of Wisconsin you can get t only this list of books but the oks themselves and also your oice of the very best in the late itings—all free of charge—by iting to the Wisconsin Library mmission, Traveling Library De- rtment, Madison, Wisconsin. When ay "free of charge" I mean it al- st literally because the only thing u have to pay is the postage one y which is very trifling. The time it is three weeks but there is no it set to the number of books that y be borrowed as the librarians e always interested and obliging d try to be as generous as their oplies will permit. The librarian l select books for you in case u don't know exactly what you nt but you must write as nearly possible what your tastes are.

There is nothing like a good book take you away from your worries d problems and I sometimes think at the parent who teaches a child love reading has done more to pro- ie insurance against loneliness and happiness than he could have done y other way.

If you are a book-lover, craving re good reading than you have ney to buy, and if you don't know ether or not your state has a free n library, write in to someone at r state capital and inquire. If you 't think of anyone else to inquire of, a note to the governor's office will give you the desired information.

"There is no vessel like a book to take us lands away."—LUCY THOMPSON.

Can a Girl Work Her Way Through College?

Time was when a girl who longed to go to college and didn't have the money simply stayed at home and pined the rest of her life because of lost opportunities. Now such an idea, if she has health, never occurs to her for she has too many examples of successful women who have made their way by the sweat of their brows—or brains. Both ways have been done so many times that books and books could be filled with the stories.

My life for some time near a large university acquainted me with some of the possibilities girls have for "earning while learning," as the advertisements say, and the thing I found most to criticize about girls who were doing this was that they drove themselves too hard. Any girl who plans to make her own way should allow herself more time than the regular four years for getting through. It is not fair to her health for her to support herself and at the same time do as much scholastic work as girls are doing who get full maintenance from home. It is pretty hard to make the 18-year-old believe that she will ever be other than perfectly well and strong and this is especially true of girls who have the ambition to try to work their way through college.

Such girls as this ought to start college with at least enough money to last them half a year while they are getting acquainted with their situation.

Now what do these self-supporting girls do? Literally everything. Only the other day one of them advertised as a bridge player. She plays a good game and she has decided that she will get fun as well as pay out of it. Typing, cleaning, selling things (Christmas cards, magazine subscriptions, extracts), helping in stores, tutoring, caring for children, mending, helping serve at parties, answering telephones, acting as office assistant. A girl who has a special subject in which she is interested such as botany, bacteriology, or history can often after a year's study be taken on as office or laboratory assistant. This kind of work is greatly to her advantage as she is learning more intensively about her specialty than if she were doing other work.

The larger the college the greater the number of opportunities for work. Many of these maintain self-help houses where girls can make most of their expenses by doing part of the housework and some of the finest friendships I know have been built up in these student homes.

A girl arranging to work through all or part of her course should immediately on arriving at college get in touch with the person in charge of the employment bureau for she will be the one who, most of all, can make the earning of college money easier.—LUCY THOMPSON.

Open-face Sandwiches

Next time you are having a children's party with sandwiches, try the open-face variety if you don't mind doing a little more work. My favorite of this kind is made with white bread, cut thin, spread with butter and then cream cheese, and then decorated with thin slices of stuffed olives. The bread may be cut in rounds, or squares, or triangles and the butter and cheese must be creamed very soft so that spreading them will not tear the bread. The olive slices may be arranged in many ways that will interest the children—squares, circles, triangles, or even eyes, nose, and mouth to make a face.

A sandwich that is a pretty addition to a yellow and white color scheme is made with hard-cooked egg. Spread rounds of white bread and butter; around the edges make a ring of egg yolks which have been mashed and seasoned with salt, pepper, and vinegar and in the middle put the egg whites which have been chopped fine and seasoned.

For the sweet sandwiches so dear to a child's heart, use brown bread baked in baking powder or other round tins. Slice thin, spread with butter, and over this spread a thin layer of marmalade; or you could make designs on these by using thin rings of candied or maraschino cherries.

Bread that is a day old is best for all these sandwiches.—LUCY THOMPSON.

Stork Shower

Ask a group of friends or the members of a club to come and bring a gift for the prospective baby. A new game to play is called, "Radiographs," or Choosing the Baby. Cut from old magazines pictures of a baby, a mother and baby, whole family, etc., and arrange on numbered cards with a comment written on each. Pass to the guests and let each guess which is the one chosen as it (baby). After seeing the baby of course you will want to help name it. For naming the baby write the mother's full name on paper and give to each person with a pencil. Each guest is to write as many boy and girl names out of those letters as they can in ten minutes. The one having the most gets a prize.

A child's wagon can be made into a float by covering with white crepe paper and trimmed with bows of blue ribbon. A small child dressed in white and blue may pull it in loaded with the gifts for baby and mother. The mother opens them for all to see. After this refreshments may be served.—E. M. CHAPMAN.

Good for Something

Tommy: I want another box of those pills I got for mother yesterday.

Druggist: Did your mother say they were good?

Tommy: No; but they fit my air-rifle.—Good Hardware.

Send for Our Fall Fashion Magazine

You simply must have a copy of our Fall Fashion Magazine, for it contains too many good things for you to miss. All the new fall and early winter styles of course, and then there are pages of novelties for the masquerade. Articles about health and beauty and reducing safely, and pages showing correct hats, fancy needle work, special lingerie, etc.

While you have the matter in mind send 10c for your copy to our Fashion Department, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 495—Slender and Practical. Pattern in sizes 16 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3 yards of 40-inch material with ⅝ yard of 27-inch contrasting.

No. 531—Slender Lines. Pattern in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 4 yards of 36-inch material.

No. 750—Morning or Sports Dress. Pattern in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 2¾ yards of 40-inch material with ⅞ yard of 36-inch contrasting.

No. 417—Truly Practical. Pattern in sizes 36, 40, and 44 inches bust measure. Size 36 requires 2¾ yards of 36-inch material.

No. 788—Expresses Sports Feeling. Pattern in sizes 16, 18 and 20 years, 36, 38, 40, 42, 44 inches bust measure. Size 36 requires 2⅞ yards of 40-inch material with ⅜ yard of 36-inch contrasting.

No. 2929—One-Piece Dress. Pattern in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1½ yards of 40-inch material with ⅜ yard of 27-inch contrasting.

No. 3098—For Wee Lads. Pattern in sizes 2, 3, 4, and 5 years. Size 4 requires 1⅛ yards of 32-inch material for trousers with ⅞ yard of 36-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

"Now you understand, Bridget, the jelly's to be served next to the last."

"But faith, missus, ye told me the bloomin' stuff was molded so I throwed it out."

DAIRY MARKET NEWS

July Foreign Butter

The following table of foreign butter prices gives the average of weekly quotations as published by the U. S. Department of Agriculture:

Market	July 1927	June 1927	July 1926
	cents	cents	cents
London			
New York	41.7	42.5	40.5
Chicago	40.	40.4	38.5
Copenhagen	32.1	33.4	34.9
Berlin	33.1	33.5	35.2
London			
Danish	34.9	35.8	37.8
Dutch*	34.1	35.0	
New Zealand	34.7	35.6	35.9
Australian	34.5	35.5	36.3
Argentine*	34.9	34.7	33.7
Siberian	33.9	34.2	31.4

*Unsalted.

Wisconsin July Butter

Wisconsin co-operative creameries paid producers a net price of 45.2 cents a pound for butterfat in July according to reports from 77 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 40.4 cents a pound for butter, making spread of 4.8 cents between the price received for butter and the price paid for fat.

The range in prices paid for fat was from 40.3 to 48 cents, with the price received for butter ranging from 39.5 to 41.1 cents. The overrun ranged from 21 to 25.6 per cent. Receipts of butterfat averaged 46,424 lbs. per creamery.

June Dry Milk

(From Report by U. S. Department of Agr.)

The wholesale prices given below are based on reports from manufacturers governing actual sales F. O. B. factory during June:

Dry Skimmilk: Prices ranged from 7 cents to 12 cents for dry skimmilk in bulk, averaging 9.11 cents a pound for sales, totaling 7,428,590 lbs. When packed in one-pound cans the price reported was 32.1 cents a pound.

Dry Whole Milk: Prices ranged from 22.5 cents to 28.5 cents for dry whole milk, averaging 27.10 cents for sales totaling 195,838 lbs. When packed in one-pound cans the price reported was 47 cents a pound.

Dry Buttermilk: Prices ranged from 6.5 cents to 10.5 cents for dry buttermilk in bulk, averaging 8.47 cents a pound for sales totaling 2,352,736 lbs. When packed in one-pound cans the price reported was 10.75 cents a pound.

Feed Market Situation

(By the Grain, Hay and Feed Market News Service, U. S. Bureau of Agricultural Economics.)

Moderate offerings of most by-product feeds were being readily absorbed at steady prices at the close of the first week of August. The strength imparted by a sharp advance in grain prices was being somewhat offset by favorable pasturage conditions which tended to reduce the demand, particularly from consuming channels.

Wheat feeds remain generally firm. Production as indicated by output of flour at important milling centers has shown some increase during the past few weeks but it was still smaller than for the corresponding period in the past three years. Demand for bran continues rather dull. Eastern resellers and some mills have been offering bran in eastern markets below quotations from southwestern mills where production has been restricted by the small demand for flour. Offerings of bran for August, September, and October shipment by southwestern mills were at prices about a dollar below spot prices but were not finding an active demand. The recent advance in wheat prices caused by unfavorable crop developments in the spring wheat areas both in the United States and Canada are likely to have a strengthening influence on the market for wheat feeds, particularly if the demand is broadened.

Linseed meal has averaged barely steady with only a limited volume of trade. Prices at Minneapolis have declined slightly during the past few weeks but have held fairly steady at Buffalo. Production has continued light and the output has been readily absorbed so that holdings of meal at the present time are seasonably small. Production of meal for the whole season seems likely to be nearly as large as last year's production, which approximated 40,000,000 tons.

Cottonseed meal: A cotton crop of about 13,500,000 bales was indicated from the condition and acreage report at the first of August. This is about 4,500,000 bales smaller than last year's production and slightly smaller than the 1924 crop, from which about 2,125,000 tons of meal and cake were produced compared with 2,800,000 tons produced to the first of July from last year's crop. It seems probable, therefore, the supply of cottonseed meal this season will be around 675,000—700,000 tons below last year's production.

Gluten feed: The advance in corn prices has been a strengthening factor in the market for corn feeds and prices have held very steady. Production of gluten feed during July fell about 600,000 tons short of the June production but was about 500,000 tons larger than for the corresponding time last year. Resellers at Buffalo and other eastern markets have recently been offering gluten feed at about 50c per ton below manufacturers' quotations. Manufacturers' offerings have kept well sold up but recently some feed for August shipment has been offered from Chicago at around $42.60 per ton.

Alfalfa meal continues to rule steady to firm. Inquiry continued light in the Southwest and some mills are still closed. Mixed feed manufacturers are buying a moderate quantity and prices are holding about unchanged.

The demand for tankage has continued active and prices are holding firm at $70 per ton at the principal markets. Some points report supplies hardly equal to current inquiries.

Quoted August 9

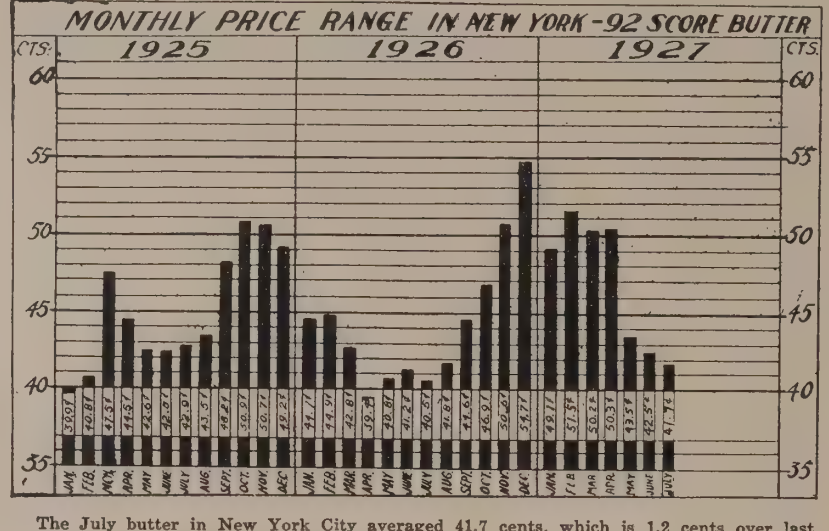
Standard spring wheat bran: $25.50 at Minneapolis, $29.50 at Buffalo, $32.75 at Philadelphia, $28.25 at Chicago. Hard winter wheat bran: $24.50 Omaha, $25.50 Kansas City. Soft winter wheat bran: $31 Cincinnati, $27.50 St. Louis.

Standard wheat middlings: $37.50 Buffalo, $40 Philadelphia, $36 Chicago, and $33 Minneapolis. Soft wheat middlings: $41 Cincinnati, $38 St. Louis. Gray shorts: $36.50 Omaha, $36.50 Kansas City.

Cottonseed meal (43%): $43.50 Philadelphia, $41 Chicago, $40.10 Kansas City, $32.50 Fort Worth.

Linseed meal (34%): $46.50 Buffalo, $46 Chicago, $45.50 Minneapolis.

Gluten feed: $36 Buffalo. White hominy feed: $39 Buffalo, $38 Chicago. Alfalfa meal: $26 Chicago, $22.50 Omaha, $22 Kansas City, and $25 St. Louis.



The July butter in New York City averaged 41.7 cents, which is 1.2 cents over last year and 1.2 cents less than two years ago.

July Cheese

Wholesale price of cheese on the Wisconsin boards averaged 22.4 cents for July, which is practically the same price as prevailed last month but exceeds a year ago by 2.6 cents. The first ten days in August saw an increase in price of 1.1 cents, with the markets erally firm.

Cheese production for the first six m of the year totaled 203,822,000 lbs., a dec of twenty-two million pounds from last Net imports were 37,934,000 lbs., an inc of eleven million over last year. Storag July 1 was 49,643,000 lbs., a decrease of million pounds from last year. This l the total estimated trade output for thes months to 245,863,000 lbs., a decrease o per cent in apparent consumption of chee compared with the same period last year.

Daily quotation from the U. S. Depart of Agriculture shows the following av wholesale prices for American cheese o Wisconsin Primary Market during July:

	July 1927	June 1927
	cents	cents
Twins	22.	22.2
Single Daisies	22.4	22.5
Longhorns	22.3	22.3
Square Prints	23.9	22.8
*Receipts since Jan. 1st	120,178	96,958 1
*Receipts for month	23,221	20,765
*Storage (End of month)	14,374	10,995

*In thousands of pounds at Chicago, York, Boston, and Philadelphia (i. e. omitted.)

Wisconsin July Condens Prices

Forty-nine condenseries reported to Wisconsin Department of Markets the paid in July per hundred pounds mil livered at their factories. Reduced to a mon 3.5 per cent test basis, these ranged from $1.85 to $2.50, the average $1.95.

Seventeen factories sent delayed report June, the average being $2.02. This is cents above the previously reported avera $1.95 for 42 factories.

July Butter

Butter averaged 41.7 cents in New Yo July, a decline of .8 of a cent from the average but still 1.2 cents above July a ago. The first ten days of August sa average decline of 1.2 cents but the m continued firm.

Creamery butter production for the fir months of the year was 766,955,000 lb increase of seven million pounds over year. Net imports for the same period 4,189,000 lbs., an increase of three m pounds over last year. Storage holdin July 1 were 90,116,000 lbs., an increase o million pounds over a year ago. This l the estimated trade output for the firs months to 1,013,937,000 lbs., a decrea nineteen and a half million pounds or 1 cent less consumption than for a like last year.

Daily quotations from the U. S. Depar of Agriculture show the following a wholesale prices on 92-score butter (e at four of the principal markets, together receipts and storages:

	July 1927	June 1927
	cents	cents
Chicago	40.	40.4
New York	41.7	42.5
Boston	41.8	42.6
Philadelphia	42.6	43.2
*Receipts for month	68,645	74,223
*Receipts since Jan. 1	370,189	301,544
*Storage (End of month)	66,783	41,026

*In thousands of pounds at the four m (i. e.—000 omitted). Ninety score butt eraged 38.2 cents for July in Chicago, centralized butter at this market sellin 39.4 cents. Jobbers' prices on extras s retailers averaged 42.5 cents in Chica spread of 2.5 cents above wholesale.

Philadelphia Milk Price

The Inter-State Milk Producers' Assoc announces that the August basic pric milk will be $3.29 F. O. B. Philadelphi $2.71 per hundred at receiving stations i 60 mile zone.

The July surplus price was $2.16 F. Philadelphia. The July surplus prices receiving stations on railroad were $1.5

These are based on milk testing 3 pe butterfat with a differential of 2 cent each half point of test up and down.

Wisconsin Milk Price

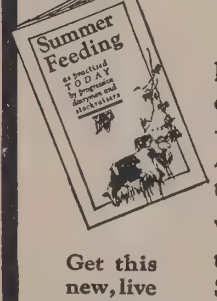
The average farm price of milk for W consin has been steadily increasing durin first half of 1927. The June price ave $1.96 which is 22 cents above last yea 14 cents above 1925. It is the highest price since 1920.

The following table has been prepar Mr. Ebling, agricultural statistician fo Wisconsin Department of Agriculture, ing the average farm price of 100 l

(Continued on page 813)

What's the Big Secret of Fall Milk Production?

Read this Free Booklet and FIND OUT!



Every year swells the ranks of successful dairymen who feed a summer grain ration — almost always including Linseed Meal. And each year they make more money than neighbors who trust pasture alone.

Why? Because a cow isn't just a machine to turn today's feed into tomorrow's milk. She's a living, breathing animal—capable of storing up health and energy cheaply in summer, and giving it back to you in profits weeks afterwards.

Look beyond summer milk checks. Build up your herd by grain feeding. Swing into fall with everything set for continued production. Write today for new booklet including practical summer rations.

Get this new, live story on Summer Feeding. Mail the coupon NOW!

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Name.....

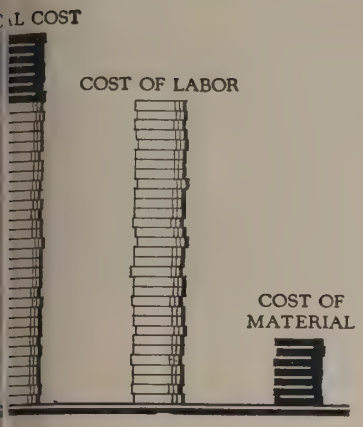
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Linseed MEAL

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What is the COST of painting with Eagle?



HE cost of painting is determined by the cost of materials, the cost of labor.

the big cities a paint job is 70% r cost and only 30% material. In rural communities labor s are a little lower but labor ywhere is so high that you can afford anything but the highest lity of paint materials. It re- es less labor to apply high qual- paint because it covers well; it hes out easily and can be spread a greater area. thus reducing ost per square foot.

he principal reason for the econ- of Eagle Pure White Lead is ng wearing quality—made pos- by the tough elastic strength of lead in oil—a strength which ther material seems to possess mpletely.

nd Eagle is inexpensive in first One hundred pounds makes oximately seven gallons of pure paint.

k any good painter his opinion gle Pure White Lead—in use 1843. *The Eagle-Picher Lead pany, 134 North La Salle t, Chicago, Illinois.*

e you your free copy of the Eagle ting and Mixing Chart"? It contains y helpful suggestions for farm painting.

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D DUTCH PROCESS



e are always pleased to re- ve suggestions in regard to ry department of Hoard's iryman.

Seasonable Live Stock Notes

County, district, and state fairs are in full swing. We hope every subscriber of Hoard's Dairyman may find time and be moved to visit a fair. We often wonder on what level of improvement live stock production would be today if we had never had any fairs. This thought leads us to believe they have had an important influence in live stock improvement. Of late years junior club work in live stock projects has had a big influence on fair attendance and, we believe, on live stock improvement. Certainly it has given thousands of farm boys and girls worthwhile things to do. What is a well managed fair? To us it is the show window of the area it represents where the best products of the field and factory are brought together for inspection and comparison. A fair affords great opportunity to parade the pride of those who participate and to encourage those who look on. Fair officials are anxious to serve and please their patrons. In visiting fairs this year we suggest that those who attend look for both good and bad features and lay their commendations and criticisms before the boards of directors. Is the live stock program of your fair all that it should be? If not, what can be done to improve it?

Feed Dry Cows Enough

September finds a good many dry cows in the dairy sections where fall calving is a common practice. Our correspondence indicates that the feeding arrangement of dry cows is a live subject with a good many cow owners. The tendency is to let such cows shift for themselves more or less after they have ceased to line up in the barn for the regular milking. Everyone wants his cows to produce a unit of milk at the lowest cost of feed and in the absence of a daily contribution of milk from dry cows owners are tempted to cut down on feed, thinking that by so doing they lower the cost of producing 100 lbs. of milk. If the influence of restricted feeding during the dry period on the production of the succeeding lactation is properly measured it is likely feed costs will be greater per unit of milk produced rather than lower. Dairy cows should have six weeks or more of rest between each lactation during which time they should be fed in such a way as to bring them up to good condition by calving time.

Dairy Heifers Need More Than Poor Pasture

A well known authority on feeding live stock states that after dairy heifers are eight months of age it is an easy task to rear them to their first lactation period. He states that heifers on good pasture need no additional feed to make normal growth. Emphasis is laid on "good," however, in indicating the kind of pasture needed for such growth. Heifers are more apt to suffer from neglect in summer than in winter because they start out on good pasture and frequently run into very poor pasture just about this time, if not sooner. We suggest that definite observation be made at this time of the heifers in the herd to determine how they have come through the poor part of the pasture season and whether they need more feed.

Hogging Down Corn

September is the month when those who practice harvesting corn with hogs hope to get some shotes into the fields. Some farmers who push pigs for the late October market make a practice of planting a limited acreage of ninety-day corn and thus be assured of the advantages of this method of cashing the crop shortly after it is harvested. The popularity of hogging down corn has not reached the dairy farmer, perhaps, to the same extent that it prevails on corn and hog farms. This is only natural, however, because of the difference in the number of hogs raised and of the limited amount of corn available on dairy farms for feeding swine. With all of that, hogging down corn has proved to be an efficient and economical method of getting corn out of the field. With skimmilk available on many dairy farms, a small field of early corn can be converted into live hog in a manner surprising to the man who has never tried it If skimmilk is not available, tankage is the next best protein supplement. A good pasture makes the corn and supplement go farther.

Keep the Best Hens

The last of August finds most of the hens on a vacation so far as production of eggs is concerned. Low producing hens have quit, some of them long enough to now be in the molt. The best producing hens have faded the yellow color of their shanks to a pale white and their feathers are reminders of shop worn goods. The full case of eggs every week of early spring has now shrunk to a few dozen. What can be done and what should be done now to promote the efficiency of production when the season is right again? First and by all means take out the culls—sell them; second, sell all hens that have completed two laying seasons. It will not pay to hold them over for the eggs produced in the third laying season.

(Continued on page 813)

None!
No Long Tubes No Claws
The Surge Milker



You will NEVER know how *easy* a milker can be to wash UNTIL you have washed The Surge Milker. No Long Tubes! No Claws!

Ever try to wash a mess of long tubes and twisted claws? Try it once . . . . then try The Surge and *see how much easier it is! Another thing!* Long tubes and claws with their cracks, crevices, twists and turns are bacteria breeding grounds. The Surge has NO long tubes! NO claws! That's WHY Surge Owners find it so *easy* to produce clean low bacteria count milk and get premium prices.

6 Milkings FREE!

Right in Your Own Barn—With No Obligation to Buy

Don't buy ANY milker UNTIL you have tried The Surge Milker with its wonderful NEW method that milks cows like no other machine has ever milked cows before. Our liberal "6 Milkings Free" Offer lets you see for yourself just what The Surge will do for you—and there is no obligation to buy unless you want to. Once you see it milk your cows—even "that cow" you think can't be milked by machine—once you see how easy it is to operate and how much EASIER it is to clean—*you won't be satisfied until you own one!*

Mail coupon now for special price, Free Demonstration and Easy Terms Offer. Learn what this wonder milker will do for YOU!

Easy Terms
You can buy a Surge Milker on very easy terms. We'll figure to use any equipment you may have already in your barn. You'll be surprised how little it'll amount to. Mail coupon now. It doesn't obligate you.

Mail Coupon for Free Book

We have just issued a NEW Surge Catalog that tells you MORE about milking and milking machines than anything you've ever read. It's a very valuable book for any farmer milking cows to have. This coupon will bring it to you—FREE.

Mail It Today SURE!

PINE TREE MILKING MACHINE CO. Dept. C-285
2843 West 19th Street, Chicago, Illinois

Please send me without cost or obligation, Free Surge Catalog and tell me about your special Free Demonstration Offer on the SURGE Milker. **(Please give this information.)**

Number of cows milked..... R. F. D.....

Name.....

Address..... *State*.....

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



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FOR ALL PURPOSES
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WATERLOO, IOWA
AGENCIES IN MOST LARGE CITIES

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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Local Club Leaders Organize

PIERCE County, Wisconsin, has organized a 4-H club leaders' association which has been so successful in helping club work, increasing enrollment, and stimulating local leadership that the nearby counties of St. Croix, Wisconsin, and Goodhue, Minnesota, have sent club delegates to attend meetings of this association and bring back its plan of operation and organization.

Last winter this Pierce County plan was given by County Agent H. G. Seyforth to club workers from all over Wisconsin at the annual state farmers' and homemakers' conference in Madison.

"No leader, no club" is the slogan adopted in Pierce County. The result is that today they have twenty-four clubs going strong. The first leaders' school held in May, 1926, was attended by fifteen local leaders. They elected officers and decided to hold regular meetings on the second Saturday of each month at the court house.

The meetings start at two o'clock. Following the business session a question box is opened and the leaders have opportunity to solve their problems with the help of the county agent. Group singing is led by one of the club leaders.

This year the health H has been stressed and health exercises have become a part of the meetings. A new feature is the reading of a book, a portion at each meeting. They have started "Training the Child" by Angelo Patri. At each meeting three leaders put on something for the benefit of the others. Committees are appointed for such events as the annual picnic, achievement day, and the county fair.

Mileage money for each leader attending the monthly meetings at the rate of five cents a mile was obtained when members of the organization presented their case to the county board. At each meeting each leader present is required to sign a blank form. Mileage money for the previous meeting attended is given out at every meeting.

Officers of the Pierce County Club Leaders' Association for 1927 are: Mrs. A. E. Schnase, president; Mrs. Gertrude Flueger, vice-president; Miss Isora Oellrich, secretary-treasurer; and Mrs. A. L. Leonard, reporter.

In 1920, H. G. Seyforth became Pierce County's first county agent. He began club work in 1921 with an enrollment of 75. In 1927 there are some 520 club members enrolled. Mr. Seyforth has worked chiefly through the rural school in organizing clubs. Pierce County has 3,200 farmers and is distinctly an agricultural county, there being no manufacturing and no cities over 3,000.



COUNTY CLUB LEADERSHIP SCHOOL AT ELLSWORTH, WIS., APRIL, 1927
Farm women, a cow tester, an editor's wife, teachers, and advanced club members are now leading clubs in Pierce County.



THE 4-H CLUB BUILDING ON THE PIERCE COUNTY FAIRGROUND

Every club must hold at least six meetings annually. Club members are limited to three projects each. The sewing project is the most popular with 142 enrolled. The dairy calf project comes next with 100. Other projects in the order of their popularity are: poultry, canning, garden, baking, corn, pig, potato, forestry, lamb, baby beef, and apple.

Every boy and girl doing club work in Pierce County is card cataloged. Mr. Seyforth has a complete record for every member who has finished a project year since club work was first organized in the county. Two files are kept, one is an annual file in which each club member has a card with the record of his projects for the current year. The other file is composed of larger sized cards containing a complete record of each club member for every year he has been in club work. There is also information about what club members do after they finish club work.

Each club is provided with a uniform secretary's book especially prepared by County Agents Seyforth, and Lyken of St. Croix County. A carbon copy is made of every meeting report and filed with the county agent. Nearly every club has stationery with its own letterhead printed in green with the club emblem, the four-leaf clover.

Since 1923 the Pierce County Bankers' Association has appropriated annually two $25 scholarships to the club short course at the College of Agriculture, one for a boy and one for a girl, also $25 for achievement pins which includes a pin for every leader—bronze for the first year, silver the second, and gold the third. In 1927, the Bankers' Association appropriated an additional $25 toward the expenses of George Aadahlen, Pierce County club member-leader, who attended the National Club Encampment at Washington, D. C., as one of four delegates from Wisconsin. Every club in the county contributed from three to five dollars toward his expenses.

A fine $2,000 club building houses all 4-H exhibits at the Pierce County Fair. The annual Pierce County club picnic is held in June at the fair grounds. Each club member contributes ten cents toward the premiums and expenses. A song and yell



PIERCE COUNTY CLUB MEMBERS AT INTERSTATE 4-H CLUB CAMI
OLD FRONTENAC, MINNESOTA, JUNE 23—26, 1927
County Agent H. G. Seyforth on left and Mrs. A. E. Schnase, standing, on righ

contest, kitten ball games, and
ty races are the main features
program. For prizes, surpris
are given. In this way the
not known until the package h
opened. The premiums are
purchased, and wrapped by
mittee of club leaders.
clubs are presented with club
head stationery.

Achievement Day is held ab
first of November. Dinner
tertainment are provided by t
chants. The program includes
dress of welcome by the m
stunt by each club, presenta
achievement pins, short cours
arships, county fair premiu
trips to the state fair and
tional club congress.

Little Talks for Jun

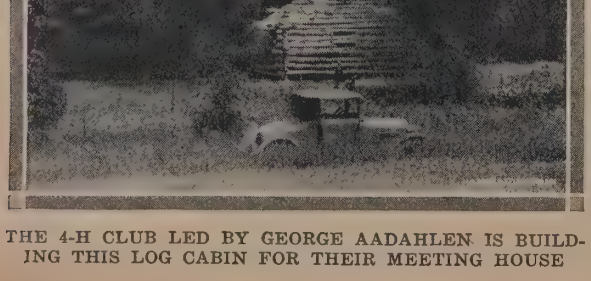
Thrift. Can you save? Or
one of those fellows who
spend it all right away? Mor
the only thing to be thrifty
There's strength, mental powe
age, and a hundred and on
things to be thrifty about
money.

But that money question i
one. Maybe it doesn't mean
to you now, but later on in
surely will. Mother and dad w
ways look out for you. And
no better time to establish th
of thrift than in your youth.

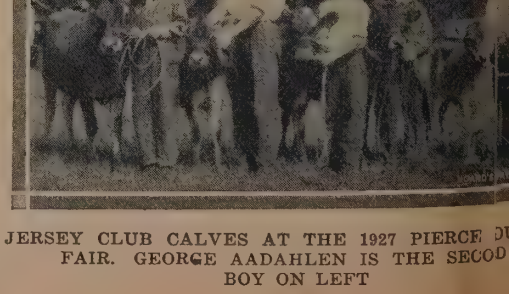
Be economical. This ap
your clothes, your eating, yo
ey, your pleasures. Even thog
only a penny, save it.

And another thing—*save yo
per.* A fellow who can't con
temper is under a great handi
you save your temper, you sa
people's nerves, and what's n
portant than friendships in
world, anyhow?

Mammoth and sturdy oa
from little acorns grow. The
fellow is the one who gets ah



THE 4-H CLUB LED BY GEORGE AADAHLEN IS BUILDING THIS LOG CABIN FOR THEIR MEETING HOUSE



JERSEY CLUB CALVES AT THE 1927 PIERCE C
FAIR. GEORGE AADAHLEN IS THE SECO
BOY ON LEFT

Our Review Column

regular feature of the junior department, ring the contents of Hoard's Dairyman e previous issue. Let's talk it over.]

r a further discussion of the fol- ig see the August 10th issue.

here is the Hind-Clark Dairy? t fifteen minutes ride from Hon- takes you to this beautiful cer- dairy farm with the Pacific in and the Koolau range of moun- behind. (See page 758.)

w are the crops raised? On ted land. Ten or eleven crops falfa are cut a year. Sorghum s 18 feet high and yields from 25 tons of silage to the acre.

w many cows are kept? About -some 200 being milked at the nt time. Of the 200 about 150 are Guernseys and there are 50 Holsteins.

ere is the milking done? The are kept outdoors all the time t when being washed and d. After being thoroughly ed and washed the cows are ad- l to the milking stable in relays elve.

at did Professor Haecker say dual-purpose cows in 1894? lvocated the single purpose cow he dairy after observing that bred cows did good service over ger period than did beef bred and that they produced butter economically. (See page 760.)

at is Bordeaux mixture? It is dard fungicide for the preven- f many plant diseases such as blight, grape black rot, and w. It also repels flea beetles af hoppers. (See page 767.)

w can goiter in calves be pre- l? By feeding potassium iodide gnant cows. Feed one table- ful daily sprinkled on the feed h cow of a solution made by ing one ounce of potassium in one gallon of water. (See 77.)

at is a good louse treatment for y? Sodium fluoride. It can be s a dip in the warm weather; ound to 16 gallons of water is n for about 200 hens. In colder er the powder may be mixed 0 with unsalted lard or vaseline pplied below the vent. (See 82.)

Junior Letters

A Poem From Kentucky

's Dairyman Juniors:—The following m I have written and maybe you will it:

I just was a little man,
ted out to be a dairyman
rom that day until this
s very few days that I have missed.
s more when you start to breed.
s breed for the best
hen you know you make the test.
your milk scales in your barn,
will do you little harm.
your feed and test your milk,
me it takes you will not miss.
es money to breed and feed
hat's why milk scales we all need.

dress is R. 2, Clinton, Kentucky.
W. E. Green.

Popcorn in Petland

y we made some popcorn, we watched kernels grow
tle hard and shiny things to puffs of .
it rained, and then it colder grew,
rain turned to fluffy flakes and flew
danced and flew.
other Rover who was watching them .
Mother, I think the rain has popped."

dress is Whitewater, Wisconsin.
Alan R. Cooper.

A Big Dairy Calf Club

s Dairyman Juniors:—In Freeborn ve have a wonderful boys' and girls' e have 307 members of which 101 calf boys and girls. Each township meetings and has a president, sec- nd other officers. Our club has the nembership, forty-two.

the end of July we have a joint all the clubs. Each club has a five- tunt and races and other events take ring the day. At the close of the l scores are added up and the club having the most gets a prize and much honor. Our club won last year. I will be glad to answer letters from other Juniors. My address is Albert Lea, Minnesota.

Catherine Head.

From a South African Junior

Hoard's Dairyman Juniors:—I received my badge, button, and creed yesterday and they are really very nice. It encourages one to take a great interest in club work I think.

I shall tell you how I managed to get a calf for myself. One day a neighboring farmer came up to see us. I had often intended asking him what would be his price for a good calf. As I was going to ask, a young puppy came along and started to make friends with him. The farmer took a great liking to the puppy and said it was just the kind of a dog he wanted. So I told him he could have



PEARL SHEGOG'S CALF, CENTER, WAS A PRIZE WINNER AT THE SHOW

it as we were trying to find a home for it; so he decided to take it and told me he would give me a calf for it.

One day, about two weeks after the promise was made, my calf arrived quite unexpectedly. I was glad to see it and tried to make it quite at home by giving it some barley. Her former owner named her "Chelsea Pearl" and now she answers to that name.

My work on the farm is rearing the calves, seeing to the cow feeding and cooling the milk. We sell our milk wholesale; for 7 months of the year we get one shilling three pence (about 30c) a gallon and for 5 months, one shilling four pence (about 32c) a gallon. Milk is sold in the town (bottled and everything) the cheapest for 3½d a pint. Milk is the cheapest thing in South Africa.

As soon as the weather gets hot out here the cows are always down in their milkings. Our cattle here always seem to milk better during winter than they do in summer. We feed brewers grains (dried) and oat bran as concentrates and roughages, mealies and lucerne, and rye when there are not any mealies.

I shall look forward to letters from a few members. My address is Theescombe, Box 382, Port Elizabeth, South Africa.

Pearl Shegog.

To the Holstein

Hoard's Dairyman Juniors:—I am eight years old and in the third grade. My birthday is the 26th of October. My father gave me a good cow. She now has two calves. They are pure-breds and from a good breeding. My father has about 20 head of Holstein cows.

I love the Holstein cow,
All shiny black and white,
When standing in the meadow,
She is a pretty sight.

I love to drink her milk,
All foamy white and warm,
And if I drink enough of it,
'Twill keep me from all harm.

I love to read Hoard's Dairyman,
Both its letters and its jokes.
We never know just what good news
It will bring to all the folks.

My address is Mendon, Utah.

Cleo Richards.

Hoard's Dairyman Juniors:—I am in the Washington County 4-H dairy calf club. My calf was one year, three months old on February 5th. Her name is Banco Soldene Korndyke. I curry and brush her every day. Her mother gave 330 lbs. of butterfat as a two-year-old. I feed her a ration of grain, hay, and silage. My address is Haddam, Kansas.

Gladys Young.

Joins the Juniors

Hoard's Dairyman Juniors:—When I got home from school I heard there was a letter for me. Eagerly I opened it and when I saw it had Hoard's Dairyman on it I hoped it would be about being a junior. I was so glad that I just jumped up and down. A long time ago, while looking at an old paper, I saw where boys and girls ought to be juniors. I addressed an envelope but never sent it so you can imagine how glad I was.

Yes, I was at the Cattle Congress. Had more fun and learned more than any one can tell. I looked at all the stock, especially the Jerseys, for that's my favorite breed. I enjoy club work very much and I think every girl and boy should be in some kind of club work and should be a Hoard's Dairyman Junior. You can trust me to read the Junior Department; I always have. I like the information and every bit of it came in handy.

One time a Junior wrote that his calf, when being led, ran ahead of her and then there was the answer. My calf did the same, so it helped me a lot. My calf's name is "You'll Do's Daisy Irene."

My address is R. 1, Box 88, Shelisburg, Ia.

Lavonne Fuehrer.

Likes Hunting

Hoard's Dairyman Juniors:—I received my fob, button, and creed. I also got my watch on my birthday, February 19th. Now I am all fixed up. I have been reading the story of the "Big Black Bear." One day I went hunting. I didn't see anything that day, but that night I set my trap by the house. When I got up in the morning I had a civet cat. Daddy got the twenty-two and shot him. If any of the juniors wish to write to me, my address is P. O. Box 17, Esparto, California.

Jackie Pilgrim.



WHEN you invest in a cream separator let one thing be your guide: *See that it has ball bearings.* In the old days the turning of the best machine was a man's work—work requiring strength and endurance, day in, and day out. That day is past; the swing is all toward the easy-turning, durable, ball-bearing cream separator.

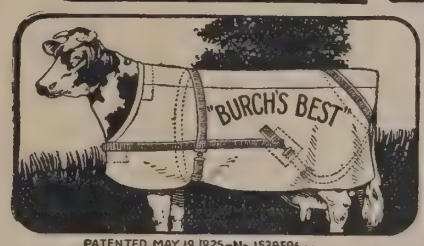
McCormick-Deering brought in ball bearings, by far the greatest improvement in separator design in recent years. Any woman can turn the McCormick-Deering Primrose with the greatest ease—the children can turn it easily too. Friction in the cream separator for the first time is reduced close to the vanishing point. And ball bearings *keep* the machine that way—plain bearings can never be so satisfactory.

Light-running durability is in keeping with McCormick-Deering quality and efficiency throughout. Years of steady service in every community testify to clean skimming, sanitation, easy cleaning, and a faultless splash lubrication system (positive, automatic, to every moving part). This machine comes to you to earn the money that pays for it—our 12 months' payment plan will help. Sold by the McCormick-Deering dealer in your town.

INTERNATIONAL HARVESTER COMPANY
606 So. Michigan Ave. *of* AMERICA *(Incorporated)* Chicago, Illinois

The Ball-Bearing Cream Separator
is McCORMICK-DEERING

You can't beat **Burch's Best**
Cow Blankets



No Sir! There's not a cow blanket made that equals "Burch's Best." Hundreds of fine herd owners cover their winners with this patented blanket. Has ten exclusive features. Combines beauty, praticability and low price. Made to fit every animal perfectly. Every blanket covered with

Our Ironclad Guarantee

We guarantee them not to rip or tear for two years. You *must* get perfect service. No other blanket is so fully covered. None can be, for none are made so well. Well send a sample on request to convince you.

Where Burch Blankets Will Be Used This Year

These herds will use Burch Blankets this year: Carnation Farms and Pabst Holstein Farms, Oconomowoc, Wisc., Corium Farm, (F. J. Rueping, Pres.) Fond du Lac, Wisc., Fern-Dell Farm (A. W. Fox, Mgr.) Green Bay, Wisc., Elm Hill Farm, Brookfield, Mass., Rock County Herd, Janesville, Wisc., and many others.

Send your name and address today for free descriptive booklet, prices, etc.

F. S. BURCH COMPANY, 152-A **W. Huron St., Chicago, Ill.**

New! **A JUNIOR**
Pasteurizer *and* Cooling Unit

An ideal outfit for the dairyman--a complete unit for pasteurizing and cooling that is just as efficient as larger and more expensive units. Keeps bacteria down and milk sweet for a longer period of time Designed for the dairyman--and priced for the dairyman. Write for information.

THE SHARPLES SEPARATOR CO.,
West Chester, Pennsylvania
Dept. L.

Sharples

If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman—
Ask Him Why!



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day. 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Four Grade Holstein cows, will milk 60 lbs. milk daily. Due to freshen before September 4th. C. D. WILLIAMS, Waukesha, Wis.

Three handsome Holstein heifer calves, $65.00 tested, crated. ALFAKORN DAIRY, Evansville, Wisconsin. 14-5

For Sale—Several pure bred Holstein bulls and heifers five and six months of age. BURWOOD STOCK FARM, Oakwood, Wis.

For Sale—Two yearling Ormsby bulls, choice $100. WM. SUER, Bellevue, Iowa.

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

100 head choice Holstein cows and heifers. ORVILLE K. CRAVEN, Excelsior Springs, Mo. 15-4

15 Holsteins and 15 high grade Guernseys for sale. M. DUNPHY, Route 4, Waupaca, Wisconsin. 5-12

Holstein and Guernsey springers by carload. C. H. SEARS, Litchfield, Ohio. 16-2

Choice Grade Holsteins, Guernseys and Jerseys. Heavy producers from accredited area. Also choice breeding ewes. GREENDALE STOCK FARMS, Elsie, Michigan. 16-2

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

My herd of registered Guernseys for sale. Sire is a double grandson of Ne Plus Ultra and half brother of Procris Snowdrop. G. W. ADAMS, R. 1, Nashotah, Wisconsin. 16-2

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin. Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINETLO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

Sale—Sept. 1, Guernseys. Entire herd 30 head registered cows and heifers. C. HERSHBERGER, Bremen, Indiana.

Guernsey bulls for sale—From 10 to 18 months old. GROVER KULL, Genoa City, Wisconsin. 15-2

Summer Bargains in Guernsey bulls, heifers. FRANK KLEMM, Baraboo, Wis. 15-4

Jerseys, car lots, registered or grade, Columbiana County, an accredited area. Jersey center, over 200 breeders of registered Jerseys, over 20,000 dairy cattle in the county. Few car loads available now. Quality and prices right. Buyers who come, buy. WILLIS WHINNERY, Salem, Ohio. 15-tf

Fifteen high grade Jerseys including 2 milk cows, 4 springers, 5 bred heifers and 4 yearling heifers. For information write SHERMAN JERSEY FARM, "The Home of World Champions," Charles City, Ia. 15-3

Registered, serviceable Jersey bull $75.00; 5 months old, $35.00 to $50.00. M. EMERSON SON, Wheeler, Wisconsin.

Pure bred Jerseys, carload cows and heifers, springers and fresh. Also yearling heifers. T. B. tested. M. A. O'BRIEN, Reedsville, Wisconsin. 15-2

Eight high grade Swiss heifers and one pure-bred yearling bull. S. M. Graves, Vine St., Beloit, Wisconsin.

LIVE STOCK WANTED

Wanted—Herd high producing, Registered Holsteins or Guernseys. No T. B. nor abortion. Might exchange good Minnesota land part payment. BOX 416, Monticello, Iowa.

STOCK BUYER

Choice dairy cows, selected for the careful buyers by the dairy cattle specialist. F. B. GREEN, Evansville, Wisconsin. 16-10

EXCHANGE

Will trade monuments and markers for dairy heifers. Ill health causes me to quit granite works and go dairying. Mark your loved one's grave now. C. H. CHRISTENSEN, Newell, Iowa.

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Pups. Satisfaction guaranteed. Registered Police, Collie-Shepherds. Heelers with nerve. Fox Terriers, English Bulls, males, spayed females, $10.00. WILBUR DAY, Brighton, Iowa.

Registered White Collie Pups, farm raised. Four months old. PRAIRIE FARM, Hamburg, Mo.

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For sale or trade—No. 85 De Laval milker. A. 1 condition. Used 18 months. Trade for hogs or Guernsey calves. S. L. MUNTER, 1915 North Delaware Street, Indianapolis, Ind. 15-3

For Sale—One No. 27 Sharples suction feed cream separator, new, capacity 600 lbs. Going out of business. This is floor sample, price $80.00. A. D. ELLISON & CO., Marengo, Ill. 15-2

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Hinman Valve Chambers and pumps and parts, at a very reasonable price. JOSEPH HAAG, No. 813, W. Harris Street, Appleton, Wis. 13-*

100 gallon cherry junior pasteurizer, 5 H. P. boiler, brine pump. Might consider trade, milking machine, car. 2219 McKINLEY AVE., Keokuk, Iowa.

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 15-4

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

LUMBER

Guaranteed lumber and shingles ..old direct. Big saving! Ask for estimate. KENWAY LUMBER COMPANY, Tacoma, Washington. 15-7

LIGHTNING RODS

Reliable agents to sell the "Diddie-Blitzen" rods in your own territory. Lightning damage can be prevented by our system. Write today for our proposition. L. T. DIDDIE CO., Marshfield, Wis. 13-6

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. ALBERT MILLER & CO., 192 N. Clark St., Chicago, Illinois. 14-*

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-tf

SEEDS AND PLANTS

Alfalfa seed 95% pure, $6.50 per bushel; scarified sweet clover 95% pure, $4.50. Bags free. GEORGE BOWMAN, Concordia, Kansas. 15-4

TOBACCO

Better Tobacco! Fragrant, mellow! Five pounds smoking, 75c. Four pounds chewing, $1.00. FARMERS' CLUB, 250, Hazel, Kentucky. 10-8

MISCELLANEOUS

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the aninals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

CHEESE FACTORIES

We have new cement Cheese Factory which must be sold. If interested, write ROBERT GRAHAM, 303 East Conant Street, Portage, Wisconsin.

FARMS FOR SALE

See This! 396 acre, well improved, tractor worked, New York farm, 100 acres crops, stock and machinery included, $40 per acre. Address BOX 462, Hoard's Dairyman, Fort Atkinson, Wis. 16-2

For Sale—80 acres. Good water, fences, tilth, splendid orchard. Size of buildings proportional to acreage. Would like to sell 20 acres timber with farm. MRS. H. H. TIDD, Independence, Iowa.

For Sale—350 acre dairy farm, modern equipment, income from milk $1200 per month. Price of buildings alone will buy this. EARL LYTTLE, Franklin, Pennsylvania. 16-*

160 acre improved farm. Complete buildings. Priced to sell. TARR BROS., New Auburn, Wisconsin. 11-*

228 acre dairy farm in Middle Tennessee. Eight miles from Nashville, on concrete highway. DR. Z. C. GAMMEL, Antioch, Tennessee. 16-2

For Sale—160 acre farm, 40 Jersey cows, good milk route. Worth the money. For details write J. A. MYRICK, R. 3, Box 25, Huntsville, Alabama.

For Sale—100 acre farm, good soil, excellent buildings, near town, good markets, school, church. WM. BORST, Brooklyn, Wisconsin.

Improved Mississippi farm; $25 per acre. L. EMORY SMITH, Baton Rouge, Louisiana. 15-2

125 acre, alfalfa land, dairy farm on national highway. DR. SPARKS, Demopolis, Alabama. 16--2

For Sale—260 acre dairy, poultry and hog farm. Close to large town. SPAHOS DAIRY, Girard, Ala.

FARMS FOR SALE

Michigan Resort District. High grade going dairy farm will be sold quickly because of other business. 240 acres, 25 acres maple woods, spring and creek watered pasture, 200 acres tractor worked. Leads county seed corn production, fertile. Half mile frontage U. S. 31, paved road, through bus Chicago at door, 20 minutes city of 12,000, 1½ miles Bass Lake and Lake Michigan, active resort trade established. School adjoins farm, three churches two miles. If sold at once, deal can be made for head 25, mostly pure bred Jerseys, and complete equipment, including tractor and five horses. Full set buildings good condition, 50 x 100 concrete basement barn and silo. All buildings fully wired, on power company's line. Wire if really interested. KING—FISHER FARMS, Ludington, Michigan.

317 acre dairy farm, midway between Atlanta and Augusta on the Georgia Railroad, Dixie Highway. 29 high grade dairy cows, three registered, ten heifers, one registered herd bull, all T. B. tested. All implements needed to run the farm. Eight room residence, tenant houses, silo, necessary barns. Crimson clover, vetch, and alfalfa grow fine. Growing crops sufficient for winter included. Good pasture. Running water. City water. One mile from center Greensboro, Georgia. O. EWING.

Michigan Farm Headquarters—40 acres, 10 miles Muskegon; good buildings, orchard, berries, cow, chickens, ducks, turkeys, crops. $3750 takes everything. Easy terms. 92 acres, beautiful farm, adjoins village. Mail, telephone, electric lights and power throughout. Teams, tools, crops, 12 cows, poultry, all included at $120 per acre. Terms. Others, best sections. Write us. MICHIGAN REALTY SERVICE CO., Muskegon, Michigan.

Farm of 168 acres in Central New York for sale to settle an estate. Splendid buildings, well watered, has carried as high as 75 head of cattle. Last two years over 80 tons of hay were sold and 40 head of cattle carried each year, besides horses and other stock. Only ½ mile from church, school, depot, and milk plant. 20 miles from Syracuse on improved road. SILAS GODFREY (Administrator), Pennellville, New York. 13-7

Dairy Farm For Sale—260 acres located in Marathon County on Highway 16 near Wittenberg, Wisconsin. School and cheese factory within ¼ mile from premises. Modern building practically all built in last five years. Farm fully equipped with machinery including tractor. Fine herd of Holstein cows, four horses and other miscellaneous items for $26,000.00. For complete information write the KNOKE LUMBER COMPANY, Appleton, Wisconsin. 14-3

You, Mr. Tenant Farmer, will never again have the opportunity to own your own farm home at the price and easy terms which the farmers' own bank is now prepared to offer you—farms in North Dakota, Minnesota, Wisconsin and Michigan. Write for information, giving location and size of farm desired. FEDERAL LAND BANK, Dept. 16, St. Paul, Minn. 14-*

735 acre dairy farm, 7 miles from Montgomery, Ala., on highway. 55 Jerseys, 8 horses and mules, few sheep and hogs, 300 chickens, feed mill, truck, tractor, farm implements, plenty feed, flowing well. Personal property for sale. Will sell or lease land cheap. Must be disposed of. DR. R. B. WARREN, Flat Top, Ala.

1000 acres Canada, fully equipped high state of cultivation, including crop if taken at once, for $40.00 per acre. We have farms from 10 acres to 3000 for sale. For information write us. G. A. YOUNG & CO., 407 McArthur Bldg., Winnipeg, Man., Can.

For Sale—Best dairy and stock farm in the world at the price. Good land, good pasture, good water, all fenced, full set of buildings. Easy terms. Owner, MASON BOOTH, 5324 Abbott Avenue, Minneapolis, Minnesota. 15-2

FARMS WANTED

Need several fully equipped farms, immediately. WALT MILLER, Carpenter Bldg., Milwaukee, Wis.

FOR RENT

Improved farms for rent in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Make a trip and see the growing crops. Cheap round-trip homeseekers' tickets. Write for Free books. E. C. LEEDY, Dept. 982, Great Northern Railway, St. Paul, Minn. 13-*

Wanted—Renter with own help for farm 200 acres. 3 silos, 140 ft. barn, milking machine. Produce 1000 pounds milk per day. ROLAND RADLOFF, Hustisford, Wisconsin.

DAIRIES

Good dairy herd consisting mostly of Registered Jerseys. Good city milk route and dairy equipment. Cash or terms. A. D. BECCUE, Vandalia, Ill.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

WANTED

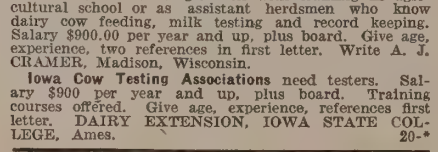
Wanted—Some one who is interested in a cheese factory in the best milk and cream country west of the Mississippi river. Write DR. W. F. FINLEY, Pres. Commercial Club, O'Neill, Nebraska. Mention this paper when answering. 15-2

Expert cheese and butter maker with $2,000 to $4,000 to invest in cheese and butter factory. Fine opening for right man with opportunity to become sole owner. HAMILTON ICE & LIGHT CO., Hamilton, Texas. 15-2

TESTERS WANTED

Testers Wanted—10 testers wanted September 1 and October 1. Prefer single men with training in agricultural school or as assistant herdsmen who know dairy cow feeding, milk testing and record keeping. Salary $900.00 per year and up, plus board. Give age, experience, two references in first letter. Write A. J. CRAMER, Madison, Wisconsin.

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*



Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Wanted—Married man as herdsman in Guernsey herd. Must be thoroughly capable and understand feeding and care to get results. Wife to help with housework. State full particulars and wages expected. Address BOX 465, care Hoard's Dairyman.

Wanted—Farm manager, married, and preferably agricultural college graduate. Must know engines and have practical farm experience. Salary $100 per month and percentage of profits. H. ANDERSON, The National Milling Co., Toledo, Ohio.

Wanted—Single, steady man for farm and dairy work who is temperate and a dry hand milker. $50 per month and board. NOTTEN FARM, Grass Lake, Michigan.

Help Wanted—Single dry hand milkers. Good living conditions; chance for advancement. Can use two married men with small families. HARTMAN STOCK FARM, Columbus, Ohio. 9-*

Wanted—Single assistant to owner. Small Holstein herd, some A. R. work. No cigarettes. Home surroundings. $65.00 and bonus. Steady. CASSADAGA FARM, Cassadaga, New York. 16-2

Wanted—Reliable, single farm hand, no cigarettes. Send references. All year job. WM. EBERHARDT, Route 7, Manitowoc, Wisconsin.

HELP WANTED

Wanted—Herdsman to have charge of 90 hea... steins and be working foreman in dairy barns... to keep two or three boarders. All modern equi... Producing high grade milk. Requires man expe... with cattle and in handling men. Write for ... details. SAUCONA FARMS, R. D. 4, Beth... Pennsylvania.

Wanted—Working manager modern farm and... thoroughly understanding tractor, all kinds mac... feeding, high production, testing, certifying, ... men successfully. Age thirty to fifty, chance a... ment, small family, must have good references ... dress BOX 468, Care Hoard's Dairyman.

We have opening for man and wife on large... class farm with modern improvements. Lady ... board ten men and take care of rooms. Man t... in barn milking three times a day or take ch... poultry. No children. Write all about yourse... no attention. P. O. BOX 793, Springfield, Ma...

Wanted—Reliable married couple without ch... Man to look after lawn, garden, furnace, a... riding horses; woman to do cooking at countr... near Lake Minnetonka. Year around position, ... living accommodations and good wages. Addres... 458, care Hoard's Dairyman, giving references a...

Wanted—Capable married couple on large s... Minnesota farm to act as field foreman and t... crew of about twelve men. Man must be hustle... ble of leading field crew. Woman must be ... manage feeding of crew. References required. ... BOX 467, care Hoard's Dairyman.

Wanted at once, a working farm foreman a... for Wisconsin on a modern dairy and grain ... Must be good tractor man and all around ... Must have excellent references. Not over 4... old. Address JAMES SCANLAN, 306 City ... Chicago, Illinois.

Wanted—Experienced creamery man, marr... single, who understands all branches of work ... clean milk is produced for city distribution. ... proposition for the right man. Address BO... care Hoard's Dairyman.

POSITION WANTED

Position Wanted—Two single men both 29 ye... Swiss, one with 10 years creamery experience, ... ences, want position to take charge of dairy o... farm. No bad habits. Anywhere in Middle ... JACOB ZOLLINGER, 309 Mosly Street, Ann ... Michigan.

High class proposition desired at once by d... and general farm manager. Best references, coll... ucation, family. Share basis or salary. Prefer ... West, Southeast, or California. Must have goo... conditions, good schools, good markets. Addres... 471, care Hoard's Dairyman.

Married herdsman. Ten years' experience i... milk production, test cow care, calf raising, co... ing, Agricultural graduate. Prefer position by ... ber 1st or earlier. Good references. Addres... 463, care Hoard's Dairyman.

Herdsman, married, desires position. Tho... experienced with feeds and feeding, calf raising ... work, producing and handling special milk. Wi... ing to board help. Address BOX 156, Chagrin ... Ohio.

Wanted—Situation as herdsman by Americ... No liquor or tobacco. Experienced calf raisin... ing and producing Grade A milk. References f... of the best dairies in the East. Address BO... care Hoard's Dairyman.

Herdsman, married, desires position. Tho... experienced with feeds and feeding, calf raising ... work, producing and handling special milk. Wi... ing to board help. Address BOX 470, care ... Dairyman.

Wanted—Charge pure bred herd. College t... practical experience, A. R. work; 38, married. ... erly with Buttonwood Farm, Berwyn, Pa. ... PAUL DEXTER, 1204 E. 9th St., Eddystone.

Wanted—Share proposition or salary positio... perienced in dairying, hogs, and poultry. Bo... reared on farm. Small family. Address BOX 4... Hoard's Dairyman.

Wanted—Position with show herd. Expe... milking, showing and judging. Not afraid o... Reliable references. PERCY PARIS, 250 C... Avenue, Detroit, Michigan.

Middle age, single man wishes position on ... men's estate. Experienced around cattle. Also ... Good habits. A-1 reference. J. McGOVER ... Nelson Ave., Great Kills, L. I., N. Y.

Wanted—Care small herd. 4 years' experienc... derstand feeding for production, buttermaki... creamery work. Wife, 3 children. L. M. HA... Warsaw, Kentucky.

Young Man—26 years old, single, 7 years' ... ence, wants position on farm as herdsman or s... herdsman. Good reference. State particulars ... letter. Address BOX 466, care Hoard's Dairym...

Wanted—Position as cow tester. Exper... South preferred. L. L. I., Box 325, R. F... Marion, Indiana.

Single man, 24, herdsman and A. R. exp... Can start work September 1st. Write ANDR... STERN, Cochrane, Wisconsin.

Young man, 23, wants job in creamery w... can learn buttermaking. Address BOX 46... Hoard's Dairyman.

Experienced route man, married, seeks posi... milk route. Guernsey preferred. Address BO... care Hoard's Dairyman.

Reliable, experienced farmer wants position ... man or rent farm well equipped. G. W. ROG... Route 6, New Richmond, Wisconsin.

Four World Record C... Entered at Waterlo...

Outstanding among the exhib... the Dairy Cattle Congress this ... will be an entry in the Brown ... dairy herd class composed of ... world champion butterfat prod... owned by Dr. C. F. Osborne of ... No similar group of cows with ... production prestige back of it ... ever been exhibited at any fa... show.

The four cows that will ma... the famous dairy herd are June'... lege Girl, having a world recor... the Brown Swiss breed of ... pounds fat in 365 days, made ... she was five years old; Silver ... world's champion Brown Swiss... en-year-old, having made 772.9... fat in 305 days; Goldie Mer... champion four-year-old, with a ... record of 873.51 lbs. fat in 365 ... and College Ethel W. having a ... year-old record of 536.75 lbs. f... 305 days.

The real tragedy of life is ... abandonment of high ideals.—Hu... CALVERT.

Dairy Market News

(Continued from page 808)

'or the past six months with compari-
'or the previous two years:

	1927	1926	1925
·y	$2.25	$2.11	$1.84
ry	2.22	2.04	1.85
	2.11	1.96	1.88
	1.98	1.80	1.83
	1.96	1.74	1 82

Milwaukee July Milk

Milwaukee Milk Producers announce the ıg prices for the month of July:
the portion sold as fluid milk, $2.85 t; and for the portion manufactured, er cwt. These prices apply to 3.5 per ilk delivered f. o. b. city, four cents .dded or subtracted for each one-tenth per cent variation in test. Seventy ıt of the total receipts were sold as

›ld Storage Holdings

J. S. Department of Agriculture)
ollowing is a report of the cold storage ı of dairy products on August 1, fig- ng given in thousands of pounds (000):

	Aug. 1 5-yr. ave.	Aug. 1 1926	Aug. 1 1927
	Lbs.	Lbs.	Lbs.
Creamery	115,854	131,152	145,146
American	61,720	73,681	67,089
Swiss	4,535	5,390	6,872
Brick	2,094	1,865	1.963
Limburger	1,239	1,695	2,036
All Other	7,677	7,422	9,944

holdings include stocks in both cold warehouses and packing house plants.

ate Fair Judges and Judging Dates

Wisconsin State Fair

30—Jerseys, R. S. Hulce; Brown . C. Humphrey; Holstein bulls, R. E.

31—Holsteins, R. E. Haeger.
1—Guernseys, J. P. Eves.
2—Ayrshires, M. H. Campbell.

Ohio State Fair

29—Brown Swiss, C. L. Blackman.
30—Jerseys, Thompson Weber.
31—Guernseys, L. H. Fgirchild.
—Holsteins, Axel Hansen.
—Ayrshires, S. M. Salisbury.

New York State Fair

30—Holsteins, T. E. Elder; Ayrshires, hrane.
31—Guernseys, N. H. Hill.
1—Jerseys, Geo. W. Sisson, Jr.; wiss, C. L. Allen.

Iowa State Fair

—Ayrshires, O. G. Schaefer; Brown B. Fitch; Holsteins, J. P. Eves.
30—Holsteins, continued; Guernseys, h; Jerseys, O. G. Schaefer.
1—Guernseys and Jerseys, continued.

Minnesota State Fair

—Ayrshires, J. B. Fitch.
—Ayrshires, continued; Brown Swiss, s; Holsteins, Axel Hansen; Jerseys, h; Guernseys, W. W. Yapp.
—Holsteins, Guernseys, and Jerseys,

Michigan State Fair

—Holsteins, R. S. Hulce; Jerseys, Hill; Ayrshires, C. L. Blackman.
—Guernseys, Chas. L. Hill; Brown S. Hulce.

nable Live Stock Notes

(Continued from page 809)

e the flock for parasites and . Especially should flock own- isfy themselves that their re free from tubercular hens. been definitely proven that ar chickens infect hogs.

Molting Hens are Good Producers

rule, the hens that are still their old feathers in Septem- the best layers. Experimen- show that the longer the rest the lower the production. is we may assume that the ıt molted the last of June, uly, and the first half of Au- the poorest producers in the his assumes, of course, that ding has not been faulty. hings being true, the con- dition of hens in September with respect to molt is a reliable index of their producing ability. The only way this may be turned to practical advantage is to first learn what a good hen looks like in September and then proceed to mark or in some way identify such hens that they may be used to produce eggs for hatching the following season. It is merely a method of selecting the best in order that their good qualities may be reproduced in the succeeding generation of chicks. It is just as important to use good female breeding stock as it is to be careful in the selection of cockerels.

From the College Jester

English Professor: Correct this sentence: "Before any damage could be done, the fire was put out by the volunteer fire department."

Freshman: "The fire was put out before any damage could be done by the volunteer fire department."—Drexerd.

Holstein Milk



Vitality!

HOLSTEINS ARE PRODUCERS

Holsteins predominate in thirty states of the Union. In these thirty states 76 per cent of the Nation's Milk is produced. The average annual milk production of all dairy cattle in these states is 3,806; in the remaining states where Holsteins do not predominate the average production is 2,562 pounds.

Write for our booklets on

HOLSTEINS

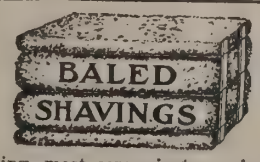
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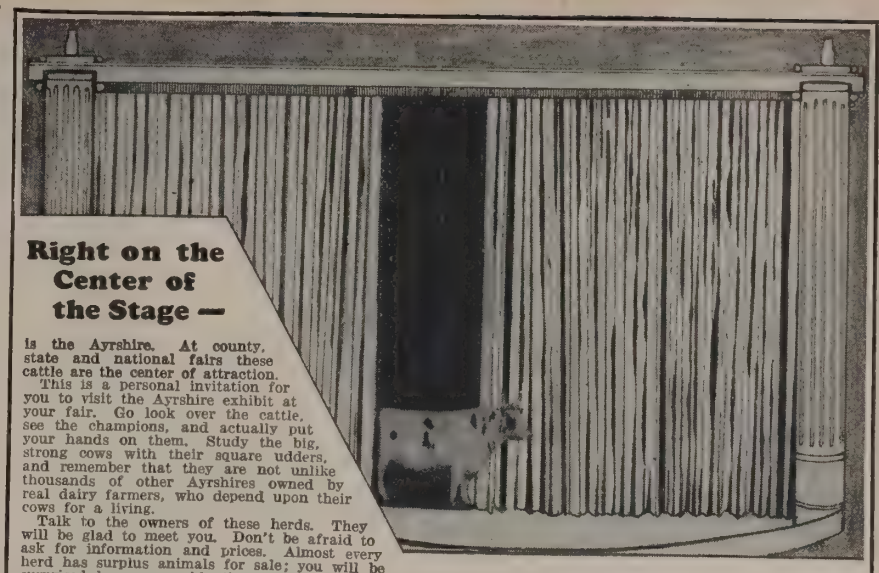
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This is a personal invitation for you to visit the Ayrshire exhibit at your fair. Go look over the cattle, see the champions, and actually put your hands on them. Study the big, strong cows with their square udders, and remember that they are not unlike thousands of other Ayrshires owned by real dairy farmers, who depend upon their cows for a living.

Talk to the owners of these herds. They will be glad to meet you. Don't be afraid to ask for information and prices. Almost every herd has surplus animals for sale; you will be surprised how reasonably they may be bought. If you can't get what you want from the exhibitors at your fair, or if you wish for further information, write to

AYRSHIRE BREEDERS' ASSOCIATION
10 Center Street BRANDON, VERMONT

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50 Cows With C. T. A. or A. R. Records

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50 GUERNSEYS

Grades and Purebreds

40 FEMALES — Half purebreds and half grades. The grades are highly bred up cows and heifers and have excellent C. T. A. records and up to 500 lbs. fat. The purebreds have A. R. or C. T. A. records. A representative offering of cows, heifers and heifer calves.

10 BULLS — Some nearly ready for service, by Cherub and May Rose sires from A. R. and C. T. A. record dams.

SEPT. 12th

60 HOLSTEINS

All Purebreds

45 FEMALES—Rich in Colantha and Aaggie Cornucopia blood. Those of milking age have A. R. O. or C. T. A. records up to 600 lbs. Many splendid bred yearlings and 2-yr.-olds, bred to son of Grahamholm Colantha Pauline Segis, 1426-lb. daughter of "Dutch." Also a splendid lot of heifer calves by 1000-lb. to 1300-lb. bulls, from dams with year records up to 1040 lbs. Many excellent show prospects.

15 MALES—Several ready for heavy service. Mostly from A. R. S. O. dams with records up to 1050 lbs.

SEPT. 13th

At County Fair Grouuds

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Cows, Heifers, Calves

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Dam: Pearl of White Hall 107933. 520 lbs. of fat in class D. Sired by a grandson of King of the Meadow.

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HEREFORD STEERS

256 dark, cherry reds, dehorned, sorted in even sizes in carload lots; wt. 400 to 1050 lbs. Also 2 loads fine T. B. Tested heifers, 2 loads Angus calves.

HARRY BALL, FAIRFIELD, IOWA

Watch our Special Opportunities Page for real farmers' bargains.

SALE ANNOUNCEMENTS

Sept. 1—Guernseys. C. Hershberger, Bremen, Indiana.
Sept. 2—Cayuga County Guernsey Breeders' Sale, Auburn, N. Y. The Herrick Merryman Sales Co., Mgr.
Sept. 12—Guernseys. First Annual Mayowood Farm Sale at Rochester, Minn. Melin—Petersen Company, Sale Mgr.
Sept. 13—Holsteins. First Annual Mayowood Farm Sale at Rochester, Minn. Melin—Petersen Company, Sale Mgr.
Sept. 28—Guernseys. Blue Earth County Guernsey Breeders' Sale at Mankato, Minn. Dr. M. B. Wood, Mgr.
Sept. 30—Guernseys. George C. Stone, Pawling, N. Y. The Herrick—Merryman Sales Co., Sale Managers.
Oct. 3-4—Holsteins. Dispersion of Hollyhock Farm Holsteins at Dousman, Wis. Melin—Petersen Co., Minneapolis, Minn., Sale Mgrs.
Oct. 5—Louis Merryman's Second Annual Grade Sale, Timonium, Md. The Herrick Merryman Sales Co., Mgr.
Oct. 6—Louis Merryman's 17th Semi-annual Sale, Timonium, Md. The Herrick Merryman Sales Co., Mgr.
Oct. 6—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
Oct. 6—State Guernsey Sale, Minnesota State Fairground, St. Paul, Minn. Dr. M. B. Wood, Mankato, Minn., Mgr.
Oct. 6—Holsteins. Iowa Holstein Breeders' Association sale at the Dairy Cattle Congress grounds, Waterloo, Iowa.
Oct. 8—Jerseys. First Annual Sale of Ravine Farm Jerseys at Prairie View, Ill. A. Lawrence Mills, Owner.
Oct. 12—Ayrshires. Consignment Sale of Edgerstoune and Monstone Farms Ayrshires at Springfield, Mass. J. G. Watson, Sale Mgr.
Oct. 12—Holsteins. A. M. Brush & Son Dispersal 60 head Registered Holsteins at Mankato, Minn. Melin—Petersen Co., Sale Mgr.
Nov. 3—Guernseys. Wisconsin State Guernsey Sale at the Sale Pavilion at Waukesha, Wis.
Nov. 8-9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H. Bird, Mgr.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.
June 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.

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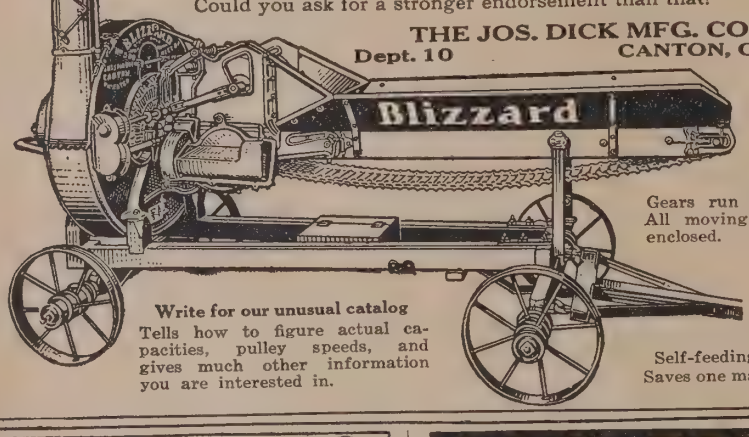
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You have read much regarding University tests of different makes of Ensilage Cutters. In 1925 the University of Wisconsin made an official test of a No. 500 BLIZZARD Machine. A complete copy of that test will be furnished on request.

This No. 500 BLIZZARD Machine was afterwards purchased by the University of Wisconsin for its own use. The University has used several BLIZZARD Machines for a number of years on its farms. Could you ask for a stronger endorsement than that?

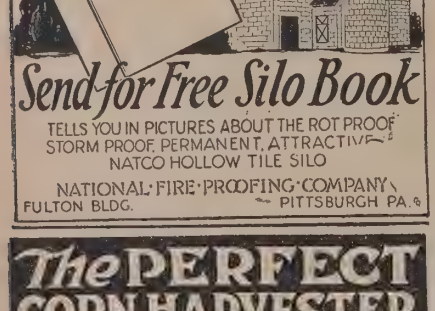
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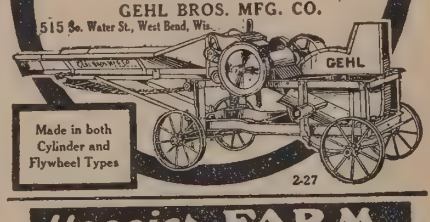
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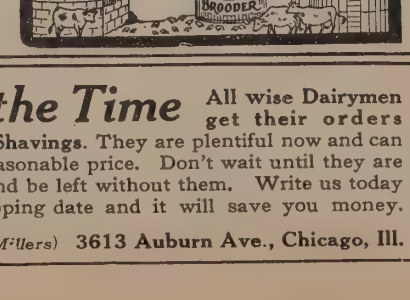
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Life and Work of T. L. Haecker

(Continued from page 792)

termine the influence of a change from barn feeding to pasture on the butterfat content of the milk, concerning which he said, "The most radical change that a cow can be subjected to, so far as feed is concerned, is from a generous dry feed to a luxuriant pasture. With some there was a noticeable increase in per cent of fat on pasture; with others it remained practically stationary, while with others there was a marked decrease. Surely the ways of the cow are very strange. She does and she doesn't, and then again she does neither."

Daily Inspection of Herd

Professor Haecker kept close supervision over all his experiments. Said he, "The writer has always made it a practice to visit daily and closely inspect every animal in the division. The feed boxes and mangers are inspected at least once and more often twice a day. It is an easy matter to quickly detect by the sense of smell if any animal is not properly digesting its food."

Professor Haecker realized full well that records to be of practical value should cover a fair period of time, as he expressed in these words, "Data covering only a few months during the first part of the period of lactation do not fully reveal the adaptability of a cow for the dairy, because most any kind of a cow will do fairly well for a few months after calving. The real test comes later, when the temporary stimulus of the lacteal functions produced by parturition loses its force and then the tendency to lay on flesh, by a certain style of cow, becomes more pronounced."

Following through those early years at the Minnesota Experiment Station with Professor Haecker, we note with considerable interest the situation in regard to that well known cow feed, bran. Says the investigator, "The crops of 1896 were so large in the Northwest that feedstuffs were so plentiful and prices so low that farmers refused to buy the mill stuffs at any price, and in many instances, in the interior, millers had to use bran for fuel in order to get rid of it."

Predicts 25,000-lb. Cow

While there may have been, prior to the opening of the 20th century, cows that produced as high as 25,000 lbs. of milk containing sufficient butterfat to make 800 lbs. of butter, the average dairyman of that time would have considered any one abnormal who would say that such a production was entirely within the range of probability. Yet at that time Professor Haecker reported just such a condition. Nor did he arrive at his conclusions hastily or in a haphazard sort of way. He calculated accurately from facts that he had demonstrated to be true. This is how he arrived at his conclusions:

"It may be that a cow in the best possible physical condition and having extraordinary feeding powers might digest 20 lbs. of dry matter daily. With a large middle and light quarters and weighing only a thousand pounds, she would require 4,380 lbs. of dry matter during 365 days for food of maintenance. If she made no gain in weight and had no foetal growth to nourish, she would have available for milk production during the year 6,570 lbs. of dry matter. Calculating a yield of one pound of butter from eight pounds of dry matter, an annual yield of 800 lbs. of butter, or of milk 25,000 lbs. containing 2.8 per cent fat, would seem within the range of proba ty."

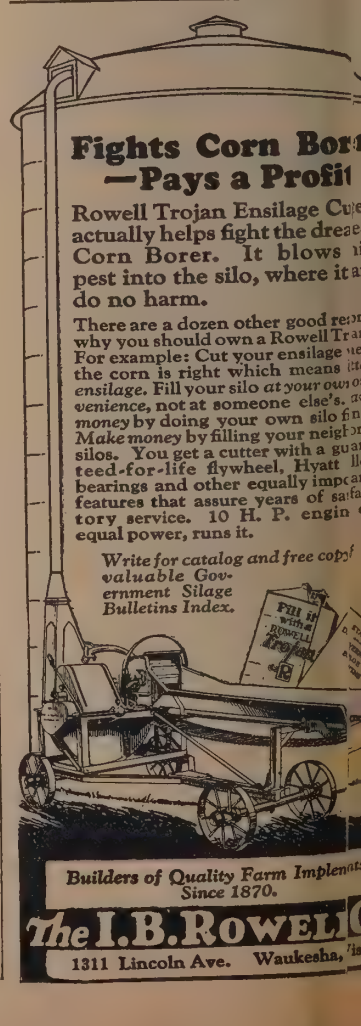
It would be well for present dairy farmers to take cognizanc Professor Haecker's observation the *physical tone* of the dairy He said, "It has been shown cows vary from year to year in p cal tone; that at some time in life they will consume more and do more work than they done at any other time; and tha usefulness of a cow cannot be r ured by any one year's perform *Every living thing reaches its ridian of life but once, and if at time all conditions are favorable every opportunity is offered, e ordinary results may be obtaine*

Why Feed Concentrates

Why do we feed concentr Professor Haecker answered th teresting question when he wro one of his first treatises on fe dairy cows: "It has become n sary to feed concentrates in co tion with roughage because the cow has been developed into an ficial animal. Had she remain her original state, when she yi only enough milk to nourish young, she would find enough ment in what coarse feed she eat and digest to produce the ar of milk required for that pu but since her mammary fun have been developed more tha feeding capacity, we must est an equilibrium between the s and demand for nutriment n for the production of the milk, this end we must use some foo contains a larger percentage gestible matter than is fou coarse food."

What do you pay for when yo mill feeds? "Since the supply bohydrates and fat is always cess of our needs, and is prac as free as water, air, and li follows that they lose all comm value, leaving digestible prote measure of the money value our feedstuffs for milk produ said Professor Haecker.

[To be concluded]



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evention and Control of Hog Cholera

T this time last year swine producers were sailing along confident that their pigs would market weight without serious or handicap. Two months later nany farms hog cholera had d anticipation into despair. The nd for serum was greater than mmediate supply. Before enough n could be made to meet the ion thousands of hogs died and virus of hog cholera was left ig in and about the hog yards e farms where the disease left adly toll.

cording to the U. S. Department griculture, the value of the hogs y cholera in a single year in the d States has amounted to as as $65,000,000. The average al loss from this disease over a d of 40 years is estimated to been not less than $30,000,000. loss compels serious considera- of and attention to the preven- and control measures known to ost effective in reducing the es of the disease.

the South, where the winters are and the temperature more or less m, severe outbreaks of hog chol- ay occur at any season of the In the Middle West statistics 14 states show that the disease es its greatest height during Oc- and November. If this be true ans that preliminary outbreaks e disease appear in late August uring September. That time is here. The effective control of rst appearance of the disease is ative if the experiences of last n are to be avoided.

st, let us consider the nature of isease. It is caused by an or- n, commonly called virus, so that it will pass through the of the finest filters; it has never identified by our best micro- s; it has never been cultivated ially in laboratories as many germs have; it is known only e effects which it produces when gained entrance to the blood n of susceptible swine. It plays vorites among breeds of swine oes it stop at type, color, age, or condition of animals. The isms are present in the blood, feces, and secretions of the eyes ose of hogs sick with cholera. accompanied with fever, has a death rate, and so far as is known ot affect other animals.

herds that have not been made ne to the disease by the serum irus treatment, it is highly im- nt that owners keep close watch ir hogs to note if any are sick. e first appearance of a sick ani- t is highly important to find out liately the cause and if a posi- iagnosis for cholera is made or a diagnosis that suspects chol- he well hogs should be treated liately. Whether the serum and should both be used or the serum alone to give temporary immunity depends on the condition of the herd. Temperatures should be taken of every hog. If normal, that is below 104 degrees when the hogs are not unduly excited, it is probably advisable to give the double treatment. All hogs showing a temperature above 104 degrees should receive only the serum. The judgment of the veterinarian should be respected in all herds where diagnosis on the first sick pig reveals cholera as regards the treatment to be given. The first precaution is to watch for sick pigs, then determine immediately the cause and act promptly.

The symptoms of hog cholera, while sometimes confused by complications, are fairly easy to recognize by a competent person. The first suspicion shows up when all the pigs do not come out of their sleeping quarters promptly when feed is offered. Feeding pigs in a hurry at this time of year may be the forerunner to a badly infected herd before the owner knows anything is wrong. See that all of the hogs come promptly for their feed.

If one or more of the animals hang back, arch their backs, and appear cold and shiver, they should be separated immediately and observed further. If these pigs are affected with cholera, they become gaunt or tucked up in the flank, they have a weak and staggering gait, particularly in the hind quarters. The sick pigs may cough; their eyes usually are inflamed and show a whitish discharge which may cause the lids to stick together. Immediate action must be taken. Call a veterinarian. He will take temperatures. If the temperatures are above 104 degrees, the veterinarian should kill one of the sick pigs and make a thorough post-mortem examination.

The following parts of the carcass may contribute something of value in making a thorough post-mortem examination:

1. The skin should be examined for purple blotches resembling a birthmark. 2. In acute cholera, the surfaces of the lungs frequently show small red spots varying in size from a pin head to a pea. 3. When the membrane surrounding the heart is removed, the surface may show blotches or blood spots similar to those on the lungs. 4. Changes in the liver are variable and are not very dependable. 5. In acute cholera, the spleen or melt is often large, dark, and soft. In chronic cholera it may be smaller than normal and grayish in color. 6. The kidneys when removed are found surrounded by a thin, fibrous tissue. When this is peeled off examination should be made for dark red spots varying in size from mere points to areas as large as a pin head. 7. The inner surface of the bladder will usually show bright red specks which cannot be washed off. 8. In some cases the stomach, when opened and washed clean, shows red spots and ulcerations. 9. The outer surface of the small intestines may have the appearance of being spattered with blood which cannot be washed off. 10. In chronic cholera, the inner surface of the large intestines may show ulcers commonly termed "button ulcers." 11. The changes that take place in the lymphatic glands frequently are striking. In healthy hogs, these glands are light grayish in color; in cholera they may be enlarged and red and in severe cases they may appear almost black.

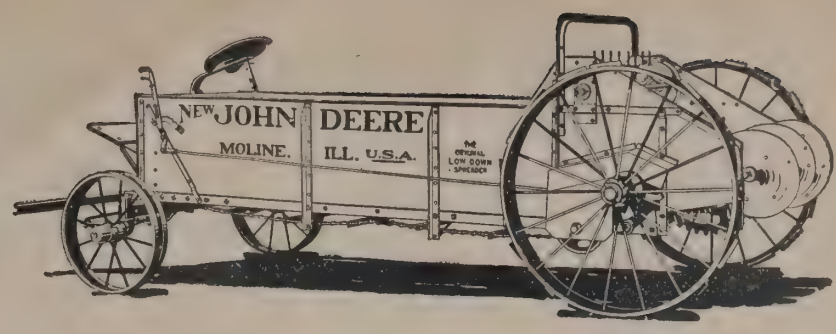
The diseases most likely to be mistaken for cholera are swine plague, pneumonia, tuberculosis, anthrax, necrobacillosis, and lung and bowel disturbance due to worms.

In preventing hog cholera, there is only one sure way of doing it and that is to treat with serum and virus before the disease has invaded the herd. The time when this may be done most economically is immediately after pigs are weaned. If this has not been done and cholera appears in a community, every effort should be made to confine the outbreak to the first farm where it appears. The herds on farms in the immediate vicinity should be watched carefully and probably treated with serum and virus. Strict quarantine should be exercised on the farm where the disease has appeared. Prevention is more certain and the cheapest in the long run.

As to control measures, it should be remembered that the disease does not occur in any herd except through the introduction of the specific germ of that disease; further, that, as far as is known, the germs of hog cholera develop and propagate only in the bodies of hogs. A hog sick with the disease must always be regarded as the most dangerous agent in the spread of cholera.

Control measures must first be directed to keeping the disease confined to the first farm where it appears in a community. To do this herd owners must be advised as soon as the disease has appeared in order that they may immediately protect their own herds, as well as co-operate in preventing the spread of the disease. The owner of the herd where the disease has appeared must not only take immediate steps to stamp it out in his own herd, but also exercise every precaution in preventing it from being carried to neighbors' herds. He must not visit neighbors' hog yards nor permit them to visit his yard. He must not dispose of dead hog carcasses in any other manner than that of burning or burying deeply—four feet or more. Burning is preferable if done completely. It is easy to burn the carcass of a dead hog by raising it up from the fire. A discarded rake wheel placed horizontally, resting on clay or concrete building blocks or on bricks up off the ground a foot or more, may be used. The carcass is placed on such wheel and the fire and fuel placed beneath it.

Let us hope that hog cholera does not start anywhere but let us be prepared to stop it in its tracks if it does appear and thus escape a situation similar to that of last season.



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Poultry on the Dairy Farm



Loss of Incubator Chicks

I have lost about two-thirds of my incubator chickens this year. The eggs hatched fine, almost every fertile egg hatching, and the chickens were very lively for the first 2 or 3 days.

Thinking maybe the eggs were to blame I hatched some under hens and gave them the same feed and care as the incubator chickens and didn't lose any at all. If you can help me locate the trouble I will appreciate it very much. I have also lost 4 or 5 chickens lately that were 8 or 10 weeks old. They were very runty with the wing feathers drooping and very rough looking. I opened them and found the gall bladder about as large as a man's thumb. In one the gall had burst.

Jetersville, Va. H. A.

It is almost impossible to give a correct diagnosis for a loss in your flock, because of so many factors that might have been responsible for it.

As a prelude, however, it can be admitted that this year because of the favorable conditions, the chick losses have in some respects been a little higher than normal. By this I mean that probably whenever the hatches run high there are some chicks hatched naturally weak that are able to get out because of satisfactory conditions, while if it was a poor season, with hatches running poor, a lot of those would be eliminated because they would undoubtedly have never gotten out of the shell. This, then, is one factor which we must consider.

A second thing that should be included is just the natural weakness and low vitality of the stock, a factor which is not apparent when looking at the birds and something a person can't designate by any particular characteristics, but which shows up when due consideration is given to the complete records on a bird including hatchability, chick mortality, and things of that sort.

In view of the fact that you have not had apparently any loss when you were brooding the chicks under a hen, I would be very much inclined to come back to the old, old, reliable standard cause for most mortality, which means unsatisfactory brooding conditions. This may mean not enough or too much heat or several things of that sort.

There is absolutely nothing put into a chick by a hen's broodiness that can't be put into that same chick by incubation, providing all of the things are the same. The same thing is true of brooding in that satisfactory results can be obtained with an artificial means as can be when hens are used for that purpose.

I don't believe that you have to go back to your incubator as a cause for this loss, since if conditions had not been right you would not have obtained as high a percentage of hatchability as you were able to do. You would also have found that if incubation conditions were wrong that your hatch would have been delayed or dragged out over a considerable length of time instead of cleaning up rapidly as we expect a good hatch to do, and the chicks themselves instead of being nice and large, fluffy and lively, would appear to be rather small and dried out without that nice, loose, fluffy appearance to them, and the activity which we like to see in a bunch that are well hatched.

Oftentimes in incubating a mistake is made in using the nursery chamber in a machine, and if the chicks are placed down in there, chilling is often a result; second, there is always a tendency on the part of a person to leave the chicks in a machine sometimes over a longer period than is advisable with the result that they become dried down to a considerable extent and brooding results are not quite what they should be.

In this instance, then, the thing to check on would be to see that you did not leave the chicks in the machine so long after the hatch was completed that they became rather dried out and were panting from excessive heat, but were removed thoroughly early and placed in chick boxes or some place similar to that where your temperature would be satisfactory and where the chicks would have a chance to obtain that apparently necessary sleep and rest before being placed under the brooder.

Second, a check on it would be with respect to the way in which the hatch cleaned up, noticing whether they came out at the time that they should or whether the hatch was delayed over a considerable length of time, with resulting indication of faulty conditions.

Then the point to bear uppermost is to see that the brooder conditions are satisfactory and the chicks are not to be put out on sand to be filled up on that, causing a loss; that the feed is clean and not moldy, that the temperature is sufficient to cause them to form a good circle around the brooder at night to prevent chilling, and also that the temperature was not too excessive as to bring up the room temperature itself, and cause the chicks to be overheated.

It is almost impossible to check up on the second loss, that is in those chicks, without knowing what your ration has been. This year the one point that a person must stress absolutely in connection with all rations is to be positive that the corn which you are using is clean and wholesome and absolutely free from any sort of mold. With the corn that we had matured last year, or rather not matured last year, one will find that the feed is very apt to become moldy and this will cause a serious loss, oftentimes going over a considerable period among the chicks. If your brooding conditions are satisfactory and your feed is the combination which it should be, there is no need to be alarmed at all, and no necessity of giving any sort of material to them other than that classified as good, wholesome feed. If conditions are right the chicks are going to grow right. If the conditions are not right, there isn't any sort of material that is going to put them back into shape for you until the remedy is rectified and even at that there has been some damage done which will occasion a loss that cannot be avoided.—J. B. HAYES.



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Overheated Cows

e very hot day, when a farmer having an overheated horse d under the shade of some large rees, he remarked, "Well, it's a rt that cows do not suffer from roke, or what you call 'heat ex- ion,' and have to be given treat- " We had to disabuse his mind at erroneous belief, for it is possible for a cow to suffer from isease mentioned.

t cows are comparatively little ed is accounted for by the fact hey are not made to work or se excessively in the hot sun at they invariably seek a shady during the heat of the day. often suffer severely, however, left all day in a dry, bare-bitten e where there is neither shade ater. They do not suffer much they can get under trees and al- ve access to abundant drinking but flies add to their misery nsure shrink in milk when the e lacks shade. When stamped- flies or chased by a dog on such ure, it is possible for a cow sud- to fall, as if shot, and become scious, delirious, and quickly hose are the symptoms of acute poplexy or sunstroke and we een cattle so attacked when be- erdriven on a very hot day. may die in the same way when into a small, tight box car in there is no circulation of air. owding any stock car in excep- y hot weather is dangerous inking water must be sufficient- plied when cattle are shipped in r. Showering with water may ave to be resorted to. Ice in sacks hung from the roof of ilroad car in which hogs are d to market will prevent losses overheating. Always place a of ice in a box for a horse to will when he is shipped to a r market in hot weather.

n a steer "runs a-muck" after off the railroad cars in the yards that is often attributed tement, noise, and urging with -pole or club. Often, however, imal actually is suffering from tion of the brain caused by ating in the crowded car and ated by overdriving on arrival ket. Such cases were common cattle were tied up for months mall, hot stable to be fattened. became fat, flabby, and feeble t they could not stand driving ipping and frequently went " or fell and had to be slaugh- t a loss. It may be added that at of an animal suffering from oke or severe heat exhaustion t for use.

t a case by getting the animal shady place where there is a and there showering its body old water, keeping cold, wet on its head, and giving stimu- t intervals of 2 or 3 hours un- val of the veterinarian who nd it necessary to give addi- reatment with alkaloidal medi- A suitable stimulant is com- of equal quantities of sweet of niter, aromatic spirits of ia, and pure alcohol. Dose: 1 nces, given in a quart of cold Rectal injections of cold wa- ter may also help. Prevention is of most importance. Avoid the causes we have mentioned.

Garget

I have four cows which gave thick milk from their back left quarters for a milking or two and went down in their milk for four or five days and came back after that and milked same as always. The heavy milking cow's quarter got hard and feverish. Do you think they have garget? Can it be cured?

Lawrence, Kans. C. H.

The disease is mastitis, popularly called garget. It is germ-caused and incurable when established or chronic. Isolate affected cows as the infection may be carried from cow to cow by the milker's hands or cups of the milking machine. Cleanse, disinfect, and whitewash the stalls that have been occupied by affected cows and include the floors and gutters. Catch the abnormal milk in a vessel containing a disinfecting solution and then throw it out in a place from which cows are excluded. Have your veterinarian give affected cows treatment with mastitis serum. It may prove remedial in a starting case. Eventually, however, recurring attacks end in incurable, destructive, purulent mastitis which is contagious.

Lump Jaw

Please give me a cure for lump jaw.

Brawley, Calif. L. R.

Potassium iodide, given internally, is wonderfully effective for the cure of lump jaw (actinomycosis) unless the bones of the head are badly involved. The average dose is 1 dram, given twice daily in water until it causes the eyes and nostrils to discharge. At that stage the treatment should be discontinued but may be repeated, if necessary, when they subside. A bulletin on the subject may be obtained from the U. S. Department of Agriculture, Washington, D. C. Local treatment consists in removal of the diseased tissues by dissection or sloughing out with caustics, if a veterinarian can be employed; otherwise a proprietary lump jaw cure should be used.

Precocious Lactation

I have a yearling heifer that is bred and due to freshen July 4. A strange calf in the pasture has sucked her and true milk is in the udder. I have her away from the calf, but I want to know if I should let her be or milk her. The heifer's udder is not so very large but is swelled in bunches.

Dorchester, Wis. G. S.

In such a case it is advisable to "dry off" the secretion of milk in the usual way, unless garget is present as indicated by a slimy or curdled condition of the milk. If the milk is abnormal strip the udder clean several times daily until the milk becomes normal; the secretion may then be dried off. If it does not become normal keep milking up to "freshening" and the garget may then subside, but there is no certainty as to that as garget more often becomes chronic and incurable.

The Veterinary Situation

(Continued from page 793)

tensive study, besides a good high school education as a foundation. Nor is the situation improving noticeably thus far. In the combined freshman classes of all the veterinary colleges there were only two more students in the fiscal year 1926 than in 1925 and in all educational work there is a tendency for some students to drop out, especially the underclassmen.

Meanwhile the field for well trained veterinarians has broadened immeasurably, and now includes many lines of disease-control work, city milk and meat inspection, positions of state and county veterinarian, the manufacture of biological products, employment in the army veterinary corps, promoting live stock raising, and teaching in this country and abroad. In private practice, equine work is still extensive in view of about 17 million horses in the country, motor transportation notwithstanding. Besides there is a greatly increased demand for tuberculin testing resulting from the national campaign to eradicate the plague of tuberculosis.

More than that, the new, lusty industry of fur farming, with its valuable breeding stock kept under artificial conditions, makes skilled veterinary service essential. The poultry industry with its current drive to accredit baby chick hatcheries and breeding farms as free from serious diseases likewise has need of veterinarians.

Best estimates place the number of qualified graduate veterinarians in the entire United States today at about 10,000, and many of these men have probably reached the age when they are slowing down or retiring. Considering the total animal population of the United States, there is scarcely one veterinarian for each 18,000 domestic animals, not counting dogs, cats, fur bearers, or poultry.

To the practical farmer and stockman, the situation calls for greater preparedness than ever before in coping with the diseases and pests that threaten domestic animals. He can do much to prevent; he can improve sanitary conditions; he can be careful in introducing new stock on his farm. The foresighted farmer also will cultivate the acquaintance of the qualified veterinarians in his locality, for it will be some years before many others will appear to hang out their shingles. The present shortage of students in the veterinary colleges and of practitioners, in proportion to the number of domestic animals in the country, does not add to the security of the live stock business. The solution is more young men in training and meanwhile every precaution to keep farm animals healthy.



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but it's easy and inexpensive to get rid of them this proven way

Flies and disease germs breed and live in filth. And flies carry the disease germs—especially those of typhoid fever—wherever they go, contaminating even the food you eat.

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Use pure Lewis' Lye this way regularly, especially during the summer and fall—and get your neighbors to use it. Remember, that a single case of typhoid—even if it should not result fatally—will cost more than thousands of cans of Lewis' Lye.

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If your herd is afflicted with any of these ailments you will know they are not doing their best. You can stop these losses at small expense.

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A Vest Pocket Herd Book is a good investment

Protein—New England's Handicap

(Continued from page 791)

have the effect of making a more reasonable lime price.

There are marginal producers in all lines of business and especially farming. Most of the marginal dairymen milk cows because their fathers did or because they are not progressive enough to start any other line of farming. Little progress is being made by this group in solving the protein problem. Some very real progress is being made by men whose cows are above the average and who are striving to improve their own conditions in a financial way.

Much more protein can be economically grown on New England dairy farms. Haymaking machinery is at hand. The will to use lime and a little extra effort will put many a dairy farm in a more independent position as regards protein, and at the same time on a better paying basis.

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A "Testimonial"

A prominent breeder in Wisconsin bought a bull from us in October, 1924. Under date of July 11, 1927, he wrote us as follows:

Ravine Farm, Prairie View, Illinois.

Gentlemen: The bull which I purchased of you has proven very successful. I now have ten of his heifers and am looking for his successor. Have you anything around a year old? (Signed) J. A. Martin.

We have just sold Mr. Martin a new herd sire of excellent breeding. Send for our circular describing the Jersey bulls which we have for sale at the present time.

Herd Accredited and Free of Abortion

RAVINE FARM, Lake Co., PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle
Established 1913

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

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Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
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Easton Farm

-- AN ACCREDITED HERD --

Of Representative Jerseys

Golden Fern's Noble and Fauvic's Prince Breeding.

MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

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Dropped Feb. 18, 1927, solid color, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

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Offering a few choice bred heifers due to freshen in the fall. The right combination of Sybil and Majesty breeding predominating. Moderately priced. Write for particulars.

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Belswood Jerseys

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YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.

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BUY A BABY BULL

Ayrshire bull calves from heavy-producing, good-uddered cows at bargain prices.

Let us help you find one.

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PROFITABLE — PRACTICAL

AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, at reasonable prices, write us. Federal Accredited Herd.

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Edgerstoune Wide Awake

Nicely marked, deep bodied, straight bull calves from dams with 10,000 lbs. milk or better. By such sires as Edgerstoune Wide Awake, Imp. Howie's Wait and See, Imp. Howie's Ringmaster and Imp. Favorite Beauty Champion, sires that have over 15,000 lbs. milk back of them for 5 generations. Bulls are priced low because we need the room. $35.00 and up. Herd under State and Federal supervision. Write.

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300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

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A HIGHLY BRED AYRSHIRE

BULL born, Jan. 16, 1927. Color: nearly all white. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440.72 lbs. fat, 4.04%, winners of 3 French Cups, 1 Association Cup, 1 Gold Medal and 6 Silver Medals. Dam: Blanche Woodhull, 2nd, 46862, an exceptionally typy daughter of Leto. She has three A. R. records averaging 11,857 lbs. milk, 462 lbs. fat and three R. of H. records averaging 11,642 lbs. milk, 450 lbs. fat. Six World's Champions in six years.

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BULLS FOR SALE!

We still have for sale a few good young bulls, with the best of type, backed by good breeding and production. Priced right.

SPRING VALLEY FARM, Warren, Pa.

20 AYRSHIRE HEIFERS

Because we are crowded for barn room, we are offering for sale 12 yearling heifers and 3 senior calves, good ones, many of them show prospects. Most of them are by Aldebaran Victor, a son of Highland Polly, 15,700 lbs. milk as a junior 3-year-old. Priced to sell. Herd under federal supervision. Write or come to the farm.

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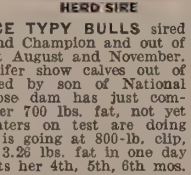
Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

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Federal Accredited
No Abortion



HERD SIRE

Offering TWO CHOICE TYPY BULLS sired by 1922 National Grand Champion and out of tested dams, born last August and November. Two choice senior heifer show calves out of tested dams and sired by son of National Grand Champion whose dam has just completed a record of over 700 lbs. fat, not yet verified. Boss' daughters on test are doing very well. One in A is going at 800-lb. clip, has made as high as 3.26 lbs. fat in one day and retest requirements her 4th, 5th, 6th mos.

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Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

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Before you start to develop better cows — find out what the Guernsey can do for you.

These fawn and white cows are bred for

PROFITABLE PRODUCTION

Ask for "The Story of the Guernsey"

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ACCREDITED
WALTER SMEDLEY, OWNER
HERD SIRES—

Lancastrian—A son of Ne Plus Ultra
Sunnybrook Ultra Noble—A grandson of Ne Plus Ultra out of a 920-lb. cow.
Fairmaid's May Royal—A son of May Rose Royal out of a 920-lb. daughter of Demonstrator.
Penncrest's Starlight's Royal Master—A son of Langwater Royal Master out of a Class G daughter of Langwater Master.
Stock sired by these bulls for sale. Address inquiries to Media, Pennsylvania.

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From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BREEDING

Lines—May Rose through King of the Golden Secret, Langwater Cava and founder, France, Glenwoods. Greatest of herd sires in any herd. A. R. dams to 800 lbs. fat.

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BARGAIN BULLS priced CLASS LEADERS

Guernsey Breeders' Journal says in issue—OUR NEW CLASS LEADERS

Silverwood's Diana, 20,006 lbs.
Sire:—BROOKMEAD'S BANNER

Sold sight unseen as a young

Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., Phila.

WEST PENN. GUERNSEYS

SEPT. 2 - WASHINGTON

30 SELECTED GUERNSEYS. Langwater Border Raider breeding. Sale includes grandson of Cherub's Royal Champion Will also sell Helen Bates A. R. 16520 lbs. fat. For catalog write G. W. Brown & Laughlin Bldg., Pittsburg, Pa., or Reed, Coal Valley, Pa.

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We are offering at attractive prices young bulls sired by RADISSON ROYALIST 91632, whose get won first prize at Dairy Cattle Congress. He is a son of GOLDEN CORONET DU LUTH 81283, world's champion in Class AA, 968.80 lbs. fat.

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BULLS 6 to 9 Months From...

Prices to Suit the Present

They are sons of Anton's Jr. and King B. from dams with up to 600 lbs. Some from producing dams not yet tested at office prices. Write me today.

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The Jersey cow has "made good" in every section of America under the greatest variety of conditions. She is a true friend of the dairyman, for she sticks to her job and does it efficiently.

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A Select Exhibit from "The Oaklands" Jersey Herd, Michigan's extensive breeding establishment, will make a circuit of important shows this fall, as is customary.

Invitation is Extended to All Interested, to call at our quarters in the Jersey Cattle Department, to promote acquaintance for mutual benefit.

Some of the Best Specimens from our 190 head of Island-blood Jerseys will be on display. The herd embraces the offspring of more than ninety different Island-bred sires.

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THE OAKLANDS

P. O. BOX 396
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Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

GOOD COWS!

We can now furnish car lots of clean Springers, all breeds. We ship direct and can save you money on good cows.

CHICAGO DAIRY COW EXCHANGE, Inc.
REID MURRAY, Mgr. Union Stock Yards, CHICAGO, ILLINOIS

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LANGWATER JUVIS 100894

By Langwater Warrior A. R.
Dam, Imp. Barlotteries Rose of Langwater A. R.
Milk 14774.2 lbs. Fat 730.7 lbs. Class D.



LANGWATER JUVIS 100894

A Number of Good Bulls

From A. R. Dams to 719 lbs. fat. Reasonable!

May Rose-Glenwood Breeding

M FARM, Deerfield, Illinois

28 miles north of Chicago, 1 mile east of Everett on 42A

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PERSISTENT PRODUCTION and REAL ANIMALS

up your herd by using a bull calf whose sire and dam come from *persistent* pro- and real individuals. Our prices will interest you if you want a REAL Sire.

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FOREMOST GUERNSEYS

e have for sale, bulls ready for service and bull calves.

ghty-three A. R. Cows in the herd average 11,643 lbs. milk, 501 lbs. fat.

e dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

st as well breed cows with nigh production and proper type.

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will cheerfully send pedigree and prices on your requirements for a herd sire.

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very best breeding. Accred- Herd. Write for information.

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Sire—Itchen King 49803 A. R. f 8 A. R. Daughters that will e 640 lbs. fat. Sons of Itchen or sale out of A. R. Dams of r breeding. Priced reasonable.

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te us if you want to buy a bull with persistent producers back im. We have some fine indials to offer you; some of service- age if you want to talk business.

Farmers' Prices!

LOMA FARMS
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QUETTE MICHIGAN

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Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

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Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

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— 6 to 12 Months Old —

sired by Prince Charming of Shuttlewick. Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 years or Linwood Leader whose two nearest dams average 826.83 lbs. fat. The last 21 A. R. records made on the farm average over 625 lbs. fat.

Accredited Herd

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Combine Type and Production

PRINCE CHARMING OF SHUTTLEWICK. Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 yrs. Sold for $22,000. Her dam, Langwater Levity, grand champion at 1923 National. CINDERELLA'S FAME OF MOUND CITY. Dam, Cinderella's Josephine, 909 lbs. fat. YOUNG BULLS for sale by these sires and from A. R. dams; also a few bred and open heifers. Accredited herd. Write.

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BULLS

A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.

GEO. E. LARSON,
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FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,
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Serviceable Show Bull

FROM CLASS LEADER DAM

Am offering DAIRYDETTE'S CHERUB OF CHIPPEWA for sale. Born Feb. 20, 1926. A good show prospect. Dam has 697 lbs. fat in E. E., eighth in her class, first in Wisconsin. Sire, a prize winning son of Cherub's Prince. Write today for detailed information.

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FOND DU LAC WISCONSIN

We have only a few Glenwood bull calves up to 3 months old for sale at present. They're priced to sell.

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High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

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Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

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FRIDAY, SEPTEMBER 2, AUBURN, N. Y.— *60 Head*

4 YOUNG BULLS from high record dams.

50 COWS — including Rosebud of Valley Forge Farm 95633, which is making a class leading record in AAA. Many A. R. cows of show individuality, rich in the breed's best blood. The majority fresh or near freshening.

6 HEIFERS of excellent breeding and type.

Cayuga Guernseys are rich in the blood of Itchen Daisy III and are of *High Quality*. The Breeders have made every effort to make this a quality sale representative of their best breeding. *For catalogue write —*

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Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

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Milwaukee, August 29 - September 3

Write for new bulls sales list *Good Bulls as low as $150.00*

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Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

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OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

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Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

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Special Offer of Registered GUERNSEYS

NINE COWS most all young, and fifteen HEIFERS and CALVES, from four months to past a year old, choice of registered bull calf, no relation, to go with them. The twenty-five head for $3,500. T. B. tested, f. o. b. car, all papers furnished. Must sell at once.

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Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

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Geo. O. Hill, Sec. ROSENDALE, WIS.

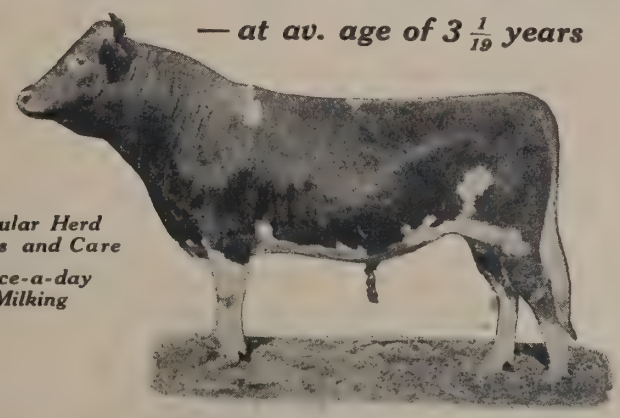
A SHOW BULL FOR $150

This 7-month-old calf is a fine show prospect. His dam produced 421.7 lbs. fat as senior yearling. The herd is clean. Write today for further information.

J. M. HARVEY, R. 2, Waukesha, Wis.

His First 19 A. R. Daughters Average 422 lbs. fat and 8739 lbs. milk

— at av. age of 3 1/19 years



— Regular Herd Rations and Care

— Twice-a-day Milking

ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money.

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Milk in England

The total production of milk in England and Wales is some twelve billion pounds, approximately half of which is consumed as whole milk. About twelve billion pounds of milk is imported in the form of condensed and powdered milk, butter, cheese, and other manufactured milk products.

This makes the total yearly consumption of milk and milk products equivalent to some twenty-four billion pounds of milk, or about one-fifth of the 117 billion pounds consumed in the United States. The population of the United States is approximately three times as large as the combined population of England and Wales. The average per capita consumption of milk and milk products is 1000 pounds in the United States as compared with 635 pounds in England.

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Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
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MORRISTOWN, N. J.

BROWN SWISS

(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

HOLSTEINS

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

Dicmere Holsteins

30-LB. SHOW BULL

We are offering a very typy January calf from a 30-lb. 3-year-old dam. His sire, Walcowis Ollie Abbekirk, is a 968-lb. son of that grand champion, Iowana Sir Ollie. The herd is federal accredited. Write today if you want a good bull at a reasonable price.

H. E. DICKINSON, Oconomowoc, Wis.

AN AREA TESTED COUNTY

WAUKESHA COUNTY HOLSTEINS

The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Summer buyers are given every consideration in helping to locate and assemble their purchases, whether it be one or a carload. Can furnish you right now with

30 pure-bred heifers bred to freshen this fall.
A carload of bred, richly bred, grade heifers.
4 carloads of springing and fresh, highly bred grade cows, August and September freshening.
Also have a number of good pure-bred bulls from 3 months to 1½ years old.

Send for bull list or write your wants. Example: Bull born Nov. 15, 1925. Excellent individual, mostly white in color. Sire—King Pontiac Fayne Butter Boy, whose dam is a 30-lb. cow. Dam is Wisconsin Piebe Oak De Kol Watson, a show cow that has a record of 20 lbs. of butter in 7 days as a 3-yr.-old. Price $175. **W. L. Baird, Art Bennett at your service. Write or wire.**

WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

Come to the Wisconsin State Fair!

See the Milwaukee County Institutions Show Herd at the Cattle Pavilion

Visit our farms (2 miles North of Fair Grounds) during your stay. 250 head of Pure Bred Homestead Holsteins. Abortion Free.

Federal Accredited

E. C. Thompson, Farm Manager
Wauwatosa Wisconsin

La Crosse County Dairy Cattle Co.

Offers 75 to 150 head of high grade **GUERNSEY** and **HOLSTEIN SPRINGERS** of all ages. T. B. Tested. Sound and heavy producers. We buy and ship on orders. Visit us or write. Prices reasonable. Satisfaction guaranteed.

RAYMOND KNUTSON, Mgr. West Salem, Wis.

Ormsbys and Ollies

We are not showing this year—can offer a few very choice bulls and females—one big time show bull at two years old in January. Cows milking over 100 lbs. daily—three-year-olds up to 33 lbs. One of the best herds in the state—bar none. Look them over.

F. H. BOYLE, Owner, PEEBLES, WIS.
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BULL CALVES $75 to $100

Six choice bull calves 4 to 7 months old. Sired by a 990-lb. grandson of Iowana Sir Ollie and from good producing daughters of a 1040-lb. Homestead sire. Accredited herd. Write today.

CHAS. HUGHES & SON, NEENAH, WIS.

Jefferson County Holsteins

Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.

JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N,
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Come to Sheboygan County for Holsteins

We have choice grades and purebreds to select from. Write your wants to:

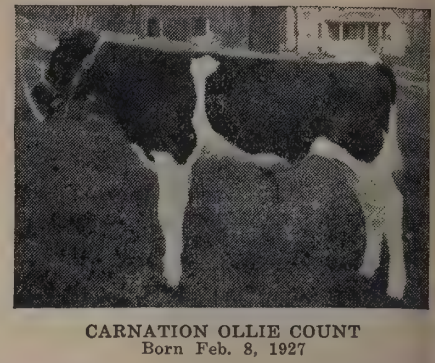
SHEBOYGAN COUNTY HOLSTEIN ASS'N.,
Frank Ubbelohde, Secy., Plymouth, Wis.

YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write

SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

We Will Make A Good Friend When We Sell This Bull



CARNATION OLLIE COUNT
Born Feb. 8, 1927

With 18 cows and heifers of this bull's family in our herd we know what you can expect from him. The entire 18 have made records of 19 to 21 pounds as two-year-olds and 32 to 38 pounds as mature cows. They *all* have square rumps; they test high and produce well. You will see a 33-pound 4-year-old of this family in our show herd this year. Last year she was first at Wisconsin.

If you want a bull, a real one, from as promising a 2-year-old heifer as we own get this one. His dam is a 19-pound two-year-old and a granddaughter of the 38-pound cow we mentioned above.

LINE BRED IN THE BLOOD OF IOWANA SIR OLLIE—and Look At His Topline!

Priced Reasonably. Write at once—or better still, wire us.

Address all correspondence to

911-A CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



GRAMLING FARMS HOLSTEINS

King Pontiac Inka Lunde Korn our senior herd sire, is a son of K the Pontiacs, a double grandson of Pontiac Korndyke. Sons and daughters by him Homestead dams for sale. The herd is clean. GRAMLING BROS., Dousman,

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

NORRIS FARM

Is Offering SEVERAL D ABLE BULLS, ready for s this fall. Also YOUNGER CALVES. Write for particulars.

MUKWONAGO (Fully Accredited) WISCON

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y, Watertown, Wis.

Milford Meadow

Calves from SIR TRIUNE PANSY ar and are everything we hoped for. To d have 12 heifers and 5 bulls and all very alike, straight and evenly marked. Th of every calf will have a record.

Ask us about them.

W. W. KINYON, LAKE MILLS

Jefferson County Holstein Sales Assoc

can assist you in purchasing good, clean dairy Grade or pure-bred in any number you wish. all correspondence to A. F. GAFKE, secretary FERSON, WIS.

Announcing the Complete Dispersal of the Famous

GUSTAVE PABST **Hollyhock Holstein Herd** DOUSMA WIS.

[A Sale Offering More High Year Record Cows and Heifers Than Have Ever Before Been Offered in a Public Sale !]

See page advertisement in next issue and in the meantime get your name on the list to receive Illustrated Folder and Catalog. Write today.

MELIN-PETERSEN CO., Sale Managers
306-B Gorham Building MINNEAPOLIS, MINNESOTA

OCT. 3-4 — OCONOMOWOC, WIS.



SIR BESS ORMSBY FOBES
Famous son of Sir P. O. M. 37th and W consin Fobes, for many years head of t herd.



HOLSTEINS

are producers of

BUTTERFAT

Holsteins lead the world in production of butterfat—the largest factor in dairy profit. Eighty per cent of the cows which have produced 1,000 lbs. or more of butterfat in a year are Holsteins.

Write for our booklet—
"The Holstein-Friesian Cow"

EXTENSION SERVICE

The HOLSTEIN-FRIESIAN

230 E. Ohio St. *Association of America* **CHICAGO**
ROOM 601

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are in the market for grade or registered Hol- from tested herds write us today.
ILLINOIS HOLSTEIN-FRIESIAN ASSN.
Dearborn, St., CHICAGO, ILL.

)rmsby-Homestead Bulls

have for sale 2 very good calves born 1 and Dec. 27, sired by Rawleigh Ormsby rtje Posch, our 41-lb. Ormsby sire. They rom 24- and 25-lb. 4-year-old Homestead with good year records, one a state d cow. Priced to sell. The herd is Write
THE W. T. RAWLEIGH COMPANY
s Rawleigh's Ideal Farm, FREEPORT, ILL.

TAKE TIME!!

rs are saving $50 to $100 by purchasing last summer Holstein bull calves NOW. tion better. Every cow has C. T. A. d. Many have official records. Some s sired by 1,138-lb. bull whose dam tested 4.2%. A card brings list.

ock River Farms, Byron, Ill

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are offering BULL CALVES rich in by breeding from tested dams. These from six to eleven months old. Some d as low as $100.00. Write for pedigrees further information. Herd under federal vision.
HAM BROS., Arlington Heights, Ill.

ULL BORN SEPT. 23, '26

f a 24-lb. two-year-old with 460 lbs. of He is sired by a good proven bull. He is ¾ white and a real individual. Send edigree and price.
ELLWOOD & NELSON
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YDE PARK FARM

OS PARK, - ILLINOIS
Offers BULL CALVES
by an outstanding 35-lb. son of Mata- from Fully Accredited Registered Yr. with leading cow testing association ds. $100.00 up for typy individuals.
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istered COWS, HEIFERS and BULLS. y choice Calf Club CALVES. We have two s agents in the field all the time who can e care of all orders in fine shape. All in- ries are referred to our entire membership.
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FOR SALE
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BREEDING
RITE FOR SALE LIST—JUST OUT
under Federal and State supervision for culosis—blood tested for abortion.
TERTHUR FARMS. Winterthur, Del.

ITED STATES SOLDIERS HOME DAIRY

WASHINGTON, D. C.
RS FOR SALE at reasonable prices from the first- ted herd in the United States. PURE BRED TEIN-FRIESIAN MALE CALVES from one to seven months old, from yearly tested dams ons of General Piebe 323266 H. B. One of the bred sons of the well known K. P. O. P. whose dants have in the past eight seasons won no nan 553 first prizes. His five nearest dams, all 1,200 lbs. butter in 265 days. Also sons of mholm Colantha Pauline Lad 297377 H. B.

Buy from Hoard's Dairyman advertisers and tell them you saw their ad in Hoard's Dairyman.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write
L. E. FERGUSON, LAURENS, IOWA.

BIG PRODUCTION HOLSTEINS

The Femco Farms herd now consists of 250 registered Holsteins. Twelve cows in the herd have yearly butter records from 1,000 to 1,426 lbs. Three have milk records from 30,000 to 34,000 lbs. Many heifers with records in proportion.

HERD SIRES

PRIDE OF SIR PIETS—Son of Wisconsin Pride 2d, highest record daughter of "37th" with 1,327 lbs. as a 3-year-old. By the highest record son of K. P. O. P.

DUTCHLAND CREAMELLE COLANTHA LAD—Sire of seven 1,000- to 1,426-lb. cows, including two with milk records over 33,000 lbs.

MANKATO FLOA ORMSBY KORNDYKE LAD—The only bull in service whose dam and sire's dam are 1,000-lb. 2-year-olds. Combines the blood of the world's greatest sires of 1,000-lb. cows.

Write us for pedigrees of choice bulls for sale.

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.
C. L. SPAULDING, MGR., Warren, Minn.

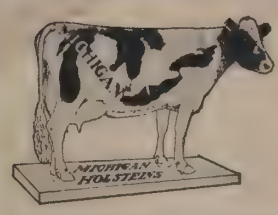
Last Calf Advertised Was Sold to Nevada, But We Have
Another Good One
by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.
ST. OLAF COLLEGE FARMS, Northfield, Minn.

MAYOWOOD HOLSTEINS

We can offer a few serviceable bulls, including several splendid sons of White Hope out of high-record dams. We are also quoting some very excellent calves at strictly farmer's prices. Write us for extended pedigrees.
O. C. JENSEN, Supt. Rochester, Minnesota

STEELE COUNTY HOLSTEINS
are noted for their size, type and production. Pure-breds or grades. One or a carload.
GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

AKONA HOLSTEIN FARM
BULL CALF born Nov. 24, 1926. Sire's dam 1,024 lbs. butter in year. Dam's cow testing association record 421 lbs. butter in 10 months as a jr. 3-yr.-old. Price $100. Accredited herd.
B. A. NORRIS, Anoka, Minn.



Come to Michigan for Holsteins

SUMMER BUYERS given every help to locate good PUREBRED Holsteins. Fifteen County Sales Managers eager to help you at no cost to you. Let me know what you want and I will ask these Sales Managers to quote you.
J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.

A 32-lb. 1017-lb. Colantha Bull

SHOW TYPE — SERVICEABLE — PRICED TO SELL

We have for sale a 16-month-old son of Sir Dutchland Colantha Denver, he a 36-lb. 1,300-lb. grandson of Colantha Johanna Lad. This young bull's dam produced 32 lbs. butter in 7 days and 1,017.93 lbs. in a year. She also has a 712-lb. 7-day milk record. Bull is nearly white, well grown, with good show type. Priced to sell.

SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

ECHO SYLVIA KING MODEL

LEADING HONOR LIST SIRE PAST 2 YEARS

He is bred for production. A grandson of May Echo Sylvia from a 36-lb. daughter of a twice 37-lb. cow.

He transmits production. His 87 A. R. O. daughters include:

34 2-year-olds averaging 382.3 lbs. milk and 18.05 lbs. butter
27 3-year-olds averaging 499.8 lbs. milk and 24.44 lbs. butter
13 4-year-olds averaging 526.8 lbs. milk and 26.59 lbs. butter
13 5-year-olds averaging 557.8 lbs. milk and 28.93 lbs. butter

Let one of his sons insure production in your herd

"THE MICHIGAN STATE HERDS"
BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.
"The Herd With Straight Top Lines and Perfect Udders"

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. **We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.**

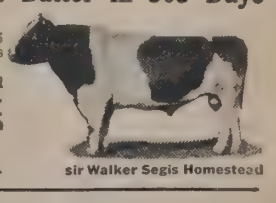
LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.


sir Walker Segis Homestead

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.

---

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

How a slight extra cost boosted spinach yield 150%



The right fertilizer boosts the marketable yield.



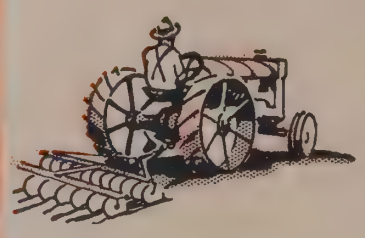
RESULT—more profits.

Spinach was planted in two fields, side by side, at the New Jersey experiment station. One field was left unfertilized. It produced 198 crates of spinach to the acre. The other field had 1600 pounds of a 9-8-3 fertilizer at planting time, *and yielded 507 crates per acre.*

Use "fertilizer" logic when you buy oil



The correct grade of Mobiloil cuts the engine expenses.



RESULT—more profits.

Any farmer knows that he usually gets back more money than he puts into the right fertilizer. But do you realize you get back more than the extra few cents you put into Gargoyle Mobiloil? An immediate cut in oil consumption of from 10% to 50% frequently brings the cost of Gargoyle Mobiloil below the cost of other oils. Other savings come in lower repair bills, less time out for break-downs, less over-heating, and a marked cut in carbon troubles. Gargoyle Mobiloil brings you these savings because it has an added margin of safety in lubrication to meet every engine need.

Tractor oil . . . automobile oil . . . and—?

YOUR guide—if your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors. And remember that . . .

609

automotive manufacturers approve it!

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "B," Mobiloil Arctic ("Arc."), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Cadillac	BB	Arc.	BB	Arc.	A	Arc.	A	Arc.
Chandler Sp. 6	A	A	...	...	...	...	..	..
" other mods.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chevrolet	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler 60, 70, 80	A	A	A	A	A	A	A.	A
" other mods.	A	Arc.	A	Arc.	A	Arc.	..	..
Dodge Bros. 4-cyl.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Essex	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hudson	A	Arc	A	Arc.	A	Arc	A	Arc.
Hupmobile	A	Arc	A	Arc.	A	Arc.	A	Arc.
Jewett	....	....	A	Arc.	A	Arc.	A	Arc.
Maxwell	....	....	....	....	A	Arc.	A	Arc.
Nash	A	Arc.	A	Arc	A	Arc	Arc.	Arc.
Oakland	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Oldsmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Overland	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Packard 6	A	Arc.	A	Arc.	A	Arc.	A	A
" 8	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Paige	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.
Reo	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Star	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.
Studebaker	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Velie	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Willys-Knight 4	....	....	B	Arc	B	Arc.	B	Arc.
" " 6	A	Arc.	A	Arc.	A	Arc.	....	....

Oils are frequently bought and sold under misleading terms. The terms "tractor oil" and "automobile oil" are used as though that described the correct oil. But tractors vary greatly in design. So do automobiles. So do trucks. The Mobiloil Board of Engineers has made a special study of all engines, yours included. And their recommendations are so accurate that 609 makers of automobiles and other automotive equipment do not hesitate to approve them.

You will find that Mobiloil is not only worth its extra price but is worth a trip to town where this is necessary. Take advantage of the substantial savings on barrel and half-barrel orders of Gargoyle Mobiloil. The complete chart at all Mobiloil dealers' tells you just which grade of Mobiloil to use in each of your motors.

GARGOYLE

Mobiloil

Make the chart your guide

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AGRICULTURAL LIBRARY

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



don't fool yourself



They talk about you

It's a fact that most of those who offend by halitosis (unpleasant breath) are unaware of it.

The one way of putting yourself on the safe and polite side is to rinse the mouth with Listerine before any engagement — business or social. Immediately, every trace of unpleasant odor is gone, and with it that dread fear of offending. And the antiseptic essential oils combat the action of bacteria in the mouth which is the source of most cases of halitosis.

⅓ Had Halitosis

120 hotel clerks, 40 of them in the better class hotels, said that nearly every third person inquiring for a room had halitosis. Who should know better than they?

Face to face evidence

Really fatidious people keep a bottle of Listerine always handy in home or office to combat halitosis. It's a good idea for everybody to follow Lambert Pharmacal Co., St. Louis, U. S. A.

LISTERINE

—the safe antiseptic

FALL IN LINE!

Millions are switching to Listerine Tooth Paste because it cleans teeth whiter and in quicker time than ever before. We'll wager you'll like it. Large tube 25c.

Eastern States Food at Eastern States Show

In order to present the high quality
f eastern food products in an attrac-
ve manner and to further the con-
mption of home grown food, the
astern Aberdeen Angus Association
ill operate two standard pullman
ning cars at the Eastern States Ex-
osition throughout Exposition week
om September 18—24.

Every item of food offered in the
vo dining cars at every meal served
ill be from eastern territory. There
ill be beef from Aberdeen Angus
ttle bred and raised on New Eng-
nd and New York farms and fat-
ned with grain and other products
ised on these same farms. Bread
ill be served made with wheat from
ennsylvania. Onions grown in the
onnecticut Valley will be included
the menu. Maine potatoes will be
ed. The several New England dairy
ttle associations have agreed to
rnish milk and cream. Butter will
from New England dairies. So
ill the cheese. Vegetables will be
rved grown on farms in Western
assachusetts. Fruit will all be from
ew England and apples will come
om the orchards of the Connecticut
alley.

The entire service has been de-
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us Association to prove conclusively
at products equal or better than
ose of any other part of the country
n be grown in New England and
presents another step toward the
juvenation of New England agri-
lture.—J. H. FIFIELD.

A Milk Bar in Oregon

HOARD'S DAIRYMAN:—On a busy
reet corner not far from the court
ouse and public market square in
ortland, Oregon, H. D. Howard, a
920 dairy course graduate of Oregon
gricultural College, is busy several
ours a day serving milk and other
airy products to a clientele made up
judges, lawyers, doctors, working-
en, and people from every walk in
fe. He is proving to his own satis-
ction that it is possible to profitably
ll a great quantity of milk over the
nch counter when everything looks
ick and span.

He has no chairs, only a brass rail-
g to put the foot on and a clean
hite counter on which to set the
ilk glass, but we have never seen an
merican bar so crowded with eager
stomers as was this little creamery
nch counter the day we chanced to
ss by.

Milk inspection in the cities of the
orthwest is especially thorough and
was when Howard was serving as
ilk inspector under Dr. D. W. Mack
Portland six years ago that he de-
ded to start a creamery for making
utter. He had a feeling that people
ke to see how things are done so he
stalled his churn right out where
veryone can watch the process. He
ow makes a thousand pounds of but-
r a week and sells it right over the
unter to his milk and buttermilk
trons. He gradually worked into
e lunch counter business and he
d so well that he was able to buy
e place three years ago.

The sign that attracts the transient
sserby is, "Have you tried our
eshly churned butter? It is guar-
nteed to give satisfaction in every
ay." In order to get the right kind
cream he buys only from herds
at he has inspected himself and he
ys from 8 to 10 cents above the
ur cream quotations in order to
t sweet cream. At noon time the
alk on both sides of the corner is
owded with people who are there
get all the buttermilk they can
ink for a nickle. Hot dog, Tilla-
mook and cream brick sandwiches are served, but the only drinks that are poured are sweet milk, ordinary buttermilk, and Bulgarian buttermilk.

"People are taking more and more to drinking milk," said Howard when we came back to talk with the youthful proprietor later on in the afternoon when he was not so busy. "A great many people stop here, buy a whole quart and drink it before they leave. A place like this has to be much like a gasoline filling station, where you can drive in, get your gas and go. You have to have it right out in front of the public. That is why our counter is so near the edge of the sidewalk. In addition to our other milk we are selling from 70 to 80 gallons of Bulgarian buttermilk a day at the same price as sweet milk. The doctors tell people to drink this milk; then they come here to try it and gradually acquire the taste. One man who works near here drinks five quarts of Bulgarian buttermilk a day. He always takes a quart at a time.

"Between two and three thousand people stop here to 'fill up' every day except Sunday when we are closed. We serve good, wholesome products at a small profit from each customer. People can see that everything is clean. That is why hundreds of them come back here day after day and that, too, is why thousands of chance passersby pause to partake of a glass of milk when they see our invitation."

Iowa. PETER GUYSON.

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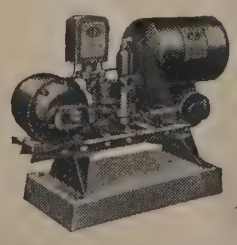
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De Laval Milker

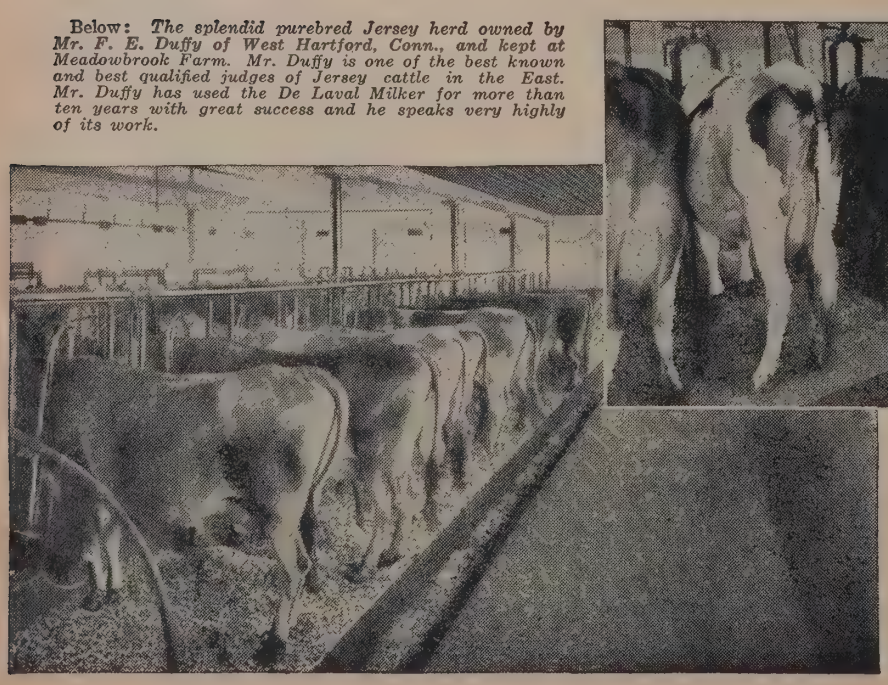
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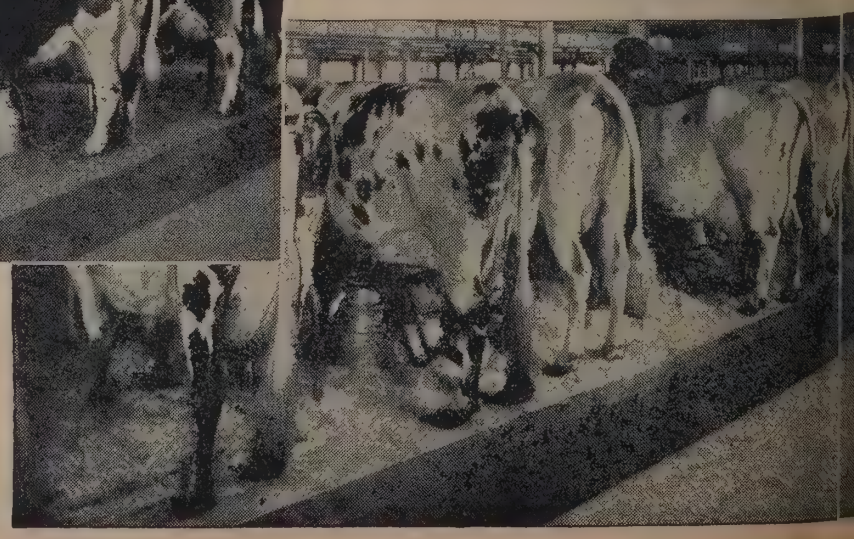
Below: *The splendid purebred Jersey herd owned by Mr. F. E. Duffy of West Hartford, Conn., and kept at Meadowbrook Farm. Mr. Duffy is one of the best known and best qualified judges of Jersey cattle in the East. Mr. Duffy has used the De Laval Milker for more than ten years with great success and he speaks very highly of its work.*





Below: *Many of these fine purebred Ayrshires have made excellent records and the herd is widely known for the general high type of its individuals. It is the Locust Farm herd owned by Mr. E. H. Parsons at Warwick, R. I. These cows are De Laval milked.*

Left: *These high producing purebred Guernseys are De Laval milked and are owned by Mr. Edward Haas, well known breeder at New Holstein, Wis.*



HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

Fort Atkinson, ond class matter.

Semi-monthly

Three Years $1.00

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ne 72 FORT ATKINSON, WIS., SEPTEMBER 10, 1927 Number 17

VHAT A QUART OF MILK COSTS

ERNEST B. KELLOGG, WISCONSIN

sure is good milk! Have u another glass?" It was a oust New York lawyer, John- ather, speaking to his moth- was visiting her, as he did nmer, in her Wisconsin home bout 20,000 inhabitants. It first meal together.

ays look forward to your breakfast," he continued. It id creamy, and it tastes so esher than our city milk. you get it?"

nilk came from next door," nother, "but their Guernsey ing dry now. We will have getting milk again from a no has a milk route. He has milk, too, but it costs more."

nuch do you pay?"

ones next door charges the e of 12c, but the milk from dale Farm is 14c a

en cents is entire- ch for a farmer to r his milk," said her hy, I have to pay for a quart of milk York, and it is 200 miles and all over the city or is high. Haven't thought about how eing robbed?"

in a while I have he price was a lit- out both Mr. Jones Baker seem to be men, and they are asy, so I thought erved what they ing."

ext afternoon rove on a concrete several miles until to a sign reading, dale Farm, Baker's der, High Quality Cream."

rove into the barn- noticed a herd of vn and white col- s in the pasture. ked cleaner than s he had seen be- stepped up to the and was told that was cleaning out

went to the barn. first barn he had a cement floor. was bellowing in , as he always did tranger came in. e metal stalls and everything was all ewashed. He no- electric lights and mp running in one aker had just fin- ping the floor.

is my name," he himself. "I have ng my mother in says she gets milk sometimes."

aid Baker. "She called me up this morning and asked me to start giving her milk tomorrow."

"What I would like to know is why you charge 14c a quart for your milk when I have to pay only 15c in the middle of New York City. The milk I get comes 200 miles and has to be pasteurized and trucked all over the city where labor is high. Distributors make only .3c a quart on their milk, and pay their farmers 6c. How do you explain the difference?

"Come up to the milk house and have a drink of this milk," answered Baker, "and after you have tasted it, I'll show you a few things that make it cost."

They went into a little building that had a cement floor, and was painted white inside. There were bottle racks and various utensils, new to Mather.

"That milk would cost you 75c a quart in the dining room of the Blackstone Hotel in Chicago," said Baker as he took a bottle from the ice box and poured out a generous glass. "It comes in third-quart bottles there, at 25c each. It would also cost you 30c a quart in New York delivered at your doorstep."

"You don't produce certified milk, do you?"

"No, but it is as good as certified milk. A town of this size will not pay the price necessary for certified milk."

"Why not? What's the difference, if yours is as good as certified, as you say it is?"

"If I were producing certified milk, I would have to have two more men around here. I have two men now and I can't afford to keep any more. But this milk is as good as certified milk because it is well within the standards required by law for certified milk. Our bacteria counts are always low, and we have no sediment in our milk."

"But that doesn't explain the cost of your milk."

"Well, I have some figures up at the house that will show the cost of what we do around here. A fellow from the agricultural college was here last winter and worked 'em out. I'll get 'em."

He came back with several sheets of paper.

"I am selling 110 quarts of milk a day, at 14c a quart. I pay my men 19c an hour, and have an investment in my barn, milk house, and cows only, of $13,401 all of which is borrowed, and on which I pay 5 per cent interest."

"Do all dairy farms have this much money invested?"

"Some have more, but the farmers who sell 12c milk have quite a bit less. I have $2,550 worth of cows. My barn and silos are worth $3,000. Any farmer may have these items, but he might not have as good cows as I have, and not as good a barn and milk house. I have mostly pure-breds in my herd and by careful management I can make more on my calves than they do.

"This milk house cost me $800 and the built-in ice box was $100. The water system cost $300, and I have $401 worth of equipment in here. The interest on my investment amounts to 1.67c a quart. The investments in the farms this fellow studied ranged from $4,000 to $17,000."

"How much are your feed costs? Mr. Jones in town figures five cents a quart for his feed. Isn't that too high?"

"It would cost him more for feed than it does me, and my cow testing association shows that it costs me 4.72c a quart.

"Let's take the labor cost. My barn labor figures up to 1.60c a quart, which may be divided this way:

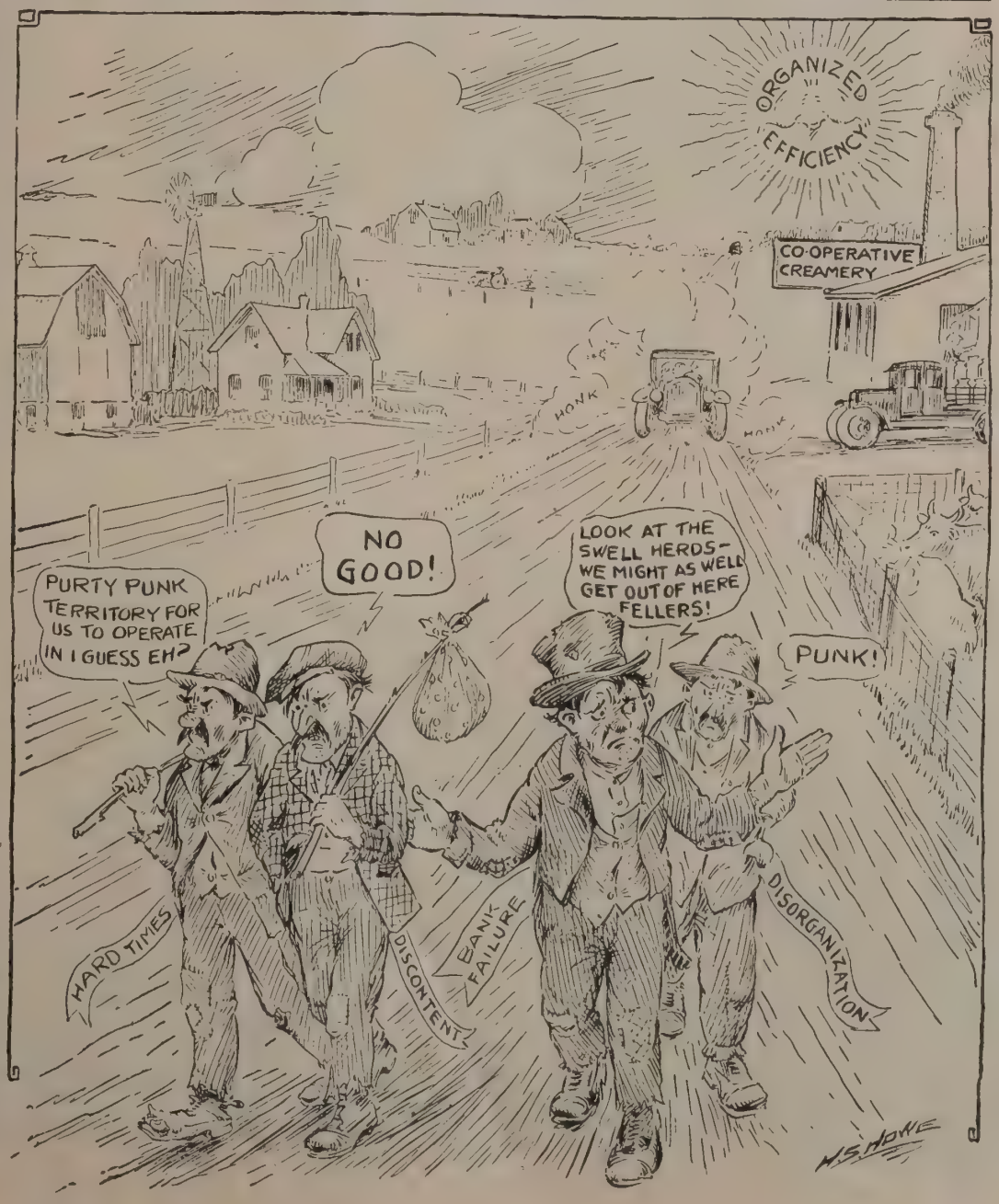
Washing cows	.17	cents
Milking	.69	"
Feeding	.35	"
Cows to pasture	.17	"
Cleaning barn	.17	"
Bedding down	.05	"
Total	1.60	"

"You don't wash your cows, do you?" asked Mather, incredulously.

"I should say we do. We brush them all over every

(Continued on page 867)

THE HARPIES ON THE RUN



LIFE AND WORK OF T. L. HAECKEI

Experiments with Low and High Protein Rations—Relating the Composition of Milk to Feeding Practices

No. 5

TO determine the nutrient requirements of cows, Professor Haecker had the herd divided into two groups in 1902, one getting a high protein ration and the other a low protein ration. This experiment was continued over several years. The return of dairy products was about the same for the two groups, but the low protein group lost in body weight while the high protein ration group gained in weight. Professor Haecker summarized the results, following the winter of 1904, in this manner:

"Since both groups returned the same amount of dairy products and Group I, with a relatively larger ration than Group II, lost in body weight, while Group II gained in weight, it follows that the loss in body weight of Group I was caused by a shortage in the protein supply. The data obtained also show that cows with strong dairy heredity, under careful and skillful handling, may for long and repeated trials return dairy products in excess of the amount provided for in the feed, at the sacrifice of body weight and yet apparently maintain normal physical tone.

"As the final results of these experiments had a direct bearing on the fundamental principles of feeding for milk production, as well as the volume and economy of production, it was deemed of great importance that the physical condition of the cows in the two groups be submitted to others of high repute in such matters.

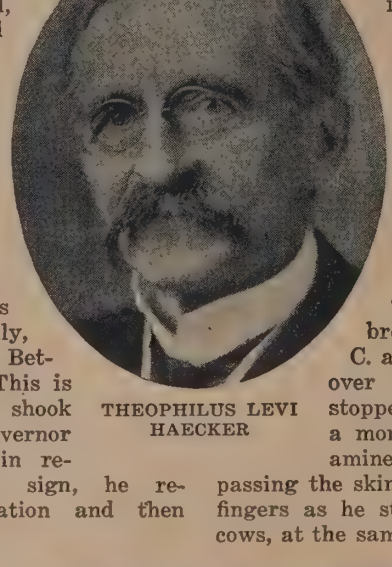
Calls Henry and Hoard

"The Hon. W. D. Hoard of Fort Atkinson, Wisconsin, Editor of Hoard's Dairyman, and Professor W. A. Henry, Director of the Wisconsin Experiment Station, were invited to inspect the cows with special reference to their physical condition. Both accepted the invitation and the day was set for the inspection. At the appointed time Professor Henry reported that Governor Hoard was unable to accompany him but would come a few days later. Written directions were sent to the dairy stock foreman to bring the cows used in the feeding experiment to the stock lecture room in the basement of Dairy Hall in pairs, one from each group.

"The order in which they were to be brought into the lecture room for inspection was known only to the author and the stock foreman. Only two cows were in the room at a time, affording ample opportunity to make a thorough examination for a decision as to which one received the low protein ration. Dean Henry gave each pair a careful and thorough inspection, but from the decisions made it was evident that there was no apparent difference in their physical condition. He requested that the two groups be turned to adjoining paddocks nearby so that he could compare the two groups in the open. This was done and, after looking them over carefully, he said: 'If I should come by on the highway and see the cows in the paddock, I would say, 'there is another lot of fine cows in good working condition but a trifle spare.'

Hoard Makes Inspection

"In a few days Governor Hoard came to University Farm to inspect the cows. Word was sent to the stock foreman to repeat the program given when Dean Henry inspected them. Governor Hoard, Dean Liggett, and Professor Snyder accompanied the writer to the stock room and found Betty and Houston there.

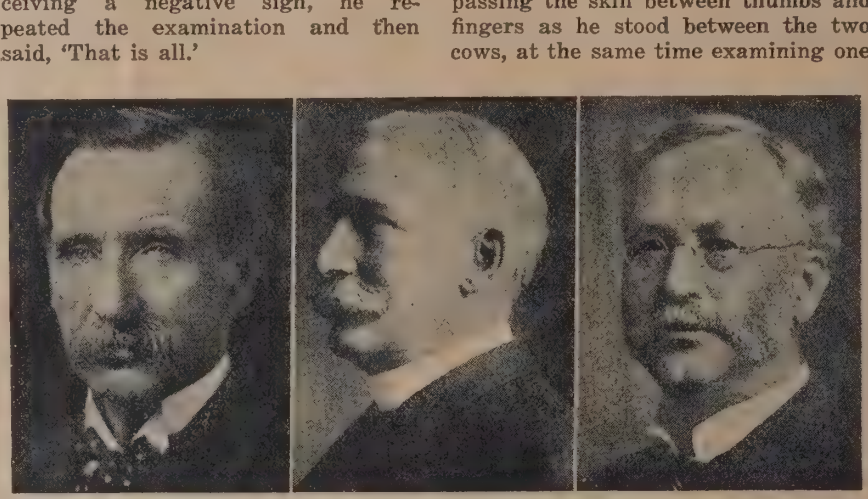


THEOPHILUS LEVI HAECKER

"The Governor gave both a very careful examination, feeling the coat and skin on various parts of the body. Finally, putting his hand on Betty's back, he said, 'This is the one.' The writer shook his head and the Governor said, 'No?' and again receiving a negative sign, he repeated the examination and then said, 'That is all.'

"The writer, affirming the decision, directed that they be led out and Lou II and Dora F. brought in. After giving only a cursory examination, Governor Hoard pointed to Lou II as the one. The decision again being affirmed, the cows were led out and Leeoma and Duchess P. P. brought in. These in turn received very careful and extended examination, with some indications of doubt, but finally Leeoma was selected and, upon receiving an affirmative reply, the Governor said, 'I believe I have got them.'

"The next pair brought in was Sweet C. and Topsy II. He went over them very carefully, stopped and looked at them a moment, and then re-examined them repeatedly, passing the skin between thumbs and fingers as he stood between the two cows, at the same time examining one



EX-GOVERNOR W. D. HOARD, DEAN LIGGETT, AND DEAN HENRY PASSED THEIR JUDGMENT UPON HAECKER'S FEEDING EXPERIMENT, LOW VS. HIGH PROTEIN FEEDS FOR DAIRY COWS

The cows were led out and Fay and Cylene brought in. Going over them in the same way, paying little attention to the appearance of the cows, he pointed to Fay, saying: 'That is one of the low protein ration.' with the right hand and the other with the left. Finally he said, 'It's a guess. This is the one,' pointing to Topsy. 'It's both,' remarked the writer. The Governor manifested great satisfaction and said, 'I told you it was a



FOR MANY YEARS PROFESSOR HAECKER, AS HEAD OF THE DAIRY DEPARTMENT AT THE UNIVERSITY OF MINNESOTA, HAD HIS OFFICE IN THIS, THE OLD DAIRY BUILDING

guess, that I couldn't different tween them.'

"As the other pairs were bro him he had little difficulty in out the ones fed on a low pro tion. Governor Hoard did no teer an explanation as to how tinguished members of one from those of the other. He then requested to do so; but him in St. Louis during the ana Purchase Exposition, the asked him for an explanati answered, 'By the feel of the the first two cows, one had a ordinary thickness, while th had a very thin skin. The fi it was a trial, I pointed to you shook your head. I ther ined them again and after th lected the one with a thick sk

Difference in Physical Con

"The decisions established that in general appearance groups were closely matched only difference, so far as coul cerned with the eye, was t cows of one group were a tri er than those of the other; there was a difference in thei cal condition was shown by Hoard's decisions. There v some significance in his poin Topsy II as the one of the low group when both had receive protein ration, because this w sy's second and Sweet Cicil winter on a low protein ratio

"The same was the case betrayed some doubt before pointing to Leeoma as the on ing the low protein ration, was the first winter she was low protein ration and was high flesh when she freshe had shrunk in yield to a poi an equilibrium had been rea tween the milk solids yielded net nutrients provided in the tion, some nine weeks before of the experiment.

"After inspecting the c ployed in the experiment on medium protein rations du winter of 1903—1904, Profe A. Henry, when asked what tions he had to offer in rega experiment, promptly replied another winter.' As this w cordance with the writer's p experiment was continued al lar lines during ter of 1904—1 the cows lined u same groups a possible."

Haecker Mak Contributi

Probably as i a contribution u been made to th of feeding the d was made by Haecker when ceived the idea the ration to th of the milk He maintained, sequent exp proved, that th was a definite i of the compos the milk, and should get i consideration in rations. From 1907 the statio made analyses posite samples from the differ used in the fe

(Continued on p

INDIA'S PEACEFUL REVOLUTION

ISABEL BROWN ROSE, INDIA

RBANS of every size, shape, ınd color—and underneath hem brown faces with eyes ɔuths wide open! That was truck us most vividly as we ed through beautiful grounds ngled with the huge and di-



MAKING A ROAD
The Indian bullock is put to many novel uses.

owd that was inspecting im- methods and labor-saving de- n agriculture, horticulture, , poultry raising, and sub- ndustries.

never had been anything our part of the country, and robably can never be any- ite like it again, for although cultural show is to be an an- air it can never have quite nishing zest of a first experi- Our present governor is ex- interested in economic prob- l in everything that can help plift, and he has been ap- y the wasteful and inefficient in agriculture and all that thereto, for it occupies no three-quarters of the entire ɔn of India. He, therefore, oup of other keen and influ- ntlemen, both European and ɔnceived the idea of a great ıral show to be held in n inland city of about 175,- bitants and the capital of the ent during the rainy season. gislative Council gave the a good boost by voting a over $20,000, and rajahs harajahs and other Indian d a host of other well-wish- wed with donations great l, so that the financial side was well assured.

e great question was as to et in touch with the farmers benefit the show was being l, and how to persuade them o it. How simple it sounds! course, put big advertise- the daily papers and attrac- ers on billboards and other vantage. Alas, that would in India. Over 90 per cent people are illiterate, and e farmers the proportion is e than that, for in Western iculture is largely in the the Mahrattas, a stolid and essive class but remarkably l independent. If they can- then of what use are news- d posters? The only com- n is by word of mouth. efore, involved an immense f work for months before- he part of enthusiastic vol- ho visited villages system- got the leading men inter- l through them enthused others to come to the show. The village crier, preceded by a deafening tom-tom, proclaimed the coming show, especially on weekly bazaar days when people come from surrounding villages to sell and buy commodities.

And no wonder mouths opened wide when their owners entered the show ground, for much that they saw savored of magic. Those of them who are fortunate enough to possess a well in their fields raise the water by means of a big leather bag drawn up the well by two or more bullocks ambling down a slope. This is what their fathers and their forefathers have done from time immemorial. But those leather bags usually leak so profusely that gay streams of water drop back into the well before the load reaches the top and is poured into the earthen runnels that will carry it to the thirsty fields. But here, near the entrance of the show, was a water court with strange devices for raising the water by means of a well-made iron barrel, guaranteed not to leak. In the picture you can see it coming up, suspended on a pulley. And instead of slow and tiresome and erratic oxen there is a neat little donkey engine. There were also various types of pumps—steam pumps, suction pumps, and a chain water lift. Still more stupendous in the eyes of the visitors were the boring operations. In a land that is thirsty for water they looked with awe on the magic-man who was boring down by either rotary or percussion machines and finding water in the evidently barren soil. The demonstrator (an American) of one of the borers told us he had struck water after three days' boring—and this in the very grounds of the agricultural college.

Again, most of the farmers use old fashioned plows which merely tickle the surface of the ground, but here they saw the newest types of reversible iron plows and actually watched the deep furrow being made by a demonstrating team of bullocks. And as for the motor tractors—well, they could not have been more amazed had the devil himself been handling the steering wheel!

But most steps turned sooner or later to the live stock yard and stayed there. India is a land of poor cattle and many of the visitors had actually never seen specially raised and selected fat stock. Their eyes popped at sight of a cow (Sindhi breed) whose record was 10,380 lbs. of milk during 319 days. She came, of course, from an experimental farm, one of many founded by the government which are peacefully and unobtrusively revolutionizing India's economic life. One of the greatest problems—and most thorny—is the elimination of unproductive cattle.



THE IMMEMORIAL METHOD OF A SHORT STICK THAT MERELY TICKLES THE SURFACE OF THE GROUND



AN INTERESTED GROUP OF INDIAN FARMERS WATCHING A DEMONSTRATION OF THE USE OF A REVERSIBLE IRON PLOW THAT MAKES A FINE DEEP FURROW



A PRIZE BULL
ıt the Indian bull is the "zebu" ɐp and hump aV complete.



AN IRON BARREL RAISING WATER FROM THE WELL IN PLACE OF THE OLD FASHIONED, LEAKY LEATHER BAG

The calculation of a conservative expert gives the figure of sixty-one crores of rupees ($220,000,000) as the yearly loss to India because of the millions of useless cattle—cows which have ceased to give milk, and decrepit and diseased cattle long past use for draught purposes. This figure is higher than the yearly expenditure for the army and navy—which troubles thinking India so much. But, you say, why on earth not kill off the superfluous animals? Ah, there's the rub. The Hindu religion forbids it. All life is sacred.

Once, when our train pulled in at a wayside station, we found an excited crowd on the platform. They had found a cobra an hour previously, just on the point of stinging a sweetmeat seller, but not a soul in that whole station would brave the anger of the gods by taking its life. They had to wait for the train to come in to find a man foolhardy enough to kill it!

As the cow is an object of worship, its life is doubly sacred, and it would be a sacrilege to destroy its divine life. This is a fruitful source of friction between the Hindus and the Mohammedans, for the latter have no qualms about cow killing and sometimes do it quite near the temples, simply to provoke the Hindus. And there are many places in India where the white man has to do without beef because the Hindu element there is powerful enough to prevent all cow killing. In fact, Hindu philanthropists often found and endow old age homes for cattle.

There is such an old pensioners' home in our town. The superintendent and I had frequently exchanged salaams, for his institution is exactly opposite one of our schools. One day he ran over to me and insisted that I see his department. He showed me the rows of ancient cows and bullocks munching fine fodder in their comfortable stalls. He showed me the great storehouses of supplies and the dispensary for the sick animals. Yet there are 60,000,000 human beings in India who are so poor that they go to bed hungry every night! Strange paradox! Kill no animal, however burdensome, but in famine time you can sell your children for bread.

A model barn, which would be considered very mediocre in America, excited much comment, for a barn is an almost unknown luxury. In fine weather the animals are tethered to stakes in the open courtyard of the houses, and in rain they are housed on the veranda or in some crude shed beside it, or even in the house itself.

(Continued on page 866)

FROM HEAVY FOREST TO FINE FARM

A Wisconsin Dairyman Who Hung Up the Ax and Began Swinging the Milk Pail

THE day Bob Amundson, the lank, genial county agricultural agent for Outagamie County, Wisconsin, and the writer went out to see Charles A. Wussow, we got a bad start. The starter refused to crank the car. We had it fixed at $1.25 per hour and went on our way praying that nothing more would delay us. Luck was against us for the right rear tire let all the air out—not quickly with a bang but in a quiet, sneaking manner. We fixed it and drove on, Bob pushing a little harder on the steering wheel to make up for lost time.

By the time we got to the Wussow farm all the mosquitoes in the neighborhood were having a convention there or maybe it was an athletic event to determine which one could bore in the hardest. Mr. Wussow told us he didn't grow these mosquitoes on the farm, neither did he invite them up around the house. Anyway it was a great day for balky starters, slow leaks, and mosquitoes.

We found Mr. Wussow in the corn field, not cultivating but just tramping around, pulling a weed here, straightening up a hill of corn there, speculating on the prospective yield. Farmers will do this you know on Sundays, and week days when work is not pressing—especially men like Wussow whose hobby is large yields of corn.

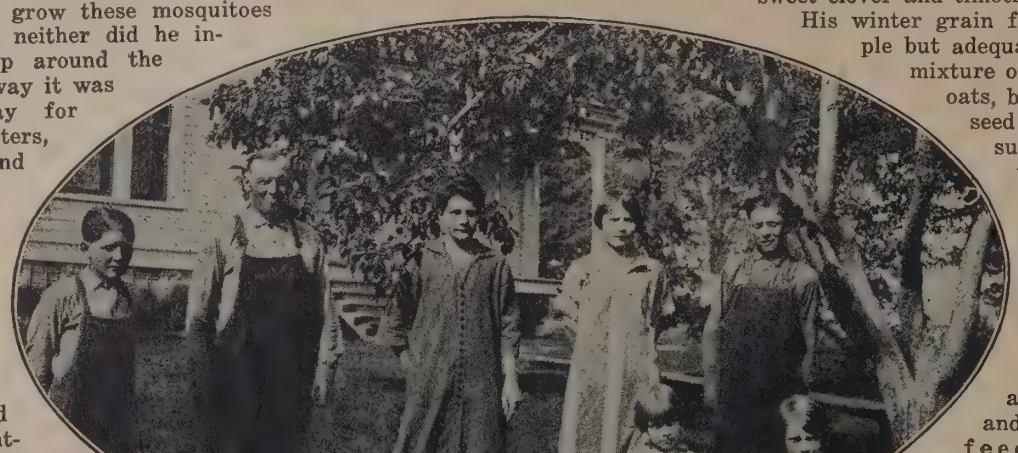
He asked us what we thought of his corn and when we truthfully told him it was the best we had seen in a hundred miles of travel to the south he felt encouraged but indicated that prospects were not so good as he would like to have them.

One can tell that Charles Wussow is a good farmer by tramping around in his fields and looking over the farmstead. But to find out facts as to what he and Mrs. Wussow have done and how they have done it required a bit of questioning because he would not tell about their success unless urged to do so. He is quiet, modest, slow to talk but a mighty dependable source of information whenever he speaks.

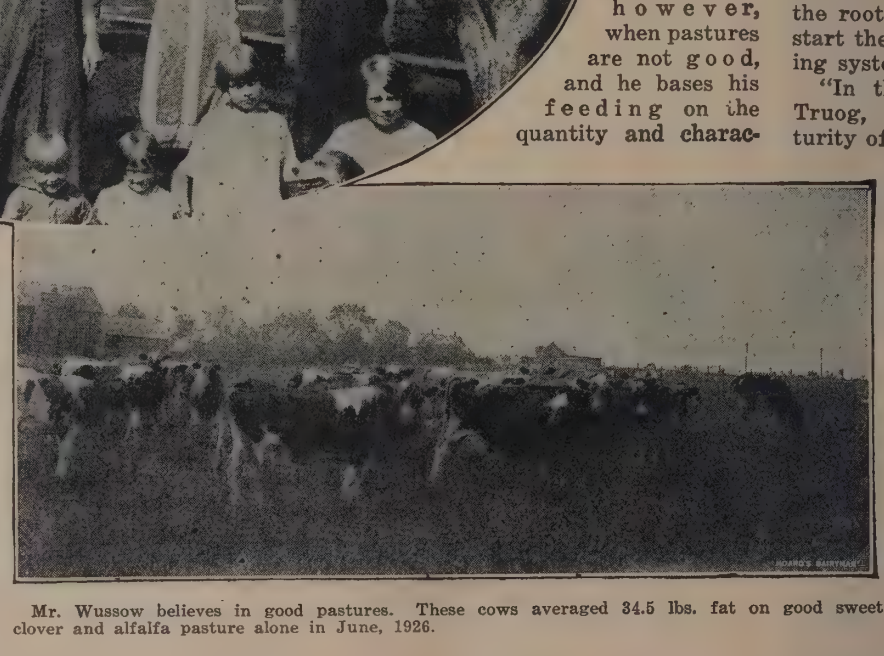
Mr. Wussow was three years old when his father bought 80 acres of the present 140-acre farm back in 1879. The land was covered with heavy hard wood timber and the present owner learned to swing an ax at an early age in helping to prepare the land for crops. He knows the price of hewing a farm out of the forest. He also knows the satisfaction of being counted among the best farmers in his county though he bears the distinction quietly.

Very little, if any, of present inventory values were made from speculation. About the only speculation they have engaged in was 22 years ago when they bought the farm almost entirely on credit and speculated on their ability to pay for it out of the earnings. Otherwise they have played safe, worked hard, and spent less than they earned.

Cows have been the main source of income. When the timber was being cleared off, the herd consisted of mixed natives. For the past 25 years pure-bred Guernsey bulls have been used. The result is now a herd of uniform breed type and conformation. The herd now consists of some 40 head, 26 of which are pure-bred. Mr. Wussow has been more interested in the production side of his herd and has paid more attention to feeding and weeding than to breeding. He does recognize the value of good breeding, however, and he tries to buy good sires. His present herd sire is Jessy's Danny of Fern Dell. He figures that there is no speculation in feeding and weeding, whereas there may be some speculation in breeding.



Introducing members of the Wussow family. Standing from left to right: Norman, Mr. and Mrs. Wussow, Lauraine, Orville; seated, Carl, Elner, Verona, and Lucille. No trouble with hired help here.



Mr. Wussow believes in good pastures. These cows averaged 34.5 lbs. fat on good sweet clover and alfalfa pasture alone in June, 1926.

At any rate he has depended on the cow testing association to supplement his knowledge of cow management. The result is that unprofitable cows are retired from service and the better cows given every opportunity to do their best. The milking herd now numbers around 20 cows annually. These cows average about 350 lbs. fat. This is not as big an average as some herds show but it is a good money making average, one that pays well for the feeds eaten and a comfortable margin for labor.

The herd average might easily be considerably higher if Mr. Wussow cared to crowd his cows to their limit. He believes in playing safe, however, and would rather have a herd with a good money making average than one including a couple or three cows with high records and run the risk of some herd troubles that may accompany excessive feeding such as bad udders and breeding difficulties.

Mr. Wussow is not a stingy feeder by any means. He makes his cows go the limit on the best roughage combination—corn silage and alfalfa hay. In the summer time he tries to give his cows all of the best pasture they want. Contrary to general practice he pastures alfalfa and as the slang phrase goes, "gets away with it." But he does not recommend pasturing alfalfa to every dairyman because, as he says, "some won't do it right," meaning that there is danger in the practice, especially to careless caretakers. He never turns his cows on alfalfa pasture until he partly fills them on other feeds including both roughages and grain and he never turns them on when the dew is heavy or the alfalfa wet with rain. He has some native pasture to supplement the alfalfa. He has tried sweet clover one year and while he says it may be all right, he prefers to stick to alfalfa until he has further experience. He put in 9 acres of sweet clover and timothy last spring.

His winter grain feeding is simple but adequate. He feeds a mixture of ground corn, oats, barley, and linseed meal. In the summer time, if the pastures are real good, he does not feed grain. He does feed some grain, however, when pastures are not good, and he bases his feeding on the quantity and character of the pasture and on the production and condition of his cows.

With this kind of feeding management he does not have udder troubles in the herd, the cows are regular breeders, the herd is free from abortion and clean from tuberculosis. As an indication of the production he gets from good pasture we asked him for the figures on his herd for the month of June, 1926. During this month 18 cows averaged 34.5 lbs. His best cow made 49.4 lbs. fat for the month. This production was made on sweet clover and alfalfa pasture without grain. Nine of the 18 cows were three-year-olds or under.

Next to his cows Mr. Wussow's hobby is growing corn. He grows other pure-bred seed grains as well. Some 12 years ago he produced 98 bushels on a measured acre with the corn figured on a 14 per cent moisture basis. He practices a 3-year rotation of corn, oats or barley, and clover, with alfalfa breaking in when it is seeded or reseeded. With the manure from the live stock and this short rotation the farm is producing more of crops than a decade ago.

Some 20 to 30 hogs, Chester Whites, are marketed annually and a flock of 125 Brown Leghorn hens contribute to the gross income.

Fine fields, fine crops, a g
of clean cattle, a nice farm
all on the credit side of th
plishments of this good dairy
his wife but none of these r
them are of as great importa
fine family of children. T
seven, three boys and fo
ranging in age from twenty-
down to five years.

It takes patience, courag
ing, sacrifice, hard work an
it to rear seven fine childre
this and still be counted a
best farmers in the county
the full indication of one's
be counted successful citize

Three Uses of Phos

HOARD'S DAIRYMAN: — Ac
to Professor Emil Truog of
consin College of Agricultu
phate fertilizers perform t
standing functions. "In t
place," says he, "phospha
make up the bones and ner
of animals and the most
working parts of plants.
has yet been able to gro
without phosphate, though
been trying it for many dec
liberal supply of this eleme
soils causes a rapid growth
and a rapid extension of
system. The faster you ca
the roots the better becaus
start the plant out with a g
ing system.

"In the second place," Truog, "phosphate hastens turity of the plant. It is so for growth that always puts it seed regardless o the stem parts g mal supply or no ly reason a plan to mature seed. ers its food to quickly as poss readily availabl of plant food as doing this.

"In the thir points out the ir the soil acidity bears his name, ple supply of p produces stron seed if it is pr plied so the roo it. Plants take in the thing through the soil moisture have to drink them as they them dry. Sidewise mov plant foods is negligible as up and down with the s Aside from nitrogen whi down very rapidly, even t ment is very slow becaus the Rothamsted Experime in England that have bee with acid phosphates for f still have 90 per cent of phates in the plow layer."

Because of this slow Truog points out that pho well as potash and lime sho down where the roots ar Since they will not feed i this means that it shou down about two or three corn and other cultivated that is where most of th roots are. He points out, that attention must be giv strong an application is n direct contact with the s

Wisconsin. G. A. P

Hunter Story Teller—
Imagine the thrill I experie
lion lay dead.

Skeptical Listener—Wha
died of?

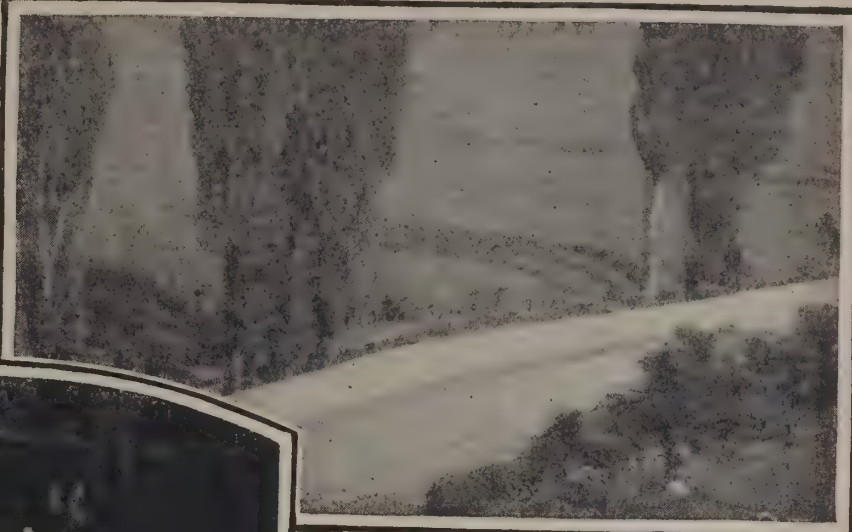
TRAIL'S END

WHAT MR. JAMES R. BEATTIE FOUND AT THE HOME OF THE WISCONSIN HOLSTEINS IN CHILE



ON THE LAWN AT SAN VINCENTE RANCH, CHILE

In the foreground with the cows is a magnolia tree, with the Lombardy poplars looming up like sentinels in the background.



ROAD TO SAN VINCENTE WITH A HEMP FIELD AT THE LEFT AND PASTURE AT THE RIGHT

On either side of the road are walls built of the gumbo soil that have stood for over 50 years like concrete. The top of the wall is covered with tile to prevent erosion.



THE CHILEAN FOUR-IN-HAND

The dairy barn is at the right with an overhead trolley that brings the manure to the two-wheeled ox cart.



WISCONSIN CATTLE AN HOUR AFTER ARRIVING AT SAN VINCENTE

AT RIGHT—ENJOYING THE SHADE UNDER THE MAGNOLIA TREE



THE VILLA WAS BUILT IN 1800. THE PORCH FLOOR IS BUILT OF THE "GUMBO CEMENT"



WINTERTHUR KING ORMSBY AIDEE, IMPORTED FROM NEW JERSEY IN 1920 AND STILL IN SERVICE IN THIS 200-COW HERD





THE NEWLY BUILT PLANT AT SAN VINCENTE RANCH FOR MANUFACTURE OF POWDERED MILK







Left—A view of one of the pasture lots from the top of the silo. Center—Jesu Susaeta, manager, and his head mason at the top of a newly built silo. Right—Individual pens for ulls are 60'x12' and each bull has a morning bath and grooming. These young bulls are largely sold at auction at the live stock exposition held at Santiago, Chile, and Buenos Aires, rgentine. Prices will average close to a thousand dollars each for the 20 to 30 sold in this manner, in addition to which many others are sold at the ranch.

MY EXPERIENCE WITH FOOT AND MOUTH DISEASE

FRANK LAUBNER, PENNSYLVANIA

IT is about twenty-five years ago, when I was running a farm of a thousand acres in the south of Europe, that the foot and mouth disease made again its appearance in our neighborhood. The infected district was put under quarantine and we farmers in the adjoining counties were duly advised by the authorities to use every precaution and to keep our cattle as isolated as possible. Good advice this, when you have to rely for your heavy team work nearly exclusively on oxen and when you must haul 300 cords of wood from your wood lot five miles away before the winter arrives, in order to provide fuel for your house, for the farm, and for those numerous married "servants" living on the farm place. We assumed the risk, hauled the wood, and brought the dreaded disease in our barns before we had finished the job.

Events were now very quickly developing. My report to the state veterinarian was instantly followed by absolute quarantine of the whole big farm, with hired armed guards and burning fires in front of small huts placed at the roads leading to the farm. It was a life very amusing for our numerous "help" but very depressing for the man who carried the responsibility for the management. No visitors were allowed and nobody could leave the farm without having been thoroughly disinfected. This was done in the front of the guards' huts and special precaution was also taken to have the passing members of the big farming community step into a box containing a carbolic disinfectant. It appeared that the outside world was pretty well protected against the bad disease we had in our walls. In the report—black on white—yes, but how in practice?

The particular labor question in that country made it necessary to hire principally married people and to house them in dwellings on the farm. There were, of course, lively boys a girls; and the boys liked, after a ha day's work, to slip through the woo to their best girls on the neighbor farms, and the girls on our farm w secretly visited by their sweethea from outside the farm. None of th boys would risk spoiling his only p of Sunday shoes by stepping i that "infernal" carbolic brew guards on the roads had provided i You see, these are the ways foot a mouth disease was spread at that ti in Europe, and perhaps also el where. Of course, there are num ous other possibilities of spread the disease; by wild and domestic a mals, by dogs, cats, birds; by tra ferring hay, straw, manure, etc.

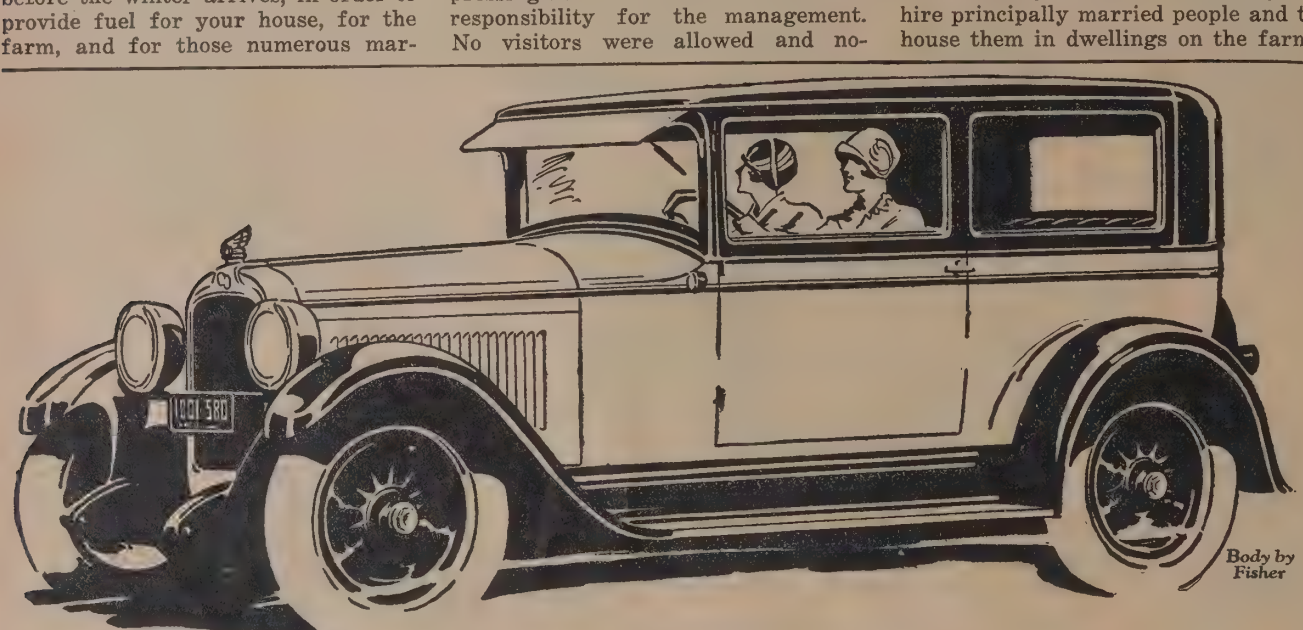
In our case I observed an erupt of blisters in the mouth of our ox They lost their appetite, showed si of light fever, and a kind of r saliva hung suspended from th lips; there appeared also a swelli redness, and tenderness about feet, especially between the digits every foot, and while not every a mal appeared afflicted, there were animals in every corner of that oxen barn containing sixty animal

The state veterinarian was posted on foot and mouth disease asked my consent for infecting those animals at present showing munity by making small incisions their tongues and by transferri that sickness carrying saliva to healthy ones. He pointed out that doing so we would greatly reduce length of the quarantine duration accepted his program and all but of the oxen contracted the disease. ter six weeks the quarantine was ed after a thorough disinfection of animals and the stalls. We used great success for the inflamed mou of the oxen a wash with a solution honey, wine, and vinegar. For the flamed feet we used an antiseptic lution made up with carbolic acid

This outbreak was a mild one a are generally the majority of breaks of foot and mouth disease Europe. This may be accounted by the weakening of the virus as disease has been circulating mor less for hundreds of years so th large part of the cattle there h perhaps acquired a certain degre immunity. I have seen cases of and mouth disease in Europe whe was hushed up and the disease out without coming to the knowl of the outsider; but these are ex tions.

Foot and mouth disease can be rible. A friend of mine living ir isolated place in Germany, where disease had not been since long ye lost all of his valuable milk cows. was a case of highest virility of infecting germs. The cows with f up to 106° F. lay permanently on floor without taking any wate food and they shed the bony stance of their hoofs entirely. A his cows had to be killed in orde shorten their suffering.

The disease is also known as a fever. It may be regarded as es tially a disease of cattle but h sheep, and goats will take to the ness. Man himself is not immu though the drinking of small qu ties of infected milk may not en ger him. But I can positively s from my experience that the fee of milk from diseased cows has disturbing effects with babies, as t are resulting eruptions of blister the mouths of the children, cau eventually dangerous complicat with feeble infants. The disease r vails in Europe and occasions g losses. Although the actual mort is quite low, there are serious l



Finer than ever in Quality

Lower than ever in Price

Today's Pontiac Six is the finest Pontiac Six ever built. Not merely does it offer the fashionable smartness of Fisher bodies in new Duco colors, but it brings to the buyer those many refinements which have been made in Pontiac Six design since the first Pontiac Six was introduced.

Although the original Pontiac Six was such a revolutionary value that it set a world record in the number of buyers it won during its first year—

—the Pontiac Six you buy today is even smoother in operation, even more sparing in the attention it requires, even more luxurious and more distinguished in appearance!

Yet it sells for less than ever—the result of price reductions made possible by the economies of increased volume production in the world's newest and finest motor car plant.

Unless you have actually driven today's Pontiac Six—actually studied the richness of its Fisher bodies and its exclusive features of modern design—you cannot know what thrilling power and smoothness, what thorough road mastery, and what enduring satisfaction can now be obtained in a six at $745!

$745 2-DOOR SEDAN

New lower prices on all passenger car body types.
(Effective July 15)

Coupe	$745	Sport Cabriolet	$795
Sport Roadster	$745	Landau Sedan	$845
De Luxe Landau Sedan			$925

The New Oakland All-American Six, $1045 to $1265. All prices at factory. Delivered prices include minimum handling charges. Easy to pay on the General Motors Time Payment Plan.

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

The New and Finer

PONTIAC SIX

PONTIAC CHIEF OF THE SIXES — PRODUCT OF GENERAL MOTORS

m the diminution of the milk se-
ion and consequent interference
h the business of the dairy.

o far about my experience with
and mouth disease in the old
ntry. Some eleven years ago I was
ling a position as superintendent
one of the largest dairy farms in
New England States. The out-
ak of foot and mouth disease at
time was in the neighborhood of
ton, and we were located about
miles from Boston. Doing busi-
by retailing our milk and cream
near one thousand five hundred
omers in a fashionable suburb we
e all the time in steady competi-
with those big milk concerns,
ading out over large territories
sparing no efforts or money to
ease their holdings on customers.
y used to pay two dollars to their
smen for every newly acquired
quart milk customer. And those
smen have been on the job, I as-
you. Only the special quality of
milk enabled us to stand that
p competition during all the time.

with all our cows gone and un-
going the following quarantine
ur premises for weeks at least,
ld we not risk to lose a large num-
of our old customers forever?
ild it be worth while at all to try
build up this unique business
in? This was the situation we
d at that time.

had two major evils to consider.
t, the possibility of bringing the
ase to the plant by our numerous
wagons covering a territory of
e than thirty square miles daily.
ndly, the danger of a direct in-
ion of the cows by coming in con-
with the disease by leaving the
s and by entering the adjoining
ure where stray dogs, cats, birds,
might leave disease carriers. In
r to overcome the first possibility
made an arrangement with our
authorities to run their oil spray
ons daily over our roads. Every-
, and especially the owners of
automobiles, knows the stick-to-it-
ess of those tar-like heavy oils
h are used in summertime on
y roads or for road repairing.
ybody entering our premises had
alk over these black films, which
me from day to day more inten-
and adhesive. Men, horses, wag-
and all had to go through, not ex-
ng two young ladies from our of-
who had to pass over the road
times a day, every time raising
nergetic protest.

y second prophylactic consisted
praying the four feet of every
as she went to the yards. There
at every door a man with a big
ring can provided with a sprayer
e, running a 4% creolin solution
the hoofs of the animals. My idea
to wet those parts of the foot of
ow which are most receptive for
lisease and it would not allow the
se germs to enter.

must confess that I did not con-
any idea how to protect at same
the mouths of the cows. But I
eport that the disease did not en-
ur barns and that we never were
rbed for one day in distributing
products, much to the comfort of
ustomers, especially of the moth-
of babies. The federal authori-
ad also at that time the disease
in hand and the outbreak in our
borhood was promptly stamped

July 1 there were 46 of the 71
ies in Wisconsin that had com-
d the area test, 11 of these coun-
being modified areas showing on
ast test less than one-half of one
ent of the cattle reacting to the
There were six counties then be-
ested and thirteen that had filed
cation for the area test.

Before you choose a shingle

Try an' burn it!





Re-roof for the last time

Leave the old roof on. Lay these beautiful everlasting shingles right over it. No fuss, no dust, no litter of torn off shingles on the lawn. No danger from rain while the work is in progress.

Then forget your roof. It will be everlasting—no costly repairs. It will be fireproof—you need never fear flying sparks. You re-roof for the last time when you re-roof with Johns-Manville Asbestos Shingles.

DEMAND a fire-proof shingle — not only for its safety, but because it will actually save you money. Before you choose a shingle, "Try an' burn it!"

Even the white-hot flame of the blow-torch cannot harm these beautiful Johns-Manville Rigid Asbestos Shingles. They are more than *fire-resistant* or *fire-safe*. They are FIRE-PROOF.

That's the kind of roof that Johns-Manville now offers you at little more than the cost of ordinary, flimsy shingles. A shingle that means complete protection against roof-communicated fire! A shingle that should never cost a cent for repairs. A shingle that you will never need to replace as long as your home stands.

You will like the interesting, broken line beauty these hexagonal shingles give your roof. They may be laid either side to the weather, exposing the cool gray of one side or the blended autumn colors of the other.

Get this beauty, economy and protection for your roof at little cost. Any Johns-Manville dealer will give you full particulars.

JOHNS-MANVILLE

RIGID ASBESTOS SHINGLES

JOHNS-MANVILLE CORPORATION, MADISON AVENUE AT 41st STREET, NEW YORK CITY
BRANCHES IN ALL LARGE CITIES. FOR CANADA: CANADIAN JOHNS-MANVILLE CO., LTD., TORONTO

Makes $60 Feed at less than $35 per ton with "JAY BEE" HUMDINGER

Crusher · Grinder · Pulverizer

Emil Westergard, Omaha, Nebraska, saved $150 a month grinding with a "Jay Bee" for 47 cows.



Yoeman Farms, Elgin, Ill. (dairy barn illustrated above) made better feed at less than $35 per ton, with their Humdinger Mill, than they bought for $60. So can you! We will tell you how. Write for our free feeding booklet.

Makes Finest Dairy — Cattle — Hog Feed

The "Jay Bee" grinds any grain or roughage as coarse or fine as you want it ground, at a lower cost per ton than any other mill. It will grind the feed cool. The animals prefer the taste of "Jay Bee" ground feed. The unheated feed will not spoil in transit or storage or be left uneaten.



Red Lady No. 396118, owned by Oakwood Farm, Newton, N. C., gave 19608 lbs. milk, 1028.51 lbs. fat at age of 9 yrs. 9 mos. "Jay Bee" fed.

Oat hulls are completely pulverized—safe for feeding young pigs. No rats' nests in corn fodder or ear corn with husks on, after grinding. Easily grinds such popular feeds as alfalfa and other hays, pea vines, soy bean hay, ear corn, with or without husks on, corn stalks, cotton seed cake, etc., which other mills cannot easily handle.

3 Sizes: 7 H. P. to 30 H. P. Fordson will operate successfully. Easy Payment Plan

Over 7500 "Jay Bee" mills in daily use. There's a reason! It's the best mill—and cheapest when the work is done. Prompt Service. Stock in all principal cities.

You need a "JayBee" mill. Get one now! With it you can make more feeding profits than by any other method.

The Only All-Steel Hammer Mill

The Humdinger Mill, Bossert made, of boiler plate and manganese steel, is practically unbreakable. Mills in use five years are just as good as when bought.

Nothing to Wear Dull or Break

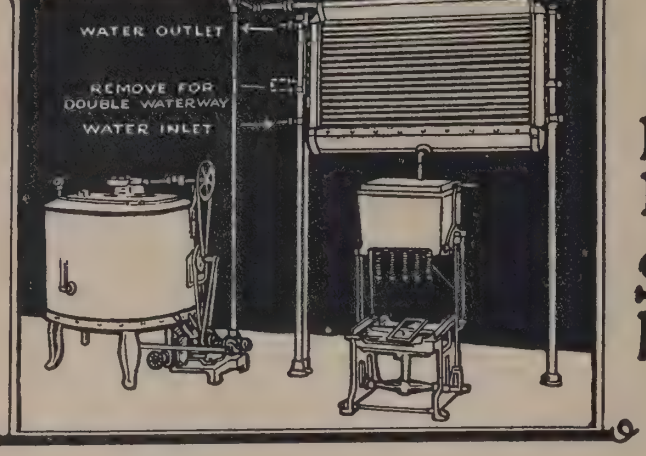
The Humdinger mill has no knives to endanger fingers, no burrs, rolls, gears nor grinding plates to wear dull, break, cause friction or heat grain. Manganese steel hammers strike feed material only. No metal touches metal. Lifetime service. Lowest operating cost. Greatest capacity—lowest horse power consumption. Repair bills practically nothing.



Eventually all good dairymen and stockmen will own a "Jay Bee" mill to be able to produce the greatest quantity of milk and beef most economically. Write today for descriptive literature.

J. B. SEDBERRY, Inc., 268 Hickory St., UTICA, N. Y.

VICTOR DAIRY PASTEURIZER



for the FARM DAIRY and SMALLER PLANTS

REALIZING the need for a simple, efficient and economical milk pasteurizing outfit for smaller plants and farm dairies, *CP* offers the Victor, illustrated above.

The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

With a Victor Outfit the small dairyman can produce good, wholesome pasteurized milk just as cheaply and efficiently as the big city dealer. Pasteurization provides safe milk and will increase your business. The Victor is a business builder. Write for full information and prices.

THE CREAMERY PACKAGE MFG. COMPANY
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1245 W. Washington Blvd. CHICAGO, ILLINOIS
Sales Branches in Principal Cities

NEY

When the cows come home

DO the cows come home to good feed, good housing and sanitary dairy barn equipment? If they do they are healthy, happy cows that produce rich milk—and big milk-profits for their owners.

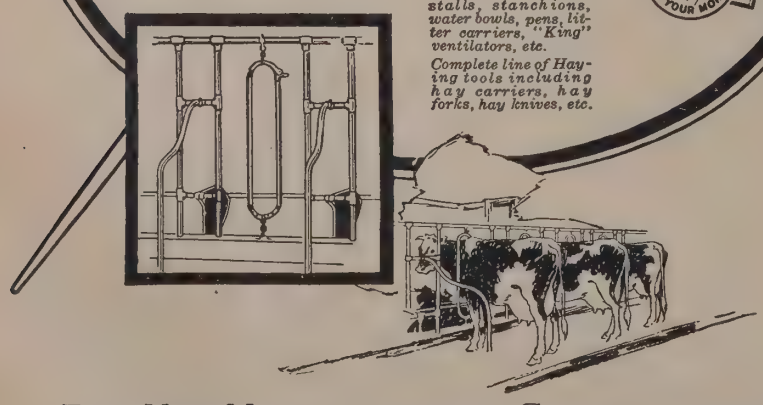
Any farmer, with ten or more cows in his herd, can make bigger milk profits if he encourages his cows to produce more milk and richer milk. Sanitary barn equipment—Ney Equipment will aid your cows to deliver more milk—a better quality of milk—more profit-dollars for you.

Now is the time to get started toward bigger milk profits by installing Ney Dairy Barn Equipment. Sold by reputable dealers everywhere. Write us today for your copy of the Ney Catalog No. 54 and name of dealer ready to serve you.



Complete Dairy Barn Equipment including stalls, stanchions, water bowls, pens, litter carriers, "King" ventilators, etc.

Complete line of Haying tools including hay carriers, hay forks, hay knives, etc.



THE NEY MANUFACTURING COMPANY · *Canton, Ohio*
Established 1879 *Minneapolis, Minn.; Council Bluffs, Iowa* Established 1879

If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman — Ask Him Why!

News from Washington, D.

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, D. C., Aug. 24—In preparation for the big dairy exhibitions this fall, the Division of Exhibits, U. S. D. A., is now building about sixteen or seventeen new exhibit booths and revising and reassembling several others. Twelve or thirteen will be shown at Memphis, one at the Chemical Industries Exposition, and nine at the Dairy Industries Exposition at Cleveland. In the Memphis show a talking exhibit is to be used for the first time, making use of the automatic phonograph and specially prepared records which will give instruction and information on dairy problems and explain recent research results secured by the Bureau staff.

A statement recently issued by Chairman Thomas O. Marvin of the U. S. Tariff Commission indicates that an effort is being made to hasten the work of the commission on pending cases, among which is the milk and cream case in which the eastern dairy industry is much concerned. Chairman Marvin pointed out that the funds of the commission were exhausted before June first by the work which had to be done on the many new cases started during the past year, but now with the new appropriation available every effort would be made to complete the cases now under way.

Canadian newspapers quoted here state that the Canadian government is to enter this year upon an extended program of research to discover new industrial methods and means of developing agricultural and industrial resources. A meeting of the officials of all of the provinces is to be held in October to work out a plan and then the Ottawa government will be asked to finance it. Coming so closely after the announcement here of the effort to secure new funds for cultural research in the U States, this is pointed out as in ing the new trend of activity ir agriculture and industry.

Notice has been issued the week that the annual meeting National Dairy Union will be November 29 at the Nicollet Minneapolis, in connection wit annual meeting of the Na Creamery Buttermakers' Associ

Your correspondent has been brief vacation trip through the sections of Central and Western York, finding weather, pasture hay conditions about as fine as be had. There is less corn, hov than usual, and what there is i spotted, so it is now indicated the ensilage supply will be short of requirements. The sea very late; hay was still being Northern New York and oats parts of the state.

There was evident, more pe than in previous years, a growin couragement among the milk p ers in all but the best located sec Valley dairy farms near n seemed in good condition, with feeling on the part of owner operators, but hill farms, cially with a haul of s miles to loading station or looked run-down and ill kept there were many abandoned Competition of big plants for part of the milk to be had alon traveled roads was putting creameries and cheese factories business in Western New York, ing those not on well traveled without an outlet. There was dissatisfaction with this situatio

Garlic in Cow Pastures

Garlic is bad enough anywhere but in a cow pasture it is worse than that. W. A. Hanning of Southern Indiana has some garlic in his pastures. In spite of this he was solicited by the Evansville Pure Milk Company to produce milk good enough for babies. Hanning took the job and is making a go of it in spite of the garlic.

We asked him how he does it. He replied, "I do not turn my cows on pasture until the garlic is pretty well along and out of the young, tender stage. Cows will eat the young garlic but will not eat much of the older plants. I take my cows off the pasture at least three hours before milking them. I always feed some dry feed with pasture. I aerate and cool my milk immediately after it is drawn, cooling down first with well water to about 52 degrees F., then down to about 35 degrees F. with ice water. I have lots of garlic but have never had a complaint from the milk company that distributes my milk."

Jackson to Wisconsin

H. C. Jackson, manager of the cooperative creamery at Grove City, Pennsylvania, has accepted appointment as head of the dairy department at the University of Wisconsin, succeeding Professor E. H. Farrington who has successfully directed the work for the past 33 years.

Mr. Jackson has been in charge of the Grove City plant, where the laboratories of the U. S. Bureau of Dairying are located, since September, 1924. He is regarded as a very able dairy manufacturing man.

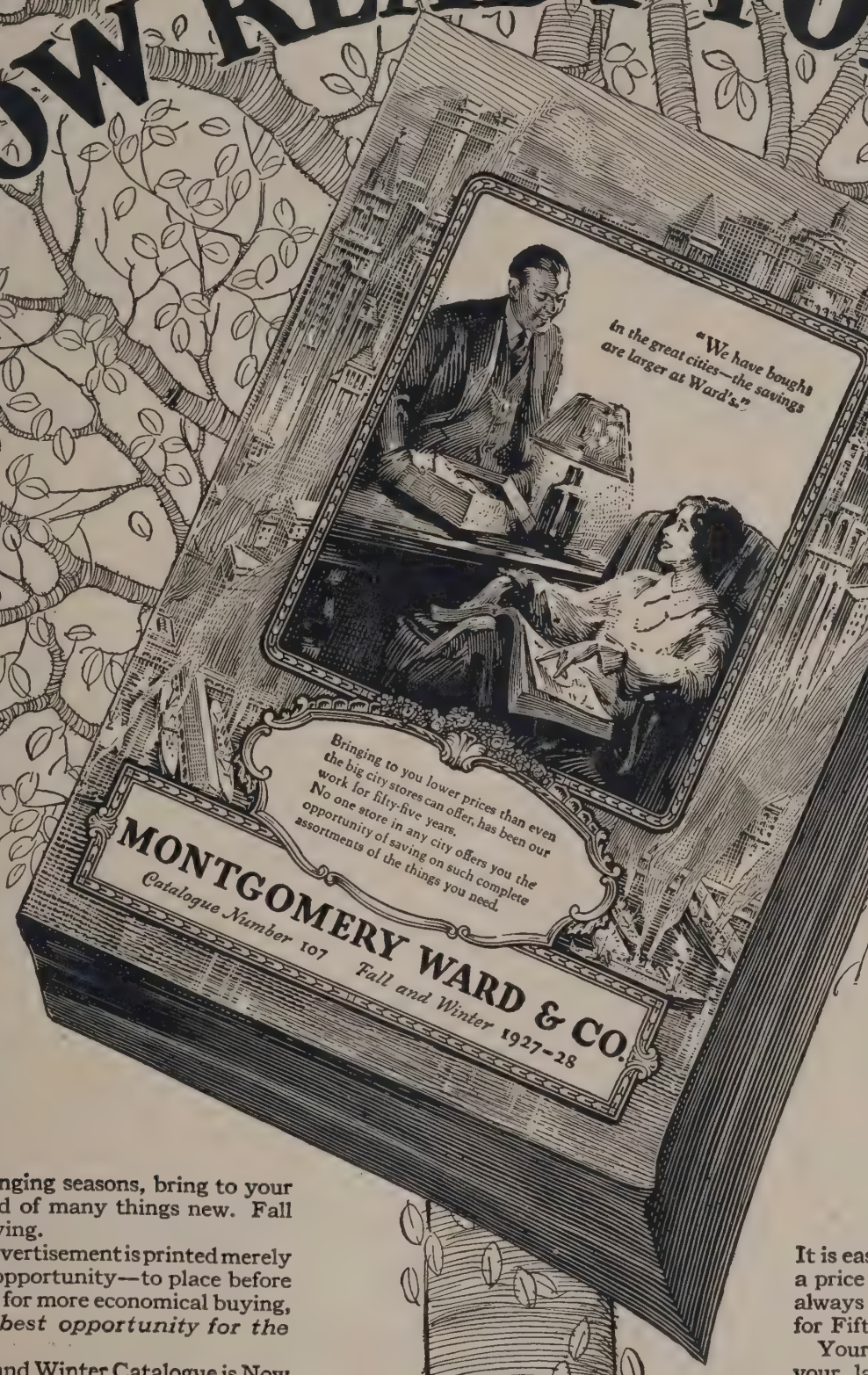
Graduating from Cornell University in 1915, Mr. Jackson continue studies, securing his Masters Doctors' degrees, and instructi various dairy courses at Cornel did considerable extension wo market milk plants throughout York State, studying especially densed and powdered milk man turing plants.

For three successive summe inspected navy butter manufa in Pennsylvania and Iowa and in was employed as efficiency expe a large Philadelphia dairy com In 1924 he accepted a position dairy research laboratories of t S. Department of Agriculture.



H. C. JACKSON

WARD'S FALL CATALOGUE NOW READY FOR YOU



FALL—the changing seasons, bring to your home the need of many things new. Fall s the season of buying.

Therefore, this advertisement is printed merely o tell you of your opportunity—to place before ou an opportunity for more economical buying, o give you *your best opportunity for the argest saving.*

Ward's new Fall and Winter Catalogue is Now Ready—is Now Ready for You. One copy is to be ours, free—*if you ask for it*. To have this book n your home is to profit by the biggest bargains—*to save the most by buying the cheapest.*

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ver Sixty Million Dollars in cash has been used o secure low prices for you. And cash buys at ie lowest price—always. Bright new merchan- ise has been bought by the train load—to ecure low prices for you. There is for you a aving of $50.00 in cash if you send all your rders to Ward's.

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Your satisfaction with the goods you buy—your lasting, regular patronage—is our aim. Therefore, we sell only goods of standard, reliable quality. *And in a few years, this policy has brought us over three million new customers!*

You, too, can profit by this *real saving* on goods that give *greatest service*. One copy of Ward's Fall and Winter Catalogue is offered you free. You need merely fill in the coupon below.

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Benefits you may be missing

There's one other big factor in low-cost tire mileage besides the quality of the tire.

That's the care and attention the tire gets after it goes into use.

If you've been doing business with your local Goodyear dealer you know what we mean.

You know he picks out the right size and type of tire for your car, lets you *see* it before you buy, mounts it on the rim, fills it with air.

You know, too, that long *after* the sale he helps you give that tire the care it should have to deliver maximum results.

If you're sending away for tires you are missing the benefits of this service. They're worth having, for they cut tire bills down.

They are mile-saving results of the famous Goodyear policy: *to build the greatest possible value into Goodyear products,* and *to provide facilities so that the user can get all this inbuilt value out.*

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Goodyear Means Good Wear

GOODYEAR

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A Six-year Record Cow

E. A. HANSEN, MINNESOTA



LUCY, MINNESOTA'S LONG-TIME COW

An average of 560 lbs. fat for six years that brought a return of $1,200 over cost o feed is the record of Lucy. She appears here with Ola Larson, her owner, in the cente Tester Bernerd Rosenquist at the right, and her feeder and milker, Mr. Larson's son at the left.

LUCY, a grade Holstein, owned by Ola Larson of Todd County, Mi nesota, has recently completed her sixth consecutive testing yea Her record is the largest long-time record reported. This perform ance is noteworthy because it was made under everyday farm conditio by a man who makes his living by milking cows. Lucy was milked thr times daily during a part of each of the three last lactation periods. He feed consisted of silage, alfalfa, and mixed hay, corn, oats, bran, oil mea and pasture. The records were supervised by six different cow testers.

LUCY'S 6 YEARLY C. T. A. RECORDS

Year	Milk	Fat	Value of product	Feed cost	Income over feed cost
	Lbs.	Lbs.			
1921	9,051	418.3	$186.38	$59.65	$127.23
1922	12,244	540.4	231.23	61.51	169.72
1923	11,941	504.2	265.80	60.80	205.00
1924	14,842	604.5	302.39	80.33	222.06
1925	17,328	745.2	381.90	97.83	284.06
1926	13,673	545.8	257.68	75.49	182.19
Total	79,079	3,358.4	$1,625.88	$435.61	$1,190.26
Average	13,179	559.7	270.98	72.60	198.37

The above yearly records are for cow testing association years endi January 31 of each year. Lucy's best yearly record on the basis of 365 da was for the lactation period starting December 7, 1924, and ending D cember 6, 1925. Her record for this period was 19,003 pounds milk, 800 pounds fat. During this time Lucy consumed 8,730 pounds silage, 2,0 pounds hay, and 4,930 pounds of grain composed of corn, oats, bran, a oil meal, the total cost of which was $105.21.

Certain Weeds Useful for Man or Beast

The definition of a weed which states that a "weed is a plant out of place" will include many useful members of the vegetable kingdom. The Russian thistle, for instance, though chiefly a pest in Colorado, is used for hay in dry years when other forage crops fail. The large roots of the Canada thistle were at one time eaten by the Indians, and they are said to be used for food in Russia.

Quack grass, one of the worst weeds of cultivated land in Minnesota, makes good pasture for horses and cattle when it gets enough water to grow rapidly and to keep tender. Dandelions are used in much the same way as spinach in the spring, and medicine is made from the roots and flowers.

A number of Colorado weeds contain small percentages of rubber and may in the future provide some of the rubber for commercial use. Many weeds of the grass family provide acceptable pasture when they are young and become inedible or harmful only when they are mature. The presence of weeds along roads and banks stops washing of ditches and the wind erosion of the soil.

Common yarrow, agrimony, qua grass, toad flax, red poppy, gr te plantain, knotgrass, and sorrel a now or have been used for medi a purposes. Bent grass, sedge, chi ry common wild morning glory, im tory, avens, bracken, and comm nettle have been used for fodd i various places.

Chicory, borage, Star-of-Be le hem, salad burnet, sorrel, com o sow thistle, bladder campion, da de lion, common nettle, and seeds o th black bindweed are used in diffe en ways for human food. Agrinny borage, gold-of-pleasure, sedge, na d ow saffron, goose grass, ladies' ed straw, wood-wax, toadflax cinqu oi broadleaved dock and common rtt have been and are used in many a in the arts and industries.—CHAL F. ROGERS, Weed Control Work, Col orado Agricultural College.

A homesick Irishman had got jo as crossing guard for a railroad. Th foreman handed him a red flag an green flag, and told him, "Whenve you see a train coming, get outan wave this red flag."

"Git away wid ye job!" exclaime Pat. "Me wave a red flag whe O got a grane one handy! I'll s rv first."

for Economical Transportation

CHEVROLET

Consistent Progress and Proved Design — have resulted in the most *Amazing Quality* in Chevrolet History!

Today's Chevrolet embodies the most amazing quality in Chevrolet history—the result of 14 years of consistent development and improvement.

In carrying out this policy of consistent betterment, the Chevrolet Motor Company has profited immeasurably from its close association with the General Motors Corporation—the world's greatest producer of automotive products.

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—the General Motors Proving Ground, the greatest outdoor testing laboratory in the world—

—the General Motors engineering staff—

—the vast General Motors resources—

—all have been constantly utilized in making Chevrolet the world's finest low-priced automobile!

Go to the display room of the nearest Chevrolet dealer and see today's Chevrolet. One inspection of its custom beauty, one ride at the wheel of your favorite model—and you will know why thousands are investigating the market each day . . . and turning to Chevrolet!

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The Touring or Roadster	$525	The 4-Door Sedan	$695	The Imperial Landau	$745
The Coupe	$625	The Sport Cabriolet	$715	½-Ton Truck (Chassis Only)	$395
				1-Ton Truck (Chassis Only)	$495

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They include the lowest handling and financing charges available.

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The Chevrolet Motor Company is a unit of the General Motors Corporation — the greatest automotive organization in the world. Utilizing the vast resources and engineering facilities of this organization, Chevrolet enjoys, to the fullest extent, these manufacturing advantages—a fact that is largely responsible for Chevrolet's amazing values.



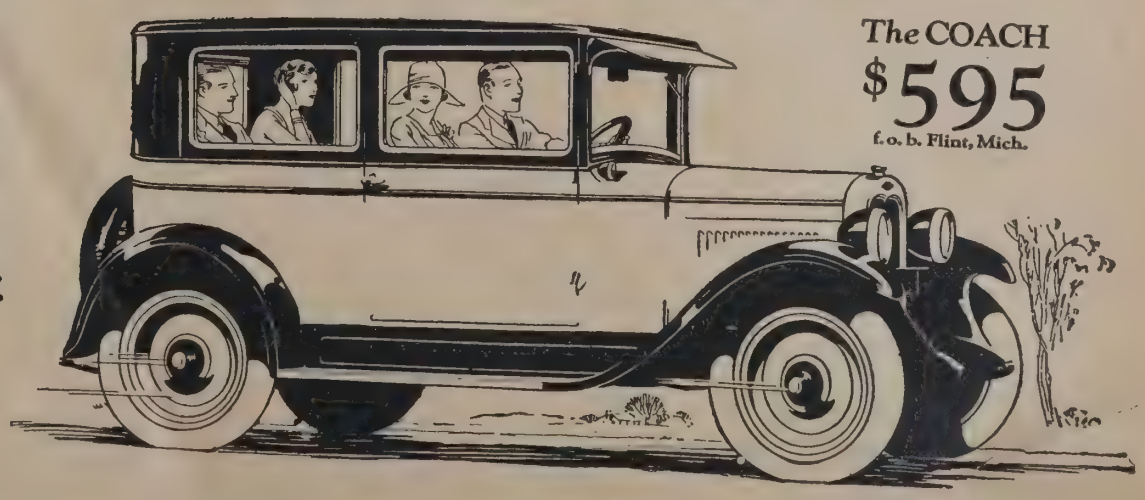
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The Winning Name for Lee Buttonless Work and Play Suits is WHIZIT

FROM thousands of suggestions this name has been selected to represent the already famous Lee Buttonless Work Clothing. From every state, indeed from every county, the names came indicating interest beyond our expectations. The convenience, durability, appearance and time-saving features of the new Lee garments with the Hookless Fastener, have won nation-wide approval. Thousands of working men have put them to the test and found them easy to put on or off and remarkably long wearing. Thousands of Mothers have saved time and trouble by dressing their children in the new buttonless play suits. Ask your nearest dealer to show you LEE WHIZIT UNION-ALLS, OVERALLS and PLAY SUITS.

THE H. D. LEE MERC. COMPANY
Factories: Kansas City, Mo., Trenton, N. J., South Bend, Ind., Minneapolis, Minn., San Francisco, Calif.



Lee Union-Alls, Overalls and Play Suits are also available in styles having buttons instead of Hookless Fasteners.

The winners in the Lee Prize Naming Contest were chosen only after consideration was given to every entry. Each prize was awarded on the basis of the name submitted together with the reason for the choice of the name. The Lee Company wishes to thank the thousands of persons who submitted names, for their interest in the naming of the new garments.

First Prize, $250—Geo. W. Mock, Seattle, Wash.
Second Prize, $125—Mrs. William Gallup, Casselton, North Dakota.
Third Prize, $75—Mrs. Mildred Steele, Elkhart, Indiana.
Fourth Prize, $50—Mrs. G. F. Ross, Brockton, Mass.

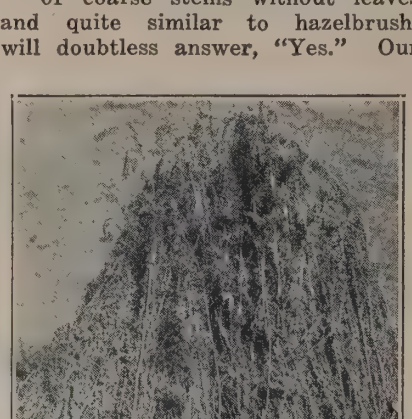
One Hundred Prizes of $5.00 each awarded to the following:

J. Corry Baker, Pueblo, Colo.
Don H. Davy, Burlington, N. D.
Dean Hartzell, Klamath Falls, Ore.
Abraham Wolf, Aiken, S. C.
Mrs. Dan Nystrom, Worthington, Minn.
Mrs. H. Sater, So. St. Paul, Minn.
K. L. Brant, Webster City, Iowa
Edwin C. Savitz, Easton, Pa.
Mrs. H. W. Ries, Collingswood, N. J.
Homer V. Geary, Albany, N. Y.
Wm. Kniesner, Danbury, Conn.
Herbert M. Snyder, Louisville, Ky.
H. B. Alexander, Minier, Ill.
James Mertel, Clinton, Mo.
J. C. Dodson, San Antonio, Tex.
G. Harris, Topeka, Kans.
G. E. Minty, Billings, Mont.
Alfred U. Erdmann, Stratford, S. D.
Mrs. W. H. Thompson, Three Forks, Mont.
Lewis Jespersen, Ashland, Neb.
Roger R. Barbee, Ft. Bayard, N. M.
Mrs. Pearl Weiss Evans, Birmingham, Ala.
Geo. F. Sale, Grandin, N. D.
C. P. Bensing, Minneapolis, Minn.
E. R. Streyffeler, Thurman, Iowa
Frank G. Davis, Springfield, O.
Mrs. Adam Lagle, Georgetown, Ind.
Mrs. Rebecca Dvorine, Baltimore, Md.
Hans D. Steinberg, Milwaukee, Wis.
Amy K. Casteel, Minonk, Ill.
A. R. Hill, New Orleans, La.
Hugh N. Leiper, Dallas, Texas
C. L. Leighty, Newkirk, Okla.
Mrs. Paul B. Porter, Merna, Neb.
Mrs. Bessie Evans, Haswell, Colo.
Harry T. Brown, Long Beach, Cal.
Mrs. M. H. Flint, Ms. Airy, Oa.
Tate Eugene Baldwin, North Tazewell, Va.
J. A. Stephenson, Chester, W. Va.
Miss Jennie C. Maine, Providence, R. I.
Richard A. Supple, Boyd, Wis.
Frank Anderson, Bagley, Minn.
Mrs. C. E. Croson, Eugene, Ore.
H. Keith Gillaspie, Lohrville, Iowa.
Mrs. Ethel Kline, Burr Oak, Mich.
Norman K. Reynolds, Altoona, Penn.
Flora Moscrip, Adena, Ohio.
Leroy Jagow, Buffalo, N. Y.
J. T. Griscom, Nashville, Tenn.
Haskell Ostroff, Lowell, Mass.
Mrs. Frank M. Adsch, Richland Center, Wis.
Bernard Brown, Wilmette, Ill.
Dan Church, St. Louis, Mo.
Guy W. Gitchel, Little Rock, Ark.
R. F. Rowe, League City, Texas.
Robert Verkvitz, Watonga, Okla.
Mrs. Vera R. Watts, Beaver Crossing, Nebr.
Henry Allen, Miami, Ariz.
W. T. Menefee, Oakland, Calif.
Shirley C. Scott, Las Vagas, Nev.
Mrs. Edwin B. Kersh, Mount Olive, Miss.
Mara Spencer, Norfolk, Va.
Lawrence Nauman, Douglas, Wyo.
J. E. Anderson, Seattle, Wash.
Fred F. Feltham, Los Angeles, Calif.
Miss M. J. Sands, Webster Groves, Mo.
Frances Sawyer, Ashley, Ill.
Mrs. Effie M. Clark, Merced Falls, Calif.
Leonard Rennie, Ortega, Fla.
Leslie J. Beldo, Negaunee, Mich.
Lloyd I. Miller, Allentown, Pa.
Isabel Mosteller, Cuyahoga Falls, Ohio.
Mrs. Mary Mead, Fleischmanns, N. Y.
Martha Hart, Sandborn, Ind.
Mrs. Edna T. Saunders, Brewer, Maine.
William Nelson, Milwaukee, Wis.
James N. Lund, Neola, Iowa.
Mattie G. Harley, Kansas City, Mo.
J. Edmund Ullman, New Orleans, La.
Shelby Powers, Justin, Texas.
Bessie L. Kesler, Liberal, Kans.
Kenrick Mitchell, Carroll, Nebr.
Ben Olerich, Care Outlaw, Winner, S. D.
Jess D. Sage, Denver, Colo.
Victor F. Agrell, Lewiston, Idaho.
Chester A. Griffin, Franklin, N. H.
L. K. Jones, Raleigh, N. C.
Mrs. L. C. Weaver, Huron, S. D.
Mildred Koenig, Barnesville, Minn.
A. T. Parsons, Chicago, Ill.
Kenneth Reischman, Meadville, Pa.
E. W. Spitzig, Newark, N. J.
William L. Lewis, Ilion, N. Y.
Dan E. Parmelee, Northford, Conn.
Mrs. Annie M. O'Malley, Clinton Mass.
Adlai Alvin Brink, Donaldson, Minn.
J. R. Funk, Festus, Mo.
Mrs. J. R. Peroe, Dallas, Texas.
Mrs. Jess Stringer, Heavener, Okla.
Clarence J. Millhaubt, Wichita, Kans.

MAKING SWEET CLOVER HAY

L. S. GILLETTE, IOWA

IS sweet clover hay a myth? People who have seen a collection of coarse stems without leaves and quite similar to hazelbrush, will doubtless answer, "Yes." Our agricultural college people, at least the Farm Crops Department at Ames, have not been recommending the use of sweet clover for hay, and farm sentiment in many sections of the country is quite adverse to attempting sweet clover hay.



CURED IN THE BUNDLE

These bundles have been cut open to show the quality of sweet clover hay, resulting from the bundle method of harvesting. This is from last year's crop on the Gillette Farm that stood out for two weeks of rainy weather in shocks of three to six bundles. Despite the bad curing weather the leaves did not shatter and the quality of the hay was good.

After trying in vain for a number of years to produce sweet clover hay through the use of a mower, we turned as a last resort to the binder. It is entirely practical to so use a binder and fine hay is produced with less work than the old way,—and it saves the leaves! Sweet clover hay cured in this manner is relished by the cows. Last winter when a neighbor and former president of the County Farm Bureau visited our barn and observed how the cows cleaned up sweet clover hay, he said: "Your cows do not leave any more stems than my cows do with alfalfa." Our cow tester advises that our cows clean up their hay equally well as the cows in the association fed alfalfa or other hay.

Sweet clover hay will yield two tons per acre the first cutting. Using the binder leaves the stubble in good shape for a second crop of hay or a seed crop. In cutting sweet clover for hay the time is an important consideration. In this Northwest section of Iowa, sweet clover may be cut for hay—ordinary seasons—June 15 to June 25. The most favorable time to cut is after the heads start to shoot well and before the plant starts to bloom. The height to cut depends very largely on the thickness of the stand, but the stubble should be left high enough to leave a few leaves on each stalk. This is important if the second crop is to be secured. As a general rule, the earlier the hay be made, the lower the stubble may be cut.

Harvesting sweet clover for hay with a binder has its disadvantages. If you don't believe it, ask the man who runs the binder. However, it can be done with fair speed, especially if the driver be not too greedy in taking a full cut. In the old world where oxen furnish the power for binders on many farms, the harvester company uses a larger wheel on the drive chain to speed up the canvasses and packers. If this wheel be used with horses in sweet clover, little trouble will be experienced after the nature of the work is appreciated.

Quality of the hay is affected by the shocking. The first year we used long shocks exclusively, three bundles on a side. Sometimes the bundles mold in the center where six bundles are used in a shock. Better hay is indicated when three or four bundles only are put in one shock. Last year it rained for nearly two weeks on our sweet clover hay after it was in the shock, yet the quality of the hay is good. From the illustration you will note the leaves; they are on the stem.

Through the use of three-rope slings the bundles may be put in the barn,—most men would rather handle the bundles than the loose hay. If a little care is used in loading the sling, little trouble will result, though if the sling is unbalanced the bundles will largely be found in the hay rack instead of the barn.

A neighbor secured a nice crop of sweet clover hay last fall after his oats had been threshed. The first year's growth does not shatter like the second, is finer stemmed, and may be mowed and cured in the usual way.

Trouble has been attributed to sweet clover hay in feeding cattle, especially where the sweet clover furnishes the only source of nutriment. In such cases, the blood of the animals feeding on sweet clover seems to lose the power of coagulation, allowing animals to bleed to death. On the average dairy farm cattle are never fed only one thing. Where plenty of variety is allowed, it is doubtful if any deleterious effect will be observed, while the sweet clover furnishes a very desirable source of nutrients, notably protein and ash. Dr. Schalk in Circular No. 27 of the North Dakota Station states: "There is no evidence of such disease (hemorrhagic) from feeding on good, clean, well preserved sweet clover hay and silage," and, further, "Not all specimens of spoiled or damaged sweet clover hay and silage cause the disease." Further, the indications are that the disease does not develop from sweet clover pasture.

The evolution of sweet clover has been slow, and the value of the plant for farm purposes is not yet fully appreciated. I can recall when walking with my father, some years ago, he stopped to pull up a sweet clover plant and said, "Son, that's a bad weed. Don't ever let it get started. In 1925 we had over 175 acres in sweet clover. It has only been a few years ago that my good friend McCandlish, then professor of Dairy Husbandry at Ames, writing in answer to an inquiry concerning best variety of sweet clover to for pasture, said: "If I could be suaded to use sweet clover at a would be the biennial white." Th now the prevailing variety sown our community two of the first to use sweet clover for pasture me they were likely to be disinh ed for doing so.



SHOCKING SWEET CLOVER

Shocked in the manner indicated above, the sweet clover will be liable to mold in the center. The best shock is of three or four bundles, but it may be shocked in the amount contained in one dump of not over six bundles.

Some folks who are seeding s clover are inexperienced with it apt to be disappointed. While s clover is a hardy, vigorous plan does not thrive on an acid soil. V lime is not essential in this sec yet sweet clover will grow much ter if the ground be given an app tion of ground limestone, as denced by the growth along drains where limestone has thrown out.

In the spring of 1925, the Far Elevator at Spencer, Iowa, sold 20 tons of sweet clover seed. selling agencies brought the totaf the county to over 50 tons, or re ly about 200 lbs. to the section. ten pounds per acre, a gene seeding that indicates twenty per section, not a large an taken as a whole, and yet whe recall that ten years ago practi none was used, the increase is r Sweet clover is the most widely and most important of all leg used in this vicinity, and the has not yet been reached.

Marketing Farm Anim

Many students of live stock b ing as also producers of market mals have a copy of "Plumb's T and Breeds of Farm Animals" a their collection of books. This v an champion of live stock imp ment from the Buckeye State has tributed a new book to benefit farm animal industry, the tit which is "Marketing Farm Anim The substance of the book comes many years of teaching at Ohio University. Its primary purpo that of guidance in class room struction. Producers of live s however, will find it interesting instructive. Copies may be se from Hoard's Dairyman Book partment. The price is $3.00 post

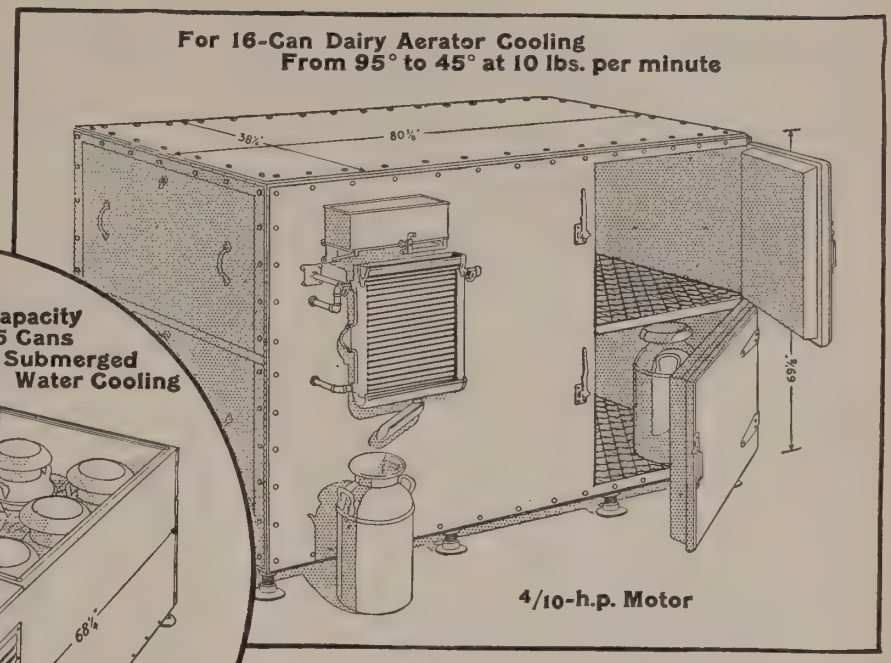


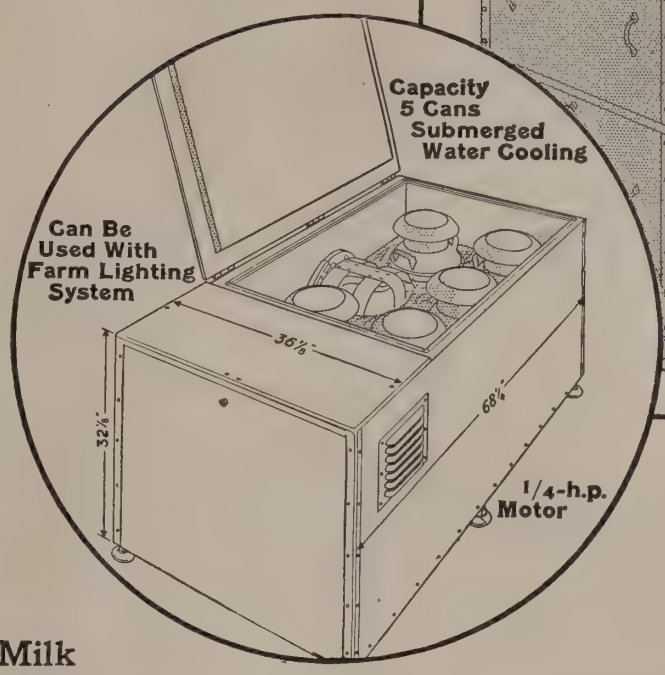
JAMES B. BALL

Mr. Ball, until recently a member of the staff of the Department of Animal Husbandry, University of Illinois, has been employed to take charge of the field work of the Illinois Holstein-Friesian Association with headquarters located in Chicago. This position was made vacant by the resignation of E. M. Clark who is now Marketing Specialist with the Holstein-Friesian Association of America Extension Service.

In the Show Ring of Dairy Equipment







he center of interest nong dairymen, today, is izer-Kelvinator Electric ilk Coolers. Not since e separator and the ilker has any equipment startling in savings, onomies and conven- nces been shown. A new ampion in the equip- nt line! A new winner nerever it is shown!

zer-Kelvinator Electric Milk olers do away with trouble- ne ice harvesting. No further ed for ice houses. No worries out iceless winters or hot sum- rs. They save you from milk ections on receiving station tforms. Save you money, rry, work and trouble.

For Any Dairy Farm Need

o sizes and types make zer-Kelvinator Coolers fit any dairy farm need. There is an aerator cooler, which may be used with or without water, for dairy productions up to 16 cans. A water submersion type cooler takes care of cooling up to 5 cans. The smaller type may be connected to a farm lighting system. Both are rugged and durable — built to stand rough handling in actual farm use.

Dairy Farm Tested

Nizer-Kelvinator Electric Milk Coolers have been thoroughly tested in actual dairy farm use. They are proved good. Backed by the reputations of the two foremost pioneers in the electric refrigeration industry.

Your Milk Dealer Handles Them

Ask your milk dealer about them, or you can obtain them from most Kelvinator Dealers. If you prefer, write direct to any Nizer branch. A fully descriptive folder will be sent you.



NIZER
Kelvinator

Clip the Coupon Now!

Consult this Expert on Milk Cooling

zer-Kelvinator offers free of charge the counsel d advice of one of the foremost dairy author- s in the country, to dairy farmers who have estions on milk cooling. Harry A. Sieck, for- rly Chief Engineer of the Dairymen's League, iry Engineer and Consultant of note, and now neral Salesmanager of Nizer and Vice-Presi- nt of Kelvinator, Inc., will be glad to help you. rely write to Harry A. Sieck, Nizer Division, ctric Refrigeration Corporation, Detroit, chigan.

REG. U. S. PATENT OFFICE

THE PRACTICAL ELECTRIC MILK COOLER

Sold to or through milk dealers by Nizer Division, Electric Refrigeration Corporation, also by most Kelvinator Dealers, and in Canada by Kelvinator of Canada, Ltd., London, Ont.

Nizer Sales and Service

14210 Plymouth Road, Detroit
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603 Spring St., Atlanta, Ga.
620 S. Delaware Ave., Philadelphia
1 West Forty-seventh St., New York
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164-166 Manassas St., Memphis, Tenn.
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701 Pacific Bldg., San Francisco
171 Sidney St., Cambridge, Mass.
208 Third Avenue, South, Seattle, Wash.

Nizer Division, Electric Refrigeration Corp., 14210 Plymouth Road, Detroit, Michigan.

Gentlemen: Please send a complete description of your Electric Milk Coolers.

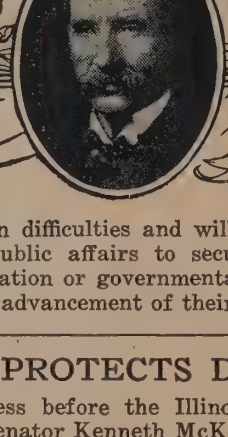
Name.....Address.....

Size of dairy herd.....Name of Milk Company

I sell to.....

There are so many entries in the Nizer Kelvinator name contest that announcement of the winners cannot be made in this issue.

EDITORIAL COMMENT



THE cry of "hard times" goes up continually. Many farmers are uttering it and laying the blame on everybody and everything but themselves. A great source of hard times is the fearful leaks on the farm. One can see everywhere wasted land, wasted fodder, wasted time in attendance upon wasted cows, the practice of wasteful methods, and worse than all, wasted manure. Lots of preaching and praying are needed on this subject of waste.

THE American Dairy Science Association which held its summer session at the Michigan State College, recommended changing the name "cow testing association" to dairy herd improvement association. We look with favor upon this proposed change as it is more dignified and more clearly defines the work of the cow testing associations. It also eliminates confusion with tuberculin testing which is not uncommon. The cow testing association is making such a substantial contribution to dairy progress that anything that will add dignity and develop it should be supported.

WOULD REPEAL OLEO LAW

A. M. Loomis, secretary of the National Dairy Union, says that the National Association of Retail Grocers has apparently been enlisted to assist in the repeal of national laws which compel oleo manufacturers and dealers to sell their product on its own merits. This association passed the following resolution:

> *"Resolved,* that the National Association of Retail Grocers is opposed to the oleomargarine taxes that are imposed upon retail dealers for the privilege of selling that article of food; and that we do hereby petition Congress to repeal such tax law as soon as possible.
>
> "Elimination of special product taxes. The taxation of special products, such as oleomargarine, soft drinks, and tobacco products, is unjustifiable discrimination and should be prevented. The more so if it is a cloak for suppression as in the case of oleomargarine."

It seems strange the National Association of Retail Grocers did not pass a resolution asking for the repeal of laws which govern the manufacture and sale of renovated and adulterated butter. These butters are taxed and for the same purpose that oleomargarine is taxed.

It is well for the dairy industry to be alert to its interests, for unless it is, laws governing the manufacture and sale of oleomargarine may be repealed. It is not necessarily justice that the National Association of Retail Grocers seek.

CO-OPERATION AND FARM ORGANIZATION

The National Grange is an organization that renders sound service to its members. It stands for high ideals in farm life and demands justice for agriculture. To accomplish these ends it holds to principles and practices which are sound. It does not engage in the discussion of issues incapable of being of genuine service to the development of farm life and a sound agriculture. Its present master, L. J. Tabor, devotes himself industriously and intelligently to the work of the National Grange and we take pleasure in quoting his views concerning the value of co-operation and farm organization:

"All admit there is a farm problem that needs correction. A great majority of thinkers will agree that the co-operative movement has helped in the past, is of value at present, and can be made of greater value in the future.

"When we pass the time when more than fifty per cent, or a substantial majority, of our farmers hold membership in *bona fide* farm organizations, with intelligent and capable leadership, we shall witness the passing of the farm problem because the men who fill the nation's bread basket can, by organization, education, and co-operation solve their own difficulties and will have sufficient influence in public affairs to secure any needed remedial legislation or governmental assistance required for the advancement of their own calling."

TARIFF PROTECTS DAIRYING

In an address before the Illinois Agricultural Association, Senator Kenneth McKellar of Tennessee said:

"Agriculture is the only great American industry which is not benefited and protected by federal legislation. All our laws unite in bringing about an adequate return on capital. Immigration and tariff laws help labor and industry. The Esch-Cummins bill provides for the railroads. But the farmer must buy in a protected and stabilized market and sell in an open market with the law of supply and demand in full force."

It occurs to us that some of these statements by Senator McKellar need modification if a true understanding of federal legislation is desired. He says: "Immigration and tariff laws help labor and industry." It should be understood that dairying, which represents one-fourth of the agricultural income of the nation, is well protected by the tariff. There is a tariff of 12 cents a pound on butter or $240 per ton. The tariff on cheese ranges from 5c to 7.5c per pound, or from $100 to $150 per ton. The dairy farmer, the past few years, has benefited to the full extent of the tariff on his products, and similar facts can be demonstrated as to other agricultural products.

It is misrepresentation of facts for Senator McKellar to say: "Agriculture is the only great American industry which is not benefited and protected by federal legislation."

MARKETING BUTTER

When the Land O' Lakes Creameries, Inc., started six years ago, only 32 per cent of their butter could be marketed under a brand. In 1926 over 70 per cent of their butter sold as Land O' Lakes. This organization has been influential in improving the quality of butter but it is difficult to say just how much more the farmers have received for it. In being able to sell their butter under a brand, opportunity has been given to advertise it which has assisted in enlarging its market. Through organization they have directed butter to markets that would pay a higher price and have prevented an oversupply in any one of the primary markets. They have improved the method of distributing and selling butter which has undoubtedly raised the price of all butter. They have had sufficient volume so that the butter they stored during the peak of production had a most wholesome influence upon stabilizing the price. All these things have been extremely valuable to the dairy industry and have without doubt influenced the price of butter upward and have made it possible for all creameries to receive a better price.

Large and efficiently operated creameries outside this organization have profited and have been able to secure better returns for their patrons because of the work of the Land O' Lakes Creameries, Inc. Because these creameries have profited it should not for one moment be considered that they are more efficient or that the Land O' Lakes Creameries, Inc., is not rendering a most useful service. It is incorrect reasoning to hold that there is greater opportunity for a creamery to remain out of an organization than it is to join it. We do not expect all co-operative creameries to join the Land O' Lakes Creameries, Inc., but we do believe it is better for co-operative creameries to join this organization than for Wisconsin or Iowa to form similar organizations and in this way create unnecessary competition. It is of tremendous advantage to the butter industry to have a large volume of butter marketed co-operatively. Grading butter, selling it under a brand, preventing gluts in any one market, the improvement of quality, the storage of surplus during the peak of production, and many other things which can be done collectively are most valuable and helpful in securing good prices for butter. To measure the value of an institution wholly by price is to overlook the fu mentals in co-operative marketing.

We look forward to the time when a suffi number of co-operative creameries have j the Land O' Lakes Creameries, Inc., so that wh shipload of butter comes in from foreign na the entire lot can be purchased. Invariably the ter market declines from 3 to 5 cents a pound a report is circulated that a shipload of butt on its way to this country. It may not enough butter to last New York City 24 hours depressing the price of butter for three or days or more often costs the dairy industry sands of dollars and the consumer receives no fit by lower prices.

Co-operative marketing conducted on the p basis will give the dairy industry an opport to stabilize prices and to market its produc best advantage.

COLLEGIATE EDUCATIO

Fathers and mothers who may perhaps be s what concerned in regard to sending their and girls to college and scarcely feel they ca ford the drain upon the family pocketbook, well reflect upon what Dr. Faunce, preside Brown University, said in a commence address:

"Our common belief that college training is ed to every boy and every girl for college is o the truly great tragedies of American life.

"Colleges do not create capacity for unders ing; they demand it. They are not designed fo purely practical-minded, nor for the youth wh sires merely to do rather than to think and o prehend.

"It is no disgrace to be of the non-college t that is, not of the type for which college i signed. Not every man is suited to be a lawy a doctor, or a machinist, or a miner. Then should we believe that every boy born unde sun, with enough money to pay his tuition, is u ed to be a college student?

"A father told me, 'My boy must be quee doesn't like college.' In this standardized age, we need are queer men. Give us more of te Men who dare to be different, who dare to r tion, who dare to get from the beaten patha blaze new trails of their own."

We believe too many boys and girls are i sent to college. This does not mean we are off too much education or that too many student preparing themselves for the many duties of We are in need of all the trained minds and h that can be secured, but being sent to college not necessarily mean that the boy or girl is usefully trained. It is a waste of time for boys and girls to be sent to college for they a not the types of minds which can be improv the courses of study now offered by colleges. Mo over, a large number are injured rather h helped by trying to give them a training for w they are not fitted.

If boys and girls were required to earn a siderable portion of their college expenses would be a smaller number attending college those not adapted to receiving the present c education would be eliminated. We are in y pathy with making it easy for all boys and i to obtain the kind of education that is to t taste and that will make them more useful zens. It is our belief that, in most instances, graduation from high school it is well to re these young people, if they desire more educ to bear some of their expenses of college. It great hardship for a student to work his w through college. When he does, his time there is not wasted and the institution that d cates him has made a good investment.

Parents who may be somewhat disturbed be they do not feel financially able to send their h dren to college or because they do not care t tend, need not worry about the situation. If children are college timber they will find a w attend and if they are not, there are many opportunities open to them.

Value of Oat Hay

What is the value of oat hay for dairy cows? Is superior to timothy? At what stage must it be t to obtain best results?
Baring, Wash. R. C. B.

According to average analyses, 100 pounds of t hay will contain the following digestible nutri-ts: 4.5 pounds of protein, 38.1 pounds of carbo-drates, and 1.7 pounds of fat; or a total of 46.4 unds digestible nutrients. This hay will be su-rior to timothy for feeding dairy cows because contains over one-third more protein. This will d particularly true where protein feeds are high price and difficult to secure. Ordinarily carbo-drate feeds, such as corn and barley, are rela-ely cheaper in price than protein feeds, such as ten and oil meal, which are necessary to supple-nt rations of corn silage and timothy hay.

Clover and alfalfa hay are superior to oat hay, mixed timothy and clover is practically the ne in feeding value as oat hay.

To obtain the best quality of hay, the oats uld be cut when in the flower or when the grain in the early milk stage. If left until a later ge, the stems and leaves become somewhat re indigestible and are less palatable. Also the tein content is somewhat less where the grain llowed to practically reach maturity. The addi-n of powdered sulphur at the rate of three to pounds per load will overcome the danger of e working in oat hay or in oat sheaves. At st a number of our readers have recently so ad-ed us.

Testing for Abortion

fter making a blood test in the herd and find-a few cows positive, we sold to the butcher all poorer cows; the rest we kept, knowing that rtion could be controlled and perhaps wore out. we took all the precautions prescribed by our t efficient veterinarian who is held in high re-e by all the good breeders of dairy cattle in country. One phase of the routine was a semi-ual blood test.

lthough we took all the precautions and per-ned them faithfully and thoroughly, the abor-continued to spread. The point I wish to bring is this: no cow was allowed in the stable at ing time or after, until she had ceased to dis-rge and had been cleaned up properly. While solation they were kept in box stalls in the e barn. These stalls were thoroughly disinfect-nd offered complete isolation. Under the cir-stances things ought to have gone right, but weeks to two months after taking blood test a case would break out.

was puzzling for some time, nevertheless I abled on the following solution, or rather sup-tion. The blood tests were made in the stan-ns at which time positive cows that were clean not likely to be spreaders stood in their usual es. In taking the blood samples, more or less d found its way in the feed troughs and each of blood carried innumerable abortion ba-Since the germ must be taken in with food rink to cause the infection, what better as-nce for spreading the disease could one want to put the blood of a positive cow in the feed gh for the negative cows to eat?

e result was that from six weeks to two hs after the test, new cases developed. The test developed three new cases, all of which l next to positive cows and on the side in which tion the feed troughs were swept out.

course you are going to tell me that we ld have disinfected the feed troughs or man-or have tested the cows somewhere else. We y enough to do that now and the reason I am ing this is so the rest who are doing this same g in testing will do otherwise.

hat I would like to know is why veterinarians have done so much conflabing about the care treatment of abortion cows haven't recognized mportance of caring for the blood from cows taking blood samples.

ewark, Del. L. M. L.

. George H. Hart of the University of Cali-a has given us the following reply to this nunication:

he owner was apparently trying to clean up tion by isolating on the same premises the ing animals that were too good to sell to the ner. In general, this has not proved to be suc-ul. We have been trying it out here on the ersity Farm herd and although we are able to y out the procedure better than could be done e average farm we, nevertheless, had two re-s the other day after 15 months of testing.

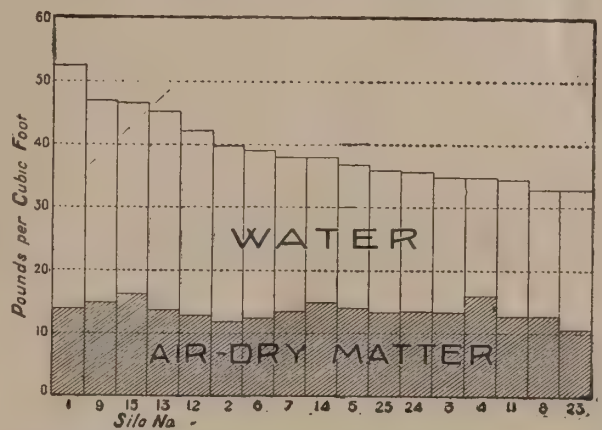
There the reactors are kept on separate prem-or are disposed of immediately, very good re-are following the use of the agglutination It must be recognized, however, that for sev-tests following the first one a few reactors will be found and in general it is necessary to have five or six tests taken one to two months apart as long as reactors are found before they will all be removed. It is not surprising, therefore, in this case that from six weeks to two months after the first case new cases were found.

"This man has made the peculiar observation that the positive cows developed on the side in which direction the feed troughs were swept out and he draws the conclusion that the blood was the carrier of the infection. The surest way to produce abortion in a pregnant cow is to inject her intravenously with abortion bacilli. In general, however, abortion bacilli do not circulate in the blood. They undoubtedly gain access to the blood stream but are soon filtered out and remain concentrated in the lymph glands, udder, or placenta tissue.

"It is possible that occasionally blood from the jugular vein might contain abortion organisms and, in general, we would advise cleaning up the mangers with disinfectant after blood samples are drawn even though this merely consists in wiping up the drops of blood with a sponge wrung out of disinfectant solution. We do not believe, however, that this is a source of infection to be reckoned with."

Estimating Weight of Silage from Tables

In the July 10 issue of Hoard's Dairyman, Mr. Greene gives the results of weighing the contents of ten silos and compares the figures with the estimates as made from tables designed for estimating the capacity of silos. The general result was that the silage weighed about 25 per cent less than the amount as estimated from tables which have been used more or less for this purpose. The editor has asked me, as the senior author of the publication in which the tables are found, for my comments on the subject.



GRAPHICAL REPRESENTATION OF THE RELATION OF THE WEIGHT OF SILAGE PER CUBIC FOOT TO THE WEIGHT OF AIR-DRY MATTER CONTAINED

First of all the authors are the last to claim any great accuracy where the table in question is applied to a particular silo. In the original publication occurs the following statement: "Under any conditions estimating the weight of silage from the volume is so uncertain that when silage is sold it is best when possible to depend upon weighing it as removed from the silo rather than upon any estimation made according to volume." Although the authors in taking the weights of the contents of 32 silos, extending over five years, found no such variations in weight as reported by Mr. Greene in the 10 silos, the contents of which he weighed, we understood fully the impossibility of preparing any figures that can be relied upon in more than a general way. The present writer receives many inquiries regarding estimations of silage weight from the volume. The answer always advises weighing the silage if possible, using the tables only in case one is willing to run the risk of some chance of error.

What is Behind the Tables

We owe a large part of our knowledge regarding silos and silage to Professor King whose remarkable work at the Wisconsin Experiment Station began about 1890. Professor King reported silage to have an average weight of 42 pounds per cubic foot. Tables were published in 1891 and 1893 for use in estimating the capacity of silos. At that time corn was put into the silo in a greener condition than now and as a result his figures were later found considerably higher than the actual, especially when applied to the total volume of the silo as was often done by silo manufacturers some years back. For instance, a silo 16x36 was rated by some at 154 tons. As a matter of fact, a 36-foot silo generally contains not more than 28 feet of settled silage and usually not over 110 tons of silage.

Noting the tendency of the King figures to overrate the capacity of silos, the authors in 1914 began taking records of the weights of silage. A plan was devised for taking the weights foot by foot from the top to the bottom of the silo. Such data was taken on 25 silos, many of them throughout the depth, others only at intervals. In addition, data were taken from five filled with sorghum and three with kafir corn. Five seasons were included in getting the figures used. The material is published in full in Bulletin 164, Missouri Experiment Station, and Bulletin 222, Kansas Experiment Station. One of these publications should be consulted by anyone interested in the many details of the investigations. The table in question is designed to apply only to silage thoroughly settled and does not include loose material on top of the silage,—only the actual silage after the spoiled on the surface is removed.

Variations in the Weight Found

In the 25 silos studied the variations in weight per cubic foot were from 32.7 pounds in a silo containing 15 feet of silage to 52.2 in a certain depth silo filled with rather green corn. The average weight per cubic foot was 39. Fifteen of the 25 were within a range of five per cent either way from the average. It was found, as might be expected, that the moisture content and the proportion of grain were the chief factors determining the weight although the diameter of the silo has some effect. In a smaller size the greater wall surface in proportion to the contents probably tends to lower the weight as a result of more friction from the wall during settling.

Mr. Greene's Results

The figures given for the ten silos show a range in weight of silage from 20.9 pounds per cubic foot to 43.8—over 100 per cent. The weights per cubic foot for the same silos as estimated from the tables show in one case 6.2 pounds less than that calculated from the actual weight and on the other extreme 20 pounds more, or actually double the weighed amount. These results do not give much encouragement to the use of tables for estimating silage. The writer would like to know just how these measurements were actually made—in relation to the time of filling, if the loose and more or less rotten layer on top was first removed, and if the inside diameter of the silo was actually measured. Some silos on the market fall short of the specifications regarding diameter.

It is interesting to note that in eight cases out of ten the table as used gave figures too high. We have also received statements from others that the figures underestimated rather than overestimated the amount of silage.

Some additional investigations might be of value as suggested by the editor, but if Mr. Greene's figures are accurate and some silage weighs more than twice as much per cubic foot as others, it would appear a hopeless job. It seems to the writer the important thing to do is for papers publishing the table to make clear the fact that the only reliable way to know how much silage is in a silo is to weigh it and that as stated by the authors in the original bulletin the tables are to be used primarily to estimate the capacity of silos when selecting one for use. In case silage is sold on the weight basis the only accurate way is to actually weigh it. If the tables are used to estimate the amount, it should be understood the parties concerned are willing to run the risk of considerable error.

Feeding Value of Silage Varies Less Than the Weight

After all, the errors made in estimating the weight of silage by the use of tables are not so serious as at first appears, for the reason that the feeding value depends upon the dry matter of the silage. The dry matter is subject to much less variation than is the total weight. The chart shows the relative amount of water and dry matter in the silage from each of the 25 silos used by the authors. Note the dry matter was almost constant. In silo 1 weighing 52.2 pounds per cubic foot there were 13.9 pounds dry matter per cubic foot, while silo 8 which averages 32.8 pounds per cubic foot of silage had 12.7 pounds dry matter per cubic foot. In other words, the feeding value of silage bears a much closer relation to volume than to weight. In fact, the chart suggests that no serious injustice would have resulted had the silage in all the 25 silos been considered of the same value per cubic foot regardless of weight.

University of Minnesota. C. H. ECKLES.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Sept. 18-24—Eastern States Exposition, Springfield, Mass.

Sept. 26-Oct. 2—Dairy Cattle Congress, Waterloo, Iowa.

Oct. 15-Oct. 22—National Dairy Exposition, Memphis, Tenn.

Oct. 24-Oct. 29—Dairy Industries Exposition, Cleveland, Ohio.

Oct. 25-Nov. 5—Pacific International Live Stock Exposition, Portland, Ore.

Oct. 29-Nov. 5—Western Dairy Products Show, Portland, Ore.

Nov. 14-19—Pacific Slope Dairy Show, Oakland, Calif.

Nov. 29-30—National Creamery Buttermakers' Association, Nicollet Hotel, Minneapolis, Minn.



MILTON WHITNEY A. G. McCALL

Dr. A. G. McCall of the University of Maryland has been selected to head the Bureau of Soils in the U. S. Department of Agriculture, and takes the place of Professor Milton Whitney who has headed this work since its organization, but is now obliged, on account of ill health, to relinquish exacting administrative duties. Professor Whitney will devote himself to writing up results of important investigations on which he has been engaged for many years. Dr. McCall was a member of the U. S. Department of Agriculture from 1901 to 1904, then joined the staff of Ohio State University and served as head of the agronomy department until 1916 when he became head of the Department of Soils and Geology in the University of Maryland. Soil survey work in that state was started by Professor Whitney and completed under Dr. McCall.

Does It Pay to Feed, Weed, and Breed?

HOARD'S DAIRYMAN:—We think it does, and possibly the history of our herd may go to prove our ideas along that line to be substantially correct.

After over 40 years in business life, at over 60 years of age, the writer found himself out of business and with limited cash resources. Having always been prejudiced in favor of the farming game, he bought a hilly and sightly farm in the woods, at least three times as large as he would have bought in such a locality had he known what he was up against. The farm was minus buildings of any value and but little of it was under cultivation but it had some peat meadows yielding some fairly good slough hay. On sizing up the proposition he would have been glad to get out from under, but found it absolutely impossible to sell so decided to develop it and hired several acres cut off so as to have stump pasture. Then he took the winter short course at the state agricultural school and following that spent seven months on a cow testing job to get a line on dairying.

Realizing that he could not do the work necessary to develop such a proposition himself, he formed a fifty-fifty lease with tenants on the place who were used to woods farming and knew how to do the work necessary for development. The place now has about 50 acres under plow, 80 acres of stump pasture, 30 acres of peat meadow and pasture, and the balance woodland, a modern barn with steel stanchions, water cups, and a silo and usual outbuildings.

Five years ago last fall we bought 12 cows, 5 of the red variety already on the place and 7 grades of Holstein, Guernsey, and Jersey breeds. Later we bought at farmers' auctions. The first winter we had only the slough hay and some mill feed for them and insufficient summer pasture. We delivered about 1,200 lbs. of butterfat at the creamery during the first year, while last year with 18 cows we delivered around 4,700 lbs. We bought a young pure-bred Holstein bull when we bought our cows and now our cows are all Holstein grades but one. We joined a cow testing association three years ago and from our records have been able to weed and feed intelligently, using alfalfa and slough hay, corn silage, oats, barley, and linseed meal in moderate amounts. What our best cows would produce if pushed and pampered, we have no idea. Last year we had an average herd of 18.4 cows, six of them first calf heifers, one that milked only four months due to injury, one that did not breed and became a stripper, and one young heifer milked only eight months. In spite of handicaps named, which covered about half of the herd, the herd average per cow was as follows:

7,573 lbs. of milk
292 lbs. butterfat
$55.37 cost of feed
$142.79 value of product
$87.42 profit above feed cost
$2.58 return for $1.00 feed
19c feed cost per pound of butterfat
73c feed cost per 100 lbs. milk

Leaving out the six heifers and two cripples, eleven cows with second calves and over as to age averaged 323 lbs. fat and returned $103 above cost of feed.

This year we have 19 cows, of which number 13 were bred and raised on our farm. Seventeen freshened between October and April, and our March cream sales brought in over $300. We have only 3 of the original 12 in our present herd and 3 that we bought at auction in latter years of our partnership.

Our farming operations are of the cow, sow, and hen order. We feed the grain and roughage produced, except some gopher oats that are sold for seed. Our receipts last year for farm products were $3,216.25; operating expenses $784.95, $393 of which was for feed.

The proposition has furnished the writer five years of pleasant occupation even if not on the order of Wall Street profits.

Minnesota. O.

Good Dairy Butter

HOARD'S DAIRYMAN:—There is no question but that the best of butter can be made on the farm if proper methods of manufacture are employed. The dairyman has the distinct advantage of obtaining the milk in its best condition, and that is as it comes from the cow. The milk is practically sterile as it leaves the udder and if it is drawn in a clean manner into utensils that have been thoroughly washed and scalded after each usage, very little increase in numbers of bacteria will result. If the milk is then removed immediately from the stable before absorbing the barn odors and run through a separator that has been properly cleaned, the very best of cream will be obtained.

The practice of merely rinsing the separator at night and waiting u the morning's milking is separa before properly washing the mach should be condemned. The bacte increase rapidly in the milk and sli left in the bowl over night, and first cream that comes through in morning will be teeming with th organisms and thus the whole lot cream will be contaminated. If one has doubts about the poor qu ty of the cream that comes from unclean separator, let him take a w of the first cream as it comes f the spout and he will be convince

As soon as the milk is skimm the cream should be cooled to 50 grees F. or below, and not allo to rise above this temperature u ready to be used. Each new lot cream should be cooled before add it to the previous lots, so as not raise the temperature of the mixtu Cold water should be the cool agent, and not the cellar. Water cool milk or cream twenty-one ti as fast as air of the same tempe ture. In addition the cellar will quently impart objectionable od to the cream. It is not advisable hold the cream longer than th days before churning it, otherwise old cream flavor will develop.

The best method of ripening cream is by the use of a "start which is a pure culture of lactic bacteria. By its use the riper process can be controlled very re ly. However, for the small dair might not be practical to underta the making of a starter, in wh case the cream must be soured urally. Good results will be obtai in this way provided the cream i good quality and if it is held at proper ripening temperature of f 65 degrees to 75 degrees F. At temperature the lactic acid organi grow best and hold the undesir ones in check. The cream should held constantly at the ripening t perature until it is mildly sour, t cooled to the churning temperat and held at least for two hours be churning in order that the slo cooling fat globules will attain same temperature as the serum.

For hand churns the best churn temperature will be about 60 deg F. This may have to be varied so what, as it should be such that butter will come in 35 to 45 minu The butter will then be in a firm dition and it can readily be separa from the buttermilk. As much of buttermilk as possible should drained off and then the bu washed in two washings of wate remove all traces of buttermilk. butter is then removed from churn for salting and working. F one-half to three-fourths ounce salt per pound of butter is sufficie Too often dairy butter is critic for its high salt content, which not be the case if the above rat salting is followed. The worki should be sufficient to distribute salt and moisture evenly, so that butter will not be gritty or mott but will have a waxy body an bright appearance.

If these suggestions are follo the butter should be of high qu and score up with the best.

Vermont. J. A. NEWLANDE

Hay Standards

The U. S. Department of Agri ture has just issued a "Handboo Official Hay Standards," which tains a description of the fed standards for various kinds of and information as to how inspect and grading is done. A copy of handbook may be secured by writ the Hay, Feed, and Seed Divisi Bureau of Agricultural Econom U. S. Department of Agricultu Washington, D. C.

Washington Guernsey Field Day

HOARD'S DAIRYMAN:—This summer ie Snohomish County Guernsey lub acted as host to the Washington uernsey Cattle Club at the Valley em Farms, Washington. A com- ittee stopped each car as it arrived id tagged the occupants with a cket bearing the words, "Let's Get cquainted and Have a Bully Good me. I am ————. Who are u?" A picture of a "Bull Ram- nt" and with tail "Y'd" forming e "Bully." A checkup revealed 500 ests tagged, many coming from stant parts of the state, and in- ding one car from Montana and e from North Dakota.

The program started with a judg- demonstration by Professor E. V. lington of Washington State Col- ge. The second part of the pro- am was a demonstration of the lue of cow test association work County Agent Arnold Z. Smith. ree cows had been selected from Valley Gem herd, and guests were en a blank form and asked to ess their production. Their actual oduction was: No. 1, 390 lbs. fat; . 2, 620 lbs.; No. 3, 601 lbs. The sest guesser was Norman Lenfest o put their production at 430 lbs. lbs., and 520 lbs., his errors total- 151 lbs. fat. The second best sser was M. Stackland with an or total of 180 lbs. Prizes were 3-, and 1-year subscriptions to ard's Dairyman. The interest- thing about Hill's guess is that er he had estimated the produc- of the three cows he changed numbers on his score card to 3, and 1 without changing the ounts of fat. It all goes to show t even an expert cannot guess any- re near the probable production a cow. It requires the scales and Babcock test.

fter lunch twenty choice animals n the Valley Gem herd were tied a rack in full view of the crowd from there were led one at a into the "sale ring" where Geo. Gue, the veteran auctioneer, auc- ed them off in a mock sale to the est bidders. The sale was con- ed in regular "national" style. h bidder had been provided with dder's card on which he was re- ed to put down his final bid (or ation) on each animal brought Later these bids were compared the appraised value of each ani- —the appraisal having been made iously by a group of experienced ders and stockmen. There were who tied for first place as hav- made the least error from the aised valuations.

ne object of the mock auction was to educate breeders in the true value of good Guernsey cattle. It is true that many people bid wildly, since no money was involved, yet many others showed a keen knowledge of Guernseys and a real ability to buy right.

Washington. J. E. WRAGE.



BREEDING UP

Four generations at Valley Gem Farms where the Washington Guernsey Field Day as held. The great grandam at left has 496 lbs. fat in Class A, grandam with 412 lbs. t in Class CC, dam with over 500 lbs. fat in Class CCC, and the young daughter.

Great Servants of Agriculture

These 4-Cylinder Tractors

McCormick-Deering 15-30 10-20 Farmall

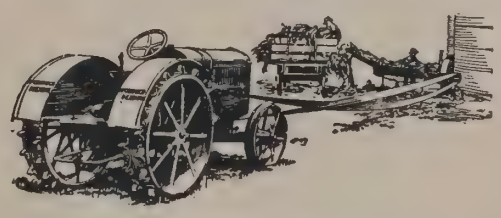


McCormick-Deering 15-30. *Three-plow power and capacity. Showing also the McCormick-Deering Corn Picker which goes into the standing corn and does the work of six hand huskers*

THE years of experience of the Harvester Company in the building of power farming equipment has produced the finely developed McCormick-Deering Tractors shown in these three views. One is a 3-plow tractor *with power to spare.* The others are 2-plow tractors, *also with a liberal surplus of power.*

Where any member of this trio of tractors is on the job, power farming is at its best, easiest and most profitable level. So popular have the 15-30 and 10-20 been for several years that you can now find them plugging away any day in any farming community in the land. The FARMALL is younger, but already old in service on thousands of corn and cotton farms. It meets the demand for a *true general-purpose tractor* that will replace animal power *for plowing, disking, planting, cultivating, mowing, raking, and all other farm power work.*

Put a 15-30, a 10-20 or a *Farmall* at work—or use the special features of the new *Farmall* in combination with the 15-30 or 10-20 tractor—and settle your farm power problem for years to come. Hundreds of farms are being handled much more efficiently by the use of *two* tractors. Write for a catalog, and see the tractors themselves at the McCormick-Deering dealer's.



Above: **McCormick-Deering 10-20.** *Liberal Power for Belt, Drawbar and Power Take-Off*



At right: **McCormick-Deering Farmall** *It plows, plants, cultivates, mows and rakes—it "does it all."*

INTERNATIONAL HARVESTER COMPANY OF AMERICA (*Incorporated*)

606 So. Michigan Ave. Chicago, Ill.

Plan to Stop Butter Thieves

HOARD'S DAIRYMAN:—Your article on the editorial page in regard to the butter thieves stealing butter from our creamery was very good. You were right when you stated that through organization and burglar alarms it can be minimized.

Wish to state that at the annual meeting of the Wisconsin Creameries' Association held at Chippewa Falls I brought up this matter of organization against butter thieves. The plan I had in mind was to get the association to put into action a state organization, getting as many creameries and cheese factories to join that they could charge a fee of about $10. Then have bulletins printed showing the members and the reward offered for each man arrested and convicted of stealing butter or cheese; the bulletin to be posted at the factory and bulletins sent to detective agencies.

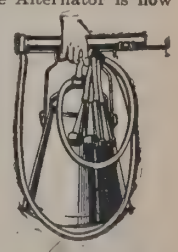
Much time is spent in planning how more money may be obtained for their product, but not much time is spent guarding what they already have. R. W. HEDEMAN, Sec.-Treas.

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"FISK SAYS IT WITH MILEAGE"





COW TESTING ASSOCIATIONS

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Average Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
N. D.	Burleigh Co.*	July	419	743	27.1	H.	10	1116	38.5	W. J. Weiss
"	Gr. Grand Forks	"	466	654	25.6	G. H.	12	1002	36.5	Mrs. M. B. Groth
Tenn.	Hamilton Co.	"	644	547	24.3	J.-H.	28	745	33.5	Farm Fields Dy.
La.	Shreveport	"	803	536	23.3	R. J.	23	635	30.9	E. T. Fisher
Nebr.	Lancaster	"	477	683	25.8	H.	17	920	36.4	L. F. J. Egger
Utah	Wells.-College Ward*	"	533	824	29.8	G. H.	9	1090	42.6	E. Bankhead
Ida.	Gooding-Jerome	"	358	636	27.7	H.	5	1186	50.5	G. Epperson
Wash.	Cowlitz Co.	"	548	710	29.2	J.	5	820	45.8	C. S. Houpt
"	King Co.	"	679	762	28.8	J.	17	818	39.6	E. W. Trezise
Ind.	Randolph*	"	251	656	31.9	R. J.	8	918	47.0	G. Abel
"	Spencer-Perry Co.*	"	294	588	26.8	J.	9	801	42.5	F. Winters
Ill.	Ogle Co.*	"	389	669	23.8	H.	13	1138	39.6	R. Pyse
Ohio	Licking Co.	"	290	652	27.2	G. J.	8	799	41.8	H. Voohrees
"	Ashtabula Co.	"	328	724	37.8	R. H.	17	913	33.6	G. A. Faerber
Colo.	Johnstown	"		761	29.0		15	882	41.3	T. A. Reiser
"	Mesa Co.	"	373	705	27.0	R. H.	26	1244	41.9	F. Clymer
Conn.	Middlesex	"	500			M.	21	793	34.4	R. H. Wilcox
W. Va.	Tri-County*	"	235	964	37.9	H.-G.	48	1015	40.2	E. E. Woodrum
Ore.	Tillamook	"	1671	969	41.5	G. J.	15	1247	56.6	W. Hare
"	Cen. Oregon	"	521	585	27.1	J.	10	667	46.2	R. L. Brewster
Mo.	Jackson Co. 1	June	299	621	24.6	H.	15	996	37.4	S. L. Dewitt
"	Jackson Co. 2	"	958	753	27.8	H.	68	1027	37.8	E. C. Adams
Va.	Prince William	July	725	499	18.0					
"	Loudoun 3	"	702	590	26.1	H.-G.	19	747	34.1	M. A. Aukers
"	Loudoun 2	"	589	547	23.9	H.-G.	24	905	34.6	H. C. Rogers
"	Aug.-Rockbridge	"	400	565	25.8	G.	16	671	35.1	I. C. Flory
Kans.	Harvey	"	138	717	26.6	G. H.	15	908	33.9	H. Tangeman
"	Reno	"	330	627	24.3	R. H.	11	1320	43.0	R. L. Evans
Minn.	Barnum*	"	357	709	31.8	G. G.	9	1107	44.1	T. Hetherington
"	Watonwan Co.*	"	411	577	23.4	J.-G.	18	838	34.0	Cramley & Barrickman
"	Frudhem*	"	349	685	25.7	G. H.	11	892	37.3	R. Kuhl
"	Clarissa	"	330	735	27.9	R. H.	8	1096	40.4	I. Hanson & Son
"	So. Houston	"	322	607	24.5	G. G.	14	817	39.1	O. A. Myhre
"	Becker Co. 1	"	307	697	30.1	R. G.	13	743	40.0	J. T. Shannon
"	Renville Co.	"	337	617	22.7	G.	8	760	35.7	A. Lund
"	Erk.-MacIntosh	"	372	642	24.7	J.-G.	13	638	34.4	F. A. Uggen
Penn.	Allegheny Co.	"	321	676	27.0	G.	6	959	40.9	J. F. Byers
Mich.	Kalamazoo 2*	"	341	558	23.9	J.	15	619	32.6	R. W. Kirkland & Son
"	Lans.-Ingham*	"	257	699	27.4	R. H.	16	1000	35.7	F. E. Fagle
"	Alcoma 1*	"	259	814	29.9	M.	11	1184	41.1	L. Effrick
"	Ogemaw Co.*	"	274	676	26.8	M.	5	864	37.1	H. Zettle
"	Alpena-Leer	"	268	635	26.2	H.	4	1507	46.7	G. Manning
"	Ionia-Belding*	"	379	737	28.2	R. J.	8	783	45.2	F. Shindorf
"	Hillsdale 2*	"	257	626	27.3	J.-H.	5	805	39.7	H. Dimmen
"	E. Oceana*	"	267	502	24.4	R. J.	10	675	37.4	S. Robert
"	Barry Co. 1*	"	220	676	25.9	N.	14	985	37.4	G. Marshall
"	Chippewa*	"	314	932	32.7	G. G.	10	981	40.1	H. Mayer
"	Cheboygan*	"	223	682	30.3	G. H.	5	1235	46.3	A. J. Carlson
"	S. Newaygo	"		712	29.6	R. H.	5	1217	41.3	Hansen Bros.
"	S. Kent*	"	243	576	24.3	J.	10	750	40.0	C. Kenyon
"	Wash.-Saline*	"	254	665	24.1	M.	10	982	35.0	F. McCalla
"	Genesee 2*	"	220	700	25.2	G. J.	4	1048	42.1	J. B. Bristol
"	Ott.-Coopersville	"	302	653	26.4	R. J.	19	699	37.0	F. J. Mohns
"	Otis.-Genesee*	"	258	747	31.8	G.	8	985	45.2	R. Maxfield
"	W. Oceana*	"	228	620	29.8	J.	6	674	39.6	H. Swanson
"	Ott.-Allendale*	"	261	581	22.6	R. J.	10	724	42.6	J. Antonides
"	Leelanau Co.*	"	199	650	29.0	G. G.	8	1026	44.5	S. R. Weiss
"	So. Berrien	"	297	728	29.0	M.	6	1076	40.9	A. Young
"	N. Berrien*	"	263	715	29.5	G. H.	7	1132	45.5	C. E. Benson
"	Macomb 2*	"	249	875	30.5	H.	11	1328	45.1	C. Themm & Sons
"	Miss.-McBain*	"	220	685	26.8	M.	6	909	38.1	R. L. Burket
Wis.	Denmark*	"	455	991	34.8	R. H.	19	1241	45.8	L. J. Larson
"	Union-Waupaca*	"	346	725	26.6	H.	10	1152	38.4	L. P. Much
"	Thiens.-Lakefield*	"	403	633	25.9	G. G.	13	656	36.9	F. Burhap
"	Genesee-Eagle	"	519	566	22.7	G. H.	17	1077	40.4	L. Andofer
"	Glenwood	"	535		28.7	J.	19	756	41.9	C. E. Bible
"	Oak.-Tom.-War.*	"	510	604	25.7	M.	13	953	38.8	E. E. Bolter
"	Spring Valley*	"	400	737	28.2	G. H.	12	1153	36.9	A. Georg
"	Westby*	"	406	353	15.9	G. J.	24	681	35.9	Sangstad Bros.
"	Algoma*	"	469	826	33.2	H.	22	1363	46.4	Kewanee Co. Farm
"	Cleghorn-Eleva	"	437	664	28.1	H.	19	966	38.3	S. Soverson
"	Fond du Lac-G. Lake	"	434	590	23.4	H.	10	1402	43.3	A. Hammen
"	Dodgeville*	"	548	667	22.1	J.	21	652	34.8	A. H. Dowling
"	Poynette-Col. Co.*	"	436	584	21.4	G. H.	10	763	29.3	W. Hill
Mass.	Essex Co.	"	647	663	24.4	R. A.	36	851	32.3	Sha Stock Farm

* Retest rules followed.

Cream Thief Caught

HOARD'S DAIRYMAN:—There are more faulty separators than is often supposed. As tester for the Chippewa Association of Michigan I have found a number of separators losing heavily.

One member stopped a loss of $96 per year by replacing an old separator with a new one; another saved $59 per year by replacing old separator. Another member spent 15c for repairs and stopped a loss of $60 per year. Another member repaired his old separator and saved an annual loss of $116.50.

The four separators had an average loss of $82.88, and it would take the profit from a cow producing about 350 lbs. fat to replace this loss. Why not stop this loss and keep one cow less? ROLLIN C. LONEGROVE, Tester.

Unique Hay Wagon

HOARD'S DAIRYMAN:—Where only a boy or girl for driving team and a man for loading hay from a hay loader are available, the following may be of interest:

A farmer at Poynette, Wisconsin, has devised on a regular flat hay rack another one only half the length. This has four small wheels underneath which run on a track of strap iron on the full length of the main rack. The bottom of the movable rack is only about 8 inches above the main one.

To load hay the loader is attached to wagon and this movable rack with a front ladder attached just like the main one is run to the back end of the rack or wagon, this end or half of the wagon is loaded first as high as possible, one man being on it to do this. He does not have to drag the hay from one end of the wagon to the other, and it is the walking up and down on a load of hay that is harder than the building.

When this back end is loaded it is a simple matter to pull it to the front end of wagon. For this purpose a ratchet wheel and shaft with cable was taken off of an old manure spreader that had to be wound back after every unloading, and was attached on front of the main fra rack. The handle for winding is right hand side for general conve ence. When hauled ahead, the ba end is again ready for loading and lot of energy is saved. The load c be unloaded in the regular way.

This is a good plan in this secti where farmers are prejudiced agai slings, for the regular harpoon sho work well on this kind of a load.

W. ERIC CONSTABLE, Tester

Making Comparisons

HOARD'S DAIRYMAN:—There at least two outstanding points wh are going to help make my new y more interesting and it can and v help many others.

The first item is to list the cows each herd in the Herd Book in or of merit according to the best of owner's judgment. This turns very disastrous to him sometir when he discovers number one ou to be down the row several notch and again it makes him feel g when he guessed right and apparen hit the nail square on the head.

The second item of importance i comparison of monthly records of year previous. This tells many ta One herd in the Leelanau Associat of Michigan that averaged 402 pou of fat for the year, started last y with an average of 36 pounds for first month. For the correspond month of this year it averaged pounds, or an increase of 4 pour Maybe your member doesn't notice Call his attention to the fact for s an item cannot help but create in est. Every association has such amples and nine out of ten (if more) are left up to the tester to f Let's do it.

W. G. KIRKPATRICK, Teste

Better Profits

HOARD'S DAIRYMAN:—What be accomplished through testing revealed in comparisons of the ords of the Lancaster—Seward A cation of Nebraska in 1925 and 1 These figures are based on practic the same herds both years. In 1 milk was worth an average of $2.(cwt. on the farm and $2.07 in 1 Feed prices averaged 1% highe 1926.

In 1925 there were 411 cows had an average feed cost of $83, a return of $76 over cost of feed. 1926 there were 426 cows that hac average feed cost of $75, and a ret of $96 over cost of feed. The pr was $20 greater per cow due t lowered feed cost of $7 and to lar production. For the entire asso tion this was an increased profit over eight thousand dollars.

Herd No. 1 in 1925 had an aver



IOWA TESTERS MEET

Iowa cow testers met in group conferences during the month of April. Conferences were held at Algona, Mason City, Waterloo, West Union, Cedar Rapids, Elkader, and Des Moines. The conferences opened at 1:00 p. m. and closed at 11:00 a. m. the following day.

Methods of giving greater service to members, publicity, a pure-bred sire project, the planning of cow testing association picnics, tours, meetings, and other topics were discussed by the testers.

This is the third series of conferences held for testers in Iowa. Two series of conferences are planned for each year, one series to be held in the spring, and one series to be held in the fall.—EARL N. SHULTZ.

roduction of 338 pounds fat, with a rofit over feed of $92. In 1926 this erd had an average production of 451 ounds fat and, although the feed ost increased $14, the profit over eed was $133. For the herd of 25 ows this meant an increased profit of ver one thousand dollars.

Herd No. 2 had an average production of 249 pounds fat in 1925, with profit over feed of $79. In 1926 this erd had an average of 311 pounds t and a profit over feed of $109, spite an increase of $24 in cost of ed. For the entire herd of 20 this eant an increased profit of over 00. GEORGE PFEIFFER, Tester.

ummer Trouble in Testing

The Wisconsin Monthly Cow Testg News Letter offers the following ggestions concerning summer testg:

1. Be certain to have the acid and lk at 60 to 65° before mixing.
2. Hard water causes foam on the per meniscus of the fat column.
3. A dark-colored fat column conning dark particles near the lower niscus may be caused by one or re of the following:

A. The acid was too strong.
B. Too much acid was used.
C. The acid was too warm when ied to the milk.
D. The milk was too warm when acid was added.
E. The acid was dropped directly o the milk.
F. The mixing was interrupted be- e the solution was complete.
G. The acid and the milk stood too g before being mixed.
L. A light colored fat column conning white curdy material or sedint near the lower meniscus may be sed by one or more of the follow-:

1. The acid was too weak.
3. Too little acid was used.
5. The acid was too cold when add- to the milk.
6. The milk was too cold when the l was added.
7. The mixing was not continued g enough to dissolve all the serum ds.

. How to dilute strong acid: Go loors with about ¼ (one-fourth of cold water and add to this ugh cold acid to fill the cup. Do the night before using, and add cup of diluted acid to the gallon of acid. Be sure the acid is cold re using.

Increases Average Production

he Cedarburg—Grafton Associa- of Wisconsin increased its aver- production in four years from 290 38 pounds fat per cow. This in- se in production is ascribed by tester, Gust Wild, to better feed- weeding, and breeding. There a total of 148 cows sold as un- table, or 11 per cent of those in association. There were 103 -bred bulls and 82 cows sold, 20 bulls and 31 cows purchased nembers. Fourteen members are g bulls sired by Sir Bess, a son of five of these being out of cows C. T. A. records of over 500 ds fat.

rom observations taken from time to time on my rounds," says Mr. Wild, "I am personally satisfied that there is not a herd in the association that will not produce an average of over 300 lbs. of butterfat if properly taken care of. There is no herd in the association that does not produce good in the winter months. The trouble comes in the summer when the pasture is short and the heat and flies come. Under these conditions the cows go down in milk production. In fact, I have seen herds drop over 4000 lbs. in milk in one month, which could have been largely avoided with a little extra feed. We know that this is the busy time of the farmers, yet it will pay them for the extra work and feed necessary to feed the herd to prevent most of this slump in milk production in the summer."

Monthly State Summary Table

e	Month	No. of ass'ns. Operating	No. of ass'ns. Reporting	No. of cows*	Ave. fat per cow* All cows	Ave. fat per cow* High ass'n.	Ave. fat per cow* High herd	High cow fat	No. of separators Tested	No. of separators Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
ran	June	110	75	19,197	30.2	34.6	†54.4	†105.5			162
s	"	5	5	2,524	30.3	31.9	53.9	83.3			
ria	"	19	18	8,600	27.1	†35.0	45.3	†93.0	17		95
	"	9	9	3,061	28.9	30.8	47.1		143	22	11
kota	July	8	7	2,315	23.7	27.3	38.5	†71.9	120	16	13
	"	86	80			31.4	45.0				348

ludes dry cows. †Retest rules followed.

Saves Sixty Dollars

One separator left 1.1 per cent fat in the skimmilk last month and this member had a Jersey herd with over 11,000 lbs. milk for the month. This loss of 121 lbs. of butterfat at 50c per pound is worth $60.50. This man came into the association last month just to fill out the association and I think that we saved him enough in one month to join the association for almost two years. I have never seen a separator like this before.—W. C. HENDERSON, Tester, Menomonie C. T. A., Wisconsin.

NASH

Leads the World in Motor Car Value

3 New Series · New Lower Prices

21 Models—All Sizes

$865 f. o. b. factory upwards

Come drive

the smoothest, quietest cars you ever rode in --

An even more sensational 7-Bearing motor

The Nash Motors Company extends to everybody interested in unusual motor car performance a special invitation to *DRIVE* one of the New Nash models.

You will get a thrill out of the *SPEED* and *POWER* and *SMOOTHNESS* of this newly refined Nash 7-bearing motor that cannot be imagined but must be experienced.

In every phase of performance it is a sensational motor.

The clutch, flywheel and crankshaft are balanced as a single unit to banish vibration.

You could pay the highest price asked for any car and not get a motor with the perfection of smoothness and quietness in combination with such rare roadability as Nash now offers you in every new Nash model at new *LOWER* prices.

And all 21 of the new Nash models are now cradled on new springs built of a secret new steel alloy.

This new material gives Nash springs a smoothness and ease of action found in no other car, *regardless of price.*

These new Nash springs are individually designed and balanced scientifically to the weight and size of each Nash model—*actually* 9 *different rear spring types in all.*

You simply must see them—and *DRIVE* one—to realize the extraordinary performance, beauty, quality and value that Nash is giving you at these new *LOWER* prices.

(6379)



10 Day Test

More MONEY for YOUR MILK

Write today for descriptive literature and particulars of how Dr. Clark's PURITY Milk Strainers help you get Grade "A" test and more money for your milk.

It is the only Strainer made that's guaranteed to strain 100% clean. Our 10 Day Trial Test enables you to prove it at our risk—your money back if it fails to remove ALL the dirt. Thousands in use — two sizes 10 qt. and 18 qt. Sold by dealers everywhere. (6)

PURITY STAMPING COMPANY
Dept. Q5 Battle Creek, Michigan

DR. CLARK'S Purity MILK STRAINER

When buying mention Hoard's Dairyman to your merchant or dealer—it helps us!



There's no economy in "cheap" tires

FIGURE it for yourself—in a tire that costs $13.95 you get a good deal more for your money than you do when you buy one that costs $8.95 and gives only half as much mileage.

As for expecting to get the same mileage from the $8.95 tire that you would from the better one, it is the sad experience of most of us that in this world you seldom get any more than you pay for.

Whether you buy Kelly-Springfield tires or not, buy *good* tires—it pays. And if you want to be *sure* of getting good tires, buy Kellys.

They don't cost any more than a lot of other tires.

"Kelly dealers everywhere—
there must be one in your town"

KELLY-SPRINGFIELD TIRE CO.
GENERAL MOTORS BLDG., NEW YORK, N. Y.

KELLY SPRINGFIELD BALLOON TIRES

21st ANNUAL

NATIONAL DAIRY EXPOSITION

MEMPHIS, TENNESSEE
October 15 to 22, 1927

In combination with the
TRI-STATE FAIR

World's finest dairy cattle.
Great exhibit of equipment for dairy farms and plants.
Butter and cheese from all leading dairy states.
Unusually fine educational displays.
National 4-H Club dairy contests and demonstrations.

"The Trail of the Dairy Cow Now Leads Through Dixie". Come and see!

Reduced Railroad Rates From Everywhere

New U. S. Champion Cow



DAISY AAGGIE ORMSBY 3D

THE largest butterfat record ever made in one year by a cow in this country has just been completed by Daisy Aaggie Ormsby 3d, a 7-year-old Holstein owned by Lakefield Farms of Michigan. In 365 days she produced 33,140 lbs. milk containing 1,286.23 lbs. butterfat (1,607.78 lbs. butter), 68 lbs. more fat than was produced by May Walker Ollie Homestead and 63.08 lbs. less than was produced by the Canadian cow, De Kol Plus Segis Dixie.

This one record is not the only good one made by the new champion daughter of S. P. O. M. 37th bred by John Erickson. As a 2-year-old she produced 870 lbs. fat in a year; she had 996.11 lbs. fat as a 3-year-old and 1,038.08 lbs. fat at 6 years.

Pasture Problems are Important

HOARD'S DAIRYMAN:—As one rides over the corn belt, with high-priced farm land on each side of the road, it is apparent that there is one problem which needs a good deal of attention, that being the pasture problem. There seems to be a general idea on the part of many farmers that although good care must be taken of the cultivated land, cropping systems carried out which will keep up the fertility, and fertilizers must sometimes be applied, yet the pastures can take care of themselves.

In a ride of about 150 miles across a portion of Iowa one fall, the writer made a survey of the pastures as seen from the highway. In practically every instance it was apparent that these pastures had been left to shift for themselves. They were very weedy. Little effort had been made to make use of such a pasture crop as sweet clover, and in general the pasture conditions were not in keeping with the high price of the land. Along in the late summer, most of these pastures in the average season would have been worthless from a feed standpoint. It is small wonder that the milk flow of the dairy herd drops or that a beef cattle herd fails to do very well when compelled to make use of such pastures.

Up-to-date farmers in many sections are gradually taking more interest in pastures. The use of barnyard manure for top-dressing is becoming more frequent. The breaking up of the old pastures and substitution of sudan grass and sweet clover, or both, for the native grasses is being carried out by others. Disking of pastures and reseeding is practiced to some extent. The principle of rotation of the pasture land is becoming better understood. Some farmers divide their pasture land into two or three areas, grazing on these various areas in turn. This gives a chance for one pasture to recuperate while the other is being grazed.

We are becoming very efficient in the use of cultivated land. There increasing evidence that we will m and more consider the pasture pr lem.

Nebraska. H. H. BIGGA

Origin of Animal Husband

"When the Lord created the u verse He made cattle before made man," says Sam H. Gree secretary of California Dairy Co cil, and refers to the Bible for authority.

"The first chapter of Genesis tests the fact that the cow grazed the Garden of Eden and rumina under the apple tree," contire Greene. "It was in the Garden Eden that there was established inter-dependence between man cattle that has increased through ages.

"When Adam and Eve were dri out of Paradise, the cow also barred from the garden and soon came a wild creature roaming alo in search of pasture. Six generat later Jabal, a descendant of C captured a few of these Nomadic tle and animal husbandry had its ginning so far as Bible history g Noah took cattle into the ark th him and, following the flood, ani keeping made great strides. Ala ham owned vast herds and the ar buttermaking dates back to his or beyond.

"The Bible tells us that Abra gave butter to his angel visitors, that milk and butter were the dinary foods of infants during cient times as they are today. Pr tive methods of churning were use Biblical times; the milk was tied in a goatskin bag, suspended f three poles driven into the grou and swung to and fro until the and butterfat separated. Ano early method was to pour the into earthen vessels and beat it th the hands, and later a wooden sc was used to stir the liquid.

"The people of India especially erated the cow and her product, paid her high tribute in their sa

writings. Butter was used as a sacrifice upon the fire altar, in addition to being eaten as a food. Buddha in describing the customs of an ancient Hindu race said: 'They do not kill cows; like unto a mother, a father, a brother, and other relatives the cows are our best friends, in which medicine is produced. They give food, they give strength, they likewise give happiness.'"

Morrison Leaves Wisconsin

F. B. Morrison, co-author of Henry and Morrison's "Feeds and Feeding," and assistant director of the Wisconsin Experiment Station, has been appointed director of the New York Experiment Stations with headquarters at Geneva. Professor Morrison takes his new post October first.

Born and reared on a Wisconsin farm, graduated from the University



F. B. MORRISON

Wisconsin with high scholastic honors in 1911, Frank Barron Morrison has been a member of the agricultural college staff at Madison for sixteen years. In 1915 he became assistant director of the Experiment Station, and during the absence of Dean L. L. Russell has twice served as the acting dean of the College of Agriculture and director of the Experiment Station.

Short Course in Cow Testing

The Wisconsin College of Agriculture will offer a five weeks' course in preparation for cow testing beginning November 14 and ending December 18. The demand for men for cow testing associations is greater than the supply, and this course is given to meet the emergency. All high school graduates are eligible, and others with equivalent training or exceptional dairy experience may take the course. Others are urged to take the work given in the Short Course covering a period of longer preparation for this important work.

Classes will be held from 8:00 to 4:30 each day and will consist of feeding and management of dairy cattle, milk testing, dairy feeds and feeding, animal diseases, dairy records, and physical education. The cost will be $9.34 for the five weeks' term.

The course requires a man who is good at writing and in arithmetic and to better his dairy experience the more profitable cow tester he may become. Cow testing offers a splendid opportunity for service to a community and gives the tester many opportunities for studying the farming method of persons in the cow testing associations. Young men may well consider this position as it pays a good salary for properly trained men.

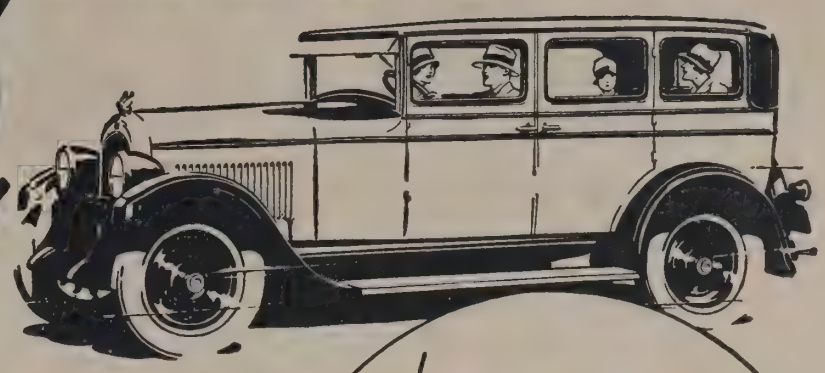
Persons planning to enter the course should write J. A. James, Assistant Dean of the College of Agriculture at Madison, Wisconsin.

Many States Enter

Entries in the dairy cattle judging contest and demonstration teams contest for 4-H Club members at the National Dairy Exposition closed August 1st, with a larger number of states represented than ever before. The following 25 states have entered teams in the cattle club judging contest: Arkansas, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Vermont, Wisconsin, and West Virginia.

The cattle club judging contest will be held on Monday, October 17. The demonstration teams will be on the program daily, from October 17 to 19 inclusive.

NEW CHRYSLER "52"



Still Higher Quality— Yet Lower Prices

You need only to glance at Chrysler's latest product—the new "52"—*and at its astonishingly low prices*—to realize that again Chrysler Standardized Quality has yielded more to the buyer than money has ever been able to buy before.

Examine and note the full size and roominess of its staunch, handsome body of wood and steel. Enjoy its ample seating capacity for adult passengers. Delight your eye with its grace and trimness of appearance, its luxury of appointment.

Here are flowing lines, beautiful hardware, luxurious mohair upholstery and every refinement of detail—combined in a car you will be proud to own.

We are eager that you ride in it. We want you to see how easily and smoothly it gives you 52 unvarying miles and more per hour. Enjoy the snap of its pick-up, 5 to 25 miles per hour in 8 seconds. See how smoothly it out-performs all others with which you may contrast it.

After such a thorough test we are sure you will agree that, at such low prices, these Chrysler "52" advantages are obviously outstanding over all competition.

$725

TO $875 F.O.B. DETROIT.

- 52 miles per hour
- 5 to 25 miles in 8 seconds
- Full-sized Bodies, for adult passengers

New Chrysler "Red-Head" Now Available for New "52"

The new Chrysler "Red-Head" engine, giving extra speed, pick-up and hill-climbing ability, is designed to take full advantage of high-compression gas. It is now standard in the Roadsters of the new Chrysler "52" and is available for all other "52" body types at slight extra cost. Any Chrysler dealer will gladly give you full particulars and an impressive demonstration of the "Red-Head" engine advantages.

NEW CHRYSLER "52" PRICES—*Coupe $725; 2-door Sedan $735; Roadster (with rumble seat) $725; 4-door Sedan $795; De Luxe Sedan $875. All prices f. o. b. Detroit, subject to current Federal excise tax Chrysler dealers are in position to extend the convenience of time payments. Ask about Chrysler's attractive plan.*

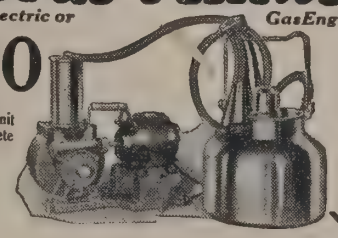
CHRYSLER MODEL NUMBERS MEAN MILES PER HOUR

Fords Milker

Electric or Gas Engine

$90

Single Unit Complete



Don't Pay More For A Milking Machine

Send for our FREE booklet No. 20

Fords Milker is used by thousands of farmers who are getting more and premium-priced milk with it. Cows like it. Used on prize herds. Saves time and hard work, easy to operate and clean. Designed by men who have spent a lifetime in the business. Made with heavy aluminum pails, and best materials throughout. Does better work, lasts longer, and costs less.

You owe it to yourself to investigate. Send for Booklet No. 20.

Distributers: Write for open territory.

Myers-Sherman Company
213-15 N. Desplaines Street, Chicago, Ill.

USE FILTERING STERLING PADS FOR CLEANER MILK



GETTING THE MOST FROM MILK
Depends on Proper Filtering!

Sterling Filtering Pads will positively remove all sediment, dirt, pollution and reduce the bacteria count to a minimum. That is why thousands of farmers are combating dirt in milk by using Sterling products and getting highest prices for their milk.

Sizes to Fit All Standard Strainers

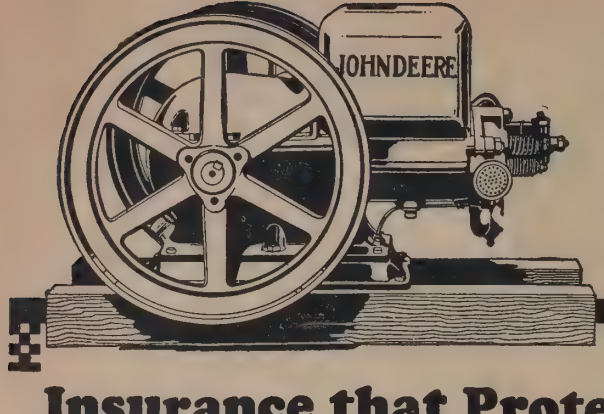
10 DAYS' TRIAL—Ask your dealer for Sterling Filtering Pads. Use them in filtering your milk for 10 days. If you aren't thoroughly satisfied, if you do not get better results—your dealer is authorized to refund your money.

FREE -- If your dealer cannot supply you, write us at once, sending us his name and we will send you absolutely free, enough Sterling Pads for a thorough test.

STERLING STRAINERS are made of special design to give the maximum results in connection with Sterling Filtering Pads. Write us for prices. If you have milk problems -- write us -- we can help you.

SANITARY COTTON COMPANY
1415 Jackson Blvd., Chicago, Illinois
SEND TODAY For FREE SAMPLE!

Mention Hoard's Dairyman to Your Dealer — It Helps Us



The Enclosed Engine that Oils Itself

Insurance that Protects Your Engine Investment

The insurance that goes with the John Deere Engine is built into it—no written policy could offer more complete protection.

The working parts are all enclosed in a dust-proof case and operate in a bath of oil—real protection against wear, loss of power and high upkeep costs.

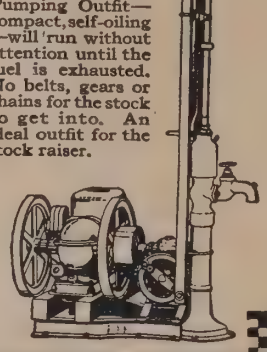
There are no sight-feed oilers or grease cups on it—runs without one minute's attention from the time you start it until the fuel is exhausted—protection against carelessness and loss of time.

There are no gears exposed or shafts extended on which clothing might catch—protection against accidents.

Don't forget, John Deere quality construction—the use of good material by good workmen results in years of satisfactory and profitable service.

You can get John Deere Type E Engines in 1-1/2-, 3- and 6-H. P. sizes, either mounted on skids or wheels.

Give your John Deere dealer the opportunity to demonstrate this easy-starting, smooth-running farm engine. You will find it a real labor saver and money maker on your farm.



This is the John Deere Direct Drive Pumping Outfit—compact, self-oiling—will run without attention until the fuel is exhausted. No belts, gears or chains for the stock to get into. An ideal outfit for the stock raiser.

FREE ENGINE BOOKLET FOR THE ASKING

This booklet illustrates and describes both the John Deere Engine and the John Deere Pumping Outfit. Write to John Deere, Moline, Illinois, and ask for Booklet WT-714.

JOHN DEERE

JOHN DEERE MOLINE, ILL.

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

RUNNING WATER WITHOUT WORK

With a good Well and a good Windmill you can have all the water you want without work, worry or expense. Water from a well costs you nothing. The cost of an **Auto-Oiled Aermotor** is moderate. The expense for maintenance is so small that it need never be given a thought.



An Aermotor runs in the lightest breeze. It will also work safely and steadily in the heavy winds.

The **Auto-Oiled Aermotor** is completely self-oiling. The double gears run in oil in a tightly enclosed gear case which holds a year's supply of oil. When the mill is running the oil circulates through every bearing. Every moving part is constantly and completely oiled. Friction and wear are practically eliminated.

Auto-Oiled Aermotors have behind them a long record of successful operation. Their merits are known the world over. For further information write

AERMOTOR CO.

CHICAGO DES MOINES OAKLAND DALLAS KANSAS CITY MINNEAPOLIS

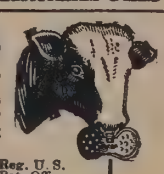


DAIRYMEN—BREEDERS

Pierce-Easy Bull Ring
A quality product for stockmen who want a "better than ordinary" ring. Standard sizes in copper, bronze and nickel silver.

Kant-Suk Calf Weaner
Made with hinge joint—swings out of way when calf eats or drinks. Calf size 45¢; Yearling 55¢; Cow 65¢, post paid.

Buy from your dealer. Write for leaflets.



Reg. U. S. Pat. Office

Reg. U. S. Pat. Office

WAGNER SPECIALTY COMPANY — Burlington, Wis.

THE NEW IMPROVED **JENSEN Adjustable CHAIN HALTER**

No loose **Bulls** or horses. A Universal **SAFETY SNAP** no animal can unlock or break. Made of bronze **$2.50**, nickel plated **$3.** Bull Chain Stakeout consists of 1 run chain 20 ft. long, 2 steel stakes, 1 lead and tie chain 8 ft. long with bronze snap $12, nickle plated snap $12.50. Bull rings made of yellow tubing bronze none better, made in 3 sizes, 2-7-8 x3-8, $1.75; 3 1-4x7-16, $2; 3 1-4x 1-2, $2.50. Lead and tie chain 8 ft. long with bronze snap $5, nickle plated snap $5.50. Calf Trainer $2. Write for circular and more information. **CHAIN HALTERS**, fits all size bulls, on 15 days trial. Money back if not satisfied. Price **$6.50**, shipped prepaid U. S. A. where no dealers. (Clip this ad.)



P. W. JENSEN & SON
Princeton, Dept. H, Minn.

NORTHEY

REFRIGERATORS

FOR ALL PURPOSES
ANY SIZE, STYLE OR FINISH

NORTHEY MFG. CO.
WATERLOO, IOWA

AGENCIES IN MOST LARGE CITIES

Seasonable Live Stock Notes

SEPTEMBER spells silo filling on thousands of dairy farms. Wheat, oats, and barley are in the bin; new straw is ready for bedding. Manure is being hauled to the stubble field or meadow where it will be turned down and later contribute to the making of a new crop. Fall litters of pigs are already at their breakfast table. Early arrivals in the calf pen are trying to find something to suck in the milk feeding bucket. The early hatched pullet is speculating on how and where to lay an egg.

It Takes Skill to Feed Calves

Nothing in the husbandry of dairy cattle requires more skill, if successful, than the first month's feeding of dairy calves. A successful Indiana Jersey breeder uses the following method: Clean quarters are given each cow at calving time. The newborn calf is allowed to suck its dam for 4½ days, after which it is fed whole milk for three weeks. At this time skimmilk is gradually substituted for whole milk and is continued until the calf is six months old. When calves are a month old, shelled corn and oats and mixed or clover hay are placed before them. Feeding buckets are scalded once each day.

Fall Pigs are Here

If we were to name the time when feeding the brood sow is of greatest importance, we would say the first two weeks after farrowing. It is so easy then to upset good prospects by doing the wrong thing. Of course, fall pigs should be born in clean places just the same as is required for spring pigs. The first day after farrowing give the sow plenty of water—nothing more. The second day give her a double handful of meal to a feed and feed it as a slop. The third day give two double handfuls to the feed; the fourth day three double handfuls; and each of the three succeeding days give her four double handfuls of meal to a feed. A good meal mixture may be made of equal parts by weight of bran, shorts, and ground oats. After the first week the sow may be brought up to full feed gradually and corn may be added to the ration.

Looking Forward to Winter Eggs

Most folks, no doubt, would like to receive the higher prices paid for eggs during November and December, but frequently they have few eggs to sell at that time. Early winter eggs mean planning ahead and having things right and ready at the right time. Of course, early hatched and well grown pullets are essential. Those who have planned this w ahead will now want to look ov their housing and feeding equipme Those who have winter eggs to sell high prices house their flocks ea and get them accustomed to their l ing quarters. One cannot house t flock early unless the house and fe ing equipment are ready. The b features of last season's housing, any, should be remedied now.

Milk Fever

A lot of calves coming in the fall the year bring with them the pos bility of milk fever, particula among the well fed, heavy produce of mature age. While it is essent to have cows in good condition time of freshening, it is equally e sential to be ready to handle a ca of milk fever. Prevention is s er than cure. As a part of preventi we mention light feeding for the fi week or two after calving. Let t cow take a little meat off her back. won't hurt her any. Come up on t feed later after she has her milk ma ing organs adjusted. Every dai man who has high producing co should have an air treatment out and know how to use it or else should know that he can always g a good veterinarian within an hour so after he knows something is wro

Less Harm in Empty Stall Than Boarder Cow

It has been a fairly tough season many places to get crops through harvest and ready for winter feedi Now that the harvest is nearing co pletion, is there anything wrong wi looking over the herd to find c whether some cows ought to be tired? It is bad enough to have fight unfavorable weather conditio in the growing of feed, but why fe any of this feed to scrub cows? every herd are to be found co whose production is not enough to e title them a place at the manger. empty stall may make more mon than some cows in your herd w make if kept through the winter. A time is a good time to retire a boar cow but 'tis better to give them t gate in September than feed them winter.

Public sentiment is everythin with public sentiment nothing c fail, without it nothing can succe Consequently he who molds pub sentiment goes deeper than he w enacts statutes or pronounces de sions. He makes statutes and de sions possible or impossible to be e ecuted.—LINCOLN.



RED LADY

This pure-bred Jersey has just completed a R. M. record of 19,608 lbs. milk, 1,028.51 lbs. butterfat in 365 days, the highest record made in the southern states. On a previous test she produced 17,195 lbs. milk, 860.24 lbs. fat. Red Lady was bred and is owned by R. L. Shuford of North Carolina.—The American Jersey Cattle Club.

Genuine Cork Linoleum Rugs in NEW–DIFFERENT–PRETTIER *Patterns*



Now you may have a smooth-surface rug with a lovely wax finish!

HOW often have you wished for a rug like this: pretty enough for the most tastefully furnished room, yet inexpensive . . . easy to keep clean, yet without that "hardness" sometimes associated with smooth-surface rugs.

Now you may have just such a rug. The new Armstrong's Jaspé Rugs are made of the same genuine linoleum with the lustrous wax finish that has made Armstrong's Jaspé Linoleum Floors so popular. They have the same wonderful wearing qualities, too, for the beautiful Jaspé graining runs right through to the burlap back—it can't "wear off." A light damp-mopping cleans the surface, an occasional waxing or polishing with a soft cloth or pad restores its wonderful lustre.

In rich blues, greens, grays, rose, tan, and taupe, with handsomely decorated borders, these new Armstrong Rugs offer unusual opportunities for home beautifying at little cost. Place one of them in any room in the house, and you have the beginning of a charming color scheme. For bedrooms, dining-room, living-room, playroom or sewing room, there is nothing more suitable or practicable as a floor covering.

Properly waxed and cared for, Armstrong's Jaspé Rugs always look fresh and inviting. Because they are made of genuine cork linoleum, they are sturdy, yet soft and pliable and quiet to the tread. You may roll them and move them from room to room as often as you please . . . yet these rugs do lie flat on the floor.



In the large illustration:
Jaspé Pattern No. 716
Above: *Linoleum Rug No. 907*
At the Right: *Inlaid Rug No. 1040*

When you buy a smooth-surface rug, bear in mind that these new Jaspé rugs are made only in genuine Armstrong's Linoleum, identified by the Circle A trade-mark stamped on the burlap back. Ask the salesman in the local store to show you the new Armstrong Rugs of Jaspé linoleum. If he hasn't the new patterns in stock he can get them for you.

"Rugs of Practical Beauty"

This handsome booklet illustrates the new patterns beautifully in color. It will be sent to you free if you address your request to Armstrong Cork Company, Linoleum Division, 1019 Jackson Street, Lancaster, Pennsylvania.

Armstrong's Linoleum Rugs

they wear and (A) *wear and wear*

Look for the CIRCLE A */trade-mark on the burlap back*



My crowd all smoke P. A.

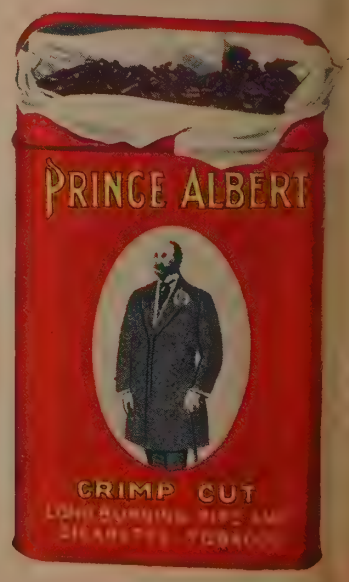
THAT doesn't mean I smoke it because the rest of the fellows do. I've got ideas of my own. If you pinned me down to reasons, I'd say I smoke Prince Albert *because I like it!* That's reason enough for me. But if you want details, I'll give them to you.

First of all, P. A. is delightfully fragrant. When you open the tidy red tin and that aroma bursts upon the air, you can hardly wait to taste such tobacco in your pipe. The smoke itself makes good on the advance notices broadcast by the fragrance.

Cool as an alarm-clock doing its stuff. Sweet as the recollection that you have the day off. Mild as the congratulations of the defeated candidate. So mild, in fact, that it never bites the tongue or parches the throat. Yet with plenty of rich, satisfying tobacco-body.

I don't know what brand you're smoking now, but I *do* know what you'll be smoking "from now on" when you try this cool, long-burning tobacco I've been telling you about. If you want to get the most out of your pipe, pack it with P. A. That's *my* advice.

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



PRINCE ALBERT

—no other tobacco is like it!

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Harvesting Corn for Cow Feed

ARLY frosts and immature corn are anticipated. We cannot control killing frosts nor speed up maturity of corn but we are itly interested in quality and ntity of cow feed. Since corn, as n and roughage, constitutes so h of the rations of farm animals important that we consider the ways of handling the crop so its greatest usefulness may be for feeding live stock.

is helpful, perhaps, to review some of the behavior of the corn t during the later part of its vth in order to understand when arvest the crop and what kind of we will have should frosts come arly.

enry & Morrison report some obations made by Ladd of the New Station and Jones of the Indi- Station as to the composition of corn plant through its various es toward maturity. Calculations made on the acre basis of corn ng 10,000 stalks per acre. There 3,556 hills of corn in an acre checked in rows 42 inches apart. corn, therefore, averaged not three stalks per hill.

ie first observation was made on 24th when the corn was about feet high and before any tassels appeared. At this stage there 5,138 lbs. of green corn per acre h contained 731 lbs. of dry mat- On a percentage basis the corn 86 per cent water at this stage rowth.

September 10 when the ears in the milk stage the total green ht was 26,710 lbs. containing lbs. of dry matter. Thus from 24 to September 10, a period of ays, the green weight was five greater and the dry matter at more than eight times greater on July 24.

October 1 when the corn was dered to be right for silage, the weight was 25,275 lbs. and this ined 8,929 lbs. of dry matter. this we learn that the green it has gone down and the dry r weight up as compared to the vations made when the ears in the milk stage. It is impor- to note that the dry matter in- ed 2,755 lbs. from September 10 tober 1, a period of 21 days.

October 8 the green weight had down to 22,253 lbs. but the dry r had further increased to 9,412 At this stage 42 per cent of the plant was dry matter.

e data given show further that was a gradual increase in nus up to October 8 when the corn considered to be beyond damage ost.

the silage stage, October 1, of otal dry matter in the one-acre 4,625 lbs. were found in the ears ,304 lbs. in the stalk or stover. ek later 55 per cent of the total natter was in the ears.

summarize on the dry matter we might say that when corn is bout four feet high without tas- t contains only about eight per as much dry matter as when it fectly matured. When the first s appear the crop contains about r cent, when the silks are dry- bout 48 per cent, when in the stage about 65 per cent, when irs are well glazed about 86 per nd when the corn is fully ready lage about 94 per cent as much natter as when matured.

hould be kept in mind that these s are based on what might be ered a normal stand of corn. A r stand, while it might yield as dry matter, would likely have a r proportion of it in the stalks ver.

Armsby of the Pennsylvania Station summarized some work at four northern stations from which it was found that corn yielding 4,415 lbs. of ears per acre (63 bushels) also yielded 3,838 lbs. of stover. It was found that the stover contained 37 per cent of the total digestible nutrients.

There are unavoidable losses in the corn crop whether put in the silo or shocked as fodder. Experimental trials indicate that where corn is put in well-made shocks and left for a few months, the loss of dry matter will be about 20 per cent. The loss of dry matter when corn is put in the silo is estimated to be about 15 per cent though there may be considerable variation due to stage of maturity and to conditions of the silo itself which may influence the keeping of silage.

An acre of corn fed as silage has a higher feeding value than a similar acre harvested and fed as fodder when no effort is made to convert the fodder into a more palatable form by cutting or grinding. The difference comes mainly because more of the crop is eaten when fed as silage and there is less loss in dry matter because there is no weathering. If we compare silage with fodder on the dry matter basis and consider only what is consumed they are of nearly equal feeding value.

Let us now consider ways of getting the most feed per acre from whatever kind of crop seasonal and soil conditions give us.

The silo comes first as a preserver of the corn crop. More of the crop is saved from the field and less is wasted in feeding than in any other practical method known.

Next to this we would put well shocked fodder corn which, when cut or ground by a modern roughage grinder, makes a very satisfactory feed and there is little of it wasted. Poorly shocked corn left in the field several months will, of course, lose considerable of its value.

Feeding corn fodder in the rough is a wasteful method of trying to get a lot of feed value from an acre of corn. So much of it is refused by cows whose rations ought to be made palatable.

Shredded corn stover is a poor roughage for dairy cows in milk. It is unpalatable and comparatively low in nutrients; it requires legume hay and considerable of the higher priced protein supplements to balance the ration. A limited amount of shredded corn stover could be used if properly supplemented. It would be much better to cut finely or grind the fodder (ears and stalks) than to shred the crop.

The present stage of maturity of corn on many farms indicates the yield of dry matter will be below normal. This is not so much to lament if one has plenty of legume hay. The judicious combining of legume hay and other roughage, principally corn this winter, is one way of getting through the winter on a short corn crop of inferior quality.

Argentine Dairy Industry

During 1926 Argentine produced 76,000,000 lbs. of creamery butter, an increase of 3,000,000 lbs. over the previous year. Of this production, 64,000,000 pounds were exported, or better than 80 per cent. Factory cheese production in 1926 amounted to 33,000,000 pounds, a decrease of nearly a million pounds from the previous year. Less than a million pounds of this was exported.

The girls nowadays may catch the boys with face powder but it takes baking powder to hold them.



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THE only reason that you have figured to do all your fence work in the Spring is because, in the old wood post days, it was easier then to dig post holes. But with the RED TOP Steel Fence Post any time at any season of the year is fence-building time. Now you can do your fence work in the Fall and take this job out of your busy Spring season. Regardless of the hardness of the soil, one man with a RED TOP One-Man-Driver can easily drive 200 to 300 posts a day—and align them perfectly.

Drive in a RED TOP Post alongside each broken or rotten wood post, attach the same fencing to it with the RED TOP handy fastener. The work is done quickly, the useful life of the fence is lengthened and in a few years you will have entirely rebuilt your fence line with no more annual work to do on that fence.

Red Top GUARANTEED **Steel Fence Posts**

And your fences will pay for themselves. Any 40 acres that isn't fenced hog tight, can be fenced hog tight and the grain the harvesters overlooked the hogs will salvage. That will pay for the fence in two years. And every year thereafter this same 40 acres will bring in an extra $80.00 or more.

If you do it now you make this saving this year. If you wait until Spring you lose the saving until next Fall.

Take this idea to your* RED TOP *dealer

RED TOP Steel Fence Posts Are Guaranteed

He will give you more detailed information. The fact that he handles RED TOP Steel Fence Posts indicates that he is not only an authority on fencing materials but also on how the proper and timely use of fencing will help you turn waste into profits.

RED TOP STEEL POST COMPANY
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Write for free catalog which tells all about this profit-making equipment.

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Universal
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AMERICAN POULTRY CONGRESS

Sept. 26 - Oct. 2, 1927

WATERLOO - IOWA

The Radio in the Country Home

ETHEL MORRISON—MARSDEN, WISCONSIN

THE radio has crept into the heart of the country home and once there it has established itself so very securely that unquestionably it is there to stay. The radio has brought much with it; it not only provides music and entertainment for the farmer and his wife but it supplies a vast amount of very useful information as well. It is like a magic book, each page of which brings forth some new, delightful surprise. The radio ministers to the needs of the whole family from grandmother down to the tiniest tot. It is hard to tell whom it affects the most, whether it is father or mother, the young people, or the children.

Let us consider for a moment just how it affects the farmer and the father of the family. Daily it brings him the weather report. Many times this knowledge for one day is worth far more than the original cost of the radio. In our section of the country, where that most valuable crop, tobacco, is raised, this knowledge at planting time and again at harvest is invaluable. Very often we have frost before the tobacco is all in; and with a warning many acres may be cut, piled, and covered with hay, to save. Everyone knows the part the knowledge of the day's markets plays in a farmer's life,—the poultry, beef, veal, butter, and egg markets all affect him vitally. At the present time nearly every broadcasting station devotes a certain amount of time each day to programs of interest to the farmer. Some have lectures upon poultry, the proper feed, how to increase egg production, incubation, and poultry diseases. Other stations have lectures on cows and hogs and some talk on co-operative marketing. These talks are practical and valuable—they are a new source of information and come into a farmer's own home at convenient hours. There are even setting up exercises early in the morning though most farmers still prefer to do their daily dozen to the tune the milk plays in the milk pail.

Mother, too, finds the radio a great help and a source of inspiration. With an extension cord she can have the loud speaker beside her in the kitchen as she bakes, scrubs, washes dishes, or irons. She hears many new ideas, some on efficient housekeeping, others on cooking, etc. She learns new ways to camouflage old food and make it appetizing. She obtains many new and tested recipes. She learns many items of interest to herself as the family dressmaker. She hears which colors are best for spring, just what the new styles are, how to make the children's clothes over from her own. She also has the opportunity to hear other things of interest to her as a homemaker—lectures on interior decorating, color schemes, refinishing of old furniture. Some stations have women's clubs and these broadcast interesting programs. She learns what other women throughout the world are accomplishing and does not have to leave her home to join in. These programs give her something new to think of, something to brighten her days, give her a new outlook upon life. She can accomplish her work easier and more efficiently as a result, for even the most disagreeable task may be accompanied by gay music. Thus the radio is assisting in removing the drudgery from the work of the farmer's wife.

The problem of keeping the young people on the farms is half solved with the installation of a radio. All young folk want a good time, and you can make it possible for them to have it in their own homes instead of in the dance halls of the nearby towns. The radio will furnish plenty of excellent music; let them invite their friends in, roll up the rugs, and dance in your home. They enjoy the radio in many other respects; the ukelele and harmonica music always appeal to them. They like to hear glee clubs sing and enjoy hearing other young people perform over the air.

It brings another opportunity to the country boy or girl who cannot get away to attend university or college. Several stations have recently installed "universities of the air." They bring courses and lectures upon various subjects—foreign languages, such as, French, Spanish, and Latin; courses in English, in music, in agriculture, and in many other subjects. Many a young person has yearned for just such an opportunity as this presents.

Even the children come in for their share of the pleasure of the radio. There is the story hour for the little tots and how they do enjoy these stories told each night. We farm mothers seem to have so little time to devote to telling stories. Most stations have clubs for their little listeners, and every child longs to belon a club of some sort. What a t they get when they hear their name read over the air. These c have programs that are construc and interesting as well. There organizations for the older childre well, from ten to fifteen years of The children of the farms so sel see the comic sections of the Sun papers but they may hear them over the radio and thus enjoy t in this manner. The children e music for special occasions such the patriotic music for Washingt birthday. There are even lullabie hush the little baby to sleep.

Everyone in the whole famil provided with something of en ment by means of the radio. It ca not only to the tastes of the indiv al but to the family as a wh There are talks on health, dis prevention, and warnings of epic



THE RADIO IN THE MARSDEN FARM HOME

by the greatest artists of the a artists who we of small means ca never hear otherwise. We hear h great violinists, the prima donnas h opera stars, the most famous pia st of the time, and musical lecture b the greatest orchestra leader in h world. We, who love opera, have h opportunity to hear it, close our e and picture it, right in our own h while rain pours without and the s is a foot deep.

We can teach our children the t meaning of good music with a ri in the home and we can instill it their minds a greater appreciatio the world's greatest artists and ei work. We can swing our dials n choose what we wish, whether it's barn dance with fiddlers and ca for dad, pipe organ for mother, s for the young folks, or songs of h gone-by day for grandmother. ea old grandmother, now that her ey sight is almost gone and her hel and strength so frail, how very ric it must mean to her, this great bl ing in the form of a radio. The nei bors drop in to listen to the big ot ball games or to hear the progra o Farmers' Week that the state uni sity is broadcasting. Then on Sun when the blizzards howl in the wi and the snow lies so deep witou that it is impossible to get to chur the family draw up their chairs an with open Bible and hymnals bor them enter into the services of or ship that come to them through the

(Continued on page 865)

laking the Cow Earn Her Way

CURTIS F. MOSS, NEW YORK

[ANY attempts are being made to operate records which will establish the basis for a de- n regarding the actual produc- y of a cow in comparison to her of maintenance. In other words, question is: Are cows paying way? It is probably one of the common in the dairyman's l. Under the direction of C. B. ler, assistant dairy husbandman; Fred Gauntt, dairy herdsman, Dairy Husbandry Department of New Jersey State Agricultural ege at New Brunswick, N. J., is ating extremely interesting and ful barn records. These records e originated at Penn State Col- by P. D. Jones.

ard A, here portrayed, is a daily rd of the number of pounds of given by each cow. It is divided two milkings. Space for three four milkings is oftentimes pro- d by drawing horizontal lines ugh the A. M. and P. M. sections.

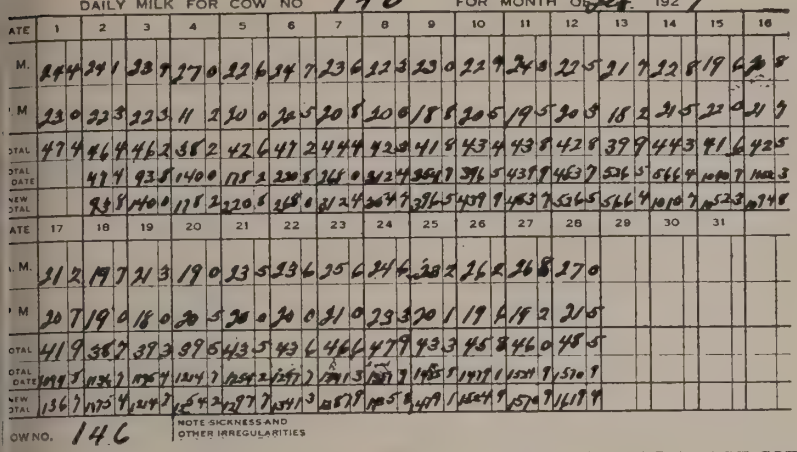
Records are kept in the barn where milkers post them after each milking. Totals are recorded each day, also totals to date. These two features are very important because in the majority of systems it is necessary to do a great deal of addition to find out "to-date" quantities.

Card B, the daily record of milk and feed and total for month, is kept in the barn office and taken out at feeding time. It is hooked on the feed wagon so that it is there in front of the feeder as he performs his duty and eliminates any chance of estimating or guessing. The lower portion of this record shows the amount and kind of feed to be given. On it is also written information under the headings "grain mix," "No.," "Lbs. grain per feed."

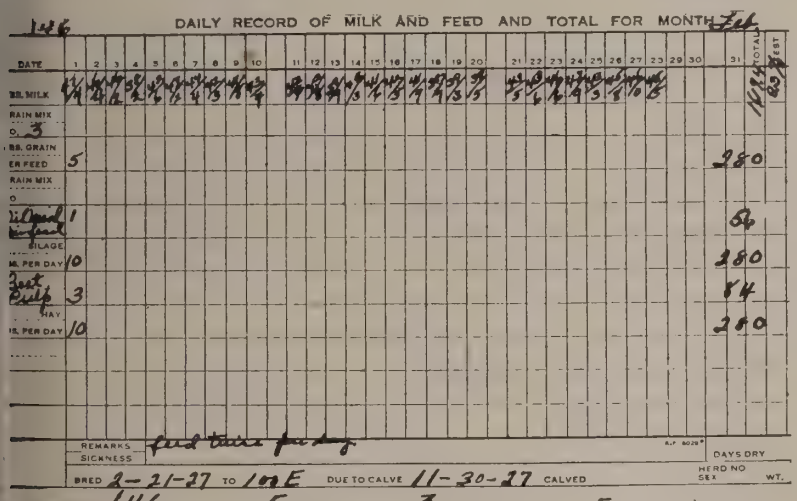
The amount of milk given daily is placed under the "Lbs. milk" caption. If there is any startling change in quantity figures, it may be immediately compared with the quantities of grain fed and a change affected if it seems feasible. Unless the feed is changed, the one posting under the date of the first suffices for the month. If there are changes, they are posted on the dates they occur and necessitate changes in the lower portion of the cards. The spaces for "Bred" and "Due to calve" are important as the amount of feed or milk will change when a cow nears the maternity period.

These first two records described are but incidental in importance to the third form, "C," which is the record of monthly summary of production and cost of feed. This is the determining factor in establishing whether or not the cow is "paying her way." Never before has the dairy husbandman been able on one record to bring together all facts necessary to establish a basis for decision. The card is very simple, showing the pounds of milk per month and its value, the amount of feed consumed and its cost, and the net gain or loss each month. This record is also accumulated because a one month's showing is no criterion for cows on account of their giving varying quantities, according to the time they calve. This record is, of course, permanently kept in the dairy herdsman's office and posted from cards A and B.

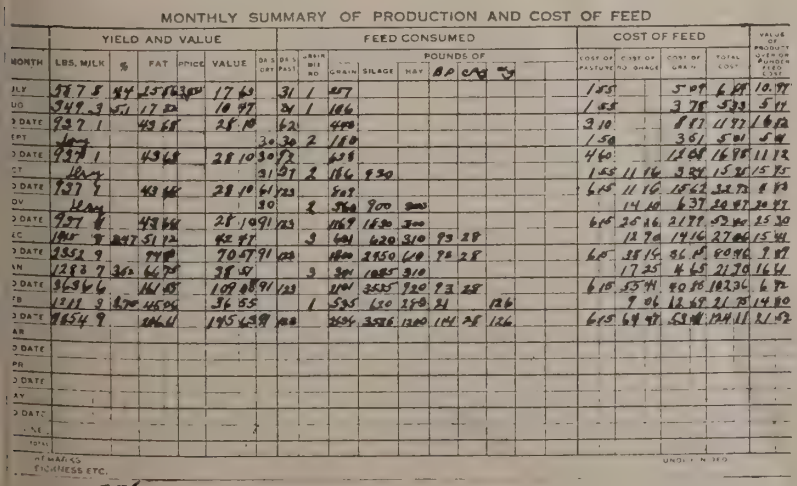
This complete and helpful system may be utilized by every herdsman. From the operation of a similar idea will come a complete knowledge of all existing conditions and a better control of standardized management.



CARD A—DAILY RECORD OF THE NUMBER POUNDS MILK GIVEN BY EACH COW



CARD B—DAILY RECORD OF MILK AND FEED AND TOTAL FOR MONTH



CARD C—RECORD OF MONTHLY SUMMARY OF PRODUCTION AND COST OF FEED

None!

No Long Tubes No Claws

The Surge Milker



You will NEVER know how *easy* a milker can be to wash UNTIL you have washed The Surge Milker. No Long Tubes! No Claws!

Ever try to wash a mess of long tubes and twisted claws? Try it once . . . . then try The Surge and *see how much easier it is! Another thing!* Long tubes and claws with their cracks, crevices, twists and turns are bacteria breeding grounds. The Surge has NO long tubes! NO claws! That's WHY Surge Owners find it so *easy* to produce clean low bacteria count milk and get premium prices.

6 Milkings FREE!

Right in Your Own Barn—With No Obligation to Buy

Don't buy ANY milker UNTIL you have tried The Surge Milker with its wonderful NEW method that milks cows like no other machine has ever milked cows before. Our liberal "6 Milkings Free" Offer lets you see for yourself just what The Surge will do for you—and there is no obligation to buy unless you want to. Once you see it milk your cows—even "that cow" you think can't be milked by machine—once you see how easy it is to operate and how much EASIER it is to clean—*you won't be satisfied until you own one!*

Easy Terms You can buy a Surge Milker on very easy terms. We'll figure to use any equipment you may have already in your barn. You'll be surprised how little it'll amount to. Mail coupon now. It doesn't obligate you.

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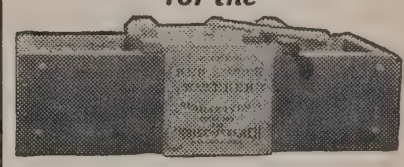
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Number of cows milked..... R. F. D.....

Name.....

Address..... *State*.....

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Clothes Hints for Fall

We ran away the other day, my husband and I. We hired a neighbor boy to do the chores for a couple of days and we parked the children with my sister, though I am quite sure she failed to appreciate the honor we did her. Then we took our little Ford and started toward Chicago. It was almost noon when we left home and as we intended to take the longest route in we hastened on our journey. We took the route that led us through Sheridan Road and the Lakeshore Drive and it was a drive long to be remembered. As Chicago is at present living by daylight saving time we, of course, lost an hour going in, and arrived in the city just in time to catch all of the traffic of closing hours. For a man who drives year in and out along country byways, my husband got the biggest kick in driving through that traffic of any one I know.

We stayed with some cousins on the south side and the next morning we went down town and the loop. My husband, manlike, chose to spend his day seeing Babe Ruth play ball, but my cousin and I decided upon the theater and shopping. No one knows what a keen delight I take in the crowds of that city as they hurry and rush about. But really, nowadays it is a comparatively simple thing to get about in the city to what it was a few years ago, because of the way in which traffic is guided.

First, to avoid the afternoon crowds, we went to the theater and we chose the "Chicago," one of the finest in this country. The picture was good and the vaudeville was splendid. How different the vaudeville acts are today, that are given in these good theaters, from what they were a few years ago. The numbers that one hears in these theaters nowadays are similar to what we get at home on very fine chautauqua programs. But it was not in either of these things that my interest was centered. It was in the beauty and grandeur of the theater itself, and though I have seen it many times before I never tire of looking at it anew, and in its lighting system and organ that I revelled. I wish I might find words to describe the beauty of that building, with its spacious marble lobby, with its numerous oil paintings each one of which is lighted individually, its balconies, crystal chandeliers that glisten like diamonds, its beautiful chairs and settees of gold and tapestry, or the beauties of the dome of the theater with all its various hues. Then there is the stage itself set between two mammoth columns of marble and curtained in the most beautiful of velvets. But words fail me and I could never do justice to it. I am always interested in the effects produced by the lighting system as it varies the lights and tones of blue, violet, rose, green, orange, etc., upon the persons performing and the curtains. And the organ itself, or perhaps I should say the organs for this theater contains two, always holds me as nothing else can. Its voice, as it peals forth its mighty notes, carries one far, far away from his problems of the farm, with our worry over crops, stock, interest, and taxes. It takes one off to fields of peace and he drifts away in forests of beauty.

We left the theater and proceeded to one of the city's smartest grills for our luncheon. Next came the part I had waited for and dreamed of for many months, that of wandering through the large department stores, of viewing the beautiful things in each department and getting ideas for winter. For away back in the middle of summer one finds the winter styles being shown. I shall not try to tell you a quarter of what I saw but I am sure you will be interested in what those big stores were forecasting for winter.

The dresses shown were practically all of velvet in all of its richness and elegance. Navy and midnight blue, and black were the predominating colors shown and will evidently take the preference this year. Nearly everything was trimmed with a bit of tan, flesh colored, or biege colored georgette. Something rather different! Quite a few heavy crepes, such as roshanara, are being used also. All of the dresses are longer, three inches at least. I saw quite a few jacket effects being worn. One cute little dress had a plain skirt of black plaited serge and a black velvet jacket was used with it. Another dress that impressed me was a blouse of gold metallic cloth and a skirt of brown velvet. This was one of the richest things that I saw. It was perfectly plain, with no trimming. Many have just a touch of the flesh colored georgette at the neck or in vest effect. Many velvet hats were shown in blues, black, and brown. Hose for fall seem to be less in shades of tan and flesh as before and more in grays, many and many shades of grays, and in gunmetals. The smartest hosiery have black heels. Some hose are a beautiful shade of rose biege. Scarfs for winter will be brighter and gaudier than ever. Last winter they were bright but this year's will make those look very sober. The beads for winter are to be of crystal. I saw string after string of large crystal beads, most of them quite long strings in both round and square beads shown with the dresses of velvet.

Lastly I want to tell you of one window display that I saw, not that it showed the styles but because it tried so hard to reproduce a bit of the country. The background was made up entirely of paper flowers that would grow in an old fashioned country garden, hollyhocks, asters, nasturtiums, daisies, phlox, climbing roses, geraniums in pots, petunias, marigolds, sweet peas in profusion, and even little fir trees of paper. I suppose this is the nearest many city folk ever get to seeing flowers such as those that grow right in most of our own gardens.

We both returned to the farm ready to tackle the work with a new vigor and much the richer and happier by a change in the regular routine of farm work. Personally I believe it pays any one in big returns to take a few days off occasionally and to take a little vacation. It keeps us from stagnation. And as most of the city people have from two weeks' to a month's vacation a year, a farmer surely should have a few days.—ETHEL MORRISON MARSDEN.

Importance of a Farm Office

"Our home is a hotel, an office, a pedigree record library, and a seed corn depository," so writes a farmer's wife in one of the recent magazines. How many of us find our living rooms cluttered with pedigrees, old magazines that are treasured because of some helpful paragraphs on agriculture or live stock, sales catalogs, and all the other empedimenta dear to the heart of a man interested in keeping up-to-the-minute in his farm work, but distracting to the housewife who strives to keep everything in its place. I am going to tell how I have solved the problem during the past winter and how successful it is working out.

We are living in a more-than-100-year-old Pennsylvania Dutch farm

(Continued on next page)



HIGHLAND GIRLS' CANNING CLUB IN CHARGE OF MRS. CARL ALTHOFF, VANDERBURG COUNTY, INDIANA

These girls canned 308 quarts of fruit and vegetables by cold pack process in 1925.

Send for Our Fall Fashion Magazine

You simply must have a copy of our Fall Fashion Magazine, for it contains too many good things for you to miss. All the new fall and early winter styles of course, and then there are pages of novelties for the masquerade. Articles about health and beauty and reducing safely, and pages showing correct hats, fancy needle work, special lingerie, etc.

While you have the matter in mind send 10c for your copy to our Fashion Department, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 755—Tends to Slenderize. Patter sizes 36, 38, 40, 42, 44, and 46 inches measure. Size 36 requires 3⅞ yards o inch material with ⅞ yard of 36-inch trasting.

No. 728—Becoming Street Dress. Pa in sizes 16, 18, and 20 years, 36, 38, 40, 4 and 46 inches bust measure. Size 36 req 3 yards of 40-inch material with ½ ya 36-inch contrasting.

No. 498—Morning or House Dress. Pa in sizes 36, 38, 40, 42, and 44 inches measure. Size 36 requires 3¼ yards o inch material with ½ yard of 36-inch trasting.

No. 688—Company Apron. Pattern in small, medium, and large. Medium siz quires 1⅜ yards of 40-inch material.

No. 616—Decidedly Chic. Pattern in 16 years, 36, 38, 40, and 42 inches bust ure. Size 36 requires 3⅜ yards of 40-inch terial with ½ yard of 40-inch contrasti

No. 3109—For the Smart Junior. Pa in sizes 6, 8, 10, and 12 years. Size quires 1½ yards of 36-inch material wi yard of 32-inch contrasting.

No. 2954—Ragland Sleeves. Pattern in 6, 8, 10, 12, and 14 years. Size 8 require yards of 40-inch material with ⅜ yard o inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. your order to Fashion Department, Ho Dairyman, Fort Atkinson, Wis. Every tern is seam-allowing and guaranteed t perfectly. Do not fail to state size.

Our patterns are made especially for u the leading fashion designers of New City. No stock of patterns is carried in office and, since all orders are forwarde the factory, kindly allow a reasonable for delivery of any pattern you order.

Teacher—A biped is anything goes on two feet. Bobbie, can name one?

Bobbie—Yes, ma'am, a pair shoes.

e where the summer kitchen is
ilding by itself connected with
main house by a covered entry.
appreciating the advantage of
ng to a summer kitchen where
e is no running water, I decided
this room would make an ideal
and have fitted it up as such.
ere we have our desks, our type-
er, here we keep all our herd rec-
our back numbers of maga-
, our agricultural library, our
catalogs, and many other things.
my husband can interview his
the salesmen that come to see
and any other business callers
out bringing them into the home.
have appointed myself as office
tary and have spent all the leis-
fternoons of the past winter get-
our things in shape. I have in-
d all the old sales catalogs kept
heir value as pedigree references
at when he demands "John Doe's
og of 1923" I can now put my
on it at once without looking
gh a high pile. I have all the
ree sheets filed in alphabetical
r; all the individual cow records
he herd card-cataloged so that in
nute's glance one can see what
ndividual cow has done for us.
e all the many government bul-
s sorted and in piles, each per-
ng to one subject; and pictures
ows, advertising pamphlets, and
papers each have their place.
d at last I have persuaded my
and to let me start a clipping
Until now he has refused to de-
a single farm paper and when
as wanted to look up an article,
s been several hours of search
gh various papers. Now when
ing a paper he has a blue pencil
marks any article that he thinks
be wanted later; then after the
number of the magazine comes,
p the marked paragraphs, note
em the initials of the magazine
the date, file them as to subjects
pass the paper on to our tenants.
stead of keeping a regular diary
e a loose leaved calendar on the
desk and note on that each day
happening that may be referred
ter, the progress of the farm
, the calls of the veterinarian,
eather, the time of the day help,
we find it of untold service in
ng many questions.
be sure this office work takes
but it is a different kind of work
the ordinary routine of house-
duties; keeps one in touch with
e farm business and can be done
d moments. I find it very inter-
g and most satisfactory in that
eps so much of the business out
e house, and it is indeed a joy to
everything in its place and to
where that place is. I believe
every farm as well as every busi-
firm should have its office, and
that when planning the arrange-
of rooms in a new home, the
of the office will be given more
deration in the future.—K. C. B.

You Interested in Art?

e story is told of two boys
ght up on a prairie farm, sons of
ther who had always tilled the
Yet somehow both of these boys
ually worked their way to the
coast and both became sailors.
tioned as to why farm boys who
never so much as smelled salt
r should want to become sailors
replied simply that "it was the
re that did it." As long as they
remember, the first sight that
greeted their eyes on waking had
a picture hung at the foot of
bed showing a beautiful ship
r full sail fighting its way
gh a stormy sea. It uncon-
sly came to represent romance,
nture—and when they were old enough to decide, their only desire was to go to sea.

I have never known a case where a single picture affected a life as vitally as this but I do know that being exposed to beauty, even the beauty of only a picture has a softening, enriching influence that is never lost. Particularly is this true in the early formative years, and that is why good pictures are so desirable an addition to schoolrooms. We who are not artists are apt to think that one picture of a tree is as good as another. We say, "Maybe this picture is not a work of art but it is good enough for me." Perhaps it is, but it is not good enough for your children unless it is the best.

"The best" in art sounds pretty expensive but there is a new organization for the promotion of art in the home which stands ready not only to instruct us in what is good but to help us get it, and get it with little expense. This organization is the American Art Bureau, 166 West Jackson Boulevard, Chicago, Ill.

The bureau has three small booklets, "The Pictures in Your Home," "Pictures for Schools," and "Outline of Art," which sell for 25c each. The last-named booklet is largely devoted to appreciation of art but describes also the service which the bureau offers free of charge to study groups. The service consists of:

1. Assistance in planning art programs for study groups for the year.
2. A loan exhibit of 42 beautiful color reproductions mounted on 24 cardboards. This collection is sent out at no expense to the study group except the cost of transportation. The trunk containing this exhibit weighs 130 lbs. so your local express office can give you the cost of sending it between your town and Chicago.
3. A loan collection of lantern slides showing the proper use of pictures in home decoration.
4. A typewritten lecture, written by an authority, accompanies each loan exhibit and may be read by a member of the group.

The booklet on "Pictures in the Home" deals with the selection of appropriate pictures for various rooms, how to frame them, and how to hang them. It is, I think, the least valuable of the three books as it contains only material that most of us have heard many times.

I like the other two books because they contain, in addition to a small study of art appreciation, valuable lists of the masterpieces of the best artists and while the bureau does not sell pictures, they will furnish addresses where any reproduction you want may be obtained, with its price and size.

I don't believe any of us need to be convinced of the value of having good pictures in our schools and homes. It is largely a question of whether or not we can squeeze another activity into our already crowded days. If you think you can, I don't believe you could do better than to get your club or school in touch with the American Art Bureau at the address I have given.—LUCY THOMPSON.

Cheese Pie

2 eggs
⅔ cup sugar
1 teaspoon salt
4 tablespoonfuls melted butter
¾ cup cottage cheese
⅛ teaspoon cinnamon
1 cup milk
¼ cup currants
Juice of ½ lemon

Put into a pie tin with an undercrust only. The currants may be put into the pie tin to insure even distribution. They should be pressed down under the surface. Bake in a moderate oven.—Household Nutrition.



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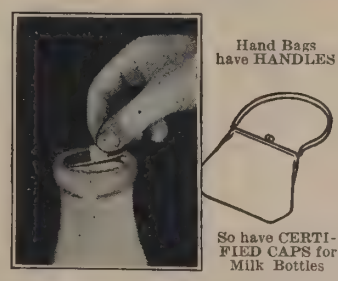
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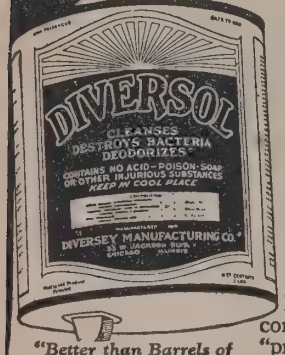
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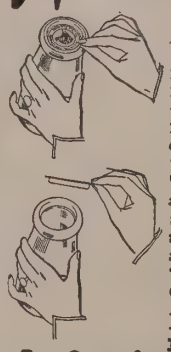
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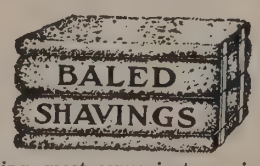
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DAIRY MARKET NEWS

Feed Market Situation

(By Grain, Hay, and Feed Market News Service, U. S. Bureau of Agricultural Economics.)

Feed prices made a further advance during the middle of August with several feeds showing a gain of $2—$3 a ton at the principal markets. Production of most feeds continued of only moderate volume and while demand was not materially increased the offerings have been readily absorbed even at the higher levels, even though farm pastures have continued substantially above average in nearly all states. High prices for corn have widened the outlet for feeds although this may be offset to some degree by the prospect for a bumper supply of hay at relatively low prices.

Wheat feeds have shared in the general advance although dealers at some points have been cautious, awaiting the outturn of the spring wheat crop. Considerably less wheat feeds have gone into storage this summer than ordinarily, according to trade reports.

Offerings of wheat feeds continued to be readily absorbed with the heavier feeds in urgent demand at a number of markets. Buffalo mills continue 2—3 weeks behind on shipping orders; offerings in central western markets have been hardly equal to current takings.

Linseed meal has shown a fractional advance again, due more to light production than to active inquiries. Demand was fair at Buffalo from both domestic and export buyers. Mills at this point were anxious for business but seemed able to move their output at prevailing prices. Quotations were also advanced at Chicago where production was light and demand was slightly more active. Production of this feed increased at Minneapolis but prices advanced, partly because of the steady gain in wheat feed prices which caused buyers to increase their purchases of linseed meal.

Cottonseed meal prices were irregular, being affected materially by cotton crop developments. Prospects are for a much smaller crop than that of 1926 which would mean that considerably less cottonseed cake and meal would be available during the coming season than last year when around 2,800,000 tons of cottonseed cake and meal were produced. Stocks of cottonseed cake and meal in crushers' hands at the first of August totaled nearly 65,000 tons. This is less than half of the 143,000 tons held at the same time last year but is larger than at this time for any year except 1922. Prices are materially higher than a year ago and demand is only moderately active at the advance.

Gluten feed prices show an irregular advance. Mill offers are only nominal and are for later shipment, generally not before October and current quotations are dominated by resellers' offerings. Resellers at Buffalo were asking about $2 a ton premium over the mill price quoted for later shipment and the offerings at Philadelphia were almost entirely from resellers.

Tankage continued to move readily at previous quotations of about $70 a ton in carlots at the principal distributing points.

Alfalfa meal held practically steady in spite of the strength in other feeds. Best grades were in light supply at Chicago but No. 2 and No. 3 alfalfa meal were available in fair volume. Light receipts of alfalfa hay caused some firmness at Omaha where choice and No. 1 meal showed a gain of around 50c. Demand continued inactive at Kansas City where reports indicated a fair inquiry for top grades. Dealers were complaining that heavy rains through Kansas and Colorado made it nearly impossible to get hay suitable for green meal.

Quoted August 24

Standard spring wheat bran: $31 Buffalo, $35.75 Philadelphia, $31 Chicago, $28 Minneapolis. Hard winter wheat bran: $33.50 Buffalo, $36 Philadelphia, $34 Cincinnati, $31.50 Chicago, $27.50 Omaha, $27.50 Kansas City. Soft winter wheat bran: $34.50 Buffalo, $36 Philadelphia, $34 Cincinnati, $30.50 St. Louis, $28 Kansas City.

Standard wheat middlings: $39 Buffalo, $43 Philadelphia, $38.50 Chicago, $35.75 Minneapolis. Soft wheat middlings: $45 Buffalo, $47.50 Philadelphia, $45.50 Cincinnati, $41 St. Louis, $39 Kansas City. Gray shorts: $45 Buffalo, $41.50 St. Louis, $40 Omaha, $39 Kansas City.

Cottonseed meal (43%): $44 Buffalo, Philadelphia, $42 Minneapolis, $42.60 Or $41.30 Kansas City, $35 Fort Worth.

Linseed meal (34%): $47.50 Buffalo, $ Cincinnati, $47.50 Chicago, $46.50 Minnea $51.10 Omaha.

Gluten feed: $38 Buffalo. White ho feed: $43.50 Buffalo, $44.70 Philadel $42.50 Cincinnati, $38 St. Louis, $41.50 C go, $39 Omaha. Alfalfa meal No. 1: $33 adelphia, $28.50 Cincinnati, $25.90 St. I $26.50 Chicago, $22.50 Omaha.

August Milk Price

(From Report by U. S. Dept. of Agricul

Table I represents a comparison of th prices received by producers in 96 local kets, for fluid milk (test 3.5%) f. o. b. shipping point or distributors' country p

Table I—August Producers' Prices by Geogr Sections

Sections	Range of prices per cwt.	Compariso average pr 1927 Aug.	1927 July
New England	$3.25—4.19	$3.75	$3.50
Middle Atlantic	2.20—3.00	2.78	2.76
E. No. Central	1.75—3.13	2.49	2.43
W. No. Central	1.58—3.10	2.11	2.04
South Atlantic	2.44—4.77	3.35	3.40
E. So. Central	1.83—3.39	2.31	2.30
W. So. Central	1.70—2.70	2.28	2.32
Mountain	1.65—3.20	2.39	2.39
Pacific	2.28—3.16	2.63	2.60
United States	1.58—4.77	2.70	2.64

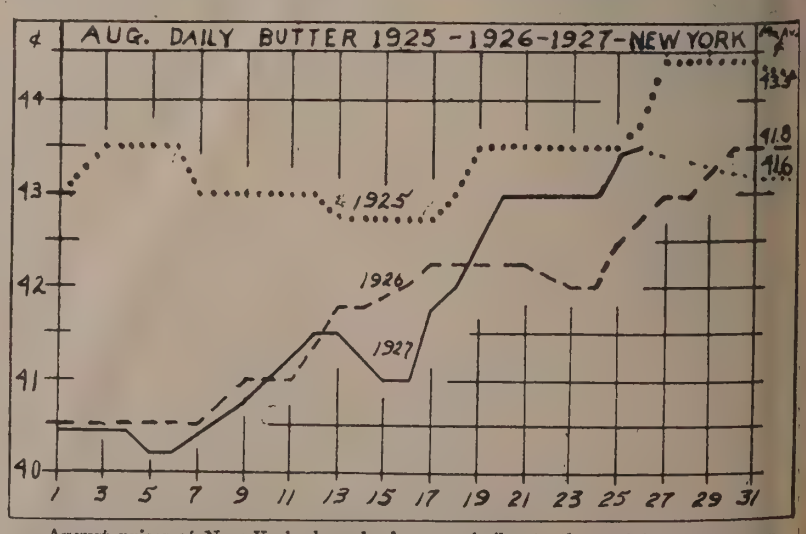
Table II shows for certain represent city markets the prices of standard grade (Grade B test 3.5%) received by prod f. o. b. city and paid by consumers:

Table II—August Producers' Prices f. o. b. Cit Consumers' Prices

	Producer received per cwt.	Cons pa per
		Ct
Birmingham, Ala.	$3.49—3.91	1'
San Diego, Calif.		1
San Francisco, Calif.	311—3.21	1
Denver, Colo.	1.92	1
Hartford, Conn.	4.22*	1
Washington, D. C.	3.49*—3.72*	1
Jacksonville, Fla.	3.08—3.37*	17—
Chicago, Ill.		1
Indianapolis, Ind.	2.10	1
Des Moines, Ia.	2.55*	1
Topeka, Kans.	1.80—2.25	10—
Louisville, Ky.	2.01—2.12	1
New Orleans, La.	2.81*	1
Baltimore, Md.	3.55*	1
Boston, Mass.	4.10*†	1
Detroit, Mich.		13—
St. Paul, Minn.	2.60*	1
St. Louis, Mo.	2.40	1
Butte, Mont.	2.60*	1
Lincoln, Nebr.	1.93	1
Trenton, N. J.	3.41*	1
New York, N. Y.		1
Cleveland, O.	3.30*—3.40*	1
Tulsa, Okla.	2.10—2.45	10—
Philadelphia, Pa.	3.49*—3.52*	1
Pittsburgh, Pa.	3.45*—3.60*	1
Providence, R. I.	4.10*	1
Memphis, Tenn.	2.58*—2.73*	1
Dallas, Tex.	2.60*	1
Salt Lake City, Utah	2.35	1
Richmond, Va.	3.93*—4.05	1
Seattle, Wash.	2.49—2.56*	1
Spokane, Wash.	2.35*	1
Milwaukee, Wis.	2.90*	1

*Basic prices for fluid milk.
†July prices increased 1c per qt. on the t

Prices paid per hundred pounds for st ard grade milk (Grade B, 3.5%) at the a



August prices at New York showed advances similar to the past two years, averaging 41.6 cents. This is practically equal to the August prices of last year, but is nearly two cents under 1925.

country receiving stations or at the pro-
rs' railway shipping points, as also price
b. city, are given in Table III:

able III—August Prices at Country Stations

ties	At country stations	Freight zone to which prices apply
Haven	$3.70*	28c rate
hington	2.91*	35c 10-gal. can
ago	2.50	All
imore	2.97*	35c rate
on	3.34*	181—200-mile zone
ouis	1.90	34c rate
ton	2.85*	41—50-mile zone
alo	2.62	28c rate
York	2.95*—3.00*	201—210-mile zone†
eland	2.92*—2.99*	All
adelphia	2.91*—2.95*	51—60-mile zone
burgh	2.70*	All
nton	2.80	30c rate
as	1.90*	All

asic prices for fluid milk. †53c rate.

he following net prices were reported paid embers of producers' associations supply- the cities listed. Prices announced in ad- e for such cities are usually of two class- "Basic" and Surplus," the former applying hat portion of the milk which is used in form for city wholesale and retail trade, the latter applying to that portion classed 'surplus," which is used for manufactur- purposes:

e IV—Net Prices Paid Members of Producers' Associations for 3.5% Milk

ties	Paid*	Pe-riod	Previously announced price for same period Basic	Surplus
ford	$3.57	June	$4.22	Butter markets
Moines	2.18	July	2.55	$1.85
imore	3.20	June	3.55	Butter markets
	‡2.176	May	2.87	
on	‡2.054	June	2.88	Butter markets
York	†2.13	June	2.95	$2.15—$2.46
on	2.54	June	3.20	$1.90
eland	2.68	July	3.14	Butter markets
burgh	2.76	June	3.45	Butter markets
aukee	2.50	July	2.85	Butter markets
th	2.08	June	2.52	All milk pooled

81—200-mile zone. †201—210-mile zone.
. o. b. city unless otherwise indicated.

able V gives for a few cities the retail es of special milk, certified milk, cultured ermilk, cottage cheese, and cream testing o 25 per cent butterfat:

able V—August Retail Prices to Consumer

ties	Spe-cial milk per qt.	Certi-fied milk per qt.	But-ter-milk per qt.	Cot-tage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
a	16—18	20	8	10	16
ly	18		10		17—20
uerque				25*	15
town	18		13		17
na	15	22	8—10	15	13—15
ille	19	25			20
more		30	14	15*	16
ngham		25	6	20	15
n	18½	26	10		
lo	14		10	12*	
go	17	25	10	15*	16
land	19—20	25	12—13	15—20	17—22
Spngs.	17		6		10—12
nbus	17		7	20*	14
s	24		8		11—14
r	14		8		14
oines	14—20		9	14	11—14
t		25			
h	14	25	8		17
so	17	25	10	20*	15—17
ville	15		9½		14
sburg			12		14
ord	20—25	25—35			18
napolis	16		10—12	20	11—13
onville	25		10—12	30	20—30
n	14	15	10	15	10
as City	15—25	25	10	20*	10—15
Beach		28	10		17
ngeles	20	28—30	10		17
ville	16	24	13		15
his		30	6—7	20	15
	28	32	15	20	22—25
aukee	14—18	25	6	9—10	12—14
apolis		22	13		15
ille	18		10	20	16
Orleans	18	31	14		17
York	30	28			
a	15	15	10	15*	8—10
delphia	15—16	30	9—13		17
urgh		25	10		17
nond	16—18		8		14
ord		21	6	18	15
ake City	15			15	15
Diego	20	30	9	15	15
Francisco		25	14	20	20
ton	18	25	8—10		20
le	25	18		20	15
City		25	6	10*	10
ne					14
uis	18	25	10	15	17
on	17	30	13		15—16
lad	15	25	10	25	10—12
ington	17—23	30	15	15—20	16—20
ington	20		10	13*	17
ling	18		10		15

oz. package. †18 to 25% fat.

tter and Cheese in August

tter averaged 41.6 cents in New York for ust, which is practically equal to the July ge and August of last year but is nearly cents under 1925. Advancing prices ght out some storage butter and some mistic operators predicted that the ad- would check consumption or permit a free use of storage butter. Receipts for urrent year are some two hundred thou- tubs in excess of the same period for year and storage holdings are nearly a on pounds larger.

eese prices still retain an advantage over r, prices advancing a cent and a half g August. The average wholesale price he Wisconsin primary markets averaged 23.9 cents, which is three cents above August, 1926, and a cent above 1925. Unfavorable weather and feed conditions in the major producing sections have curtailed receipts at the warehouses and storage at the four principal markets is over a third less than a year ago.



Connecticut August Milk

The Connecticut Milk Producers' Association announces the following prices for Grade B milk delivered during August at market milk centers:

All milk sold in fluid form, 9.5 cents per quart for 4 per cent milk, and 4 cents per point allowed for other tests; all milk made into cream that is sold in fluid form, 22.5 cents per pound fat above the average monthly price of 92-score butter on the Boston market; all milk made into butter at a price per pound fat equal to the month's average on 92-score butter in Boston.

Twin City July Milk

The Twin City Milk Producers' Association of Minnesota paid $2.31 a hundred for 3.5% milk delivered in St. Paul during July. The association handled 26,721,543 lbs. milk, of which 54% was surplus.

Cream patrons were paid 48 cents a pound for butterfat in first grade cream during July. This is 6.3 cents above the average price of 92-score butter on the New York market.

Iowa June Butter

The Iowa Creamery Secretaries' and Managers' Association reports that for the local creameries reporting, patrons received 47.36 cents a pound for fat in June as compared with 45.93 cents in June a year ago. The price paid per pound of fat ranged from 43 cents to 51 cents, with the average fat handled per creamery being 46,193 pounds.

Sheffield July Price

The cash price for July, 1927, paid Sheffield producers for 3 per cent, Grade B milk in the 201—210-mile zone is $2.30½ per hundred pounds, with the usual freight and butterfat differentials. This is equivalent to $2.50½ for 3.5 per cent milk and is an increase of 9 cents over July, 1926.—C. W. HALLIDAY, Secretary.

League July Milk

The New York Dairymen's League paid in July a net pool price of $2.24 per 100 pounds 3.5% milk in the 200—210-mile zone. This is 11 cents above June.

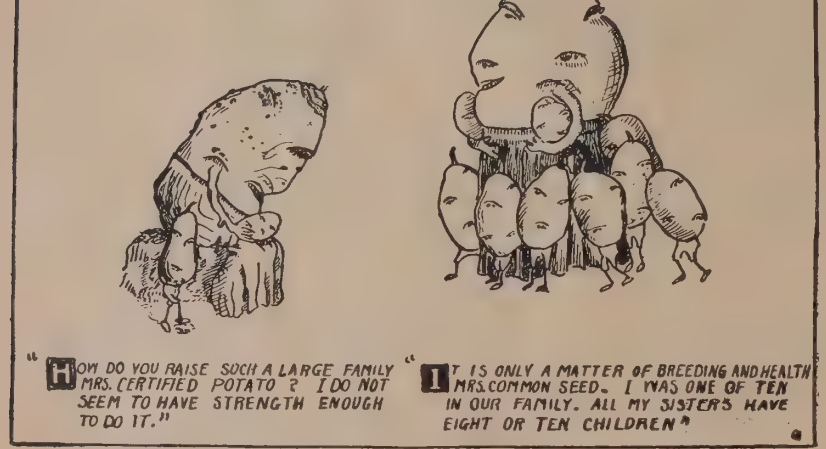
HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Potato Study For Juniors

POTATOES have a place on nearly every farm. Many dairy farmers grow them as a cash crop. When not grown as a cash crop, at least enough potatoes are grown to supply the table.

Seed Selection—If you are going to plant seed next year that you have grown yourself, it should be selected before harvest time this year. In the field the vines should be inspected for disease and good growth. The more vigorous hills may be marked and dug separately. Potatoes from hills that produce the largest number of marketable potatoes are best for seed. Examine them for type, freedom from scab and other disease, and purity of breeding.



SELECT YOUR SEED FROM HIGH YIELDING, HEALTHY HILLS

Storage—Where should potatoes be stored? Three conditions are essential. They should be stored in a place where the temperature can be kept as low as possible without freezing, preferably between 32 and 40 degrees, in a well ventilated place where the air is as dry as possible; they should be kept where it is dark.

Crop Rotation—The crop which is harvested takes plant food from the soil. It has been estimated that a 600-bushel potato crop removes 160 lbs. each of nitrogen and potash, 60 lbs. of phosphoric acid. If we are to maintain the productivity of the land, we must maintain its fertility. This can be accomplished by applying fertilizers and using a good crop rotation. A 3-year rotation is used on many Wisconsin farms.

Land growing potatoes this year is seeded to small grain and a legume for next year. The third year it is hay land and can be manured and plowed under at the end of the season, when it is ready for potatoes or a crop of corn. Such a crop rotation keeps the land in good physical condition, maintaining the supply of organic matter which is just as necessary as proper maintenance of the plant food supply.

At the Minnesota Experiment Station, in growing potatoes over a ten-year period the growing cost where no manure was applied was 69c a bushel for marketable potatoes; where five tons of manure were applied the cost was cut down to 30½c per bushel. This application of manure every third year increased the yield 18.9 bus. for each ton applied.

History—The potato probably originated in the mountainous valleys of South America in Chile and Peru. The conditions there are similar to those in the mountainous valleys of Colorado and Idaho. In its native home, the potato grows at altitudes of 4,000 and 6,000 feet.

A monk, Hieronymus Cardan, is said to have carried potatoes to Spain from Quito, Peru, in the 16th century. From Spain the potato was carried to Italy and Belgium. Spanish explorers took the potato with them to Florida. From Florida the potato went to Virginia and other colonies and from there to the continent of Europe.

About 1585—86 potatoes were grown on the estate of Sir Walter Raleigh, located near Cork, Ireland. These probably came from what is now North Carolina. Switzerland, France, and Germany soon took up the potato.

Three Frenchmen are associated with the early history of this plant. The botanist, Olivier de Serres, wrote a chapter on the potato in a book which was published in 1600. M. Frazier named the potato, calling it *pomme de terre* in a book which he wrote about his travels to Chile.

M. Parmentier popularized the potato as an article of diet. For a long time after its introduction, people were skeptical of its use as a food. He secured the help of Louis XVI and had a plot planted to potatoes on the plain of Les Sablons. He had this plot guarded by soldiers so as to arouse the curiosity of the natives. When the crop was harvested, he served a dinner to leading scientists and influential men at which every dish was either made from potatoes or accompanied by potatoes.

Uses—In 100 lbs. of average potatoes there are approximately 75 lbs. of water, 19 lbs. of starch, 3 lbs. of sugar, and 1 lb. of fat and salt, and 2 lbs. of nitrogenous matter. Its high carbohydrate content—starch and sugar—make it a valuable food for man, which is its chief use. Potatoes are also fed to animals, cull potatoes being fed to pigs, and they are sometimes fed as a succulent to dairy cows. Large quantities of starch are manufactured from potatoes. They are also a source of glucose, which is a sugar for confectioneries. Industrial alcohol is manufactured from potatoes and in this form potatoes play an important part in the manufacture of varnishes, lacquers, the preparation of medicines, dyes, coal tar by-products, vinegar, imitation silk, smokeless powder, and fuel.

"Starch is the principal industrial product of potatoes in this country," says L. B. Flohr, marketing specialist of the U. S. Department of Agriculture, "but is made in relatively small quantities except when a larger than usual crop is produced, then, if the price is low enough, the starch manufacturers utilize a considerable part of the surplus. After making allowances for seed, say 10 bushels an acre planted, most of the crop is usually required for food."

Production—In 1926 the production of potatoes in the United States was 356,360,000 bushels. The five leading states and their production in bushels were: Maine, 36,830,000; Michigan, 29,880,000; Minnesota, 29,800,000; New York, 29,016,000; Wisconsin, 27,140,000.

Selecting Potatoes to Show

Often the one who grows the best potatoes does not win prizes because he fails to select an exhibit correctly.

A good exhibit must have potatoes of uniform size, shape, and color. Select those whose shapes conform to the type of that variety. Select those that are smooth, shallow eyed, free from disease and injury.

Select medium sized potatoes that are only a little larger than the average. Potatoes of the Early Ohio, Triumph, Early Rose, Burbank, and Irish Cobbler varieties should weigh from six to eight ounces each. In the eight to ten ounce class are the Rural New Yorker, Green Mountain, and Peerless varieties.

Do not wash the potatoes you are putting on exhibit but have them free from dirt; if necessary, use a soft brush carefully. Keep them dry. Most exhibits call for one peck.—Wisconsin Boys' and Girls' Clubs.

Clubbers at Camp Shaw

More than 400 club members from the Upper Peninsula of Michigan enjoyed a big week at Camp Shaw August 8—12 on the experiment station farm at Chatham.

The camp was in charge of Merton L. Wright and Miss Emma du Bord, assistant state club leaders. A. G. Kettunen, state club leader, and Miss Sylva Wixson, assistant state club leader, helped conduct the camp. "The Camp Shaw News," published daily on the grounds, was edited by George Harma. Gustave Thorpe was director of athletics for the boys and Edna Bowling of the Farmers' Wife had charge of recreation for the girls. Bernard "Chink" Eger has been the camp engineer since Camp Shaw was born. Several other leaders contributed to the success of the camp.

Instruction and recreation made a balanced program for the boys and girls. Classes were conducted by specialists in live stock, poultry, crops, home economics, and o subjects of interest to club mem The boys had some valuable fore lessons when they visited the fed forestry experiment station a miles from camp.

Evening features included the candle lighting service conducte G. L. Noble, secretary of the nati committee on boys' and girls' work, a wienie roast, and stunt ni

A tug of war across the Slap river provided much merriment last afternoon in camp. The were divided into Indian tribes the week and the competitio sports was very keen between t Each afternoon a red hot ball g took place in the senior and ju divisions. The climax was the game between an All-Star club m ber team and a Leaders' team, by the All-Stars 4 to 1.

There were two big musical f ures during the week. A 4-H band from Gogebic County under leadership of C. C. Mains gave se al programs and added consider pep to the camp. The R. E. community singing and individua strumental contests attracted gu and single entries from all of counties represented. Seventy dollars in cash prizes made the c petition keen.

Demonstration teams comp during the week for trips to Michigan State Fair. A pure-l Holstein heifer calf was offered one of the state institutions as prize for the dairy cattle judging test.

Eight years ago 67 club mem attended Camp Shaw for the time. The meals were served by i ferent families and organization the Upper Peninsula Experiment t tion. Today a fine big dining used as a farm machine shed the of the year, comfortably seats 400 clubbers at meal time. And fine meals as the camp cooks serve!

Oklahoma Club Work

HOARD'S DAIRYMAN JUNIOR— About 2,300 4-H Club members re tered during Farmers' Week at



BOUND FOR WASHINGTON, D. C

Oklahoma club members leave for t national 4-H club encampment. State Cl Leader B. A. Pratt is standing on the e treme right.

Oklahoma A. and M. College held u gust 2—5.

Carl Sturdivant, Craig County, a high individual in the junior d cattle judging contest. Carl was a ther honored by being elected p dent of the Oklahoma State Fed tion of 4-H Clubs. Other offi elected were: Helen Brown, v president; Elizabeth Wilson, s leader; and Paul Couch, yell lea Oklahoma. C. E. TROU

The total membership of 4-H c in the United States is as large as entire population of the state o Rhode Island.

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman of the previous issue. Let's talk it over.]

For further discussion of the following see the August 25th issue.

What is New England's handicap? They are spending nearly $50,000,000 annually for the grain necessary to balance their dairy rations. This means an average annual outlay of $50 for every cow in the section. Their great problem is to grow more protein on the farm. (See page 791.)

How can they ease up their cow feed bill? By growing better roughage. By liming and sowing alfalfa in regions where lime is not used alsike and mammoth clover can be substituted to advantage.

What did Professor Haecker say about the physical tone of the dairy cow? Cows vary from year to year in physical tone. Some time in their life they will consume more feed and do more work than they have done at any other time. The usefulness of a cow can not be measured by any one year's performance. (See page 814.)

How was the Minnesota Station herd handled under Professor Haecker? Strict routine was observed. Feeding and milking were done at exactly the same time every day. The cows were milked quickly and in regular order. All animals were treated with kindness. (See page 792.)

Is there an opportunity in veterinary medicine? Yes. The demand for trained veterinarians is greater than the supply. (See page 793.)

Do trees protect buildings from lightning? No, they are not good conductors and add a danger when closer to the building than their height. Such trees should be protected with lightning rods. (See page 794.)

What is the record of the Farmers' Union Creamery? Located at Spencer, Nebraska, this co-operative creamery was organized in 1918 when 29 stockholders furnished the funds to get a little 600-pounds-a-week plant started. Today the organization boasts of 1,000 stockholders, 6,000 patrons, and an annual output of more than 2,000,000 pounds of butter.

How can rats be destroyed on the farm? Calcium cyanide dust may be used to advantage in open burrows in fields, along ditch banks, under sidewalks, around buildings, under pavements, in corncribs. The dust is used most effectively by means of a portable dusting pump with a flexible hose attached. (See page 801.)

What causes hog cholera? It is caused by a tiny organism commonly called virus, so small that it has never been identified by the best microscopes and it passes through the pores of the finest filters. (See page 815.)

How can hog cholera be prevented? By treating with serum and virus before the disease has invaded the herd. It may be done most economically immediately after the pigs are weaned.

FRIENDS—

You can make new ones by joining the

HOARD'S DAIRYMAN JUNIORS

THERE'S nothing quite like a good friendship—something "solid" about it, something satisfying. Silver and gold you may have little, but if you have friends, you are rich indeed.

Join the JUNIORS and start writing to boys and girls in other states, and other countries NOW. Exchange experiences and make your life fuller and richer.

How to Join—The requirements for membership are: (1) Some member of the family must be a regular subscriber to Hoard's Dairyman; (2) the age limit is 20 years. If you can meet these requirements fill in the application and send it in.

There's no time like the present to get that watch fob, creed, and pin, the emblems of a Hoard's Dairyman Junior, which we send you without cost as soon as you are completely enrolled. Sign up NOW and make new FRIENDS.

HOARD'S DAIRYMAN
Junior Editor
Fort Atkinson, Wisconsin, U. S. A.

Dear Sir:—

I hereby apply for membership in the Hoard's Dairyman Juniors' Club. I agree to read the Junior Department of Hoard's Dairyman regularly and do all I can to make the Juniors' Club a success. Will you please send me the watch fob [ ] or necklace [ ] (mark x) after your choice), the pin, and the Hoard's Dairyman Junior's Creed.

Name .....
(Write distinctly, or print)

Address .....
(R. F. D.) (City)

..... I am ..... years old.
(State)

Hoard's Dairyman comes to my home addressed to .....

My favorite breed of dairy cattle is .....

..... My father's name is .....

..... Do you belong to a Boys' and Girls' 4-H Club? .....

If so, what kind?.....

Junior Letters

Keeping Cows in Canada

Hoard's Dairyman Juniors:—We have 19 cows and a pure-bred bull. Five of our cows are registered Holsteins and the rest are grades. My father went out to 16 fairs last summer and won 2 silver cups, 140 first prizes, 34 seconds, 12 thirds, 12 diplomas, and 10 championships. It was one of my calves that won a silver cup.

I am in a competition in the Department of Agriculture in Winnipeg for boys and girls under 20. I have 6 cows entered as a herd. It started on January 1st and ended December 31st, 1926. Four of my cows had over 500 lbs. of fat. My address is Keyes, Manitoba, Canada.

Norah Hamilton.

Farming a Peat Marsh

Hoard's Dairyman Juniors:—I am going to tell you about our peat marsh. I think it is very interesting. We only broke it up last year but we had a good crop and as the rains were so bad last fall we had difficulty to gather all the vegetables. We had several hundred bushels each of onions, carrots, and rutabagas. We have about 25 acres in all and some was planted to grass, about 10 acres to potatoes, and about an acre to cabbage; also some cucumbers, peas, beets, peppers, some sweet corn and tomatoes near the edge where it is more sandy. We used a commercial fertilizer for all vegetables but some take different kinds and the small, garden vegetables take more than grass or potatoes. The fertilizer cost about $50 an acre. We planted some timothy and clover and we could not cut it last fall as it was standing in water.

My address is Anoka, Minn.

Donald Hastings.

Six Years in Club Work

Hoard's Dairyman Juniors:—I came to Wisconsin from New York in 1920. At that time the boys and girls were organizing a 4-H club. I joined it and took gardening as my project. In the fall I completed my record book and found that I made a fair profit. I joined the club the next year and took up gardening again and made a still larger profit and this encouraged me to a great extent. So I thought of taking up pig club work. With the help of our county club leader, who was Mr. Merton Wright, I purchased a pure-bred Poland-China gilt of Veva M. Divan. I took good care of the pig and as always kept up my record book. In the fall I received a letter from our state club leader informing me that I had won a free trip to Chicago to the National Club Congress and International Live Stock Show.

This show got me interested in live stock raising, so the next year I again took up pig club work. This year I was elected as the president of the club and got a broader view in civics as electing officers of our clubs, organizing clubs, how to help the community with 4-H club work, and how to make my work play. I completed the record book and sold all the Poland-Chinas and bought a pure-bred Yorkshire boar and got a high grade Yorkshire gilt. For this gilt I paid two young gilts from her litter. I had the same success as I did before. This year I took up calf, garden, and potato projects. Every year I completed my record books and did my best. Now this is my sixth year in club work.

In 1925 and 1926 I wrote in two essay contests and received first place both years and the prizes were free trips to the state fair for three days. I'm 15 years old. All the juniors who wish to write to me may address me at R. 3, Mosinee, Wis. Good luck to all.

Stanley S. Chmiel.



As sure as shootin'

THERE'S nothing like a hot, fat spark to start an engine. Eveready Columbia Dry Batteries provide sure-fire ignition at the lowest cranking speed. One turnover and the engine starts with a bang.

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If you want ignition that won't fail in any weather, install Eveready Columbia Hot Shots in their steel water-proof cases. They will start a wet engine and keep it running.

Put Eveready Columbias on your engines now and they will be ready for dependable service whenever you need them.

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New York San Francisco
Unit of Union Carbide and Carbon Corp.

EVEREADY COLUMBIA Dry Batteries
-they last longer

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These herds will use Burch Blankets this year: Carnation Farms and Pabst Holstein Farms, Oconomowoc, Wisc., Corium Farm, (F. J. Rueping, Pres.) Fond du Lac, Wisc., Fern-Dell Farm (A. W. Fox, Mgr.) Green Bay, Wisc., Elm Hill Farm, Brookfield, Mass., Rock County Herd, Janesville, Wisc., and many others.

Send your name and address today for free descriptive booklet, prices, etc.

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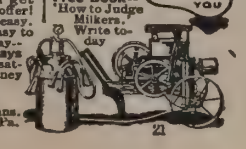
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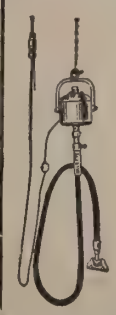
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Premier Jersey Breeder and Exhibitor

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AT THE ILLINOIS STATE FAIR, Springfield, Aug. 20—27, our herd of 21 head took 28 premiums, embracing

GRAND CHAMPIONSHIPS FOR BOTH BULL AND COW.
TEN FIRST PRIZES, including dairy herd, aged herd and breeders' young herd.
PREMIER BANNERS FOR BREEDER AND EXHIBITOR.

Eighteen of the 21 head shown are close descendants of (Imp.) Oxford Sultan of Oaklands, winner of Challenge Cup over the Island of Jersey, shown with his offspring, herd sire at The Oaklands for four years.

A. H. GOSS, Pres.
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THE OAKLANDS

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Ann Arbor, Mich.

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40 REGISTERED JERSEYS

of Fauvic Prince, Majesty, Raleigh, Noble and American Breeding. Herd sire—Golden Maid's Willoh, Grandson of Fauvic's Prince out of Golden Maid's Jewel 705 lbs. fat. Federally Accredited Herd. In C. T. A. 19 cows in milk, 5 two year old springers. Several outstanding bulls. AT FARM 17 miles north of La Crosse on U. S. H. 53. VERGERONT & JOHNSON, HOLMEN, WIS.

For catalog write

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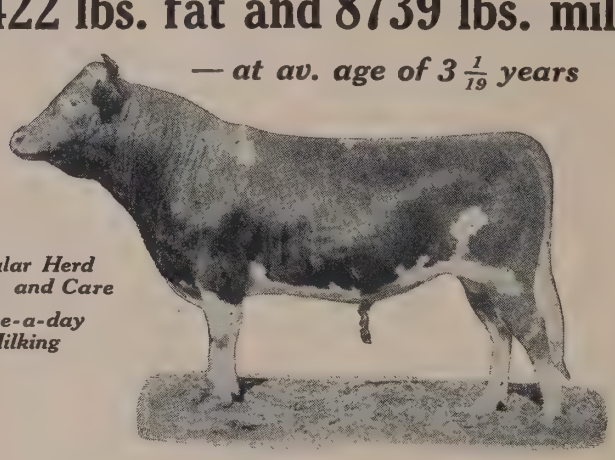
Bull Wanted

We want a proven Holstein bull. Send photos of his daughters, A. R. O. or C. T. A. records, and price in first letter. All photos will be returned. Bull must sire the right kind, be a sure breeder, and guaranteed as to health.

BOSTWICK & SON, ARDMORE, OKLA.

His First 19 A. R. Daughters Average 422 lbs. fat and 8739 lbs. milk

— at av. age of 3 1/19 years



— Regular Herd Rations and Care

— Twice-a-day Milking

ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money.

PLAN NOW FOR THE FUTURE !

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

SALE ANNOUNCEMENTS

Sept. 12—Guernseys. First Annual Mayowood Farm Sale at Rochester, Minn. Melin—Petersen Company, Sale Mgr.
Sept. 13—Holsteins. First Annual Mayowood Farm Sale at Rochester, Minn. Melin—Petersen Company, Sale Mgr.
Sept. 14—Holsteins. Dispersal Hartland Herd. C. J. Hart, Clayton, Mich.
Sept. 20—Holstein. W. H. Putnam, River Falls, Wis. Melin—Petersen Co., Sale Mgrs.
Sept. 28—Guernseys. Blue Earth County Guernsey Breeders' Sale at Mankato, Minn. Dr. M. B. Wood, Mgr.
Sept. 30—Guernseys. George C. Stone, Pawling, N. Y. The Herrick—Merryman Sales Co., Sale Managers.
Oct. 3-4—Holsteins. Dispersion of Hollyhock Farm Holsteins at Dousman, Wis. Melin—Petersen Co., Minneapolis, Minn., Sale Mgrs.
Oct. 5—Louis Merryman's Second Annual Grade Sale, Timonium, Md. The Herrick—Merryman Sales Co., Mgr.
Oct. 6—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
Oct. 6—State Guernsey Sale, Minnesota State Fairground, St. Paul, Minn. Dr. M. B. Wood, Mankato, Minn., Mgr.
Oct. 6—Holsteins. Iowa Holstein Breeders' Association sale at the Dairy Cattle Congress grounds, Waterloo, Iowa.
Oct. 6-7—Louis Merryman's 17th Semi-annual Sale, Timonium, Md. The Herrick—Merryman Sales Co., Mgr.
Oct. 8—Jerseys. First Annual Sale of Ravine Farm Jerseys at Prairie View, Ill. A. Lawrence Mills, Owner.
Oct. 12—Ayrshires. Consignment Sale of Edgerstoune and Monstone Farms Ayrshires at Springfield, Mass. J. G. Watson, Sale Mgr.
Oct. 12—Holsteins. A. M. Brush & Son Dispersal 60 head Registered Holsteins at Mankato, Minn. Melin—Petersen Co., Sale Mgr.
Oct. 24-Nov. 5—Holsteins. Wisconsin Holstein Sales Ass'n. Sales. James R. Garver, Madison, Wis., Mgr.
Nov. 3—Guernseys. Wisconsin State Guernsey Sale at the Sale Pavilion at Waukesha, Wis.
Nov. 8-9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H Bird, Mgr.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.
Nov. 30—Guernseys. La Crosse Co. Guernsey Breeders' Sale at West Salem, Wis. H. W. Griswold, Sale Mgr.
May 23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florham Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
May 24-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herrick—Merryman Sales Co., Mgrs.
May 26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hopewell Junction, New York.
June 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.

Judging Dates

Eastern States Exposition

Sept. 20—Jerseys, G. C. White.
Sept. 21—Ayrshires, Lewis Seitz; Guernseys, H. H. Kildee.
Sept. 22—Holsteins, W. S. Moscrip; Brown Swiss, John C. McNutt.

Dairy Cattle Congress

Sept. 27—Brown Swiss, C. S. Rhode; Guernseys, W. W. Yapp.
Sept. 28—Brown Swiss and Guernseys completed; Jerseys, C. H. Staples.
Sept. 29—Jerseys completed; Ayrshires, L. V. Wilson; Holsteins, H. H. Kildee.
Sept. 30—Ayrshires and Holsteins completed.

Reeds Canary Grass

HOARD'S DAIRYMAN:—Reeds canary grass is attracting considerable attention in the Pacific Northwest. This grass is found in limited areas as far east as the Mississippi river. The largest area is found in Coos County, Oregon, according to the best information the writer can obtain. The origin of the grass in there is somewhat difficult to determine. Various stories are told. It seems most probable, however, that the early start in canary grass resulted from a small shipment of seed from the department of agriculture or from the Oregon Agricultural College. However this may be, the grass spread rapidly and is now one of the most valuable pasture crops to be found there.

Canary grass, as it is commonly termed, grows under exceedingly moist conditions. In fact, in Coos County the larger acreages are covered entirely with water during the winter months, due to the overflow and backing up of the water of the Coquille river. It is not unusual to observe a herd of cows in the early spring standing knee-deep in water, greedily pasturing on the tops of shoots of canary grass that stand a foot or more above the water. Although highly prized as a pasture in the Coos County dairy districts, for many years there was no appreciable spread of the grass until recent years. About four years ago plantings were made in the lake region of Northern Idaho and these have proven successful. In 1923 plantings were made in other counties along the Oregon coast, particularly in Lincoln and Tillamook. Plantings have also been made in Pacific County, Washington. Under the relatively drier conditions of the Willamette Valley good stands of canary grass have been obtained on the lower lands, particularly those subject to some winter overflow.

A new field of usefulness has now been opened up in Oregon east of the Cascade mountains. In Klamath and Lake Counties there are vast areas of marsh lands, almost always moist and completely overflowed at certain periods. In 1923 test plantings of canary grass were made in Klamath County along with some eight or ten grasses and mixtures. Under the conditions obtaining in the Wocus marsh district, where the test was located, the canary grass was the outstanding pasture crop in the trial. The acreage was considerably increased in 1924 with apparent success. Small experimental plantings have been made under much sim conditions in Lake County.

Although a wheat land crop, R canary grass is not a swamp gr It is a very palatable pasture many of the best dairy herds of County are on canary grass pas throughout the spring. It yields heavily, but this hay is not of the quality, being somewhat coarse.

Oregon. F. L. BALLAR

Bulletins of Interest

Good Fitting Shoes for E Member of the Family, by Glady Meloche. Circular 191, Exten Service of Wisconsin College of riculture, Madison, Wis.

Planning and Planting H Grounds, by F. A. Aust. Circular Extension Service of Wisconsin lege of Agriculture.

Tankage and Buttermilk as Pro Supplements for Growing Pigs, b F. Ferrin and M. A. McCarty. B tin 221, Minnesota Experiment tion, University Farm, St. P Minn.

Improving Winter Rations for P by A. H. Kuhlman and J. W. Wil Bulletin 216, South Dakota Exp ment Station, Brookings, S. D.

A Study in Vermont Dairy Fa ing, by J. A. Hitchcock. Bulletin Vermont Experiment Station, lington, Vt.

Marketing Wisconsin Fore Cheese by Federation, by H. H. H ken. Bulletin 380, Wisconsin Exp ment Station, Madison, Wis.

Salads all the year, by Dorothy Loudon. Circular 72, North Dak Agricultural College, Fargo, N. I

Farm Business Analysis, U Score Card Method, by T. S. T finnson. Circular 71, N. D. Agri tural College, Fargo, N. D.

Profitable Dairying, by W. L. vert and G. A. Pond. Special B tin 112, Minnesota Experiment tion, University Farm, St. Paul, M

Fuel from Pine Stumps, by M Thompson and A. J. Schwantes. letin 227, Minnesota Experiment tion.

Commercial Buttermilk, by A. Burke. Bulletin 156, Oklahoma periment Station, Stillwater, Okl

Making Cottage Cheese on Farm, by J. L. Sammis. Circular Wisconsin Experiment Station, M son, Wis.

Succulent Feeds for Dairy Cow Summer, by H. H. Kildee, E. Wea J. M. Shaw, and F. Ely. Bulletin Iowa Experiment Station, Ames,

Factors Affecting the Price Hogs, by G. C. Haas and M. Ezek Bulletin 1440, U. S. Dept. of A Washington, D. C.

Testing Makes Cows Pay, by A Cramer. Circular 207, Wisco College of Agriculture, Madison, W

Use of Explosives on the Farm A. J. Schwantes. Special Bull 110, Minnesota Experiment Stat University Farm, St. Paul, Minn.

Flax Rust, by A. W. Henry. S cial Bulletin 109, Minnesota Exp ment Station, St. Paul, Minn.

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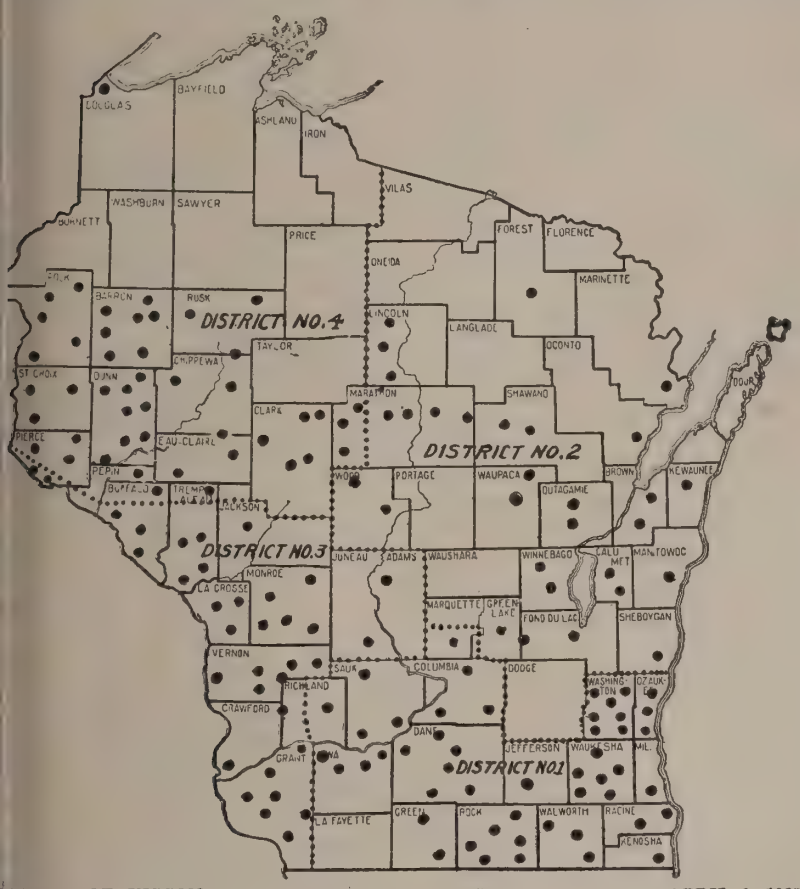
47 HEAD—TYPE AND PRODUCTION—12 head sired by K. P. O. P. 24th whose 7 nearest dams average 1,173 lbs. butter, 12 head sired by King Mutual Korndyke 9th No. 271371 whose dam has 1,291 lbs. butter in 365 days, 8 records averaging 1,135 lbs. and a seven-day record of 42.42 lbs. Sire's dam the (1915) world record 2-year-old. Finderne Mutual Fayne with 1,200.64 lbs. butter in 365 days. All females of breeding age bred to King Mutual Korndyke 9th.

C. J. HART CLAYTON, MICH.

he Wisconsin Dairymen's Association

HE premier position of Wisconsin as a dairy state is in no small measure due to the vision few men who met at Watertown ebruary, 1872, and organized the consin Dairymen's Association. that time farming was at a low Soil fertility had been exhaust- Men were moving into the more le prairies of the West, and the nt dairy industry of the state was ganized and without adequate kets. From that small meeting from that small beginning, and st at once, improvement set in the advancement was made. recital of the accomplishments of Wisconsin Dairymen's Associa- has been compelled to call upon its members to contribute $1.00 a year to the state wide work of organization and supervision of cow testing associations, this in addition to the expense these members are under to finance the major part of the work of the local association, amounting as it does to about a thousand dollars a year per association. The response of these members has been generous and has enabled us to do a work for the state of Wisconsin and the several cow testing associations that would otherwise have been impossible.

Our members may well take pride as contributing materially to this constructive work of a state association



CATION OF WISCONSIN'S COW TESTING ASSOCIATIONS ACTIVE APRIL 1, 1927

is interesting reading. Briefly ed: It was responsible for securtrade outlets in the early days promoting better products and er production methods. Largely ugh its initiative, the farm instis of the state were inaugurated, irst dairy school was established, Dairy and Food Commission ted, and the dairy legislation of state perfected. It organized the cow testing association in Wisin in 1906 and has ever since responsible for the expansion supervision of this work. Its ion throughout the years has to urge the dairymen to keep er cows, to give them better care, roduce a better product, to protheir market from fraudulent petition, to improve their marketmethods and their trade outlets—o the end of producing better ts, a sounder industry, and the ling of better homes and a better e life.

its work the Wisconsin Dairys Association has had the hearty peration of the United States au of Dairy Industry, the State ge of Agriculture, the county ts, and its farmer members geny. It has been the good fortune isconsin to have had men and intions interested in the dairy iny who have been able to work ther unselfishly for the advancee of her biggest and basic indus-

at this work might advance, the onsin Dairymen's Association that has over a half century of history replete with constructive work for the dairy industry of the state.

On January 1, 1927, there were 837 cow testing associations in the United States, with 21,128 members having 362,014 cows on test. On the same date Wisconsin leads all states with 159 associations and 4,194 members having 64,897 cows on test, or nineteen per cent of all. Michigan comes next with 102 associations and 2,449 members having 26,511 cows on test.

Since the organization of the first C. T. A. by the Wisconsin Dairymen's Association in 1906, the test of merit and profitableness has been put on nearly 700,000 cows. During this same period the average production of all cows in Wisconsin has been increased 26% and still the average Wisconsin C. T. A. cow has a production 50% greater than the average of all cows in the state.—From Annual Report of Secretary Burchard.

Milwaukee Dairy Consumption

In a rather pretentious booklet entitled "Consumer Analysis of the Greater Milwaukee Market" the Milwaukee Journal (Wisconsin) presents a survey it has made of the kind and quality of foods consumed by the people of that city. There are several things in this survey that were of interest to us, particularly the statements concerning dairy products.

There were 28 different retail milk plants listed, but one dealer is credited with 54 per cent of the total milk. The most startling statement, however, is that there has been an apparent decline in milk consumption in Milwaukee of 300,000 quarts monthly as compared with 1925. This represents a decrease from 42 quarts per family in 1925 to 40 quarts per family in 1926.

In its report as to butter it advises us that 77 per cent of the families use print butter while 40 per cent use either tub butter or a combination of print and tub butter.

The increased use of process cheese is one of the outstanding factors of the report. During 1926 better than 50 per cent of Milwaukee families used this type of cheese.

Milwaukee apparently likes ice cream as each family is credited with an annual consumption of 92 pints of brick ice cream and 85 pints of bulk ice cream. The total consumption of brick and bulk ice cream is given as 9,000,000 quarts. One dealer is credited with 90 per cent of the total sales of the brick ice cream and 87 per cent of the bulk ice cream.

How Much Profit *per Cow?*

With any grade of stock, the answer depends on the way you feed . .

Thousands of dairymen in the cow testing associations have learned this about profits: It isn't the number of cows in your herd — it's the profit per head that counts!

Feed records on these thousands of herds prove that better feeding is the key to profitable dairying — that the only way to beat market conditions is by cheaper production through tested, successful rations. Nine times out of ten, these rations include Linseed Meal.

The up-to-date booklet on stock feeding — "How to Make Money Feeding Linseed Meal" — includes complete facts on the rations which have enabled these farmers to build up their profits *per cow.* It's a gold mine of information on successful herd management under the conditions you face today. Sent free. Mail the coupon now.

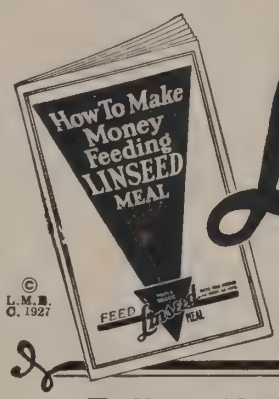


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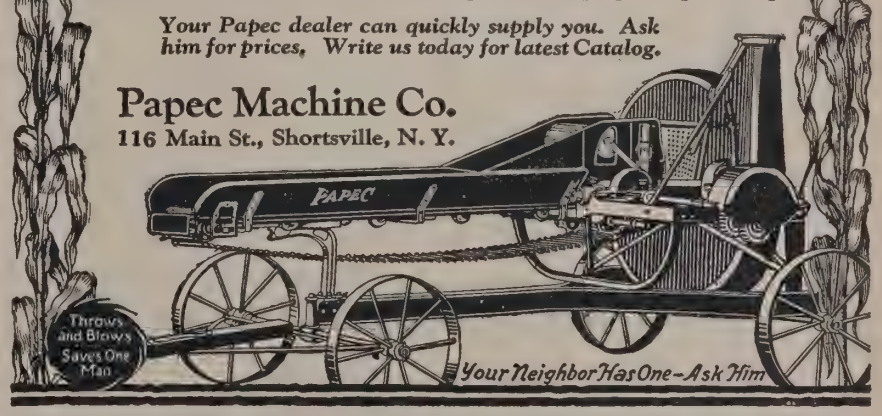
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Plan *now* your MILK PROFITS for Winter

Look over your prospects for improving milk profits this winter. You know, by now, what roughage you will have—see, below, how there is a Quaker Dairy Ration to meet any situation, each of these feeds being exactly the protein concentrate that fits its indicated purpose. See the Quaker Dealer—arrange now for your winter supply so that you can avoid losses due to changing feeds.

Select the feed that fits your farm, your herd

Quaker Boss 24% Dairy Ration is the ideal grain ration for cows receiving timothy hay, grass hays, straws, corn stover or other poor grades of hay.

Quaker Big Q 20% Dairy Ration exactly meets the need of those herds receiving poor alfalfa hay, fair clover hay, or real choice mixed clover and grass hay.

Quaker 16% Dairy Ration has no superior when cows are receiving choice clover hay, good alfalfa hay, or an excellent grade of fine mixed grass-and-clover hay; it is a good ration for dry stock and for young growing stock.

Quaker Sugared Schumacher Feed has a real place when the herd is receiving liberal quantities of choice alfalfa hay. It combines beautifully with any Quaker high protein feed. It is an ideal ration for all stock—dry stock, young growing animals, horses, sheep, swine, steers.

All Quaker Dairy Feeds contain molasses in dried form and are rich in the minerals cows must have to make milk.

Send for the FREE book—"The Dairy Herd"—It tells you just how to meet the feed requirements of your farm, your herd.

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Quaker Ful-O-Pep Poultry Feeds — *Quaker Dairy Rations 16%-20%-24%* — *Quaker Pig-N-Hog Meal* — *Quaker Sugared Schumacher* — *Quaker Green Cross Horse Feed*

(BUY THE FEEDS IN STRIPED SACKS!)

Opinions, Brickbats, and Bouque

These columns are open to the readers of Hoard's Dairyman for the expression their opinion on any subject, whether radical or conservative, destructiv wise or foolish. It may be cows or crops, religion or politics, or what at the time mo interests you. It may be critical or commendatory, but it should be your opinion. It your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyma assumes no responsibility for opinions expressed.

The Mississippi Flood

HOARD'S DAIRYMAN:—While most of you folks in the North realize in a general way that the Mississippi River Valley has had a flood, yet I am quite sure few of you can conceive the vast extent of the damage.

At this writing (June 4) some 8,000 square miles of rich, fertile soil in Louisiana is still inundated, and will continue to be for some weeks yet. Fortunately we, living on the east side of the river, have escaped damage, but the great "sugar bowl" of Louisiana is under water and crops wiped out.

The government has been lax in its handling of the Mississippi River problem but the disaster of 1927 will surely bring matters to a focus and steps taken that will make a recurrence impossible.

The local state government has not the resources to handle the situation. The lower river is the bottle neck through which the waters from more than a score of states must pass on its outlet to the Gulf and the problem surely is national.

The flood menace has been one of the most serious factors retarding the development of the lower Mississippi River Valley with its wonderful soil and favorable climate and long growing seasons, and the unprecedented flood of this year may prove a blessing in disguise by eliminating a great menace and establishing a confidence heretofore not existing.

Corn in this section is good and starting to tassle; second cutting of alfalfa is already in and it is necessary to clip pastures with mowing machine in order to keep down the rank growth of pasture grasses, most of which is allowed to remain where cut for lack of labor and barn room for making and storing the hay.

We have had white clover in abundance continuously since last fall but it will soon go to seed and give away to Bermuda and other summer grasses to come again in the fall. Potato crop was harvested several weeks ago with good yield and profitable prices. Winter and spring movement of vegetables was heavy.

The great need of this section is more dairying. Probably in no other section of the United States can dairying be conducted more profitably than in Southern Louisiana, once the industry is put on a proper basis. We need more creameries, milk condensing plants, etc., to take the product of the small dairyman. At present the principal market is fluid milk for the cities with that market flooder periodically, resulting in low prices and unsatisfactory marketing conditions generally. Also this country needs more small farmers; too many large plantations with lazy, goodnatured, harmless negro labor, and attendant economic evils and inefficiencies.

But the future looks bright, indeed. Agriculture is gradually finding itself and working out its own salvation; good highways are connecting us with the rest of the world; tick eradication is making it possible and profitable to bring in and raise improved live stock and one of these days Southern Louisiana will be famous as a "Garden Spot" spelled with gigantic letters.

We have been milking around 85 cows (three-fourths of them have raised heifers) this spring and have averaged about 280 gallons per day production, with a total feed cost cluding home grown feeds at ma value) of about 7 cents per ga

Louisiana. C. W. DAV

Cartoons

HOARD'S DAIRYMAN:—In loo over the June 25 issue of your j nal, we find an article on page pertaining to co-operative marke This is a splendid article, but is s what spoiled by the cartoon ac panying the article.

It has been the custom for a many years to picture a farmer high boots and long whiskers. W lieve that down around Boston New York there may be some f ers look like this, but there are of them in the Central West.

The writer has been selling g to farmers for the last twenty y and has reasons to believe that tures of this kind are very muc sented by real farmers. We fi believe that as soon as such pict are left out of especially farm pers, there will be more of them by the farmers in the Central V Many farm papers and daily n papers throughout the country, sides yours, are still using such toons, but we are giving you our of how the farmers feel abou This is given hoping that it wil taken as constructive criticism.

Texas. W. F. BARTRU

Talk Milk

HOARD'S DAIRYMAN: — Lindb flew from New York to Paris in hours. We all remarked about ho was able to accomplish such a str ous feat alone by himself two and one night. The drone of a tor continuously gets so it so like music and is enough to put ordinary man to sleep. But di sleep? No! Did he use stimul to keep awake? No! He had s chicken sandwiches and a the bottle of milk. When he lande Le Bourget he landed amidst st lants—wine, brandy, champagne, we'll leave the rest up for the n papers (they had a complete l But did he want their drinks? stead he asked for a glass of Now, folks, here is where the n papers get in wrong, they never st whether they had it on hand.

This is one of the greatest op tunities the dairymen of the w ever had. Boost milk and its p ucts. When people talk saloon liquor, talk milk and Lindbergh. has given us food for thought. let's keep it moving.

W. G. KIRKPATRICK, Teste Michigan.

Why More Land

HOARD'S DAIRYMAN:—Your edi al, "Why More Land," in the 25th issue offers the best solu for the farmer's troubles I have seen. May your leadership enc age others to take a similar s along this line.

In these days of overproductio agricultural products it is beyon to see how any agricultural ag can have the audacity to encou further production by putting use more and more waste or s waste land upon which no man make a decent living. The real for the future of agriculture lie the elimination of all land which no profit can be realized.

Wisconsin. JOHN MICHEL

Life and Work of T. L. Haecker

(Continued from page 828)

iment and from these tables were structed.

'rofessor Haecker described this k in these words: "During the e when the feeding experiments in c production in review were in gress, it occurred to the writer t in order to determine the actual nutrients required to produce a n animal product, the composi- of the product should be known well as the composition, and the ilable nutrients in food which is e fed for its production, so that nutrients in the ration might be vided in the proportions needed by animal. Before a builder bids on ntract, he determines the quanti- eeded of each of the materials are to appear in the structure. hout such specifications he would know how much of each of the erent materials would have to be vided.

Fat Content and Nutrients

We learned, through the agency he Babcock milk test, the amount utterfat contained in milk of va- s grades and the chemist could de- nine by gravimetric analysis the ious components in milk, but ap- ently it had never occurred to him ivide milk into specific grades and rmine the average composition of , at least no such table was wn to the writer. This seemed es- ally strange, since for nearly half entury protein requirements in ling for milk production have been chief problem.

This matter was presented in Jan- y, 1903, to Professor Harry Sny- Chief of the Division of Agricul- l Chemistry and Soils, and ugh his kind offices arrangements e made for the analyses of com- te samples of milk from the dif- nt cows used in the feeding ex- ment. This work was continued to close of the year 1907.

t has been shown that there was emarkable uniformity in the net iment required for the produc- of a unit of milk solids when nu- nts consumed and milk solids pro- d were reduced to carbohydrate valent. The milk solids are com- d of butterfat and solids not fat. organic solids other than fat are r and protein.

n Bulletin 79 of this station, pub- d in January, 1903, it was clearly n that cows need net nutriment heir rations proportionate to the ity of the milk as measured by fat content. It also appeared that richer the milk in fat, the more protein was consumed per unit of produced. Whether this was ly incidental because more nutri- t was required as milk increased at percentage, or whether more ein was required because there more protein in the richer milk, not appear because the relation of ein to fat in the various grades of was not known.

justing Ration to Milk Protein

ls the protein content of the food aintenance was adjusted to the 's of the animal for the mainte- e of the body, so must the protein he production part of the ration djusted to the protein content of milk.

n order to make such adjustment ible, it was necessary to find the ein content of milk of the various es, as measured by the fat con- by making a gravimetric anal- of a large number of samples of and grouping them in specific es. It was also necessary to de- termine the average composition of the samples of the various groups instead of finding the average composition of all samples of milk analyzed as had been the custom.

"The milk was divided into 10 grades. That testing under 2.75 per cent fat was put into the 2.5 grade, from 2.75 to 3.25 into the 3 per cent grade, from 3.25 to 3.75 into the 3.5 grade, from 3.75 to 4.25 into 4 per cent grade, and so on to the 7 per cent grade. By this method a sample did not vary more than a quarter of one per cent from the average of its class."

Sudden Changes in Feed

From practical experience you have probably learned that it is not a good plan to make any sudden changes in the winter ration of your dairy cows. Here are Professor Haecker's early observations on this problem: "Our records show that radical changes in feed during the winter are objectionable, as changes generally cause shrinkage in milk. A more uniform flow is maintained by feeding the same ration all winter, if possible. If it becomes necessary to make a change, it should be very gradual, so the system can adjust itself to the variation in bulk and the muscular action required by the stomach to digest that particular ration."

[EDITOR'S NOTE:—This concludes the Life and Work of T. L. Haecker.]

Uncle Ab says imitation is good if we imitate the right things.



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This animal spray has new and different qualities

Rex STOCKAID is the newest scientific development in the famous line of Rex insecticides and agricultural sprays.

Due to its outstanding qualities, Rex STOCKAID is already in popular demand among cattle owners.

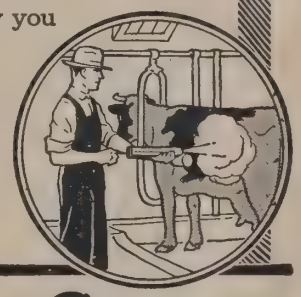
Rex STOCKAID is a double purpose spray. When sprayed, Rex STOCKAID kills every fly, mosquito and flea it touches and protects animals from 6 to 12 hours after spraying. Rex STOCKAID is stainless to the hide or hair, has a pleasant odor, will not burn, blister, irritate or harm the hide. Does not gum the sprayer or hair—leaves coat fine, nice and glossy.

Rex STOCKAID will not taint milk.

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FOUR SIZES

1 gallon cans 30 gallon drums
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STOCKAID ANIMAL SPRAY

***KILLS and REPELS* FLIES, LICE *and* MOSQUITOES**



Now is the Time **All wise Dairymen get their orders placed for Baled Shavings.** They are plentiful now and can be bought at a reasonable price. Don't wait until they are scarce and high and be left without them. Write us today and reserve a shipping date and it will save you money.

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Pat. 7-2-07 & 9-10-18

ANTI-COW KICKER

Saves your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as a hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H Topeka, Kansas



The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

Holstein bull calf born March 4, 1927; dam making over 1½ lbs. butter fat per day; sire, Ormsby-Pontiac breeding; registered and transferred for $50. Cash with order. WISCONSIN LAND & LUMBER COMPANY, Hermansville, Michigan.

Holstein cows in carload lots for sale. Young, big, close up, 50 to 70 lbs. of milk per day. CARL WESTERHEIDE, care Behnke's Restaurant, Marshfield, Wis.

20 high grade Holstein heifers, 18 to 30 months old, for sale. Some due to freshen soon. Tuberculin tested. Will pasture them until fall if purchaser wishes. HOMEWOOD FARM, Hiles, Wis. 17-2

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Three handsome Holstein heifer calves, $65.00 tested, crated. ALFAKORN DAIRY, Evansville, Wisconsin. 14-5

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

For Sale at Galesville, Wis., 60 head of Holstein heifers, 1½ to 2 years old, correctly marked and well bred. 1 carload of Guernsey heifers. P. L. GRAY, Galesville, Wis.

15 Guernseys, 22 Holsteins, grades, all to freshen this fall. Large, extra good type. T. B. tested. J. McNULTY, Box 28, Mukwonago, Wis.

100 head choice Holstein cows and heifers. ORVILLE K. CRAVEN, Excelsior Springs, Mo. 15-4

For Sale—Fifty head of high grade Holstein and Guernsey cows due to freshen in thirty to sixty days. Priced to sell. JOHN KEENER, Amherst, Wis. 17-4

Holstein and Guernsey springers by carload. C. H. SEARS, Litchfield, Ohio. 16-2

Choice Grade Holsteins, Guernseys and Jerseys. Heavy producers from accredited area. Also choice breeding ewes. GREENDALE STOCK FARMS, Elsie, Michigan. 16-2

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

Grade Guernsey Cows. If you want springing or fresh cows from an area tested county write me. Can also furnish high class grade and registered Holsteins. Clean cattle, priced right, from a breeder with 30 years experience. JOHN ERICKSON, Waupaca, Wisconsin. 9-*

Guernsey herd for sale—22 young cows, heavy producers, registered bull, some calves. T. B. tested, free from disease. Priced reasonable. C. J. FRIES, Ogdensburg, Wis. 17-3

My herd of registered Guernseys for sale. Sire is a double grandson of Ne Plus Ultra and half brother of Procris Snowdrop. G. W. ADAMS, R. 1, Nashotah, Wisconsin. 16-2

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Females and males. Send for list. MATH MICHELS, Fond du Lac, Wis. 10-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Bull Calves, Dots Cherub breeding from Dams with good A R records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wis. 5-*

For Sale—Thirty-nine very high grade Guernsey heifers. 15 bred and balance open. F. J. GLANVILLE, Lancaster, Wis. 17-2

Must Sell—Splendid purebred Guernsey herd serviceable bull, yearlings, bull calves. Accredited. No abortion. CRAB TREE FARM, Lake Bluff, Illinois.

Guernsey Bull for Sale—Dam sold for $3500.00. Accredited herd. OTTO FOSS, Pelican Rapids, Minn.

Summer Bargains in Guernsey bulls, heifers. FRANK KLEMM, Baraboo, Wis. 15-4

Registered Guernseys for sale. Both sexes. A. R. breeding. ROY BURTON, Eagle, Wis. 17-*

Jerseys, car lots, registered or grade, Columbiana County, an accredited area. Jersey center, over 200 breeders of registered Jerseys, over 20,000 dairy cattle in the county. Few car loads available now. Quality and prices right. Buyers who come, buy. WILLIS WHINNERY, Salem, Ohio. 15-tf

Fifteen high grade Jerseys including 2 milk cows, 4 springers, 5 bred heifers and 4 yearling heifers. For information write SHERMAN JERSEY FARM, "The Home of World Champions," Charles City, Ia. 15-3

For Sale—Thirty-six very high grade Jersey heifers. Twenty springers and balance open. F. J. GLANVILLE, Lancaster, Wis. 17-2

Jersey Heifers and Cows—Will sell thirty out of herd of seventy. Your choice. COLD'S JERSEY DAIRY, Reinbeck, Iowa. 17-2

Registered Jerseys—Two young bulls, three bull calves. T. B. tested. NORTHFIELD FARM, Prairie View, Illinois.

Registered Jersey cow 5 years old. First $125.00. RALPH MILLER, Woodbine, Ill.

For Sale—Six yearling Jersey heifers, registered. Cheap. MILO VOSBURG, Ft. Atkinson, Wis. 17-2

Registered Brown Swiss cattle for sale. Hull's famous breeding Prices reasonable. WALDO BOOHER, Route 1, Albany, Indiana.

LIVE STOCK WANTED

Sixty high grade Guernsey cows that will freshen in November and December. Must be heavy producers and free from disease. State price in first letter. HARRY BENSON, Boynton, Fla.

Am in market for a carload of high producing Holsteins. RICHLAWN FARM, Route 2, Worthwhile, Kentucky.

Wanted—10 Jersey milk cows, grade or registered. P. O. ISHAM, R-3, Stoughton, Wisconsin.

STOCK BUYER

Choice dairy cows, selected for the careful buyers by the dairy cattle specialist. F. B. GREEN, Evansville, Wisconsin. 16-10

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 75 cents for one cow, $2.50 for five cows, postpaid. East of Rockies 8c per cow extra postage. WOODSTOCK FARM, Renton, Route 2, Box 492, Washington. 17-*

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For sale or trade—No. 85 De Laval milker. A. 1 condition. Used 18 months. Trade for hogs or Guernsey calves. S. L. MUNTER, 1915 North Delaware Street, Indianapolis, Ind. 15-3

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

For Sale—Hinman Valve Chambers and pumps and parts, at a very reasonable price. JOSEPH HAAG, No. 813, W. Harris Street, Appleton, Wis. 13-*

Truck Owners, stop shoveling, dump your loads. DEPENDABLE HOIST CO., Streator, Ill. 6-12

Two-Unit Hinman milker with equipment for ten cows in one row. Good as new. $100. Address BOX 483, care Hoard's Dairyman.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 15-4

For Sale—Four unit Hinman milker. Used one year. Price $150. AMOS LLOYD, Milford, Ia. 17-2

Minnetonna Churn, 100 lbs. capacity, $25. EDWIN WEAVER, Columbiana, Ohio.

For Sale—New No. 180 Letz mixed feed maker. $125.00 will buy it. JULIUS SCHMIDT, Berger, Mo.

2 Unit Hinman Milker in good working order. $50. EDWIN WEAVER, Columbiana, Ohio.

CORN HARVESTER

Rich Man's Corn Harvester, poor man's price—only $25.00 with bundle tying attachment. Free catalog showing pictures of harvester. PROCESS CO., Salina, Kans. 9-9

FARMS FOR SALE

Dairy Farm—320 acres Jefferson County Kansas, 3 miles market, town 500, good high school, good road. 40 miles Kansas City, mostly hard surface, balance completed soon. Land high state cultivation, all smooth, gently rolling, well watered. Blue grass pasture, alfalfa, corn, oats produce well. All kinds fruit, large dwelling, water and electric lights, 3 good barns, 2 silos. Good milk market, condensery. Financed long time loan, priced at great sacrifice by owner. Address BOX 485, care Hoard's Dairyman.

Dont Overlook This. 120 acres for only $4,000.00 with about $500.00 worth of personal. Owner is forced to sell due to age of 70. One-fourth mile from school and store. House insured for $1200.00. On wonderful highway. Only takes $500.00 to get possession of place. Owner will leave balance in farm. Write at once to LOCK BOX 196, Greenwood, Wisconsin.

Wisconsin Dairy—160 acres, south of Eau Claire in progressive community, good bldgs., mail, telephone, cream route, orchard, 125 cultivated, good soil, not a run down farm. $2500 down. Write for other farm homes to FEDERAL LAND BANK, St. Paul, Minn., Dept. 20.

By Owners—Peace River farm, 395 acres, 25 miles from Grande Prairie. Good water, fuel, hay and wheat land. Splendid mixed farming proposition. $10 00 acre cash, $12.00 on terms. Write BOX 936, Grande Prairie, Alberta, Canada.

Jasper, Missouri, 135 acre dairy farm 1½ miles from milk condensery and Kansas City cement highway. Must sell, improvements exceed price $20,000. Terms. JOHN NEVITT, Carthage, Mo. 17-4

Farm of 42 acres, 25 under plow, balance pasture, can be broken, fine location, 1½ miles from town, new house, good outbuildings, well fenced. Write for information. RAYMOND SONENBERG, Melrose, Wis.

See This! 396 acre, well improved, tractor worked, New York farm, 100 acres crops, stock and machinery included, $40 per acre. Address BOX 462, Hoard's Dairyman, Fort Atkinson, Wis. 16-2

Dairy Farm of 428 acres near Lafayette, Indiana, for sale on good terms. Now being operated successfully and profitably. Modern home. THE STRAUS BROTHERS COMPANY, Fort Wayne, Indiana.

For Sale—350 acre dairy farm, modern equipment, income from milk $1200 per month. Price of buildings alone will buy this. EARL LYTTLE, Franklin, Pennsylvania. 16-*

Valuable dairy farm in famous prairie belt of Noxubee County, Mississippi, near new Borden Condensery, for sale cheap. OWNER, Box 476, Macon, Mississippi.

160 acre improved farm. Complete buildings. Priced to sell. TARR BROS., New Auburn, Wisconsin. 11-*

228 acre dairy farm in Middle Tennessee. Eight miles from Nashville, on concrete highway. DR. Z. C. GAMMEL, Antioch, Tennessee. 16-2

For Sale—¼ section Central Wisconsin dairy farm, stock and equipment. Price $8500, $1500 down. Address BOX 476, care Hoard's Dairyman. 17-2

125 acre, alfalfa land, dairy farm on national highway. DR. SPARKS, Demopolis, Alabama. 16--2

"My ad brought me $160.00 for one litter of registered puppies. Will always keep Hoard's Dairyman in mind when I have something good to sell or trade."
— W. H., Wisconsin

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittanee accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-Spl

Sell stock feeding molasses to feed dealers and farmers. Good proposition. Address BOX 487, care Hoard's Dairyman.

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

LUMBER

Guaranteed lumber and shingles sold direct. Big saving! Ask for estimate. KENWAY LUMBER COMPANY, Tacoma, Washington. 15-7

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. ALBERT MILLER & CO., 192 N. Clark St., Chicago, Illinois. 14-*

Alfalfa and Clover Hay for Sale—Ask for delivered prices. HARRY GATES COMPANY, Jackson, Michigan. 17-*

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-tf

SEEDS AND PLANTS

Alfalfa seed 95% pure, $6.50 per bushel; scarified sweet clover 95% pure, $4.50. Bags free. GEORGE BOWMAN, Concordia, Kansas. 15-4

TOBACCO

Pipe Smokers—We have specialized in pipe tobaccos for 22 years. Factory to smoker. Wonderful blends and flavors. Write for free catalog and samples. THE PLANTERS' TOBACCO CO., Henderson, Ky.

Better Tobacco! Fragrant, mellow! Five pounds smoking, 75c. Four pounds chewing, $1.00. FARMERS' CLUB, 250, Hazel, Kentucky. 10-8

DOGS

Pointer Pups for Sale—As well bred as money can buy. Carolina Frank cross. Lemon and white. Black and white. Price $25.00. W. L. BORDERS, Route 1, Anniston, Ala.

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

For Sale. Pedigreed German Police Pups. Largest of breed $15.00. Glen Hanson, Ionia, Iowa, Richland Kennels.

Hundred Hunting Hounds cheap. Supply catalogue. KASKASKENNELS, AW87, Herrick, Ill. 17-4

WANT TO RENT

Wanted to Rent—200 acre stock and dairy farm, with stock and machinery, on shares. Reliable and responsible. Have good help. Best of reference. 15 years experience. O. ANDERSON, 210 Nieman St., Akron, Ohio.

Wanted To Rent modernly equipped dairy farm for period of years. Southern Wisconsin preferred. None run out or badly infested with noxious weeds considered. Address BOX 490, care Hoard's Dairyman.

Want to work dairy of good size on shares. Have my own help. If children objectionable don't answer. Experienced. 703 JEFFERSON N. E., Minneapolis, Minnesota.

Wanted to Rent—Good farm. Share or cash. Only good proposition considered. Address BOX 480, care Hoard's Dairyman.

FOR RENT

Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. Go now and see the harvest. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

EXCHANGE

Have several farms for exchange for Eastern farms. Some for Western. WALTER MILLER, Carpenter Bldg., Milwaukee.

DAIRIES

For Sale—Milk route; 20 high producing cows and all equipment—$2500. A. B. ALLISON, Charleston, Illinois.

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

LIGHTNING RODS

Reliable agents to sell the "Diddie-Blitzen" rods in your own territory. Lightning damage can be prevented by our system. Write today for our proposition. L. T. DIDDIE CO., Marshfield, Wis. 13-6

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

MISCELLANEOUS

Farmer's Wool—Made into blankets, batting and yarns at fair prices. Send for circulars. MONTICELLO WOOLEN MILLS, (Estab. 1866) Monticello, Wisconsin. 17-4

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*



Advertising in this department is 8c per w
Remit in advance.

HELP WANTED

Single man wanted to work in cow barn in Ayrshire dairy, no outside work. Must be dry milker, quiet around cows, clean habits. $60. month and board. State age and experienc when you can come. SYCAMORE FARMS D Douglassville, Penna.

Wanted—Good dry hand test cow milker on Illinois Holstein dairy. Must be kind to anim boozer and willing to stick. Everything modern board and room. Wages $70.00 per month to Address BOX 482, care Hoard's Dairyman, references.

Wanted—At Miami, Florida, one good milk one experienced milk room man, work on dair near Miami. No field work. No booze or tobac lowed. HAPPY FARMS DAIRY, P. O. Box Coral Gables, Florida.

Help Wanted—Single dry hand milkers. Goo ing conditions; chance for advancement. Can u married men with small families. HARTMAN S FARM, Columbus, Ohio.

Wanted—Single assistant to owner. Small H herd, some A. R. work. No cigarettes. Hom roundings. $65.00 and bonus. Steady. CASSA FARM, Cassadaga, New York.

Wanted—Herdsman to have charge of 90 hea steins and be working foreman in dairy barns. to keep two or three boarders. All modern equi Producing high grade milk. Requires man exper with cattle and in handling men. Write for details. SAUCONA FARMS, R. D. 4, Beth Pennsylvania.

Wanted—Experienced creamery man, marri single, who understands all branches of work clean milk is produced for city distribution. A proposition for the right man. Address BOX care Hoard's Dairyman.

A rare chance for young married man. Must good milker and interested in the work. Wife housework. State age, experience, and salary ex in first letter. Address BOX 475, care H Dairyman.

Wanted At Once—Married man with small to work on farm and help milk 25 or 30 cows. be steady and reliable. State wages in first PETE DICKSON, Clay Center, Nebr.

Wanted Immediately—Experienced herdsman test cow milker. Must be good feeder and know work. Married. Registered Guernsey herd. BURG FARMS HERD, Foxburg, Pa.

Wanted—Three good dry hand milkers to wo large modern dairy farm. One of the three willing to care for dairy work. Address BOX care Hoard's Dairyman.

Wanted—Thoroughly competent married herd pure bred Guernseys. Apply, SUPERINTENDENT La Belle Knoll Farm, Oconomowoc, Wis.

Wanted—Single experienced man for dairy ba Holstein farm in Illinois. Apply with referenc BOX 488, care Hoard's Dairyman.

Opening for two active route men on Miss Gulf coast. Must have good references and a give bond. C. W. DAVIS, Pass Christian, Missi

Firemen, Brakemen, beginners $150-$250 mo railroads everywhere (which position?). RAIL ASSOCIATION, Desk M-10, Brooklyn, N. Y.

POSITION WANTED

Working manager or herdsman. Agricultura lege graduate. 5 years' experience with test Have made both thirty and one thousand pound ords. At present producing and delivering gr milk on pure bred, commercial dairy and mar 400 acre farm. Present position 4 years, last on years. Some shew experience. Married, age children, American. Would consider share ba rental of well equipped farm. Prefer Minnesota. A dress BOX 478, care Hoard's Dairyman.

Position Wanted as Manager modern Holstein Understand the dairy business thoroughly and duction of high grade milk. Have been in business for years. Would accept a profit s basis plan. Married, best of references as to ch ter and ability. Prefer southwest. Address 486, care Hoard's Dairyman.

American farm superintendent now employed 5 acre farm would take full charge of large plac good market for high grade milk. Can make fied milk and manage all departments of farm t advantage. Experienced in growing and mar fruit and vegetables. Address BOX 477, care H Dairyman.

Wanted—Oct. 15, position as herdsman or fo of stock or dairy farm. Experienced in dairy ing and herd management, good horseman, gra of Graham Scientific Breeding School. Single, a clean habits. References. Protestant. Address 479, care Hoard's Dairyman.

Position Wanted—Two single men both 29 yea Swiss, one with 10 years creamery experience, ences, want position to take charge of dairy on farm. No bad habits. Anywhere in Middle JACOB ZOLLINGER, 309 Mosly Street, Ann Michigan.

Position wanted by industrious, capable, herdsman. Married, age twenty-six, one child. fer Chicago district. Would consider dairy far commission basis. Must be stocked and equ Best of references. Address BOX 473, care H Dairyman.

Wanted—Position as manager of modern dairy in corn belt. Good reason for leaving present ployment. References from present and past em ers. Married, about middle aged. Available in ber. Address BOX 484, care Hoard's Dairyman

Position wanted as manager large farm or by agricultural college graduate, age 33. Many experience with large Jersey breeding establish References exchanged. Address BOX 472, Hoard's Dairyman.

Position Wanted—By single American, aged test milker or assistant herdsman. Brought up dling stock, have had 3½ months' experience of best dairy herds in New England. Refer T. F. WELLS, Epping, N. H.

Position Wanted as herdsman. 7 years expe with dairy cattle. Single, age 25, good habits. fer Wisconsin. HENRY KUHL, Route 5, Elkh Wisconsin.

Young man, 23, wants job in creamery whe can learn buttermaking. Address BOX 464, Hoard's Dairyman.

Position wanted by single man, 38 years of a modern dairy, at once. Good milker, feeder, A work. Address DAIRYMAN, Lew Dale, Lawton.

Wanted—Position as manager of large dairy Wide experience. Reference as to capability. Ma Address BOX 489, care Hoard's Dairyman.

Satisfied

Employer: "Now that I have ded ed to give you the job, I must tell you that early hours are the rule in this store."

New Clerk: "That's good. You can't close too early for me."—The Progressive Grocer.

The Radio in the Country Home

(Continued from page 852)

er from churches many hundreds miles away. Thus they can join h the congregations of some of the gest and most up-to-date churches this land of ours. They can listen some of the greatest ministers in s country. The messages sent in s way reach many thousands who uld never otherwise be reached. ıly the radio is a wonderful bless- to the country home and those hin it.

EDITOR'S NOTE: Mrs. Ethel Morri—Marsden was born in Chicago, now lives upon a farm in Dane nty, Wisconsin. She is a fine il- tration of a city bred girl making od" on the farm. In transmitting s article to us she wrote: "The in- ation to write this seized me while as in the midst of frying a batch loughnuts and, needless to say, my t doughnuts were far superior to last in that batch, for I sat beside range writing and frying alter- ely."]

sponsibilities of Directors

A director of a co-operative associon normally occupies a position responsibility and liability. This es from the fact that the corpor- powers of an association are in directors, that is the directors of association collectively and pri- ily possess all the powers that the ociation has under the law. It is e that these powers are executed he officers, agents, and employees he association, but the "constitu- " for their acts is the board of ctors. They determine, either ressly or by implication, directly indirectly, the acts, plans, and hods to be performed or followed he officers, agents, and employees he association.

is the function and the duty of ctors of an association to direct supervise in a fundamental way activities of the association. Neg- nce on the part of a director in discharge of his duties with re- t to the management and conduct he association may render him e on account thereof. The di- ors of an association are not in- rs of its success, but they must cise fidelity and reasonable care onducting the business.

ne of the first propositions con- ting directors is the matter of ensation for themselves. Unless statute under which an associa- is formed, its articles of incor- tion, or by-laws authorize di- rs to fix their salaries or deter- their compensation, they do not such authority. It is possessed ne members of the association. th the directors and the officers corporation are presumed to act out compensation in performing luties of their offices, unless pro- n for compensating them has made. But if any of them are ing regularly for the association respect to matters not involving duties as directors or officers, it be assumed that reasonable com- ation will be made by the asso- n for such services.

order to bind an association, the l of directors must act at a ar or a special meeting called he purpose. In other words, the is established that in matters af- ng the property or policies, or ving the exercise of discretion, irectors can bind the association when acting in a properly con- l meeting of the board. A ma- of them acting as individual tors, or in a "board meeting" l for any reason, can not bind ssociation. Action by directors at an illegal board meeting may be adopted and ratified at a later legal meeting of the board, but directors who were not notified of a board meeting can not later, as individuals, waive the failure to give notice or concur in the action taken at the illegal meeting so as to bind the association. If a director has notice and fails to attend a board meeting, his absence does not affect action taken, provided that a qualified quorum was present.

A quorum of the board of directors of an association at common law and in the absence of a statutory charter, or by-law provision changing the rule, is a majority of the directors of the association who are not personally interested in the subject before the board. If a majority of qualified directors, or the number, if any, specified in the statute, the charter, or the by-laws, do not attend a duly called board meeting, any business transacted by the minority at such meeting is void. Directors can not vote by proxy, but if a qualified quorum is present at a properly convened board meeting, a majority thereof at common law may exercise any powers vested in the board of directors. All of the directors constituting a quorum must be qualified to act. If one of the directors whose presence is necessary to constitute a quorum or whose vote is necessary to constitute a majority of a quorum is disqualified by reason of his personal interest, any act done by the body is at least voidable. Therefore, if a resolution is adopted on a vote of interested directors, the resolution is voidable at the option of the association if timely action is taken with respect thereto.

In some jurisdictions, if a member of a board of directors votes upon a proposition which is adopted in which he has a personal interest, the action of the board may be set aside by the association, although the resolution apparently would have been adopted without the vote of the interested director.

If a director acts in a matter in which he has a personal interest, the court will not pause to inquire whether the director acted fairly or unfairly; being interested in the subject matter, the courts hold that he may not as a director deal with himself and thus be subjected to the temptation to advance his own interest. Directors and officers of any corporation, co-operative or otherwise, may be compelled to account for any gifts, gratuities, or bonuses received by them from persons with whom the association is or may be having business relations. The object of this rule like the others akin thereto, is to enable corporations to have the "judicial judgment" of their directors free from any suggestion of bias other than the welfare of the organization.

In many, if not all, of the states, the state constitution or state statutes impose liabilities upon directors. For instance, in some states, if the directors of an association fail to file a report required by a statute, they are personally liable to creditors. Directors of co-operative associations should ascertain the duties and liabilities imposed upon them and should govern their actions accordingly. In this connection it is not sufficient ordinarily simply to examine the co-operative statute of the state, but the constitution and general statutes of the state should be carefully examined.

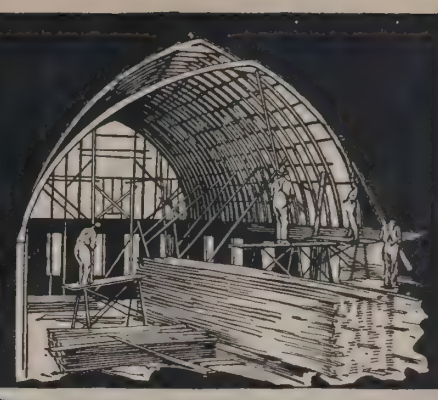
Aside from the liability imposed by statutes as indicated above, directors may render themselves liable through inattention to, or neglect of, the business of the association.—L. S. Hulbert in Agricultural Co-operation.

California Guernsey Record

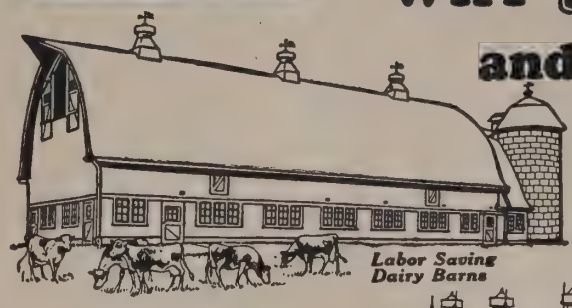
Clarabelle of the Rancho, a Guernsey cow owned by Brant Rancho of California, recently completed a Class AAA record of 12,458.6 lbs. milk, 568.1 lbs. fat, the fourth highest record in that class. She also holds fourth place in Class EE with 723.3 lbs. butterfat.—The American Guernsey Cattle Club.



DON'T
Build~Remodel
Ventilate or Equip
A Hog House, Dairy Barn
Horse Barn or Poultry
House Until You Get
Our Free Book



TELLS WHY Jamesway COSTS LESS and Saves Costly Mistakes


Labor Saving Dairy Barns

If you are thinking of building, remodeling or ventilating a cow or horse barn, hog or poultry house, or if you are considering the purchase of labor and time-saving equipment for such buildings, by all means, fill out coupon in this advertisement and let us send you free our valuable Jamesway book.

This book will show you how you can save money and have your buildings planned and equipped so that they are most convenient and practical. If you will avail yourself of Jamesway service, you'll have the same gratifying experience as H. L. Hartly, Manager of Island Farms, Duluth, Minn. Here's what he writes:

"We very much appreciate the splendid architectural service you have rendered us. The ability you showed to adapt plans to meet results desired were a revelation to me. Your suggestions saved me considerable in material and time."



Our many years' experience in planning and designing farm buildings enables us to save you money on materials and construction—show you how every door, window and general arrangement should be to make buildings convenient.

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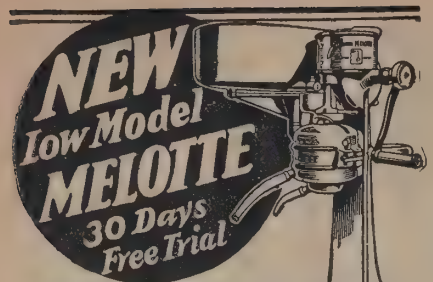
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2843 West 19th Street, Dept. 28-56 Chicago, Ill
2445 Prince Street, Berkeley, Cal.

India's Peaceful Revolution

(Continued from page 829)

The usual shortening used in India is clarified butter—that is, butter boiled until all the water has evaporated—a most wasteful process. But here at the show there were nice clean churns turning out nice clean butter of a very different color from that of the Indian milkman who usually pats out his butter in a nice ball, and if a few leaves and twigs and a great deal of dirt is included, what matter?

There are several months even in a normal year when the Indian farmer has nothing to do, and when rains fail and he cannot even sow his crops he can only sit idlè and twirl his thumbs and ruminate on his bad luck. Economists are trying to interest the farmer in subsidiary industries and occupations, and that is one reason why Mahatma Gandhi is insisting on spinning and weaving. So there were demonstrations in beekeeping, poultry raising, and various cottage industries. Cheap looms, so simple that the village carpenter can repair them and make spare parts, were shown in operation, turning out cotton cloth which was quite good enough for ordinary villagers' wear.

When the blight comes on the crops, or the rinderpest on the cattle, or smallpox in the family, the Indian is wont to go to the family priest and try to find out what has displeased the gods. Mayhap he will have to sacrifice a goat before the curse is removed. But here at the show there was a court showing the treatr of crop pests, the cure for cattle eases, and the prevention of sr pox by previous vaccination. the white man must be in le with the gods, for he can confer t boons without ostensibly invokin vine aid by means of sacrifice o cantation or charm!

And there was much to see was not strictly utilitarian. In amusement court were varied sl —a baby elephant playing tricks putting a garland on the neck white lady; Indian wrestlers; a n cal ride by the governor's hands ly mounted bodyguard; a Boy S display. And for the kiddies t were 4 cent rides on camel bac elephant back. Then there were tures and moving pictures on va subjects for the more seriously-n ed visitors, and tea booths for ferent castes and sticky sweet- stalls.

Yes, it was a huge success. passes on the railway and into show were granted to thousand agriculturists, and the railway panies played up generously a concession rates both for passen and for the transport of live s and apparatus. The result was innumerable villagers took for first time in their lives the revolu ary step of venturing away their homes into a great big co ing city, amid strange and dange folk and strange and dange things. It was amusing to w them—groups arriving by every t and from every direction. An cer would meet them at the st and pilot them in single file—a man with his little trunk and bed dle under his arm or on his head the school or hall or barracks w had been turned into immense mitories for the occasion.

And as the closing day of the came round, tired but happy gr could be seen trudging back tow the station, simply full to the j of saturation with the wonders had tried to absorb, and each guarding carefully any treasure had acquired. Each specially in guest carried home a memento o show in the shape of a fruit p Some had indulged in articles strictly calculated to improve agriculture or raise their econ standards, such as brilliantly co tin trunks—pink or red or yello purple—picked out in gilt lines. one man carried on his turbaned the sounding box of a gramop and in his hand the pale green f horn that belonged to the outfit.

Just try to imagine the knowl that has thus permeated into re and stagnant village communities jolted people out of the letharg the centuries. Round the village that serves as club house in the evenings gather groups of men sm their home-made cigarettes and c ing their betel-nut, and expati volubly—and no doubt with mar embellishment—on the magic o Bombay Presidency Agricul Show.

Dairy Production in Cand

The production of creamery b in Canada in 1926 amounted to 7 156,375 pounds, an increase of n nine million pounds over the pre year. The average price per p for butter at the creamery was 1. cents, compared with an avera 37.17 cents in 1925.

The production of factory chee 1926 amounted to 170,633,781 po a decrease of 6½ million pounds c the previous year. The average r per pound at the factory dr from 20.65 cents in 1925 to 3. cents in 1926.



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"Have a Camel!"

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iat a Quart of Milk Costs

(Continued from page 827)

and wash their udders and s before every milking. There a lot of little tricks to game that have to be learned re the kind of milk that peo- want can be produced. For in- e, we always feed the silage af- ve do the milking because it will the milk taste funny if we feed fore. We use a lot of straw and ings for bedding to help keep the clean. We keep the bacteria t down much lower by keeping the first milk that comes from cow. We feed that to the cat." never knew there was so much to milking cows."

)h, yes, and a lot more, too. It me .44c a quart just to buy , and I am much lower than the age of .70c on that item. We to have high producing cows will pay their way. Some cows eep only a year or so before they ad, and some we keep for eight n years."

With all that equipment in the house, I shouldn't think the la- costs would be very much."

My milk house costs are 1.32c a t and the college chap itemized this way:

ng milk	.35	cents
ng and capping	.17	"
ng and icing	.05	"
ng truck	.05	"
ing utensils	.22	"
ing bottles	.35	"
labor	.05	"
bor	.08	"
al	1.32	"

The milk is cooled to below fifty ees, which stops most of the bac- l action. It is poured through n filters to take out all the dirt might happen to get in. All the sils that touch the milk are ed with brushes and steamed out aired in the sun to keep them t.

Then it costs 1.85c a quart to de- the milk to you. We do it with rd truck because we are quite a nce from town and our route is concentrated in as small a terri- as a city route is.

We haven't considered the operat- costs of all the buildings and pment yet. Here is the list which can see for yourself:"

	.12	cents
house	.03	"
	.03	"
use	.01	"
system	.14	"
s	.02	"
washer	.09	"
ator	.07	"
ier	.06	"
r	.01	"
ier	.02	"
al	.60	"

e also showed him this list of lental expenses:

	.35	cents
ng	.12	"
ance	.04	"
	.13	"
s	.15	"
	.14	"
al	.93	"

f you have kept track of all of e items, I think you will find they total to 13.13 cents a quart, as ws:

st	1.67	cents
	4.72	"
labor	1.60	"
g cows	.44	"
house	1.32	"
ry	1.85	"
ting	.60	"
ntal	.93	"
	13.13	"

That leaves only .87c profit," said ner. "Mr. Jones in town claimed ad to have seven cents a quart. at all the money you make?"

No. Because of my small herd, osts are extra high, but the cows largely pure-breds, so I realize a quart profit from my calves. And my manure is worth 66c a day in fertilizing value if I haul it out every day. That equals .60c a quart. These two items total 2.29c a quart, and make 'my net cost 10.84c a quart."

"That gives you a profit of 3.16c a quart," observed Mather.

"And makes a profit of $3.476 a day, or $1,268.64 a year, counting 365 days in the year. You see we deliver every day, as babies have to have their food. Sometimes we have to take a shovel along on the route in the winter to dig through the snow."

"Well, you are not making as much as I thought you were," admitted Mather.

"I am not doing as well as some farmers," Baker replied, "because I have been in the business only a few years, and haven't built up my route yet. Of course, it doesn't cost so much to live out here. I have a garden, and my home isn't as expensive."

"How is it that these other farmers charge less for their milk?" asked Mather.

"They don't take the care of their milk that we do, and can't get the price. Our milk will keep sweet several days, while some of the others have a hard time keeping theirs sweet for a day. Ours has the flavor that people like when they drink milk. Wouldn't you drink more milk if you could get this kind all the time?"

"I'll say I would."

"The other fellows could get a better price if they did what I do. There is no secret about our milk. But in towns of this size where several farmers have milk routes, the majority do not care enough about their milk to make it a quality product. I always figure that I deserve a little more profit for thinking about my work more, and producing a better product. In town the president of the bank gets more than the clerk for the same number of hours' work, because he thinks about his job."

"Well, what did you find out?" his mother asked Mather that evening at supper.

"I found out there is more to farming than I had supposed," Mather replied.

Seed Corn Situation

HOARD'S DAIRYMAN:—Never before in the history of our state has the condition looked so serious at the middle of August for seed corn production. The drought in some sections of the state, combined with the cool weather, seems to keep the corn almost at a standstill. It usually requires forty days from the time the corn silks before it is sufficiently hard to make good seed. Many fields of corn in the state at the present time have not reached the silking stage, so consequently unless we have practically the whole month of September and possibly a few days in October, we are going to face a seed corn shortage.

The members of the Wisconsin Experiment Association have done everything in their power to hasten the ripening of the corn crop by early planting, together with the use of fertilizers. They stand ready with the proper dry houses to cure the seed after it has been harvested so again they may save the day for Wisconsin in putting up sufficient corn to supply the farmers' needs.

It behooves every farmer, especially those who are growing standard varieties of corn, to select as much seed corn as possible. Often we have favorable spots in a field that will mature more rapidly than in other spots and every ear of ripened corn should be saved for seed. The Wisconsin Experiment Association will list all pure-bred seed that is put up by any farmers, providing they are willing to submit their corn for inspection. When these lists are sent far and near throughout the world, there will be little difficulty in disposing of their seed. We are urging the selection of seed corn at this time because we feel certain that there will be less seed corn grown in the state this year than any time during the past quarter of a century.

We hope that farmers will take this under consideration and select every ear of corn that properly matures and see that it is put in a dry place and cured for seed.

Wisconsin. R. A. MOORE.

See America First

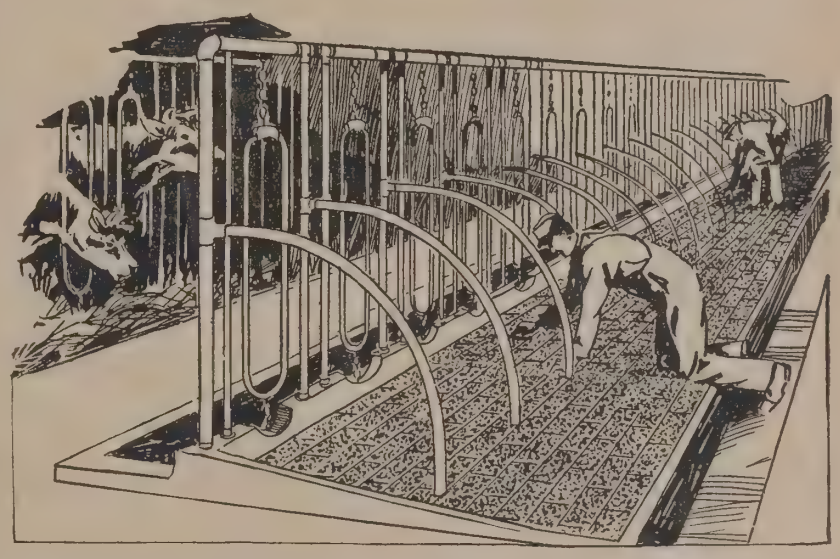
Johnny—Do you know, dad, that in some parts of Africa a man doesn't know his wife until he marries her?"

Dad—Africa isn't the only country where that happens, my boy.

Now is the time to lay

Circle A Cork Brick Floors

Pave the way to increased milk production this winter by flooring your cow stalls with warm, dry Circle A Cork Brick. They are a necessary and economical safeguard for the health of every herd — *large or small* — a comfortable, nonabsorbent and nonslippery floor. Investigate ***now***. Write for sample brick and book "Circle A Cork Brick". ARMSTRONG CORK & INSULATION COMPANY, 112 Twenty-fourth Street, Pittsburgh, Pa.





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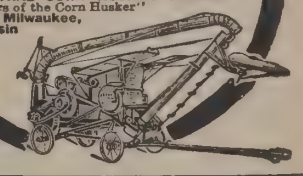
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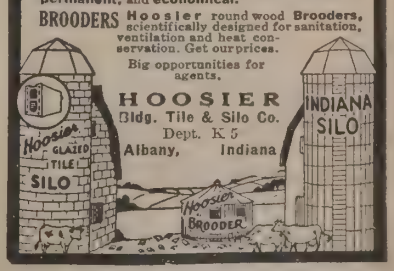
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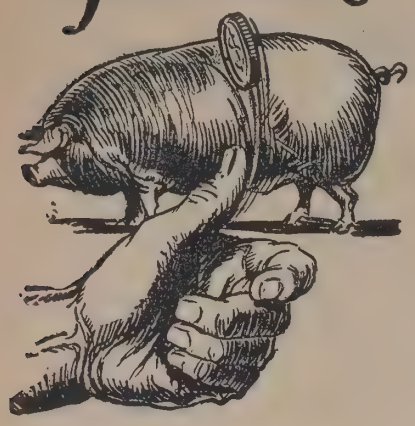
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Diamond Crystal Salt is the answer to all questions at curing time. It is pure and mild; that insures sweet, full-flavored meat. It penetrates the meat to the bone; that insures against spoilage. It dissolves quickly and works into the meat readily; that is an assurance against a salty coating. Use Diamond Crystal—you will see how well it works.

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Swine

Sources of Infection

Tuberculosis in Swine

Little attention was given to eradicating tuberculosis from hogs in this country until the losses from retained and condemned carcasses in packing plants became such as to necessitate an attempt to reduce the number of diseased animals. The extent to which the disease has progressed is shown by the inspection data on 4,000,906 hogs from the Middle West slaughtered in 1925. Of this number, 704,758 or 17.6 per cent were found to be tubercular.

In connection with the nation wide drive to eliminate tuberculosis from cattle it is important that swine producers become thoroughly familiar with the different ways whereby hogs become infected if the disease is to be effectively controlled.

That pigs are easily susceptible to contracting tuberculosis from being fed milk from diseased cows is shown by some data presented in Farmers' Bulletin No. 791, U. S. Dept. of Agriculture, by Mohler and Washburn. Hogs fed tuberculous milk for only 3 days and examined 107 days later showed that 83.3 per cent had become infected. When hogs were fed contaminated milk for 30 days and examined 50 days later, 100 per cent had developed generalized tuberculosis. Milk from diseased cows is therefore a source of great danger when fed to hogs. To avoid infection from this source all milk, skimmilk, buttermilk, and such like should be thoroughly pasteurized before it is fed unless it is positively known to have come from clean cows.

In a series of investigations by the Bureau of Animal Industry it was found that the feces of tuberculous cattle are often loaded with tuberculous germs. Hogs known to be free from tuberculosis were placed in isolated pens where a few shovelfuls of such feces were thrown daily while the hogs were fed other feed which was free from the disease germs. The result was the infection of 25 per cent of the first lot of hogs and 100 per cent of the second lot thus exposed. The tuberculous condition of the cattle voiding the feces was shown only by the tuberculin test, as they were apparently healthy, having no visible indications of the disease. Of a shipment of 34 hogs marketed 23 were found to be infected. On investigation it was found that the owner had a herd of dairy cows the manure from which was thrown into the hog yard. The hogs were given no milk nor were they permitted to mingle with the cattle. The tuberculin test was applied to the cows and 19 out of 27 reacted. On slaughter it was found that some of the cows were in advanced stages of the disease.

There are only two possible ways of preventing infection of swine from this source. Either the disease must be eliminated from the cattle, and this is the best way in the long run, or the manure from diseased herds must be kept away from hogs. This latter is an impractical thing to do on many farms.

In our June 25 issue we presented some data of investigations made to determine the extent of infected hogs with particular reference to the source,—tuberculous chickens. It has been shown that many of the retained carcasses in packing plants were infected by the avian tubercle bacillus. While the lesions of this source of infection are generally of a mild character compared to those resulting from bovine tubercle bacilli, nevertheless the persistent number of hogs showing infection has given no little concern among those charged with the eradication program including the interests of packers. A thorough clean-up among poultry flocks is necessary if hogs are to be made free from the disease.

One other source of infection on individual farms should be mentioned. The carcasses of dead animals are sometimes fed raw to hogs. Some farmers even remove dead animals from other farms and feed them to hogs. This is a bad practice so far as disease control is concerned.

A bad practice also prevails at some local slaughtering plants and rendering works. Frequently at such plants blood, intestines, viscera, and other inedible parts are fed to hogs. Where government inspection is in force this practice is not allowed.

A few farmers are under the impression that tankage is a source of infection to hogs. This can hardly be so in view of the facts governing the manufacture of this product.

A small amount of infection results from feeding uncooked garbage. The sources of the disease germs are mainly from tuberculous dairy products, sputum from tuberculous people, and the offal of tuberculous poultry.

So far as swine are concerned the first big job is to clean up our herds of cattle. This must be followed very closely, however, if not simultaneously with a thorough clean-up among poultry flocks. The sooner we realize this the more perfect will be the control of the disease among hogs.

Loading Hogs

Beating market hogs with heavy clubs is sometimes resorted to at loading time by those who have not tried a better way. The result is frequently reduced value in the carcasses of abused hogs when slaughtered. An obstinate hog will do a good job of getting by a cane, club, or the driver's legs but will stop short when confronted with a hurdle of light construction. Try a light hurdle in handling hogs.

"What makes the world go round and round, pop?"

"Oscar, how many times must I tell you to stay out of that cellar?'—Rutgers Chanticleer.

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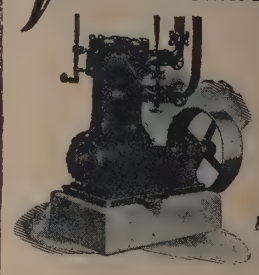
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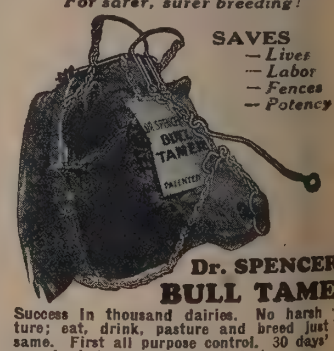
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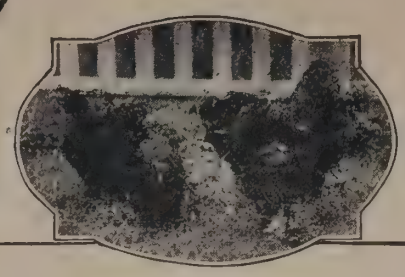
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Poultry on the Dairy Farm



Dust Bath

How would sand do for hens to dust in in place of dust and ashes? Which would be best, fine or coarse sand?

Farragut, Iowa. J. E. C.

If one feels it is necessary to supply the hens with some sort of a dust bath, I imagine the concrete road idea has not been so universally accepted but that it would be possible to get out to some side road or some field and obtain enough good, dry dust in the fall of the year to be put in a box and used for that purpose. In lieu of the dust one could undoubtedly use the fine sand satisfactorily. It is rather a common belief, however, that the use of ashes should be rather discouraged, since it tends to oftentimes irritate and results in a soreness of the shanks of the bird's legs.

I rather believe, however, that this idea of the dust bath in the house is one of these prehistoric ideas that has been handed down from generation to generation and a practice that we still continue to adopt as we do happen to notice that when a hen does get out in the dirt some place she decides to wallow in it. If under the artificial conditions which we are following we do our share toward promoting proper sanitation in connection with the house and with the flock, which means particularly treating the roosts for mites and treating the birds at whatever intervals might be required for mites, they do not need any wallow of this sort. A hen can, undoubtedly, get as much pleasure out of stretching out in the sun in a good clean litter as she can in a dust box.

One will always find with proper conditions in a house that it is or should be dry and dusty, which means the litter as well as the house itself. Damp, wet, soggy litter is not necessary in a properly managed building. If one then adds to this a dust box and permits the hens to work in that and to play in it every time they are frightened, you are just going to aggravate that condition and keep the house most of the time looking like London on a foggy morning.

No well founded reason for using a dust bath has ever been advanced. One never finds them in a good commercial plant, and the ideas used in a commercial plant should be the ideas and the methods which we should attempt to develop and incorporate into the management of our own small farm flocks.

As indicated above, if you have to have something for the hens in order to make you feel better, it may be advisable to use sand, but if sand or road dust is used, I would not incorporate ashes.—J. B. HAYES.



A. A. BROWN, POULTRY SPECIALIST

Mr. Brown succeeds H. M. Lackie as poultry marketing specialist of the Wisconsin Department of Markets. Mr. Brown specialized in poultry while a student at the University of Wisconsin, taught poultry husbandry, and was a county agent for a number of years, and for the past three years has operated an accredited hatchery.

Attendance Record Broken

At the International Baby Chick Association Convention, at Grand Rapids, Mich., July 18 to 22, there were registered from 32 states and 3 foreign countries 1,223 people. It was estimated that from 300 to 400 people who were not registered but interested in poultry raising attended one or more of the sessions. The convention hall seated over 700 people and was filled all the time from the first to last session, and at the same time the exhibits and lobbies were crowded with hatcherymen.

"Was your barn hurt during the cyclone?"

"I dunno, I ain't found it yet."

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These illustrations are typical of farming opportunities in California's Great Valley and neighboring valleys for any capable farmer who has enough capital for a fair stake. Far north of San Francisco, where the frostless citrus belt runs, the earliest oranges ripen for Thanksgiving markets. The Great Valley's cotton yield per acre exceeds all other states with a 3 to 5 cent premium over national market levels on account of its quality. California fruits and vegetables, fresh, dried and canned, are staples throughout the world. Altogether, we raise 180 different kinds of crops commercially.

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Soil, water and climate make these great crops possible—the same climate that you and your family will enjoy every month in the year. Come out and see a 500-mile-long sample of farm crops and farm life in California. See our vast mountains and seashore playgrounds, our roads and schools, the cities on San Francisco Bay where more than a million people live. Talk with farmers, and with the merchants and bankers in the Great Valley. Find out exactly what you can do with the capital you can bring.

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Californians Inc., was organized to help you in your search for a place in California, where life is better. It is composed of citizens and business institutions interested in the upbuilding of the state. It has nothing to sell you, but much valuable assistance to give. As a first step, send this coupon for "Farming in California," a booklet with 84 pages of authoritative farming information. It is free—mail the coupon today!



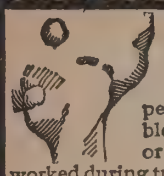
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or bursitis are easily and quickly removed without knife or firing iron. Absorbine reduces them permanently and leaves no blemishes. Will not blister or remove the hair. Horse worked during treatment. At druggists or $2.50 postpaid. Horse book 6-S free.

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Heaves, Coughs, Conditioner, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.

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VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Summer Sore Mouth

Nearly every summer and autumn we receive complaints of a mysterious disease of the mouth, and sometimes of the feet, of grazing cattle. In some instances owners have shown great alarm as the symptoms indicating the disease in question are somewhat similar to those of contagious foot and mouth disease and we have even known of that disease being reported as present and the government officials being appealed to for aid. It is highly important, therefore, that every veterinarian and all cattlemen should know the real character of the disease and be able to differentiate it from the contagious disease. The summer disease we have referred to here is mycotic stomatitis.

That disease is not contagious and not infectious. It is caused by acrid fungi in pasture grasses. The exact fungus or mold responsible for the attacks has not, so far as we are aware, been definitely determined. The red and black molds of the clovers may be to blame, or it may be a mold peculiar to the grasses. Anyhow, the disease appears when the weather has been damp, hot, and muggy, favoring the development of fungi and no other cause has thus far been found for the malady. It occurs sporadically, meaning that animals are attacked in widely distant places and few in one herd are affected. It does not spread from animal to animal, neither does it affect farm animals other than cattle, young and old. Contagious foot and mouth disease, on the contrary, quickly becomes widespread in entire counties and states and attacks all cloven-footed animals.

Mycotic stomatitis causes formation of sores and ulcers upon the muzzle and on the lining membrane of the month. Ulcers having red, inflamed margins and depressed centers filled with yellow or greenish pus and foul smelling decomposing tissues are seen on the lips, tongue, dental pad and cheeks, or one or other of those parts. They may also occur upon the skin about the hoof-heads or that between the toes. When foot lesions occur the animal is lame and stiff and the leg is swollen sometimes as high as the fetlock joint. Vesicles filled with lymph do not characterize this disease. They are characteristic of contagious foot and mouth disease. The mycotic disease runs a course of about two weeks, rarely kills an animal, and is readily remedied by treatment. It causes loss of appetite, suppression of cud-chewing, emaciation, and shrink in milk and therefore is a serious cause of loss. Fortunately, it is not very common and as few animals at one time are affected it need not cause great alarm.

Treatment consists in keeping the cattle off the pasture in which the cases occurred and feeding affected animals soft, readily masticated and digested feed, such as mashes of bran, oil meal, and ground grains, cut grass, and, in severe cases, providing hay tea, flaxseed tea, skimmilk, and water instead of solid feed. The sores should be cleansed and well swabbed with a freshly made 2 per cent solution of mercurochrome or with tincture of iodine. Afterward swabbing with a 1 per cent solution of potassium permanganate or strong solution of borax and alum should be done once or twice daily. Sores on the feet may be similarly treated with mercurochrome or iodine and then be kept covered with oxide of zinc ointment. The veterinarian will prescribe any additional treatment necessary in cases that prove obstinate.

Mastitis

I have a cow that has udder trouble. The udder is inflamed and has a hard knot in it that I call a hard cake. This trouble started in one quarter and went all around. Now all four quarters are affected. A yellow fluid comes out instead of milk. Two years ago she was affected in one quarter but it did not affect the other three quarters.

Hazel Green, Ala. R. C. R.

There is no certain remedy for chronic or established mastitis (garget) which is germ-caused and contagious. The disease eventually ruins the affected quarters for normal milk production. The important matter, in such a case as you describe, is to isolate the cow, catch the abnormal milk in a vessel containing a disinfecting solution and then throw it out in a place from which cows are excluded. The infection may be carried from cow to cow by the milker's hands or cups of the milking machine or be contracted by the teats coming in contact with a floor or ground on which fluid from a diseased udder has been allowed to fall. Cleanse, disinfect, and whitewash the stall in which the affected cow has stood and include the floor and gutter. Have your veterinarian give the suspected cows preventive hypodermic treatment with a biologic antagonistic to the disease. Such treatment with anti-mastitis serum at the start of an attack may also prove remedial.

Goiter

Please inform me in regard to a swelling on the neck of my young heifer calf which was there at birth. It is back of the chops on the larynx, not very large, and does not seem at all painful. Can it be goiter?

Mission Hill, S. D. G. L. G.

The enlargement constitutes goiter to which the tendency is hereditary. It may be prevented by giving each pregnant cow two grains of potassium iodide once daily in water throughout pregnancy and feeding a complete ration and minerals. Treat the enlargement by clipping off the hair and applying tincture of iodine two or three times a week. Also give the calf two grains of potassium iodide daily in water.

Use the sprinkling can FREELY



Destroys disease germs—keeps down foul odors

DR. HESS Dip and Disinfectant quickly establishes health conditions and helps to prevent contagious diseases.

Dip, spray or sprinkle and give every animal a chance to be at its best and to do its best.

This standardized preparation has five times the strength of carbolic acid. Always uniform in strength. It makes the finest, milk-white emulsion of any dip you can buy at any price.

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Pipe Smoker Finds Price Does Not Determine Tobacco Satisfaction

Starting with expensive tobaccos h finally came down to one that is now his favorite

Apparently in selecting a certain to bacco, smokers suspend the rule: 'Th more you pay, the better you'll lik it."

After all, satisfaction is a matte of taste, not of price. For that reaso the quality and flavor of Edgewort have never been changed. If you lik Edgeworth today you will like it te years from today—unless your tast changes.

Here is an interesting letter from young man who shows signs of be coming a life member of the Edge worth Club:

Chicago, Ill.
February 17, 1927

Larus & Bro. Co.
Richmond, Va.

Gentlemen:

I'm just a young man—less than thirty. About five years ago I switched from cigarettes to a pipe. Why? Because I found that a pipe required the least attention and also interrupted me in my work the least.

At first I only smoked the more expensive brands of tobacco. Then I tried the less expensive blends. I guess I tried them all. Finally I tried Edgeworth. I liked it at the start—and repeated, and repeated.

For the last four years I have smoked nothing but Edgeworth—except when I was unable to obtain it. And, whenever I couldn't get it and had to substitute, I was glad to return to Edgeworth as soon as possible. Now I smoke about two cans of Edgeworth every four days.

No other tobacco can take the place of Edgeworth in my pipe.

Sincerely,
Paul A. Johnston



To those who hav never tried Edge worth we make thi offer:

Let us send yo free samples o Edgeworth so tha you may put it t the pipe test. I you like the sam ples, you'll lik Edgewort wherever an whenever yo buy it, for it nev er changes in quality.

Write your name and address t Larus & Brother Company, 15 S. 21s Street, Richmond, Va.

We'll be grateful for the name an address of your tobacco dealer, too, i you care to add them.

Edgeworth is sold in various size to suit the needs and means of al purchasers. Both Edgeworth Plug Slice and Edgeworth Ready-Rubbe are packed in small, pocket-size pack ages, in handsome humidors holding pound, and also in several handy in between sizes.

To Retail Tobacco Merchants: I your jobber cannot supply you wit Edgeworth, Larus & Brother Com pany will gladly send you prepaid b parcel post a one- or two-dozen carto of any size of Edgeworth Plug Sli or Edgeworth Ready-Rubbed for th same price you would pay the jobber

On your radio—tune in on WRVA, Richmond Va.—the Edgeworth Station. Wave length 1180 kilocycles.

Ice Cream Production in 1926

The total production of ice cream in the United States increased slightly during the year 1926 over that of 1925. Owing to the cooler weather in 1926, the increase was only 0.6 of one per cent, or 1,936,000 gallons. In 1926 the weather for the United States as a whole was reported cooler than in 1925 for six months, warmer for four months, and about the same for two months.

The total production of ice cream for 1926, including that made in homes, drug stores, and other places, was estimated at 324,665,000 gallons which made the per capita consumption for 1926, 2.77 gallons as compared with 3.80 gallons in 1925. The per capita consumption was lower in 1926 than in 1925 because the percentage increase in population was greater than the increased production of ice cream.

The production of ice cream has been increasing in the last few years as no other product of the dairy industry. In 1910 the production was estimated at 95,450,000 gallons. By 1920 it had increased 172 per cent, totaling 260,000,000 gallons, while in 1926 it had increased over 1920 by about 25 per cent and totalled 324,365,000 gallons. The production of ice cream increased in 16 years more than 240 per cent.

Uncle Ab says that he does not live for work nor for play, but for enough of both. One way he gets both is to work at tasks he enjoys.

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A Herd of
20 REGISTERED ABERDEEN ANGUS CATTLE
CHOICE INDIVIDUALS
FOR HOLSTEINS
equal quality, production considered.

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Accredited certificates recently renewed for both tuberculosis and abortion. 235 head tested. Penshurst Man O' War heads the herd. His dam is world's champion Ayrshire producer and reproducer. Sire's dam ex-champion (their records average 24,025 lbs. milk.) His progeny is excellent. Write us for the best in Ayrshires.

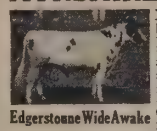
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The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, at reasonable prices, write us. Federal Accredited Herd.

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Edgerstoune Wide Awake

Nicely marked, deep bodied, straight bull calves from dams with 10,000 lbs. milk or better. By such sires as Edgerstoune Wide Awake, Imp. Howie's Wait and See, Imp. Howie's Ringmaster and Imp. Favorite Beauty Champion, sires that have over 15,000 lbs. milk back of them for 5 generations. Bulls are priced low because we need the room. $35.00 and up. Herd under State and Federal supervision. Write.

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AYRSHIRE COWS
FULLY ACCREDITED
300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

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AYRSHIRE BULL—Born: June 24, 1927. Color: White with red spots. Sire: Penshurst Rising Star, 20922. A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 441 lbs. fat, 4.04%; winners of 3 French Cups, 1 Gold Medal, 1 Association Cup and 6 Silver Medals. Dam: Good Jessie, 46271, a Silver Medal Winner with the following records: Class DD, 10,991 lbs. milk, 461 lbs. fat, 4.20%; Class B, 12,529 lbs. milk, 518 lbs. fat, 4.14%; Class A, 14,321 lbs. milk, 602 lbs. fat, 4.20%.

Six World's Records in Six Years

Spring Valley Ayrshires
(Accredited Herd)
BULLS FOR SALE!

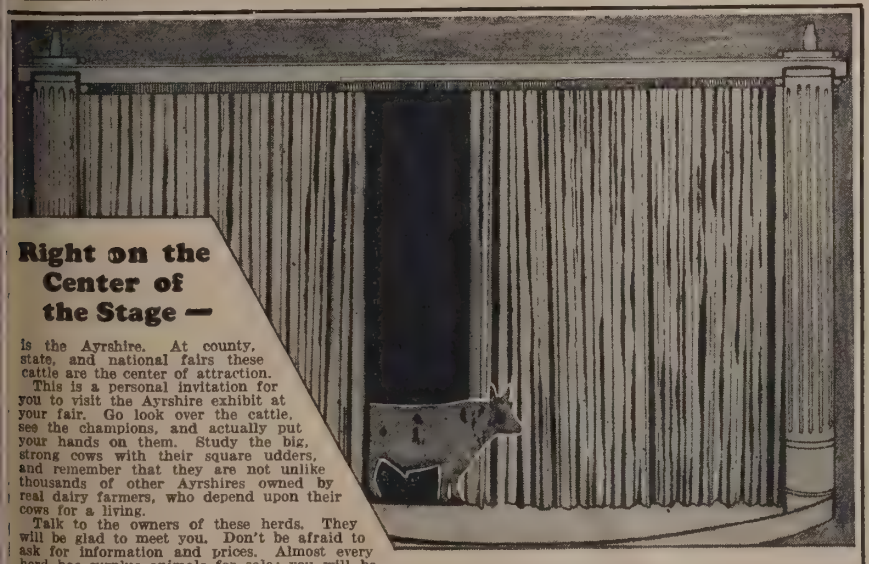
We still have for sale a few good young bulls, with the best of type, backed by good breeding and production. Priced right.

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Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

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is the Ayrshire. At county, state, and national fairs these cattle are the center of attraction.

This is a personal invitation for you to visit the Ayrshire exhibit at your fair. Go look over the cattle, see the champions, and actually put your hands on them. Study the big, strong cows with their square udders, and remember that they are not unlike thousands of other Ayrshires owned by real dairy farmers, who depend upon their cows for a living.

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We can now furnish car lots of clean Springers, all breeds. We ship direct and can save you money on good cows.

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Gentlemen: The bull which I purchased of you has proven very successful. I now have ten of his heifers and am looking for his successor. Have you anything around a year old? (Signed) J. A. Martin.

We have just sold Mr. Martin a new herd sire of excellent breeding. Send for our circular describing the Jersey bulls which we have for sale at the present time.

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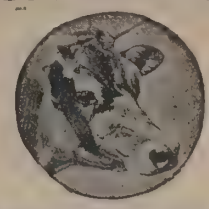
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OCTOBER 8, 1927
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We will sell 55 REGISTERED JERSEYS, most of them young cows and heifers that are bred for fall or early winter freshening.

Our Herd is Accredited

For catalogue write

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Tattoo R O 180. Dropped March 20, 1923. Solid color. A good sire. Also young Bull, Heifers and Cows. Prices and particulars on request. The herd is federal accredited. Address.

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Offering a few choice bred heifers due to freshen in the fall. The right combination of Sybil and Majesty breeding predominating. Moderately priced. Write for particulars.

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YOUNG BULLS and BRED HEIFERS sired by Image's Owl, grandson of Vive La France. Herd Federal Accredited.

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Dropped Feb. 18, 1927, solid color, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

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Good, pure-bred Jersey bulls give their daughters desirable type and the ability to produce economically and profitably. They provide the shortest road to success in dairying.

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THURSDAY, OCTOBER 6th, 1927

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The Best Lot of Guernseys Ever Put in a Minnesota Sale Ring

55 High Class Females, including several A. R. Cows and prize winners at Minnesota state fairs. **7 Very High Class Bulls,** all personally selected by the committee, from the best herds in Minnesota. Direct your inquiries to

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This Sale is Under the Auspices of the Minnesota Guernsey Breeders' Ass'n

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23 Purebred Females from Blue Earth and surrounding counties, **12 Purebred Bulls,** and **16 Grade Cows** and **Heifers.** Blue Earth county Guernseys are free from tuberculosis. Direct inquiries to

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At Fair Grounds - ROCHESTER, MINN.
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WALTER SMEDLEY, OWNER
HERD SIRES—

Lancastrian—A son of Ne Plus Ultra.
Sunnybrook Ultra Noble—A grandson of Ne Plus Ultra out of a 920-lb. cow.
Fairmaid's May Royal—A son of Mixter May Royal out of a 920-lb. daughter of Langwater Demonstrator.
Penncrest's Starlight's Royal Master—Grandson of Langwater Royal Master out of 630-lb. Class G daughter of Langwater Master Fred.

Stock sired by these bulls for sale. Address inquiries to Media, Pennsylvania.

WM. P. SMEDLEY, Manager

Bargains in Bull Calves

A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD LINES—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, Pa.

BARGAIN BULLS *produce* CLASS LEADERS

Guernsey Breeders' Journal says in Feb. 1st issue—OUR NEW CLASS LEADERS—Silverwood's Diana, 20,006 lbs. milk Sire:—BROOKMEAD'S BANNER A. R.

Sold sight unseen as a youngster.

Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

Thorn Hill Farm Guernseys

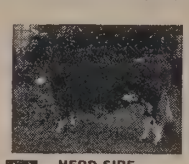


Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

BUTTERGOLD GUERNSEYS

Federal Accredited
No Abortion



HERD SIRE

Offering **TWO CHOICE TYPY BULLS** sired by 1922 National Grand Champion and out of tested dams, born last August and November. Two choice senior heifer show calves out of tested dams and sired by son of National Grand Champion whose dam has just completed a record of over 700 lbs. fat, not yet verified. Boss' daughters on test are doing very well. One in A is going at 800-lb. clip, has made as high as 3.26 lbs. fat in one day and retest requirements her 4th, 5th, 6th mos.

TARR BROS., NEW AUBURN, WIS.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

GEO. E. LARSON, AMHERST JCT., WIS.

OUR GUERNSEY SIRES

Combine Type and Production

PRINCE CHARMING OF SHUTTLEWICK, Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 yrs. Sold for $22,000. Her dam, Langwater Levity, grand champion at 1923 National. **CINDERELLA'S FAME OF MOUND CITY.** Dam, Cinderella's Josephine, 909 lbs. fat. **YOUNG BULLS** for sale by these sires and from A. R. dams; also a few bred and open heifers. Accredited herd. Write.

LINWOOD GUERNSEY FARM
Homer Rundell, Owner, Livingston, Wis.

Luxerin (B. F. Sheridan)

Three choice, typy, well grown, young bulls, 7 to 9 mos. old and out of A. R. dams and sires with dams up to 828 DD.

FOND DU LAC WISCONSIN

HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

FOND DU LAC GUERNSEYS

Get our prices on **PUREBRED CALVES** suitable for clubs. Also **GRADE COWS** and **HEIFERS** at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

GUERNSEYS FOR SALE

High Grade and **Pure-bred Springers,** both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

Foundation Guernseys

HOME OF
LANGWATER JUVIS 100894
By Langwater Warrior A. R.
Dam, Imp. Barlotteries Rose of Langwater A. R.
Milk 14774.2 lbs. Fat 730.7 lbs. Class D.



LANGWATER JUVIS 100894

A Number of Good Bulls

From A. R. Dams to 719 lbs. fat. Reasonable!

May Rose-Glenwood Breeding

ELM FARM, Deerfield, Illinois

28 miles north of Chicago, 1 mile east of Everett on 42A

H-O-L-L-I-S-T-O-N

SPELLS

PERSISTENT PRODUCTION and REAL ANIMALS

Build up your herd by using a bull calf whose sire and dam come from *persistent* producers and real individuals. Our prices will interest you if you want a REAL Sire

D. G. TENNEY 15 West Fourth St., NEW YORK CITY

MARSH FARM GUERNSEYS

Founded upon CHERUB blood combining modern show type with production. At the last 1 National Dairy Expositions 4 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the showring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

DANNY DUFF GUERNSEYS

ELEVEN sons and daughters of Danny Duff [70839] at our

FIRST FOUR FAIRS IN 1927, won:

8 Championships — 36 First Prizes

15 Second Prizes

(Second only to our firsts)

Splendid production with this type. Write for bull sales list

LARSEN'S FERN-DELL FARMS, A. W. FOX Manager] **Green Bay, Wis.**

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 14) MUKWONAGO, WIS

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (*In Waukesha Co. on Highway 61*) Lloyd L. Dewey, MUKWONAGO, WIS

Purebred Registered Guernseys

Heifers three to eighteen months old. Also a number of cows and several registered bulls. All papers furnished and T. B. tested. Priced reasonable for quick sale. All good type, well bred, and nicely marked.

H. R. LOBDELL, MUKWONAGO, (on state highway 14) Waukesha Co., WIS

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

GUERNSEY BULLS

— 6 to 12 Months Old —

sired by Prince Charming of Shuttlewick. Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 years or Linwood Leader whose two nearest dams average 826.83 lbs. fat. The last 21 A. R. records made on the farm average over 625 lbs. fat.

Accredited Herd

ORE HILL FARM, Dale Rundell, Livingston, Wis.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.

A Federal Accredited Herd

La Crosse County Dairy Cattle Co.

Offers 75 to 150 head of high grade **GUERNSEY** and **HOLSTEIN SPRINGERS** of all ages. T. B. Tested. Sound and heavy producers. We buy and ship on orders. Visit us or write. Prices reasonable. Satisfaction guaranteed.

RAYMOND KNUTSON, Mgr. West Salem, Wis.

A High Class Bull

A. R. DAM—PRICED TO SELL

CHERUB'S SPLENDOR OF CHIPPEWA for sale. Born Aug. 15, '26. Growthy, good type. Sire: Proud Prince of the Prairie is a prize winning son of Cherub's Prince. Dam a Glenwood cow with 415 lbs. fat in F. F. Priced right. Write today.

L. P. MARTINY, Chippewa Falls, Wis.

GUERNSEYS

Running a vine Marathon



en to the story of Brilliant sie—a pure bred Guernsey In six years of official su- ision she produced:

nough butter to spread 5,732 slices of bread.

nough milk to furnish one nt of milk to every man, oman and child in Nevada and some extra pints for valids who need rich ernsey milk.

n average of over 4 gal- ns of milk per day for 190 days.

n average of over 57 unds of butterfat per nth for 72 months.

Ask for "The Story of Lassie"

AMERICAN GUERNSEY CATTLE CLUB

e Street PETERBORO, N. H.

rd Sire Prospects FOR SALE

e us if you want to buy a bull ith persistent producers back n. We have some fine indi- ls to offer you; some of service- ge if you want to talk business.

Farmers' Prices!

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
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YDALE FARM DISPERSAL
GEORGE C. STONE, Proprietor

sale will be held at the farm
ING, N. Y., FRIDAY, SEPT. 30
70 — HEAD — 70
BULLS including Langwater — 12
her and sons of his descendants
COWS, many of them fresh, — 34
veral with large A. R. records
HEIFERS — 24

For catalogue write
RICK-MERRYMAN SALES CO., SPARKS, MD.

lass Guernsey Bull For Sale

Born Jan. 6, 1927
irl of White Hall 107933. 520 lbs. of ss D. Sired by a grandson of King adow.
Price $150.00
Federal Accredited Herd
er information and photograph write . Pierce, Herdsman.
HALL FARM, Inc., Elkton, Md.

ERNSEY BULLS

V ROSE GOLDEN SECRET and NE ULTRA breeding. Write for descrip- nd prices. Dams are official tested. ted herd.
R & MAHER, Devils Lake, No. Dak.

FOREMOST GUERNSEYS

We have for sale, bulls ready for service and bull calves.

Eighty-three A. R. Cows in the herd average 11,643 lbs. milk, 601 lbs. fat.

The dams of our four herd sires average 14,058 lbs. milk, 730.5 lbs. fat.

Just as well breed cows with high production and proper type.

Foremost Guernseys have won 569 prizes in the past three years at State and National Shows including Premier Exhibitor of 1924-'25-'26.

We will cheerfully send pedigree and prices on your requirements for a herd sire.

EMMADINE FARM
HOPEWELL JUNCTION (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Bulls FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

Bonnie Brae Guernseys

Herd Sire—Itchen King 49803 A. R. Sire of 8 A. R. Daughters that will average 640 lbs. fat. Sons of Itchen King for sale out of A. R. Dams of popular breeding. Priced reasonable.

BONNIE BRAE FARM, Clinton, N. Y.

HERD SIRE FOR SALE

Valentine's Count of Four Pines, my 4-year-old, line bred grandson of King of Chilmark, is for sale. A splendid bull with good type and backed by excellent production. Guaranteed right. Clean herd.

J. M. HARVEY, R. 2, WAUKESHA, WIS.

Tell the advertiser you saw his advertisement in Hoard's Dairyman.

HOLSTEINS

AN AREA TESTED COUNTY

The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Summer buyers are given every consideration in helping to locate and assemble their purchases, whether it be one or a carload. Can furnish you right now with

30 pure-bred heifers bred to freshen this fall.
A carload of bred, richly bred, grade heifers.
4 carloads of springing and fresh, highly bred grade cows, August and September freshening.
Also have a number of good pure-bred bulls from 3 months to 1½ years old.

Send for bull list or write your wants. Example: Bull born Nov. 15, 1925. Excellent individual, mostly white in color. Sire—King Pontiac Fayne Butter Boy, whose dam is a 30-lb. cow. Dam is Wisconsin Piebe Oak De Kol Watson, a show cow that has a record of 20 lbs. of butter in 7 days as a 3-yr.-old. Price $175.

W. L. Baird, Art Bennett at your service. Write or wire.
WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

ABORTION FREE HOMESTEADS

We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.

T. B. under Federal Supervision.

MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager.

BULL CALVES $75 to $100

Six choice bull calves 4 to 7 months old. Sired by a 990-lb. grandson of Iowana Sir Ollie and from good producing daughters of a 1040-lb. Homestead sire. Accredited herd. Write today.

CHAS. HUGHES & SON, NEENAH, WIS.

Jefferson County Holsteins

Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.

JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Use A Son of Matador 6th





A Show Bull That Transmits Show Type

STUDY the photograph of Matador 6th above. Ten years ago as a calf he was good enough to be made Jr. champion at the National Dairy Show. As a 3-year-old, he was considered one of the greatest show bulls in America, and from then on for four years he was made grand-Champion at the Pacific International. In recent years he has been exhibited in all parts of America and although showing his age, he has never failed to place high in any show ring where he has appeared.

Not until his four sisters had performed so remarkably at the pail, however, was he selected by Carnation Farms as a herd sire, and now his daughters are coming on and making records of 23 pounds of butter in 7 days as 2-year-olds.

Study the photograph of his offspring recently sold to a breeder in Colorado, then write for information about one of his sons for a herd sire in your herd.

Address all correspondence to

911-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR

Carnation Milk Farms

W. H. PUTNAM DISPERSAL

With Consignments From Other Herds in Vicinity

T. B. TESTED
C. T. A. RECORDS

45 HOLSTEINS

25 PURE BREDS
15 HIGH GRADES

TUESDAY
SEPT. 20
10 A. M.
Free Lunch at Noon

Mr. Putnam has developed a splendid herd in C. T. A. work, a number of two-year-old heifers having recently completed records from 417 to 500 lbs. butter. The herd is strongly bred in the Ormsby blood line and the females of breeding age carrying calf to a good son of K. P. O. P. 43d.

A number of splendid yearling heifers; some bred to the son of K. P. O. P. 43d. Several heifer calves of excellent type and breeding.

10 bulls, including the bull mentioned above (a 2-year-old), and several others ready for heavy service.

At the Farm, Main St., RIVER FALLS, WISCONSIN

Sale Under Management MELIN-PETERSEN CO., MINNEAPOLIS

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

NORRIS FARM

Is Offering SEVERAL DESIRABLE BULLS, ready for service this fall. Also YOUNGER CALVES. Write for particulars.

MUKWONAGO (Fully Accredited) WISCONSIN

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Ormsbys and Ollies

We are not showing this year—can offer a few very choice bulls and females—one big time show bull at two years old in January. Cows milking over 100 lbs. daily—three-year-olds up to 33 lbs. One of the best herds in the state—bar none. Look them over.

F. H. BOYLE, Owner, PEEBLES, WIS.
L. F. Murphy, Mgr.

Come to Sheboygan County for Holsteins

We have choice grades and purebreds to select from. Write your wants to:

SHEBOYGAN COUNTY HOLSTEIN ASS'N.,
Frank Ubbelohde, Secy., Plymouth, Wis.

Our Surplus Purebred And Grade Holsteins

have the size and quality you like. Oldest Holstein Community in Wisconsin. More Holsteins than any similar section.

DODGE COUNTY HOLSTEIN ASSOCIATION
Frances Darcey, Sec'y. Watertown, Wis.

Milford Meadows

Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.

Ask us about them.

W. W. KINYON, LAKE MILLS, WIS.

TWO GOOD BULLS FOR SALE

Ollie-S, P. O. M, 37th Breeding

We have two typy young bulls for sale now. One is from a 26-lb. granddaughter of 37th and by a 968-lb. son of Iowana Sir Ollie. The other is from a 28-lb. granddaughter of 37th and by Sir Ollie Mooie Watson 7th. Show calves priced right. Write today or come to the farm.

DICMERE FARM
H. E. DICKINSON, Oconomowoc, Wis.

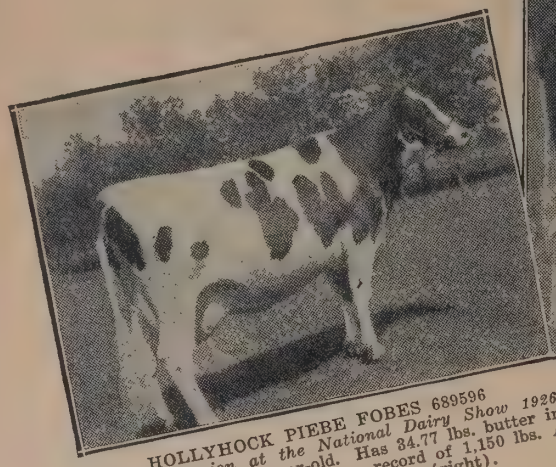
YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write

SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

Jefferson County Holstein Sales Association

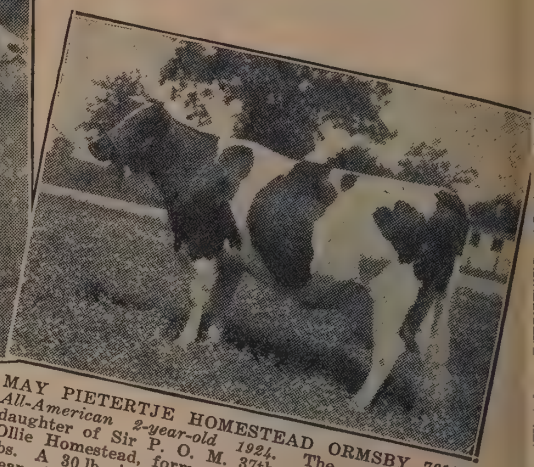
can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.



HOLLYHOCK PIEBE FOBES 689596
Grand Champion at the National Dairy Show 1926 and All-American 4-year-old. Has 34.77 lbs. butter in 7 days and is completing year record of 1,150 lbs. A daughter of Sir Bess Ormsby Fobes (right).



SIR BESS ORMSBY FOBES 217272
Head of the Hollyhock herd for seven years. The greatest son of Sir P. O. M. 37th. His dam is the noted 1,153-lb. foundation cow, Wisconsin Fobes. Full brother to Fobes 5th and 6th and paternal brother to Daisy Aaggie Ormsby 3d, U. S. Champion with 1,607 lbs. One of the leading sires of type and production. Fifty daughters and twelve sons selling.



MAY PIETERTJE HOMESTEAD ORMSBY 761999
All-American 2-year-old 1924. The greatest show daughter of Sir P. O. M. 37th. From May Walker Ollie Homestead, former U. S. Champion with 1,523 lbs. A 30 lb. junior 4-year-old with 942 lbs. for the year. Due sale time.

Complete Dispersal of the Famous

HOLLYHOCK HERD

GUSTAVE PABST, Owner *A Clean Herd* **F. J. SOUTHCOTT, Manager**

The Hollyhock herd is one of the great herds of all time. For big, high producing Holsteins of show type, the herd is a masterpiece of breeding art. It has been founded on ORMSBY, BESS BURKE and FOBES bloodlines and in no other herd can there be found such an abundance of SIR P. O. M. 37TH blood. In no other herd of like size can there be found as many 1000-lb. butter producers. The sale is an opportunity that no progressive dairyman should miss.



HOLLYHOCK CANARY FOBES 755188
A 31.94-lb. 5-year-old daughter of Sir Bess Ormsby Fobes (center above) and going strong on year test. Made 24 as a 2-year-old with 779 lbs. for the year. From an 845-lb. 2-yr.-old daughter of an 1118-lb. cow.

More High Yearly Record Cows and Heifers Than Have Ever Before Been Offered in a Public Sale

115 REGISTERED HOLSTEINS

—SEVENTEEN COWS with yearly records from 1000 to 1327 lbs. butter.

—FOURTEEN OTHERS with seven-day records from 30 to 36 lbs.

—FIFTEEN with records from 800 to 1000 lbs., most of which were made in heifer form.

—THE ENTIRE HERD averages 910 lbs. butter in a year, including every animal tested for the year.

—MANY HEIFERS from dams with records from 1000 to 1523 lbs. butter in a year.

—FIFTY DAUGHTERS of Sir Bess Ormsby Fobes, the greatest son of Sir P. O. M. 37th.

—TWENTY BULLS all from tested dams and including ten from 1000 to 1327-lb. dams.



WISCONSIN PRIDE 2D 427126
World's Champion 3-year-old milk producer and U. Champion butter producer with 1327 lbs. butter a 29,502 lbs. milk. Second highest record daughter "37th" who is also the sire of the U. S. Champi 1607-lb. cow.



HOLLYHOCK BESS SADIE RHODA 691247
A 32.24-lb. 5-year old daughter of Sir Bess Ormsby Fobes, the greatest son of "37th." She has 815 lbs. for the year as a 2-yr.-old and is from a 954-lb. cow that is also Wisconsin's Champion in 305-day division.

OCTOBER 3-4

10 A. M. Each Day. At the Farm
3 miles south of Oconomowoc

Oconomowoc, Wis.

Send for Free Illustrated Folder Showing Pictures of Fifty of the Animals Selling.

MELIN-PETERSEN COMPANY, Sale Managers
306-B Gorham Bldg. MINNEAPOLIS, MINN.



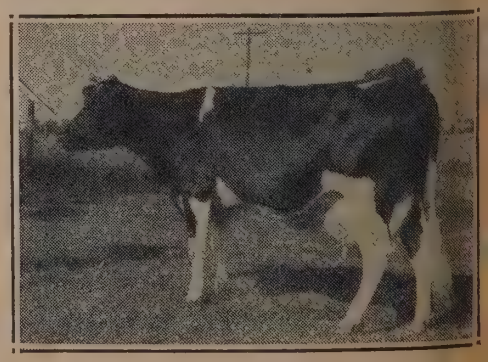
HOLLYHOCK LADY BESS DAW 992261
A 24.55-lb. junior 2-year-old finishing year with ov 900 lbs. butter. By Creation (highest record son Creator) and from a daughter of Sir Bess. Seco dam is a 1044-lb. cow.



PRINCESS DELLA 3D 571568
Wisconsin Champion junior 3-year-old with 35.22 lbs. in 7 days. As a junior two-year-old she has 958 for the year. By Sir P. O. M. 37th and from the famous 1088-lb. cow, Princess Della. Bred to Decreamco Calamity Posch, 1300-lb. bull.



SIR BESS ORMSBY FOBES 69TH 512748
Son of Wisconsin Pride 2d, the U. S. Champion 3-year-old with 1327 lbs. butter, and one of "37th's" greatest daughters. By Sir Bess Ormsby Fobes, "37th's" greatest son. One of the twenty choice bulls to be sold.



PRIDE DE KOL MILK MAID 838311
Wisconsin Champion Butter Producer as a juni 4-year-old with 36.27 lbs. in 7 days and 33.28 lbs. a 2-year-old. Going strong on year test. By Pride Sir Piets (Son of Pride 2d, above) and from a 33-l cow.

Holstein Milk



Vitality!

The Production of Holsteins

The average butterfat production of the 27,798 Holsteins which have been credited with long-time tests is 533.72 lbs. for the average 331 producing days. For the 9,774 aged cows — average producing days 332 — the average butterfat production is 600.60.

Write for Holstein Literature

The Extension Service
HOLSTEIN-FRIESIAN ASSOCIATION of AMERICA
230 E. Ohio St. CHICAGO

OHIO HOLSTEINS

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

HOLSTEIN BULLS

FOR SALE
pring Brook Bess Burke 2d - Ormsby
BREEDING
WRITE FOR SALE LIST—JUST OUT
erd under Federal and State supervision for uberculosis—blood tested for abortion.
/INTERTHUR FARMS. Winterthur, Del.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

ERVICEABLE 30-LB. BULL and BULL CALVES

P. O. P. breeding. Sons of Rival King Ormsby ercedes, his dam world's champion in Class C. nder Federal Supervision. If you want show type, e and production write

E. FERGUSON, LAURENS, IOWA.

. Frost Spaulding Farm Co.

ers choice Bred Bulls from good record dams and ed by KING PEITERTJE MERCEDES ORMSBY, of whose daughters has just broken the World's ord in the senior two-year-old class with 1,119 lbs. ter in a year. This sire is a son of Sir Pietertje nsby Mercedes from an 1,100 lb. daughter of a 00 lb. cow and is one of the few sons of Sir O. M. backed by two generations of 1,000 lb. dams. our prices.

L. SPAULDING, MGR., Warren, Minn.

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Ormsby-Homestead Bulls

We have for sale 2 very good calves born Nov. 1 and Dec. 27, sired by Rawleigh Ormsby Pietertje Posch, our 41-lb. Ormsby sire. They are from 24- and 25-lb. 4-year-old Homestead dams with good year records, one a state record cow. Priced to sell. The herd is clean. Write

THE W. T. RAWLEIGH COMPANY
Owners Rawleigh's Ideal Farm, FREEPORT, ILL.

TAKE TIME!!

Others are saving $50 to $100 by purchasing our last summer Holstein bull calves NOW. Selection better. Every cow has C. T. A. record. Many have official records. Some calves sired by 1,138-lb. bull whose dam tested over 4.2%. A card brings list.

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We are offering BULL CALVES rich in Ormsby breeding from tested dams. These are from six to eleven months old. Some priced as low as $100.00. Write for pedigrees and further information. Herd under federal supervision.

BINGHAM BROS., Arlington Heights, Ill.

— We Can Offer —

A Few Choice Bulls of Ormsby Breeding

that will be ready for fall service. They are good individuals from good record dams. Also a few younger calves at bargain prices.

ELLWOOD & NELSON
DeKALB, ILLINOIS

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PALOS PARK, - ILLINOIS
Offers BULL CALVES

Sired by an outstanding 35-lb. son of Matador from Fully Accredited Registered Yr. dams with leading cow testing association records. $100.00 up for typy individuals.

JOHN A. CARROLL, Owner — WILLIAM EDGAR, Herdsman

BIG PRODUCTION HOLSTEINS

The Femco Farms herd now consists of 250 registered Holsteins. Twelve cows in the herd have yearly butter records from 1,000 to 1,426 lbs. Three have milk records from 30,000 to 34,000 lbs. Many heifers with records in proportion.

HERD SIRES

PRIDE OF SIR PIETS—Son of Wisconsin Pride 2d, highest record daughter of "87th" with 1,327 lbs. as a 3-year-old. By the highest record son of K. P. O. P.

DUTCHLAND CREAMELLE COLANTHA LAD—Sire of seven 1,000- to 1,426-lb. cows, including two with milk records over 33,000 lbs.

MANKATO FLOA ORMSBY KORNDYKE LAD—The only bull in service whose dam and sire's dam are 1,000-lb. 2-year-olds. Combines the blood of the world's greatest sires of 1,000-lb. cows.

Write us for pedigrees of choice bulls for sale.

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

Last Calf Advertised Was Sold to Nevada, But We Have *Another Good One*

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.

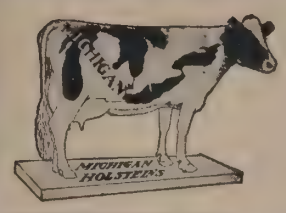
ST. OLAF COLLEGE FARMS, Northfield, Minn.

STEELE COUNTY HOLSTEINS

are noted for their size, type and production. Pure-breds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

AKONA HOLSTEIN FARM
BULL CALF born Nov. 24, 1926. Sire's dam 1,024 lbs. butter in year. Dam's cow testing association record 421 lbs. butter in 10 months as a jr. 3-yr.-old. Price $100. Accredited herd.
B. A. NORRIS, Anoka, Minn.



Come to Michigan for Holsteins

SUMMER BUYERS given every help to locate good PUREBRED Holsteins. Fifteen County Sales Managers eager to help you at no cost to you. Let me know what you want and I will ask these Sales Managers to quote you.

J. G. HAYS, Secretary
MICHIGAN HOLSTEIN-FRIESIAN ASSOCIATION
P. O. Box 1018, EAST LANSING, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

SERRADELLA FARM OFFERS A 33-lb. Serviceable Colantha Bull

Sired by Sir Dutchland Colantha Denver whose dam is a 36-lb., 1300-lb. daughter of Colantha Johanna Lad. This young bull is from Serradella Kanaka Rosewood, 33.24-lb. 5-year-old that also has a good 305-day record made as a heifer. The bull is 2 years old, straight, and well grown. A bargain at $300.

SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan

LEADING HONOR LIST SIRE

Echo Sylvia King Model, 266177, heads the list again this year. He is the only sire to achieve this distinction two successive years. His daughters have made good. Ten of them have 30- to 34.7-lb. records and none of them over five years of age. His sons are making good also in herds throughout the country.

Echo Sylvia King Model died last January but we still have a few of his sons to offer. Place your order now while there is still an opportunity to get a calf by this great sire.

"MICHIGAN STATE HERDS"
BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.
From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.
"The Herd With Straight Top Lines and Perfect Udders"

MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

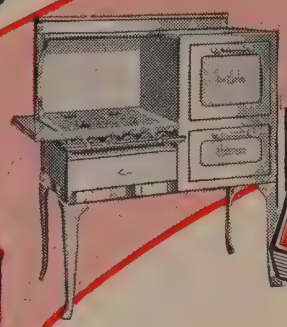
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NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

650,000 Satisfied Customers

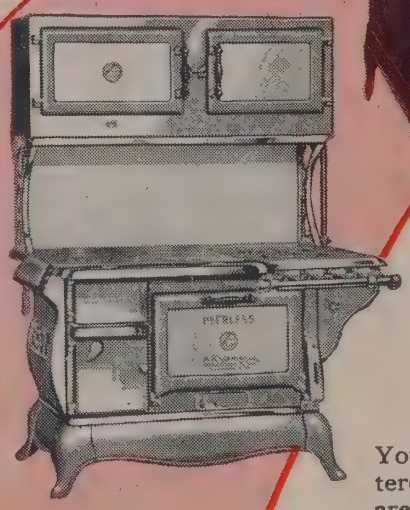
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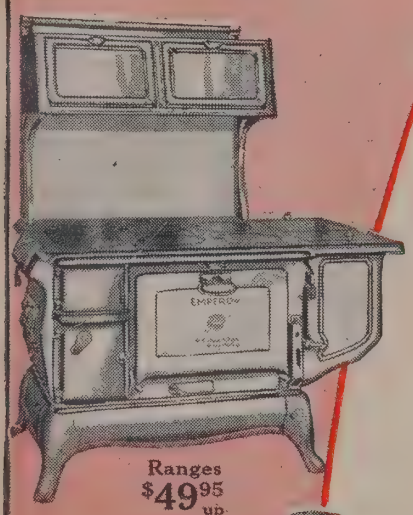


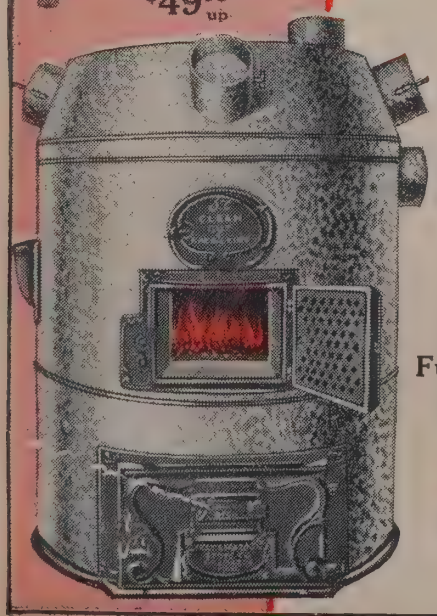












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This new FREE book tells you how you make a double saving on Kalamazoo furnaces. First it saves you ⅓ to ½ on the price of the furnace itself. Secondly, it illustrates how you save the cost of installation by following Kalamazoo FREE plans and FREE service. Thousands of Kalamazoo owners have put up their furnaces themselves.

Beautiful Porcelain Enamel Ranges

Everywhere now porcelain enamel ranges are in demand. See these Kalamazoo ranges in delft blue and pearl gray—bright, colorful, glistening clean—as easy to clean as a china dish. *Check and Mail Coupon Today!*

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545 Rochester Ave. **Kalamazoo, Mich.**

Pipe or Pipeless **Furnaces** $59.95 up

Saved $80 to $100
I put up the furnace in a very short time. I saved from $80 to $100 on what it would cost me here. Am more than satisfied.
John Fischer, Warren, Pa.

Quality Baker
Stove works perfectly. Stoves costing $175 could not begin to compare with it in fuel economy, baking quality and in heating performance. Wm. Rock, Rochester, Minn.

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

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UNIVERSITY OF ILLINOIS



Volume 72, No. 18 Fort Atkinson, Wisconsin September 25, 1927

The Guide To Good Tractor Lubrication

If you want full time work out of your tractor—at the least possible expense—follow this chart. It tells you exactly what grade of Polarine *your* tractor requires.

The Standard Oil Company (Indiana) has manufactured a grade of Polarine for each type of engine.

Polarine lubricates every part of the engine—cushions it with oil—protects it from friction. A tractor lubricated with Polarine will last long and wear well. Day after day always ready, never sick, never tired—a machine you can depend upon to get your work done when you want it done! Working away, week in and week out, with steady strength and powerful pull!

Polarine is the faithful "standby" of many thousands of farmers in the Middle West. They have found that it gives maximum lubrication at minimum cost.

Polarine Special Heavy is recommended for Fordsons

KEY TO CHART

H—Polarine Heavy
SH—Polarine Special Heavy
EH—Polarine Extra Heavy
F(S)—Polarine F (Summer)

CHART OF **Polarine**
THE PERFECT MOTOR OIL

LUBRICATING RECOMMENDATIONS FOR

TRACTORS

Make of Tractor	Grade Recommended for Engine (In Winter use next lighter grade) 1927	1926	1925	1924	1923
Advance-Rumley Oil Pull	EH	EH	EH	EH	EH
Allis Chalmers 6-12			H	H	H
Allis Chalmers 15-25, 20-35	SH	SH	SH	SH	SH
Allwork	SH	SH	SH	SH	SH
Andrews-Kinkade				EH	EH
Appleton		SH	SH	SH	SH
Aro		H	H	H	H
Aultman Taylor					SH
Avery, Road Razer			H	H	H
Avery, Track Runner			SH	SH	SH
Avery, Others	EH	EH	EH	EH	EH
Bailor	H	H	H	H	H
Bates	SH	SH	SH	SH	SH
Bear				SH	SH
Beeman	H	H	H	H	H
Best			EH	EH	EH
Big Farmer					EH
Capital		EH	EH	EH	EH
Case	SH	SH	SH	SH	SH
Caterpillar, 2 Ton	SH	SH	SH	SH	SH
Caterpillar, Others	EH	EH	EH	EH	EH
Centaur		H	H	H	H
Cletrac	SH	SH	SH	SH	SH
Coleman				EH	EH
Cultor	F (S)	F (S)	F (S)	F (S)	
Eagle	EH	EH	EH	EH	EH
E. B.	SH	SH	SH	SH	SH
Farm Horse				EH	EH
Fitch Four Drive	SH	SH	SH	SH	SH
Fordson	SH	SH	SH	SH	SH
Fox				EH	EH
Frick	SH	SH	SH	SH	SH
Gray	SH	SH	SH	SH	SH
Hart Parr	EH	EH	EH	EH	EH
Huber	SH	SH	SH	SH	SH
J. T.	SH	SH	SH	SH	SH
John Deere	SH	SH	SH	SH	
Keck Gonnerman		SH	SH	SH	SH
LaCrosse	EH	EH	EH	EH	EH
Lauson	SH	SH	SH	SH	SH
Leader			SH	SH	SH
Little Giant	SH	SH	SH	SH	SH
McCormick-Deering	H	H	H	H	H
Mead Morrison	SH	SH	SH	SH	SH
Minneapolis	EH	EH	EH	EH	EH
Moline		SH	SH	SH	SH
Monarch	SH	SH	SH	SH	SH
Nichols & Shepard	EH	EH	EH	EH	EH
Nilson	SH	SH	SH	SH	SH
Pioneer	EH	EH	EH	EH	EH
Rock Island, 5-10	H	H	H	H	
Rock Island, Others	SH	SH	SH	SH	SH
Russell, Giant				EH	EH
Russell, Others	SH	SH	SH	SH	SH
Shawnee		H	H	H	H
Stinson					SH
Tioga	H	H	H	H	H
Titan				SH	SH
Topp-Stewart	SH	SH	SH	SH	SH
Toro	H	H	H	H	H
Townsend	EH	EH	EH	EH	EH
Traylor	H	H	H	H	H
Twin City, 40-65			EH	EH	EH
Twin City, Others	SH	SH	SH	SH	SH
Uncle Sam				SH	SH
Wallis	SH	SH	SH	SH	SH
Waterloo Boy	SH	SH	SH	SH	SH
Wetmore	SH	SH	SH	SH	SH
Yuba	SH	SH	SH	SH	SH

Standard Oil Company, *(Indiana)*

910 South Michigan Avenue
CHICAGO, ILLINOIS

4689B

Follow-up Dairy Tour in San Luis Valley

The San Luis Valley Dairy Associa-on, Colorado, and its good work for e past three years is now well own. M. C. Long, in charge of the tension work of the Holstein-Frie-an Association in 1923, co-operating th State Dairy Commissioner eorge E. Morton of Colorado, Dave . Thomas, Director of Development ork of Denver Chamber of Com-erce and the Agricultural Depart-ent of the Denver & Rio Grande estern Railroad Company, with lley community leaders, brought is dairy association into being. It erates over five big counties, mak-g an area greater than at least the ree New England States of New mpshire, Connecticut, and Rhode and.

The Dairy Sires Committee ran a iry sires special over the Valley in spring of 1925, distributing eleven re-bred bulls in as many dairy com-nities within this great mountain lley. The bulls were traded even for scrub sires that were, at that ne, in service. These scrubs went greasers to the vat.

In 1926 and now in 1927, a follow--campaign or tour was made to the ms where these bulls were placed, study the herd, the farm conven-ces for dairying, and get of sire. Max Grandy, field agent who di-ted these tours, reports since the re-Bred Dairy Sires Committee ced these eleven pure-bred bulls in 25, 96 registered bulls and 2,000 ter producing cows have been ught in.

The dairy population in this Valley now 5,000 and before the associa-n reaches its fifth year, it is hoped Valley should have 10,000 cows h a performance record of 250 lbs. average for the whole Valley.

Colorado. W. H. OLIN.

Rat Killing

HOARD'S DAIRYMAN:—When I was oy somebody put me into the no-n of keeping a count of the rats I led throughout the year. The boy s in the very early teen age, but habit of killing rats has never n discontinued. That year the mber of rats killed from January 1 the last day of December was 79.

still enjoy a rat hunt. I enjoy gging" a sly and stubborn old lent just as much as a fisherman oys pulling out elusive trout or a ter enjoys the chase. Rats have a utation for being very smart, but y are never smart enough to out-a man or even a boy if the man or is warm and industrious after t rodent.

Rats are very careless about run-g over old bags or meal, so about one has to do is to set a jaw-trap ler the old bags or in the meal. In owning rats with water most work-go about it the wrong way. The n shown in the accompanying il-tration has poured plenty of wat-in the hole and has inserted a omstick so he can pull it quickly to



WHEN DROWNING RATS USE A BROOMSTICK

right or left as the rat crowds by. The rat never gets out for a chase, as is usually the case when rats are drowned out the wrong way.

Throw an old cloth down where the rats run, then in a few days after they have got used to running over the cloth set the trap under it and a rat is sure to be caught sooner or later. If you want to trap the rats keep them from a feed supply—don't leave out too much chicken feed or spill corn around the barn. Corn is an excellent rat bait if it can be made scarce. I prefer it to cheese, for cheese can easily make the rat wary and suspicious.

The best way to kill rats is not to talk at length with the neighbors about age-old ways of killing rats but just go out where the rats are and go to thinking and planning and you will catch rats much faster than by following old cheese-bait methods.

Ohio. G. P. WILLIAMS.

Samantha says: A boy too good to get into mischief is likely to grow up into a man good for nothing.

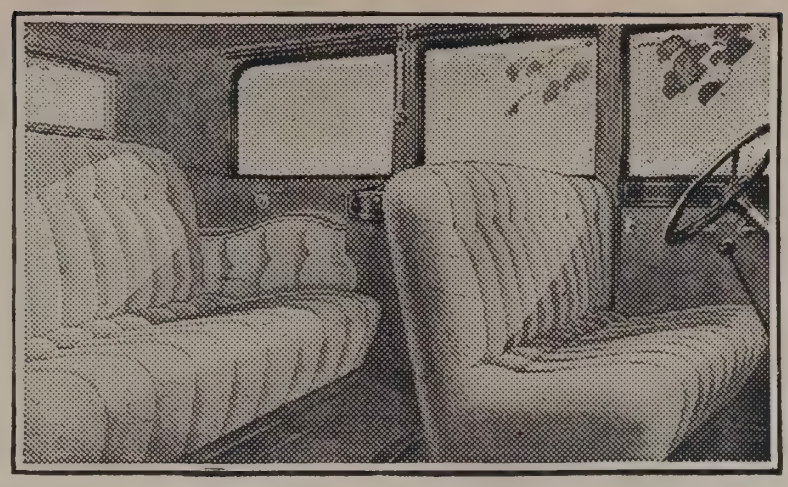
Disposing of Boarder Cows

In talking with a cow tester in Adams County, Indiana, last summer, the question of disposing of boarder cows came up. This tester made the remark that he found it harder to persuade owners of pure-bred boarders to dispose of them than the owners of grades that have not come up to the mark of profitable producers.

Just why anyone wants to keep a pure-bred registered cow that has been tested and found wanting we do not know. If such a cow can't pay her board out of the milk check it must be her owner expects to sell her recorded offspring at a price sufficient to make up the deficit.

Selling the milk from such a cow is fair enough to the man who buys it because he gets what he pays for. It is an honest transaction.

After a man knows a certain pure-bred recorded cow in his herd is a boarder and then continues to pass off her recorded offspring to unsuspecting buyers he betrays a confidence that the public has a right to expect in registered cattle.



The One-Room Home Of Every Closed Car Owner

A closed car is virtually a one-room home—a home in which the average motorist spends more waking hours than in any room in his house. When the body is by Fisher, your one-room house on wheels is sure to possess not only many outstanding advantages in comfort, in convenience, and in beauty, but also an extreme degree of durability which assures that the interior of your Fisher Body, including the upholstery, will retain its charm of appearance during the long life of the car. When you select a new car be sure that it brings you the important superiorities which Fisher Bodies provide.

Interior Features of Body by Fisher

Upholstery Cloth—Fisher uses mohair, velour and broadcloth, carefully tested for long wear and color fastness, of pleasing and harmonious color design and pattern.

Cushions and Backs—Fisher designs seat cushions and backs with utmost attention to comfort and durability. Saddle-back type springs are used in order to fit the contours of the human body and thus provide the maximum in riding comfort. Seat cushions and the back cushions each contain 50 flexible, resilient springs.

Hardware—Fisher door handles, window regulator handles, dome lights, and other appointments are all of pleasing design, and lasting finish, constructed for long service.

BODY BY FISHER

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FISHER BODIES

GENERAL MOTORS

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

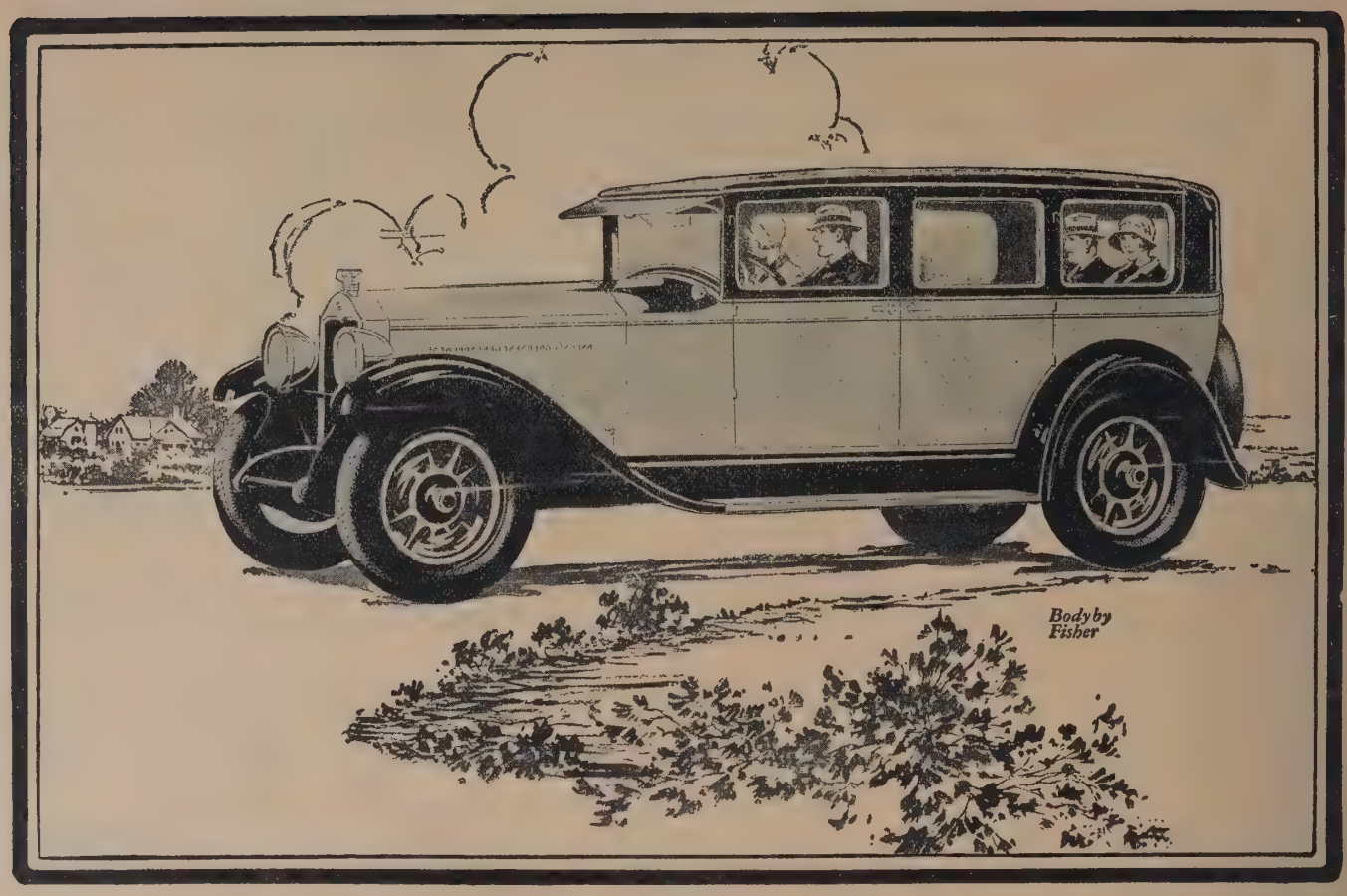
Chilly King
Cooler and Aerator

Cools milk perfectly—without ice—and secures its thorough aeration. Simply built. Easy to clean—no filth-catching corners. Milk flows in a thin film-like sheet over V-shaped Spiral Rings. Practically 100 per cent efficient. Sizes for all-sized herds. Write for catalog.



THE H. H. MILLER INDUSTRIES CO., CANTON, OHIO
successors to Chas. Skidd Mfg. Co. Janesville, Wis.

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Buick for 1928 is *Beauty for 1928* —a de luxe presentation of new motor car styles by the world's foremost designers. Here is what Fashion decrees:

Graceful Bodies by Fisher, swung smartly low, without any loss of head-room or road-clearance and without resorting to smaller wheels . . . plus color harmonies, *inside and out,* endowing closed car interiors with the beauty of exquisite drawing-rooms — and crowning all, a refreshing air of youthfulness.

Even brief inspection of the Buick line assures you there is no longer any need to delay purchase of your new car. Buick for 1928 is Beauty for 1928 — and performance, luxury and value for 1928 as well.

BUICK MOTOR COMPANY, FLINT, MICH., *Division of General Motors Corporation*

Canadian Factories: McLAUGHLIN-BUICK *Oshawa, Ontario*

BUICK *for* 1928

WHEN BETTER AUTOMOBILES ARE BUILT, BUICK WILL BUILD THEM

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

tered at Fort Atkinson, is., as second class matter.

Semi-monthly

Three Years $1.00

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OUR RURAL SCHOOLS

ALBERT S. EYLAR, NEW MEXICO

HE picture of a Michigan farm boy appeared some time ago in one of the descriptions of successful farms that Hoard's Dairyman s been publishing. After giving e boy due credit for the part he d played in putting that farm over e top, the article spoke of the in- rest this boy had in his father's rm as something remarkle in these days when the ll of the city is so strong. Gilbert Haugen is an Iowa rmer who has represented s district in Congress for ore than a quarter of a ntury. He is chairman of e Congressional Agricul- al Committee, and on his enty-fifth congressional niversary some of his Iowa ends presented him with a ver gavel. An Iowa lady de the presentation eech, during which she k occasion to say:

'Mr. Haugen and all the t of this committee know t the farmers' backs are ding under taxes. A large m of this is for our coun- school teachers. Who are teachers who 'hand it wn' to the country boys l girls? Mostly small rn girls who make $200 a r more than they could at ne. From them the coun- children get a distorted a of the advantages of m with a notion that in Street must be a heavy place and decide then l there they are not going stay on the farm. Your mittee should demand t our agricultural colleges l experiment stations in teachers enough to take e of the country schools."

Undoubtedly Iowa has nurous rural schools that giving to the teaching of iculture all the considera- that the subject deves, along with many oth- of the type that the Iowa y described. Nor should be imagined that Iowa nds alone in this respect. survey of Maryland ru- schools was made a few rs ago by two educational erts employed by the te. One of the main ques- s before these experts was to ascer- if the courses of study in these rural schools contained anything specialalculated to make the children betfitted for country life. They had nswer this question in the negai. They found almost everything he rural school that would assist children to take up some profesor follow a life of cultured ease, little, if anything, designed to er equip them to meet the probs of rural life. The courses of ly were copied largely from those of the cities and the country children were receiving a cityfied education that closed their eyes to the opportunities of country life. They concluded that if the country boys and girls of Maryland didn't become city job hunters, you couldn't blame the rural schools, for that appeared to be what the system wanted to make out of them. Worthy exceptions to the rule were discovered, but the experts found that these exceptions existed not as a product of the system but in spite of it.

And now for the best part of the Maryland story. Recently I attended an afternoon session of a teachers' convention and heard one of the leaders of the meeting, a distinguished educator from one of our universities, make the statement that today Maryland has the best system of rural schools in the United States. Such a reputation means much to Maryland. It means a coming generation with a greater pride in rural life, men and women better qualified to co-operate and get a larger share of the consumer's dollar because of the schooling they have received.

No person ever had a more profound conviction that the chief aim of education should be to show the children how to work instead of how to live without work, than the great negro teacher, Booker Washington. Before founding Tuskegee Institute in Alabama, he traveled for weeks over that state, eating and sleeping with the colored folks in their cabins, that he might have first hand the facts upon which to establish a school that would meet their needs. It was a wilderness where he founded Tuskegee and the land had to be cleared. When the boys came to him to go to school, Booker asked them to help him clear the land. At first the most of them said, "No, sah, I nevah come hy'ah to wuk. I comes to study Latin." But Booker would put on overalls, grab a grubbing hoe, and tell them to come on. So firmly did he plant in his students the idea that the chief aim of his education would be to show them how to work, that they not only cleared the land, but all the buildings on the ground they erected with their own hands. "We shall prosper," he said, "in proportion as we dignify and glory labor and put skill and intelligence in the common occupations of life."

Information on this subject is plentiful. Our national department of education issues bulletins as profusely as our own department of agriculture, and for years its bulletins containing model courses of study for rural schools have been available for the asking. Why do these model courses have such a hard time getting started? It is evident no teacher like the one described by the Iowa lady could handle the agricultural studies prescribed by these model courses, particularly in the higher grades. But do the farmers want such teachers? Not all the farmers. Nor is it wholly a matter of cost, for the farmer knows a poor school is just as unprofitable an investment as a poor cow. There are other reasons besides the question of cost.

A standard work on rural schools, now in its second edition, contains a statement to the effect that nearly all country children will remain on the farm except the few of them that nature has designed for higher spheres of usefulness in the city. These exceptional children should be taken care of, but their wants should not be allowed to dominate the course of study. But how many of these exceptional children are there? Are they in a majority? Probably so, in some rural communities, if the question was left to the parents. The error of the professor who wrote that excellent treatise on rural schools is very common, that the doctor, or the lawyer, or the minister fills a sphere of higher influence than the farmer. I submit that the pictures of the successful farmers and their families that occasionally appear in Hoard's Dairyman in connection with the de-

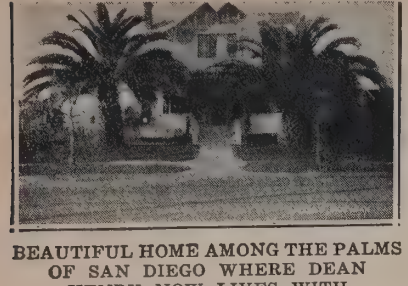
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WHAT WOULD YOU DO?



"Don't Wear Hayseeds in Your Hair"

GUY A. PETERSON, WISCONSIN



BEAUTIFUL HOME AMONG THE PALMS OF SAN DIEGO WHERE DEAN HENRY NOW LIVES WITH HIS SISTER, LYDA

THE title of this article may sound queer for a story in a dairy paper, but it was the advice that the late Hiram Smith, dairyman and one time regent of the University of Wisconsin, gave to W. A. Henry two days before he came to the Wisconsin College of Agriculture to take up his duties as botanist in that new school which could not yet boast of a single agricultural student.

Dean Henry, who is now living with his sister in a beautiful palm-shaded home in San Diego, California, told us the story of this advice when we were guests at his home last December. To tell it in his own words: "Shortly after my appointment I got a letter from Hiram Smith asking me to come out to his farm before I went to Madison. At first I didn't know whether to go or not but since it would be only a little out of the way I decided to accept his invitation. I have never been sorry that I did so because Smith gave me some sound advice that I have never forgotten. He put his hand on my shoulder and said, 'Don't wear hayseeds in your hair, Henry. Teach the farmer to be a gentleman.' In all my years at the college I tried to keep that counsel in mind, because I believed then and I believe still that the thing that the farmer needs most is the ability to appreciate his occupation and the inclination to work together with his fellowmen."

Praises Danish Farmer

Henry's dreams of co-operation among farmers will probably not be realized in his day because he is now nearing his 77th birthday but he still has faith in the ultimate future of agriculture. He told us about a visit to Denmark and of how much he had been impressed by the co-operative activities of the Danish farmers, but the thing about the Dane that struck him most forcefully was the pride he took in his work and the way he would look him in the eye as much as to say, "I'm as good as the rest of you." To be a farmer and land owner in that country does not lower a man in his own estimation, for Henry has noticed, and so have we, that when you ask a Danish "landsman" what his occupation might be, he will answer with a touch of pride, "I'm a farmer," not "I'm nothing but a farmer," as we have had so many men tell us in the United States.

When we attended a farmers' co-operative meeting in Copenhagen a few years ago, we could not help but notice that these clean-shaven, well-dressed men carried their heads as though they could hold their own with any group of men anywhere. Co-operation and education have broken the Danish farmer's inferiority complex. If they can do that for the American farmer they will be worth any cost. We believe that they can, too, because one of the most noticeable things about an



FIVE MEN WHO HAVE HELPED MAKE THE UNIVERSITY OF WISCONSIN FAMOUS

Former Presidents Charles Van Hise and T. C. Chamberlain; Dean H. L. Russell; former Dean W. A. Henry; and Doctor Stephen Moulton Babcock.

The names of these five agricultural benefactors will long be remembered. Van Hise blazed the trail for conservation of our national resources; Chamberlain's works on geology and the naming of the glacial drift areas mark him as one of the nation's outstanding men in geology; Russell's experiments in agricultural bacteriology have proven to be an untold blessing to the dairymen of the United States; Henry's researches in Feeds and Feeding have been the basis of thousands of later feeding trials; and Babcock's test has encircled the globe for its simplicity as a measure of the fat content of dairy products.



DEAN HENRY TAKING A STROLL ALONG THE LILY POOL IN BALBOA PARK

American rural community wh farmers have really succeeded in p ting across a successful co-operat enterprise is the change that ta place in the farmers themselves.

What Will You Give Me?

Some say that the farmer sells wholesale and buys at retail, Henry put it in an even more for ful manner when he told us, "" American farmer as a class is only group in the United States t brings his goods on the market says, 'What will you give me?' " believes that the fundamental rea for this is the absence of pride in occupation.

Of course Henry recognizes t there are hundreds and even th sands of farmers who till the soil cause they love to do so, and take pride in producing qua products and building beaut homes, but he is honest eno to point out that there are too many men who are on the f merely because they were b there or because they don't know to do anything else. However spite of the large number of farn who work 16 hours a day from t necks down while their heads are ing as just so much dead weight spite of the many cow milkers feed poor cows timothy hay and v der why they don't prosper; an spite of the thousands of farr who sign co-operative contracts do not live up to their agreeme Henry still has hopes that the Am can farmer will eventually find k self and will value himself at his

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Milk and Coffee Drinking Survey

THERE is a definite relationship between the class room standing and coffee drinking among school children according to results of a survey of more than 80,000 school children in Pittsburgh and Alleghany County just published by the Mellon Institute of Industrial Research, University of Pittsburgh, in co-operation with the Pittsburgh branch of the National Dairy Council.

The novel feature of the survey was the investigation on a broad scale of the relationship between the beverage habits of the children and the character of their school work. It was discovered that there is apparently a very definite connection between coffee or milk drinking and scholarship. The teachers were instructed to classify their pupils as "good" if they had a class standing of 85—100 per cent, as "fair" if their class standing was 75—85 per cent, and as "poor" if their class standing fell below 75 per cent. On this basis of comparison it was found that of all children surveyed there were more "good" pupils among those who drank only milk than "fair" or "poor" pupils; while, on the other hand, there were more "fair" than "good" or "poor" pupils among those who drank coffee exclusively or among those who drank both or neither, the one exception of this last statement being the city parochial school children, among whom there was a slightly greater number of "good" than "fair" or "poor" pupils in the subgroups consisting of those who drank both beverages or neither.

The primary objectives of the survey were to determine, first, how much milk and coffee the children drank at home and at what meals the beverages were had, and, secondly, to discover what influence either beverage, or both, may have upon the quality of the children's school work. This information, along with additional particulars such as age and race, was obtained by the teachers in the different schools by directly questioning the children. The children were asked about milk and coffee drunk only on the preceding day and were instructed to disregard milk taken between meals or at school and milk taken on fruit and cereals at meal time. It was considered that limiting the questioning to the previous day's experience of the children would result in more reliable answers than would asking for the average daily beverage habits of the children.

Analysis of the returns showed that the average city public school child drank 1.47 glasses of milk and 0.81 cup of coffee, the average city parochial school child 0.93 glass of milk and 1.52 cups of coffee, the average county public school child 1.58 glasses of milk and 0.72 cup of coffee, and the average county parochial school child 0.89 glass of milk and 1.37 cups of coffee. These figures apply only to the elementary grades and do not include kindergarten and high school grades.

As the dietary of children tends to conform more closely to that of adults as the children grow older, it was not at all surprising to find that in general they drank more coffee and less milk as their age advanced. Exceptions to this rule were discovered in the case of the city and county public school children where increased milk consumption was found during the first two or three years in school. Coffee consumption, moreover, decreased during this period in the instance of the city public school children. These favorable effects seem to indicate that child welfare work in the schools is not without influence, and is a very good illustration of the fact that the saturation point for milk consumption by children has not yet been reached. A general average of about 1.5 glasses of milk daily, or an average of 2.13 glasses which children in the better districts of the city drank, could obviously be increased to the benefit of the health and growth of the children.

One of the novel features of the investigation was a study of the distribution of milk and coffee drinking according to meals. It was found that of all grades and groups a larger proportion of the children who d only milk had it for lunch than h for breakfast or supper, and of t who drank only coffee nearly twic many had it for breakfast as h for the other meals. A relati small proportion of the children o groups drank neither milk nor c during the day, and only a compr tively few of them drank both and coffee at the same time. That dren have a tendency to drink mil clusive of coffee, or vice versa, ha so been noted by nutrition specia Except in the case of the county chial group, there were more chil who drank neither coffee nor mil the evening meal than children drank neither beverage at the two meals.

Comparison of the milk and c habits of children living in som the better sections of the city those of children from the slums industrial sections where the labo and foreign elements predom showed that the first named g drank 2.13 glasses of milk and 0.31 cup of coffee, as contrasted an average of 1.19 glasses of milk 1.10 cups of coffee consumed by second group—results which m well be anticipated. Somewhat le be expected, however, was the that the children in both groups tributed milk and coffee drin

(Contiued on page 911)

TEN YEARS WITH DAIRY COWS

Dairyman Paid Mortgage in Ten Years

T is necessary at the beginning of this story to tell briefly what Mr. and Mrs. F. C. Guildner of Da-a County, Minnesota, have done in years in order that the reader be used to finish the story to find out v these things have been accom-shed.

n March, 1916, scarcely before ink on their marriage certificate ame dry, Mr. and Mrs. Guildner d $2,500 down on a 72½-acre m. They agreed to pay $100 an e for the farm. They had a little h left with which to buy horses. ey bought sparingly of machinery ause all they had to spend for this credit. Some farmers are ex-vagant with credit at times and 6 marked the beginning of what now known as a very extreme se of credit. Mr. and Mrs. Guild-elected, perhaps by necessity, to ke the best use of what they had work with.

At that time there was no silo, no cken house, no hay barn, and no dmill on the farm; and the soil not as productive as it is now. s left a house and barn for ch there was much to be desired. oday, Mr. and Mrs. ildner have five healthy, py children. They have d off the mortgage on the ½-acre farm, bought 40 es additional for $5,000, paid $1,000 already on . They have added a silo, hicken house, a hay barn, windmill, and a garage. ides this they have im-ved the house and barn, built a machine shed 60'. They have adequate chinery to operate the m. They own 4 horses, 20 le, 57 hogs, and 500 kens besides a nice flock turkeys. Their cows av-ged 498.6 lbs. butterfat in 5, and 487 lbs. in 1926, a r when drouth cut pastures short. y owe about $4,000.

he thing that drew our attention his farm family was the 1926 cow ing report supplemented by a plimentary letter from County nt Watson.

n driving by the farmstead one is impressed because the buildings the very plain, usable kind. ther is there any extravagant out-of shrubbery to attract a passer-But two hours with Mr. Guildner vinced us that all gold does not essarily glitter.

We found Mr. Guildner mowing second cutting of alfalfa. Being ranger it took about five minutes convince him that we had nothing sell. He consented to talk and ed the hired man to continue the ving. We found the shade near house where we questioned and wered the "what" and "how" of ing for a farm.

After a few preliminary questions answers to which gave us the "lay he land" so to speak, or a bit of historical beginning ten years , we got down to dollars and cents asking about income and expendi-s.

Mr. Guildner sent the oldest girl in house to get the account book. er he opened this he indicated for o proceed with questions much as ay, "What do you want to know?" We want to know how you have l for and improved this farm?" we ied.

Suppose," said he, "I give you the unts and sources of income and enditures for 1918 and 1925. That ought to give you something to work on."

"It would seem so," we replied. "Let's have the figures."

Here are the figures as Mr. Guildner gave them to us:

In 1918 when prices were relatively high their gross income was $4,873.11. This income came from the following sources: hogs, $2,073.15; cattle including calves, $855.97; poultry, $257.08; eggs, $345.25; butterfat, $962.90; miscellaneous including potatoes, $378.76.

The expenditures for that year, a time also of high relative costs, amounted to $2,770.23. These expenditures were made for the following purposes: feed, $1,313.57; labor, $174.56; cattle, $470; seeds, $33; taxes, $71.60; interest, $243; miscellaneous items, $464.50.

The difference between gross income and the above expenditures was $2,102.88. Nothing has been included in the expenditures for family living and for labor. What they did with this money is perhaps best explained in the fact that they completed paying off the 72½-acre farm mortgage in less than ten years.

In 1925, a year of comparative lower prices, their gross income was $4,589.65 or $283.46 less than in 1918. This gross income came from the following sources: butterfat, $1,841.96; hogs, $1,146.29; cattle including calves, $406.96; eggs, $439.98; poultry, $197.54; wheat, $181.09; miscellaneous, including potatoes, $375.83. The expenditures for 1925, a year when costs had not come down proportionately with prices, were $1,525.88. Those were for the following purposes: feed, $477.75; live stock, $415.51; labor, $250.75; cream hauling, $91.05; miscellaneous, including taxes and interest, $291.10. The difference between gross income and the above expenditures was $3,063.77. A recent letter from Mr. Guildner states that he has sold $2,818 worth of hogs in 1926 and has 50 fall pigs and 7 brood sous left.

What do we learn from these figures? First, let it be noted that the expenditure for feed was $835.92 less in 1925 than in 1918; second, the income from butterfat for 1925 was $879.06 greater than in 1918. Butterfat was higher in price in 1918 than in 1925. How did Mr. Guildner spend $835 less for feed and produce $879 more of butterfat when it was a lower price per pound in 1925? Did he milk more cows and if so, how did he feed them if he spent only $477.65 for feed? Did he feed them better? Did he have better cows?

The answer to most of this is found in the fact that the same cows that averaged 384.3 lbs. fat in 1923, averaged 445.3 lbs. in 1924, 498.6 lbs. in 1925, and 487 lbs. fat in 1926. This was done with grade Holstein cows on twice-a-day milking.

Reading between the lines we know first that the production of feeds best suited for dairy feeding was greatly improved on this farm. In the second place we know that Mr. Guildner knows how to get about all the milk out of a cow she is capable of producing. Think of it—498.6 lbs. fat from grade cows!

After improving the production of crops to support adequately a herd of good cows, Mr. and Mrs. Guildner do not put all their eggs in the milk pail. Note the sources of income in 1925. There were $1,146.29 from hogs, $439.98 from eggs, $197.54 from poultry, $181.09 from wheat, and some from potatoes included with the miscellaneous receipts.

"Where corn, barley, skimmilk, and alfalfa pasture are available on the farm one can make a profit producing pork," said Mr. Guildner as he called a bunch of May pigs from the shade for inspection. He was proud to say that these pigs had been grown mostly on alfalfa pasture, a little ground barley and ear corn, and skimmilk not needed for the poultry.

They took in $637.52 from eggs and live poultry last year and the fact that they have this year 300 laying hens, 200 spring hatched chickens, and about 30 young turkeys indicates that they didn't cut into their working reserve to do it. Then there is usually some wheat and some potatoes to sell for cash.

The distribution of crop acreages last year was as follows: corn, 40 acres; oats, 24 acres; barley, 10 acres; winter wheat, 7 acres; potatoes, 2 acres; alfalfa, 7 acres; clover, 6 acres; pasture, 7 acres; remainder in truck crops, farmstead, and miscellaneous small items. Beets are grown for the poultry. Soy beans are grown with a part of the corn.

We asked Mr. Guildner who or what had influenced him most in his success with cows.

"John Tyner gave me the most valuable advice I have ever had," he replied.

"And who is John Tyner? What was that advice? Why was it valuable to you?" we asked.

"Mr. Tyner is a dairyman in this county. He took more milk to the station than any other man from a similar number of cows. He once told me never to keep more cows than I could properly feed. He told me to grow all the good roughage I needed to feed the cows I kept all they would eat. Then the cow tester came along nearly 5 years ago and helped me to improve on Mr. Tyner's advice by getting me to feed more protein in the grain mixture. I had been feeding too much corn and barley. My cows fattened too much instead of putting all the milk they were capable of producing into the pail. Since then I have been trying to get all the milk I could from the cows and not hurt them."

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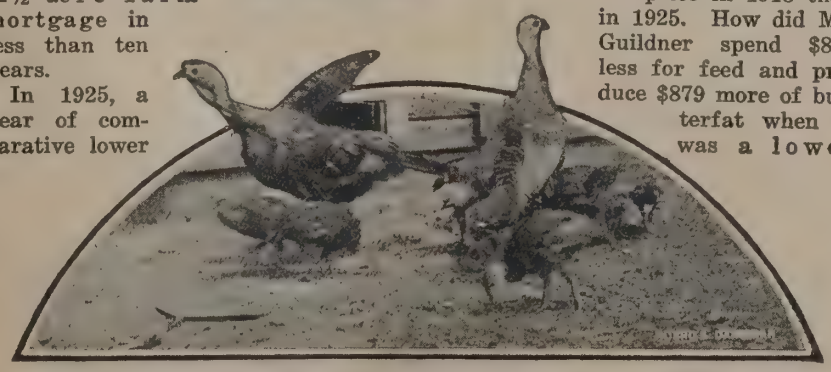


Mr. Guildner was mowing the second cutting of alfalfa. In the lower picture he is shown on the left telling the hired man what fine hay alfalfa is for dairy cows.



THREE OF THE GUILDNER CHILDREN

Milk, play, and sunshine are helping to develop strong bodies.



With the Guildners variety is not only the spice of every day's work but is also the source of a satisfactory income. These turkeys are a part of the variety.

THE 1927 OHIO STATE FAIR

THE inventive genius of man in league with labor, capital, materials, and transportation has put Ohio in third place among all states in the value of industrial production.

On the other hand, the skill of Ohio farmers in league with soil science, sunshine, rain, and the husbandry of live stock has put Ohio in seventh place in the value of farm and animal products.

All this is reflected at the Ohio State Fair, an institution of education and entertainment now seventy-seven years old. To say that the Ohio fair is the greatest state fair among all others would, of course, draw fire in the argumentive pride of citizens in other states where good state fairs are held.

Pride in one's possessions and accomplishments is a potent factor in the path of progress. Ohio people are proud of their agricultural and industrial accomplishments. Let us say that Ohio had this year one of the several great state fairs and thereby avoid unprofitable comparisons and controversy.

The outstanding educational feature of the Ohio State Fair this year was the large numbers of animals entered and shown in the different classes of live stock together with the studious, attentive ringsides where judging was in progress.

In numbers there were 58 exhibitors with 286 draft horses; 81 exhibitors with 675 beef cattle; 138 exhibitors with 760 dairy cattle; 134 exhibitors with 1,342 swine; 195 exhibitors with 1,710 sheep. In all there were 606 exhibitors with 4,773 animals. The poultry building was filled to overflowing. It was a fine place to compare the good ones with those not so good whether it be sheep, horses, swine, beef or dairy cattle.

Farms cannot be operated and the people of a state served without power and machines. Next to live stock in point of educational interest we would place the machinery exhibits and demonstrations. Modern tillage and harvesting machines as well as many labor saving devices for the farm or home were on display in action for those who were interested in getting things done.

To us, the exhibits from the Ohio State University were worthy of a great fair.

The corn borer exhibit was perfect in showing what the borer is and does from planting time till corn is ready to put in the crib. This was shown by actually having a small corn field with rows of corn in the various stages of growth from corn just up on through the season to the fully matured plants.

The State Bureau of Animal Industry had a very fine exhibit on animal disease control work, with particular emphasis on the eradication of tuberculosis.

The animal husbandry department of Ohio State University gets credit for a very good dairy herd improvement story told graphically with pictures, charts, cows, feeds, costs, and profits. Cow testing associations and some breeding work supplied the essential data.

The soils department of Ohio State University had a unique but effective way of telling the losses in farm manures under different methods of management. Hauling direct to the field conserves the most fertility.

The dairy building did not serve the purpose for which it was intended. Whatever the reason, it was a disappointment to those really interested in the manufacturing part of dairying. The building should have been devoted to showing how dairy products are made and to quality control work and such like. It had none of this.

The fact that there were more dairy cattle than beef cattle exhibited, if we do not include the carlot entries of beef cattle, shows that Ohio is giving considerable attention to dairying. Let us see who showed the good ones.

Jerseys

Judge: Thompson Weber, Kentucky.

The Jersey show was not up to what one expects in Ohio where many good ones are produced. Of the cattle that were there, a good many of the best ones came from other states. Outstanding tops were hard to find, and animals not reasonably well fitted were quite in evidence. This, with the differences in type, gave judge Weber plenty to do.

In the single entry classes The Oaklands of Michigan divided with Longview Farm of Missouri with five firsts each. R. L. Wilmoth of Kentucky got 2 blues and Pebble Hill Plantation of Georgia got 1. In the groups, Longview got 4 firsts to 2 for The Oaklands. In the championships, The Oaklands won senior and grand champion purple on Blonde's Xenia Sultan. Longview's Raleigh's Eminent Sultan was a very good junior champion bull. The Oaklands likewise won the purple on Oakland's Roella C., she beating Wilmoth's junior yearling heifer, Judie's Fairy Warnetta.

Holsteins

Judge: Axel Hansen, Minnesota.

The Holstein show was much improved over last year. Forty-two exhibitors brought out 198 animals. Outstanding in the Holstein classes were the very good first prize animals. It was the opinion of judge Hansen that no state fair will have a better aged bull class. It was the general opinion of the ringside that the top females when brought in for championships averaged the best ever seen at an Ohio State Fair. Tops in bull classes were nearly as good. is interesting to know that first p in the six bull classes went to 5 di ent exhibitors. As in the Je classes, out-of-state exhibitors wa away with a good share of the mo

In the singles, Elmwood Farm, nois, got 6 firsts; A. H. Buhl and troit Creamery of Michigan, two e and Elmer Frazier of Indiana, R Certified Dairy and F. D. Koon, Ohio got one each. These same hibitors got 7 of the 12 second pl Elmwood leading with 4 followe Rock River Farms, Illinois, wit H. S. Firestone of Ohio and A Randolph of Illinois each got a ribbon.

In the groups, Elmwood got 3 f and one second; Frazier got one and one second; Rock River Fa got one first and one second.

The purple ribbon for the se and grand champion bull went Elmwood on Sir Fobes Orn Hengerveld; Detroit Creamery g junior purple on Decreamco Cala Posch as also winning senior grand champion female on Lady B Jewell Fayne, a cow good enoug win the same honor a year ago at Michigan State Fair and later the National winner a close shave the championship. Reich Cert Dairy brought out the junior ch pion female, Reich Farm La Belle.

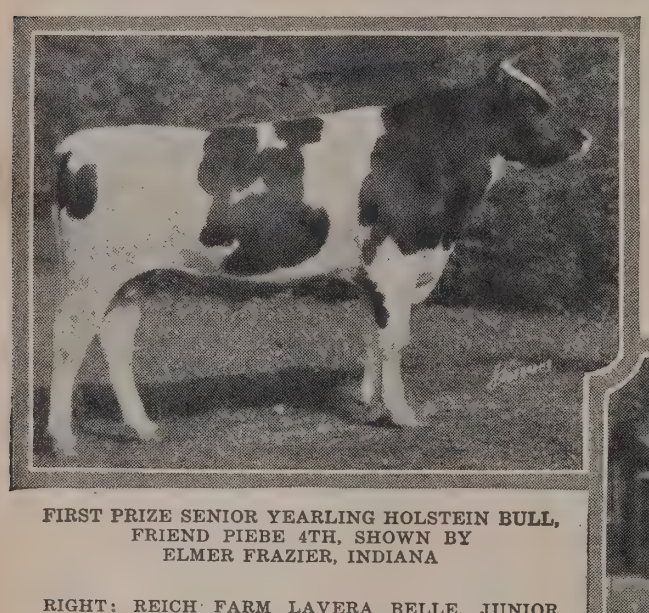
Guernseys

Judge: L. R. Fairchild, Indian

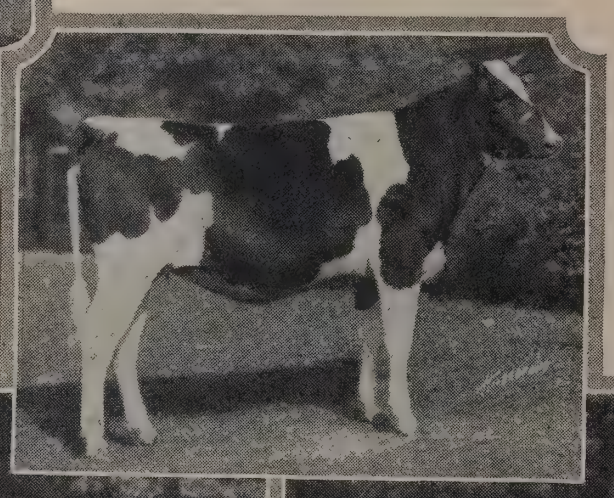
Ringside opinion held that the q ity of cattle among Guernseys sh was better than last year. Thirty exhibitors brought out 181 head. C breeders suceeded in holding mor the first and second prize money home than was true with Jerseys Holsteins. The bull classes w good in places and then there w bulls that could well have been f at home. The aged bull class headed by last year's grand champ Sargeant's Governor of Montr He, together with last year's gr champion female, Sepascot Per were the outstanding individuals the show. The female classes w much more uniform than were bull classes. The aged cow class cluded several right good dairy c not quite good enough for fast sh company.

Of the 14 first places awarded in the singles, Gayoso Farms, Mississippi, won 4; H. S. Firestone, Ohio, 3; Geo. M. White, New York, 2; Geegland Farm, Indiana, Myron A. Wk Ohio, C. C. Balton, Ohio, Meyer & Shade, Indiana, and Ohio State Uiverity, won one each.

(Continued on page 905)



FIRST PRIZE SENIOR YEARLING HOLSTEIN BULL, FRIEND PIEBE 4TH, SHOWN BY ELMER FRAZIER, INDIANA



RIGHT: REICH FARM LAVERA BELLE, JUNIOR CHAMPION HOLSTEIN FEMALE, SHOWN BY REICH CERTIFIED DAIRY, OHIO



FIRST PRIZE GUERNSEY GROUP, THE GET OF LANGWATER ACTOR, SHOWN BY GAYOSO FARMS, MISSISSIPPI



FIRST PRIZE JERSEY GROUP, THE GET OF EMINENT'S DARK RALEIGH, SHOWN BY LONGVIEW FARM, MISSOURI

Minnesota State Fair and Northwest Dairy Show

MINNESOTA always has a good state fair as well as a big one and her efforts in that direction this year were quite up to standard. It was a fair to interest every one be he farmer or city dweller, professional man or laborer. Unfortunately, the weather man did his best—or worst,—to put a damper on it and for two or three days at least succeeded to the extent that the attendance was kept well below the usual standards. It takes more than a little wet weather to make that fair a failure and just as soon as the skies began to clear, the turnstiles started going.

What are the products of the cow? The best exhibit we saw at Minnesota, and one of the best such we have ever seen answered that question so thoroughly that dairy farmers and their city cousins must both have been surprised when they saw it all. Capitoned, "The Cow's Contribution to Civilization," was an exhibit of articles other than food, many of which most of us would never credit to the cow. There was jewelry, toilet articles, leather goods, a child's playthings, an old picture sized by a caesin product and even cigarettes on which are used caesin glue. It was just a little better quality. There were 590 head of dairy animals, in addition to 187 in the junior show, exhibited by 91 breeders from 8 different states. The ringside was attentive, eager in anticipating the placings and courteous in accepting the decisions of the judges. It was a show to interest a dairy cattle breeder whatever his breed preference might be.



FIRST PRIZE HOLSTEIN GET OF SIRE BY FORUM PATRIARCH
OWNED BY FORUM FARM, IOWA

Brown Swiss
Judge: J. P. Eves, Iowa

The Brown Swiss show this year was almost an imported one for with the exception of 3 calf club entries, the 54 head were owned by 4 out of state exhibitors,—the Iowa Brown Swiss Co., Mooney & Larrabee, and H. A. Mabon of Iowa, and N. C. Schmid of Wisconsin. The Iowa Brown Swiss Co. had the largest herd and they were by far the heaviest winners for they took 10 first prizes while Mabon won two and the other two, three each. The championships were more evenly divided.

Judge Eves put the senior and grand bull championship on Mabon's Betsy Bravura Prince, quite a smooth 2-year-old that was beaten the week previous by Believe's Grandson 3d of Far View, the Iowa Co.'s winning aged entry. Mooney and Larrabee had the junior champion, Bob Granger, a junior yearling.

There were several good aged cows shown, with the top, June's College Girl, far and away the best representative of the breed to enter the ring. A breed champion with 1,062 lbs. of fat, she looks the part, and made an excellent grand champion. Two other Iowa entries stood next to her, with Cinnamon's Maiden, the winning Wisconsin entry, in 4th place. Schmid's calf, Evelyn of Meadow Green, was junior champion.

Jerseys
Judge: J. B. Fitch, Kansas

There were 117 Jerseys shown by 19 exhibitors this year, with all of the first prize winners representing five herds. W. S. Dixon, Wisconsin, showing about half of his entire herd, had eight firsts, Wm. Knight, also of Wisconsin, won 2 blues, Meredith Jersey Farm, Iowa, took one, and Wardmere Farms, Missouri, won 4.

In the aged bull class, there were two outstanding, Blond's Oxford Baron owned by Wardmere Farms and Glory's Interest Lad from Dixon's string. The latter has all the advantage in depth and is a very good bull otherwise, but he does not have the style nor quite so good a head and neck as the Georgia entry and the judge put the southern bull up. The one other outstanding bull was the junior champion, Bessie's Fontaine's Duke, Dixon's senior yearling. He was good enough to win grand championship at Wisconsin a week earlier and was second only to the aged bull here.

Meredith Jersey Farm made their first strong bid for a blue ribbon when the aged cows were led out, winning it on Successful Golden Cowslip, a very trim little 6-year-old that has three earlier Minnesota grand championships to her credit. She freshened at noon on show day, won her class an hour later, and before the day was over, won her fourth grand championship.

Knight's junior yearling, Modesty's Golden Juliette, was junior champion.

The three county Jersey herds, Becker, Hubbard, and Hennepin, placed in the order named.

Ayrshires
Judge: J. B. Fitch, Kansas

There were just 4 Ayrshire exhibitors, Adam Seitz & Sons and B. B. Simmons & Sons of Wisconsin, Fairfield Farm of Kansas, and Wm. Waugen of Minnesota, with a total of 61 animals, but it was a good show with close competition to interest both judge and spectators. Seitz won 9 blues and 7 red ribbons, Fairfield had 7 firsts and 3 seconds, and Simmons came third with two class leaders and a half dozen in second. Seitz led in championship winnings, too, with both juniors besides the senior and grand champion bull.

The grand champion cow, Cairncroft Primrose, a four-year-old owned by Fairfield Farms, was probably the best single red and white shown. She is a cow with plenty of substance, good top and bottom lines, and a good udder and while she

(Continued on page 909)



ISS MYRTLE OF MAPLE HILL, FIRST PRIZE THREE-YEAR-OLD, SENIOR AND GRAND CHAMPION GUERNSEY COW
OWNED BY BOULDER BRIDGE FARM, MINNESOTA



BETSY BRAVURA PRINCE, FIRST PRIZE TWO-YEAR-OLD, SENIOR AND GRAND CHAMPION BROWN SWISS BULL
OWNED BY H. A. MABON, IOWA

exhibit thousands saw and it must ve taught thousands a better appreiation of "The Foster Mother of the uman Race."

The Dairy Cattle

The dairy cattle exhibit this year as just about as large as last and in me of the breeds it seemed to be of



ERUB'S GOLDEN SECRET OF SHOREWOOD, SENIOR AND GRAND CHAMPION GUERNSEY BULL
OWNED BY D. D. TENNEY, MINNESOTA



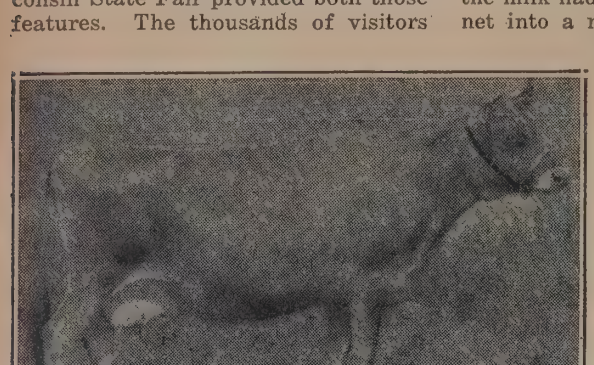
CAIRNCROFT PRIMROSE, SENIOR AND GRAND CHAMPION AYRSHIRE COW
OWNED BY FAIRFIELD FARM, KANSAS



BLOND'S OXFORD BARON, SENIOR AND GRAND CHAMPION JERSEY BULL
OWNED BY WARDMERE FARMS, GEORGIA

THE 1927 WISCONSIN STATE FAIR

STATE fairs serve two big purposes, so far as a majority of the visitors are concerned,—education and entertainment. The 1927 Wisconsin State Fair provided both those features. The thousands of visitors who attended, whether from the city or country, had ample opportunity to learn many useful lessons and at the same time there was plenty to entertain them—horse and auto races, band music, the horse show, free acts in the grandstand.



KNIGHT'S NELLIE DEAR, GRAND CHAMPION JERSEY COW
OWNED BY THE OAKLANDS, MICHIGAN

The farm and the farmer are essential to the success of the state fair. They are responsible either directly or indirectly for the existence of such an institution. Badger State farmers made their 77th annual state fair worth while by patronizing it with their products and with their presence.

That farm and factory must prosper together was demonstrated in the great industrial exposition fostered by the Wisconsin Manufacturers' Association. A trip through the manufacturers' building gives you considerable useful and interesting information and a clearer picture of what it means to "be a Badger." A fine exhibit showing how paper is made was one of the many instructive displays.

The newly organized National Cheese Institute, of which J. D. Jones, Jr., is the head, co-operating with the Wisconsin Cheese Producers' Federation and the Wisconsin College of Agriculture, has an exhibit which attracts your attention in the dairy building. The story of cheese is told by movies. An ancient Asian traveler poured milk into a bag made from a sheep's stomach and when he went to get his noonday drink, discovered that the milk had been changed by the rennet into a new product, cheese. You are told by a placard that Wisconsin produces 375 million pounds of cheese annually or 72% of the entire United States production. You learn that you should eat more cheese because it is high in food value, economical, convenient, has no waste, promotes health, growth, energy, and vigor. You see delicious, appetizing food dishes prepared from cheese. Your respect for cheese is increased and your appetite for cheese is stimulated by the things you see and read and by talking with Harold Frost who is in charge of the exhibit.

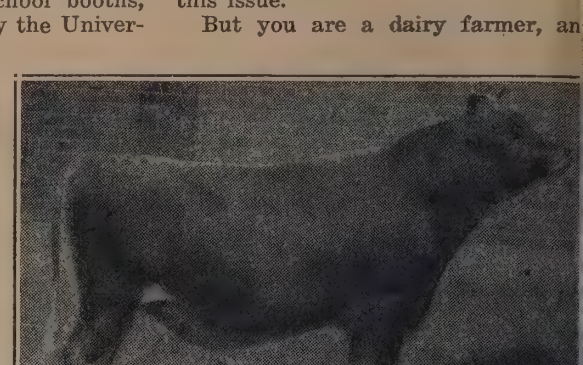
In the county and farm crops building you are impressed by the fine booths showing the agricultural products of several leading Wisconsin counties. There's a new feature, too,—competition among the counties for single project booths. Portage County won first with a demonstration entitled "Destroy the Rat" and you read that rats do almost a half million dollars' worth of damage annually. You learn methods of extermination. Pierce County tells you that marketing eggs co-operatively pays. Waukesha County expounds the value of herd improvement. Another county compares good and poor pastures and tells how to have good pastures. Still another county explains its work in reforestation; a valuable lesson in every booth.

The educational building contains many exhibits which interest you. Besides the many rural school booths, there are fine exhibits by the University of Wisconsin and Marquette University. You are fascinated by the marvelous feats accomplished by blind students from the School for the Blind at Janesville who work and play with a precision and a smile that is inspiring.

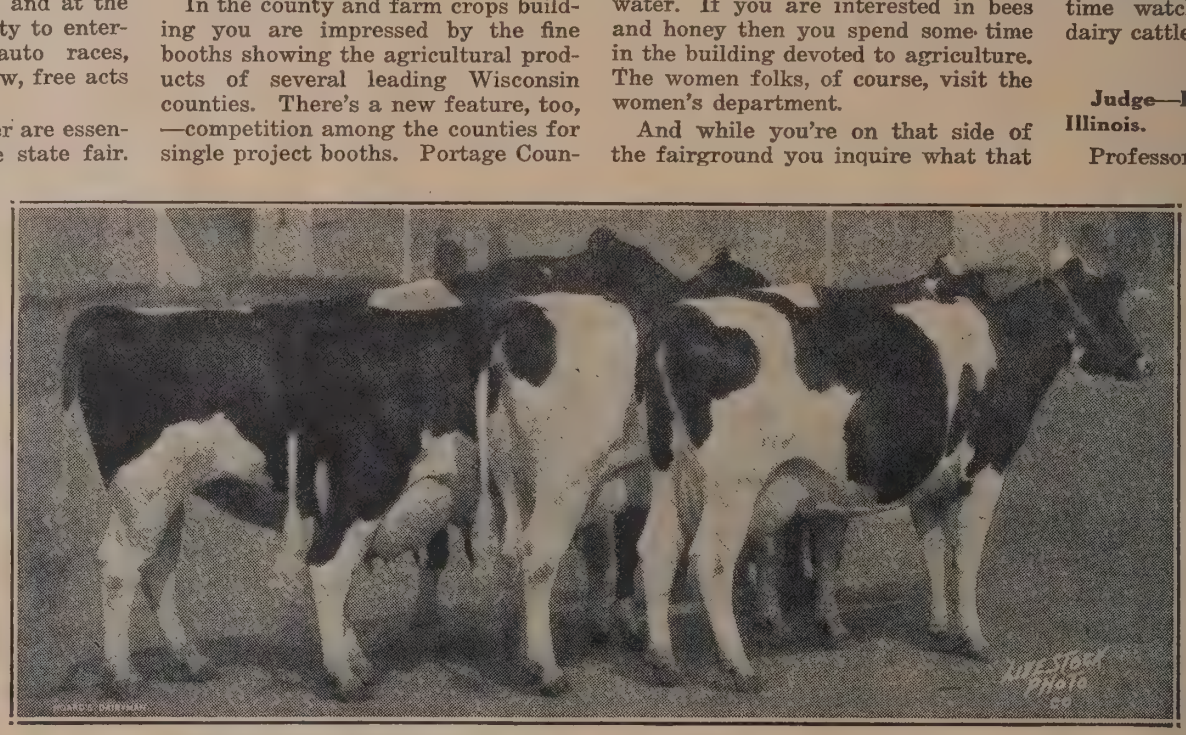
Then there are the live stock and poultry exhibits — hogs, sheep, horses, beef and dairy cattle, and you can spend some profitable hours in the barns studying breed type. The horticultural building is filled with the sweet scent of flowers and the luscious fruit in attractive displays fairly makes your mouth water. If you are interested in bees and honey then you spend some time in the building devoted to agriculture. The women folks, of course, visit the women's department.

And while you're on that side of the fairground you inquire what that tent city is doing over across the creek, and you find out that some 630 4-H club folks, the junior department of the fair,—a growing and important department, too,—are camping there for the week. You are informed that 4-H club boys and girls showed about 314 dairy calves Monday, the first day of the fair, in what was one of the largest and best competitions of its kind ever held, and that in addition 4-H club members are exhibiting 96 hogs, 48 sheep and 260 poultry entries. For a more complete report of the junior department at the Wisconsin State Fair see the junior pages of this issue.

But you are a dairy farmer, and your trip to the state fair would be incomplete without spending some time watching the judging of the dairy cattle. So, on to the arena!



BESSIE'S FONTAINE'S DUKE, JUNIOR AND GRAND CHAMPION JERSEY BULL
OWNED BY W. S. DIXON, WISCONSIN



FIRST PRIZE HOLSTEIN GET OF SIRE — OWNED BY PABST HOLSTEIN FARM, WISCONSIN

Jerseys

Judge—Professor W. W. Yapp Illinois.

Professor Yapp had 133 Jerseys t place this year, just third more than the were a year ago, wit the quality of the sho at least as good as i previous years. Th Oaklands of Michiga the only out-of-sta herd, headed the list blue ribbon winne with nine, closely fo lowed by W. S. Dixo who had seven entri head their classes. Wr Knight of Wisconsi won three blues in th open classes and o group on some ver nice youngsters. Dixo also took both junio champions, one, hi senior yearling bul winning grand chan pion as well.

The real contest f senior champion bull was between Di on's winning aged entry, Glory's Inte est Lad, and the 2-year-old, Oxfon Noble, owned by Hugo J. Trost. A ye ago the latter was first senior yearlin and junior champion while the ag bull took senior and grand champio ship honors and a good many of th ringside thought it could well ha gone that way again, but the judg fancied the younger entry particula ly because of a better head and ne

(Continued on page 896)



BORDER KING OF ROBERTS, GRAND CHAMPION GUERNSEY BULL
OWNED BY WILLIAM LARSEN CANNING CO., WISCONSIN



COUNTY FLOWER OF LANGWATER, GRAND CHAMPION GUERNSEY COW
OWNED BY WILLIAM LARSEN CANNING CO., WISCONSIN



KING HOMESTEAD PIEBE LAD, GRAND CHAMPION HOLSTEIN BULL
OWNED BY J. D. McDONALD, WISCONSIN

Champions at New York State Fair



IMPERIAL BIDA, GRAND CHAMPION
AYRSHIRE COW
OWNED BY MIDDLESSEX FARMS, INC., NEW YORK



SYBIL'S BROOK PRIDE, GRAND CHAMPION
JERSEY COW
OWNED BY JOHN T. ROWLAND, JR., NEW YORK



JONQUIL OF KINNELON, GRAND CHAMPION
BROWN SWISS COW
OWNED BY J. FRANK ZOLLER, NEW YORK



K. M. D. K. S. COLANTHA, GRAND CHAMPION HOLSTEIN COW AND WINNER OF ALASA FARMS TROPHY
OWNED BY YATES FARM, NEW YORK



CHAMPION CALF CLUB CALVES
Left to right: Ayrshire, John Crowley; Holstein, Ward Winsor; Jersey, Peter Luchsinger; Brown Swiss, Chas. Goodwin; Guernsey, Dorothy A. Onderdonk; all of New York.



FOREMOST'S BABETTE, GRAND CHAMPION
GUERNSEY COW, AND J. C. PENNEY
OWNED BY EMMADINE FARM, NEW YORK

Champions at Iowa State Fair

LEFT: JUNE'S COLLEGE GIRL
GRAND CHAMPION BROWN
SWISS COW
OWNED BY IOWA BROWN SWISS CO., IOWA

RIGHT: LONG HOLLOW MERCEDES
BUTTER BOY, GRAND CHAMPION
HOLSTEIN COW
OWNED BY FORUM FARM, IOWA







JOY SHOUT, CHAMPION
JERSEY COW
OWNED BY J. R. MANION, OKLAHOMA



PROSPECT BEATRICE, GRAND CHAMPION
GUERNSEY COW
OWNED BY CHAS. HOVEY, IOWA



LUCINDY OF SPRING CASTLE, GRAND CHAMPION
AYRSHIRE COW
OWNED BY ADAM SEITZ & SONS, WISCONSIN



FRENCHMAN SPREADING LIQUID MANURE IN AN APPLE ORCHARD WHERE THE GRASS IS CUT FOR HAY

LIQUID MANURE AND THE EUROPEAN FARMER

GUY A. PETERSON, WISCONSIN

THE use of liquid manure for increasing crop yields is common in many parts of Europe. This is especially true in hilly dairy sections. As one goes about from country to country he cannot help but be impressed by the care that is taken to preserve not only the solid manure but the liquid as well.

One can see almost every conceivable kind of a team hitched to the barrel wagons that are used for spreading the precious fluid on the fields. There will be one horse outfits, two horse teams, cow teams, oxen teams, or any combination of cows, horses, and oxen that one may wish to name. The humble cow is made to do this service more often on the very small farms than on the large ones, but it is generally conceded that a cow cannot give so much milk when she is used as a beast of burden all day. The Polish people and Russians in Russian Poland, however, do not like to drive cows, so one rarely sees these animals working in the fields of western Poland, but they are very common in southern Germany, France, and Switzerland.

Clean Barns With Hose

Some farmers convert practically all their stable manure into the liquid product. In summer time, especially, this is so. We talked with several small farmers in Bavaria who cleaned their barns in summer with a hose and stream of water. All the liquid ran into an underground tank where it was allowed to ferment for a month or six weeks, after which it was stirred up and hauled out.

The tanks for spreading the fertilizer hold all the way from 50 gallons to 200 gallons, and there may be some even larger but we saw none. They are filled in various ways. Farmers living on a side hill usually have their tank on the lower side of the barn. A six-inch pipe is run out from the lower end of this tank and the barrel spreader is filled by gravity some feet farther down the incline.

When the farm is on a plain many kinds of devices have been worked out to get the manure out of the cistern into the spreader, but the electrically driven pump is becoming very common in Switzerland and Bavaria, though the old hand pump is still used by thousands of peasants and even by middle class farmers.

Cut Grass With Scythe

Ernst Schneider, a Swiss immigrant who was graduated from the University of Wisconsin last year, has had considerable experience with this type of fertilization. When he was a lad of 12 years he used to go out in his father's orchard at four o'clock in the morning to cut grass for their 16 Simmenthal cows with a scythe, and the scythe is still used to cut the grass in this orchard. Even in summer the cows on this farm are fed in the barn, for barn feeding is a universal practice in many sections, especially on high priced land.

Schneider says, "The liquid manure tanks in Switzerland are almost always located in front of the barn in order to facilitate the running of the liquid by gravity into the spreader. The tanks are of such size as to accommodate the waste of one month or more. During that time fermentation takes place, and when the liquid is brought onto the field it has an effect at once. The liquid is always spread after the grass has been cut.

Manure Piles Drain Into Tanks

"Most farmers," continues Schneider, "also have a concrete tank underneath each manure pile in order to catch all the leakage. This leakage is rather strong, so before using it is always pumped into the regular liquid manure tank and mixed with the fluid already there. It is this seepage material that one can see staining the snow a deep brown as it runs from the manure piles in so many yards in America.

"Once every year, or every other year, each parcel of land gets a heavy covering of Thomas slack, a by-product of the steel industry, very rich in phosphorus and calcium. The liquid manure contains mainly nitrogen and potassium, so a fertilizing practice of this nature keeps up the four main plant foods, phosphorus, nitrogen, calcium, and potassium, in the proper proportion for a maximum growth."

Although much of the work on the Schneider farm is done by hand because of the rough topography, the home is equipped with many modern conveniences. Electricity is used in the farm business for pumping the liquid manure from the tank under the manure pile and from the large tank into the barrel spreader. It operates their wood saw, hay and straw cutter, and feed grinder. It is used for running the straw presser and turning the cider mill. In the home it is utilized for heating and lighting the rooms, cooking, heating water, and ironing, in addition to many minor uses such as heating the curling irons and toasting bread.

The Schneiders have a continual supply of running water without having to pump it. It is piped from the springs in the mountain side and lead into the house and barns as desired. Ever running water hydrants is one of the most characteristic features of a Swiss village, and it is this constant supply of cold running water that accounts in great measure for the high quality of cheese made in the land of the Yodlers.

Underground Manure Pipes

One of the most interesting liquid manure outfits that we saw in Europe was on a colonization farm at Buck, Switzerland, some miles out from Zurick. The Swiss government had reclaimed this 80-acre farm from worthless peat marsh, and had underlaid it with a system of pipes that was connected with the liquid manure tank at the barn. An electric pump thoroughly mixes the liquid and pumps it into the piping system where it is distributed to any field that needs it.

The owner of this farm was an interesting immigrant from Bavaria. He had contracted to pay the government a price equal to the cost of draining the land, laying the underground manure system, and erecting the buildings, all of which were modern. We were on the farm in the spring of the third year of cultivation, and he seemed to be well satisfied with his purchase. He had nothing but praise for the liquid manure equipment, for with this he could get the fertilizer into the fields when they were too soft to be driven on with a team and spreader.

Has Modern Equipment

The ideas in practice on this farm seemed to have come from many countries. Being a progressive farmer he did not drive his cows, but did the majority of his team work with Belgian horses imported from Denmark. The day we were there he was planting potatoes with a German built planter pulled by a caterpillar tractor made in America. His cows were tethered in the pasture after the fashion employed in Denmark.

His barn was equipped with many modern appliances. A ventilating pipe underneath the feed manger gave the cows fresh air from the outside. In place of stanchions the cows were tied, when in the barn, by light chains around their necks. These were fastened to rings which slipped up and down on perpendicular chains. The farmer said this arrangement was much more comfortable for the cows and considerably cheaper than the regular type of stanchion. When he unloaded the hay that was cut from the liquid manure fertilized fields, the whole load, rack and all, was elevated into the mow at one operation.



SIMMENTHAL COWS TETHERED IN A SWISS PASTURE THAT IS SPRAYED WITH LIQUID MANURE FROM UNDERGROUND PIPES

The owner of this farm is a Bavarian immigrant, which accounts for the Bavarian costume on the boy.



PUMPING LIQUID MANURE INTO A BARREL TANK ON A FRENCH FARM

The brush in the corner are willows that will be used for basket making.



A SWISS ORCHARD DAIRYMAN SPREADING LIQUID MANURE IN AN ORCHARD

Liquid Manure Drill

German experiment stations find that liquid manure when applied with a specially designed liquid manure drill gives as good results as a top dressing of sodium nitrate. Even away out in India, experiments are being made with this valuable fertilizer, and a station there has found that much of the nitrogen loss from liquid manure can be prevented by covering the liquid with a thin layer of kerosene oil. This precaution is more necessary in warm climates than it is in cooler regions.

In a way it seems strange that so little attention is given to this liquid in America. There are literally hundreds of thousands of little brown rivers of valuable plant food seeping into the creeks and streams of our land. It would be difficult to estimate the total preventable loss of fertilizer from even the best farmers' yards. We once had occasion to make a suggestion to a German farmer concerning the use of machinery and he perhaps rightfully rebuked us by saying, "I've been in the United States and have seen how you waste manure, so you needn't tell us how to plant potatoes when you cannot see any better soil conservation example than you do."

Rearing Calves With Calf Meal Gruel

New York Cornell Station Bulletin 439 reports experiments in the use of a calf meal for raising calves.

The average feed consumption from birth to six months of age was for the Holsteins 518 lbs. of whole milk, 287 lbs. of calf meal, 412 lbs. of hay and 189 lbs. of dry grain. Good growth was made, the average gain in live weight per calf being 297 lbs. Several of the calves showed a setback in the regularity of their gains following the complete change from milk to gruel.

A study of the residual effects on the calf meal indicated that the calves raised on this meal were in no way handicapped in their development, some having already produced calves and others are approaching maturity.

For it stirs the blood of an old man's heart
And it makes the pulses fly
To catch the thrill of a happy voice
And the light of a pleasant eye.—WILLIS.

A: "What is a bigamist?"
B: "A man who makes the same mistake twice!"

Adam Seitz Passes Away

Adam Seitz, well known Ayrshire eeder of Waukesha County, Wisnsin, passed away September third er a lingering illness. He was 59 rs old.

The farm firm of Adam Seitz and ns has been a bright star in the



ADAM SEITZ

rshire firmament for many years, l the success of Seitz Ayrshires in show ring at leading fairs and ositions in the United States has n outstanding. Since 1912 they e won 2,778 first prizes, champions l grand champions, 36 silver cups, gold, silver and bronze medals and breeder and exhibitor diplomas.

dam Seitz owned and has lived for 2 years on the Spring City Stock m near Waukesha. There are 286 es of land in the farm upon which roximately 125 pure-bred Ayre cattle are kept. Adam Seitz chased his first Ayrshires in 1899 l has made several importations. . Seitz has been a director of the ional Ayrshire Breeders' Associa- since 1907 and vice president e 1912. He has been active in al, state, and district breeders' orizations.

ome of the famous herd sires on Seitz farm include: Imp. Bargeh Gray Cavalier, Cavalier's Lord wart, Imp. Howies' King of arts, Cavalier's Lord Roseberry, alier's Ping Pong, Cavalier's Cup rer, Cavalier's Bobby Vernon, alier's Lord Messalliance.

dam Seitz and Sons have done ch for the advancement of the shire breed. Mr. Seitz leaves five s, Louis, Roy, Earl, Floyd, and bert, two daughters, Elnora and ma, and his wife. The farm and eding establishment is being conued by his sons who have assumed ch of the active management in ent years.

The National Dairy Exposition

ndicative of the growing interest lairying by the younger generation he announcement by Dr. C. H. e, chief of the Agricultural Edu- on Service of the Department of iculture, that 26 states will be resented by teams of boys in the ational contests which are to be l this year at the National Dairy osition at Memphis, Tenn., Octo- 15—22.

he states are Wisconsin, Illinois, higan, Minnesota, Vermont, Massusetts, Connecticut, New York, v Jersey, Pennsylvania, Maryland, o, Virginia, North Carolina, South olina, Arkansas, Tennessee, Kenky, Missouri, Nebraska, Kansas, Oklahoma, Texas, Colorado, and California.

About 50 per cent of the states will have their teams participate in a milk judging contest.

The teams are now being selected in a series of elimination contests which start in the communities and then become state wide. Each team will be composed of three boys and an alternate.

Boys on the official judging team are required to have had at least one year's systematic instruction in dairy husbandry which includes practical dairy work at home under the supervision of an agricultural teacher. The boys, in the greater number of instances, have had dairy calf projects which include the keeping of dairy records and the management of dairy herds. "In other words, the instruction in dairy husbandry has been based upon problems of dairying at the home of the boy," writes Mr. Lane.

"The Sweetest Running Separator Ever Made By Man"—

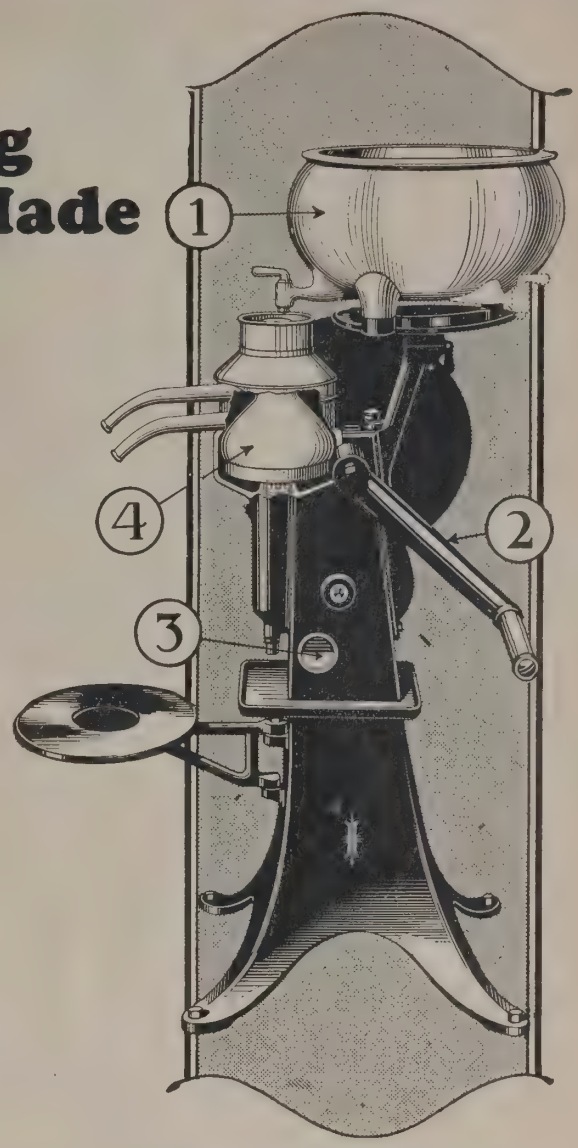
This statement was recently made by a user of one of the new 1927 Series De Laval Separators. Users everywhere are enthusiastic in their praise. One says, "They are perfection, and then some," and all seem to feel they have received more separator value in their new De Lavals than was ever before possible to obtain.

Unquestionably these new De Lavals are the crowning achievement in the 49 years of separator manufacture and leadership of The De Laval Separator Company, and are superior in every respect—in skimming efficiency, ease of operation, convenience and durability.

New De Lavals
Soon Pay for Themselves

If you are using an old, worn or inferior separator, a new De Laval will save enough cream which you may now be losing to pay for itself. Ask your De Laval Agent to show you one. You will appreciate the new features. Then run the skim milk from your old machine through the new De Laval, and if you are losing any butter-fat it will be recovered. Have any such cream weighed and tested and then you can tell exactly how much a new De Laval will save for you. Thousands have tried this plan and have been surprised at what they were losing.

Trade allowance made on old machines of any age or make. New De Lavals sold on easy terms or installments.



New Features:

1. Turnable Supply Can. A handy feature—saves time, lifting and stooping.

2. Easier Turning. These new De Lavals are easier to start and turn than any others.

3. Oil Window. This new feature enables you to see how your separator is being oiled and shows you the condition of the oil.

4. Floating Bowl. Self-balancing, runs smoothly and without vibration, delivers a smoother, richer cream, and requires less power.

The De Laval Separator Company

New York 165 Broadway
Chicago 600 Jackson Blvd.
San Francisco 61 Beale Street

New Zealand Dairy Co-operative Mines its Coal

The seventh annual report of the New Zealand Co-operative Dairy Company, Ltd., Hamilton, New Zealand, recently received, indicates that this producer-owned enterprise is still one of the larger of the co-operatives for the marketing of dairy products. During the 1925—26 season the association received 259,778,595 lbs. of milk and 85,978,856 lbs. of cream. Its output of dairy products was as follows: butter, 49,875,539 lbs.; cheese, 10,677,991 lbs.; casein, 2,065,238 lbs.; milk powder, 5,062,345 lbs. Sales of dairy products amounted to approximately $18,100,000 for the year. The principal items making up the total were: butter, $15,452,000; cheese, $1,802,000; milk powder, $683,000; casein, $181,000.

Dairy products are exported largely to the British markets, the association having an office in London with its own representatives in charge. The best grade of butter is marketed under the "Anchor" brand. The association is adding to its present equipment a large butter factory, centrally located. Besides plants for making butter, there are 15 cheese factories and 3 plants for manufacturing milk powder.

A coal mine has been organized as a subsidiary of the dairy products co-operative. The coal is used largely to supply the various plants operated by the parent company. Sales from the mine for the 1925—26 season amounted to more than $500,000.

Another subsidiary enterprise is the New Zealand Dairy Finance Company, Ltd., which it is stated "has already been of considerable assistance to many of the company's shareholders."—Agricultural Co-operation.



If you want extra traction and long tread wear in addition to balloon tire comfort, be sure you get this quiet-running *new-type* Goodyear All-Weather Tread

You can see it before you buy

The right size and type of tire for your car is carried in stock by your local Goodyear dealer; *you can see it before you buy.*

And after you buy, that dealer will back up the tire's superior quality with a service designed to *insure* you the lowest cost per mile.

He sells the world's finest tires at a range of prices to fit any pocketbook; the values he offers are dependable and real.

He puts the tire you buy on the rim for you, fills it with air, and throughout its life helps you give it the care it should have to deliver maximum results.

The Goodyear dealer s service will cut your tire bills down. Save you time and trouble. Make your tire money pay bigger returns.

It is part and parcel of the Goodyear policy: *to build the greatest possible value into Goodyear products,* and *to provide facilities so that users can get all this inbuilt value out.*

Goodyear makes a tire to suit *you*—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced standard quality Goodyear Pathfinder

Goodyear Means Good Wear

GOODYEAR

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Seasonable Live Stock Note

OCTOBER is near; we are reminded of its coming by chilly dawn and early dusk. October brings us the answer to our season's labor for a corn crop. No longer do we worry about wind and hail, about bugs and blight. Our labor and the use of land are represented by feed crops ready for the continued husbandry of live stock. What can we do now to be forehanded in contributing to their welfare?

Put Herd in Cow Testing Association

Based on the assumption that every farmer desires to sell his feed crops through live stock for as much money as possible, we venture the suggestion that now when the barns and bins are full is a good time to begin finding out what kind of cows we have through which to market our feeds. So far as the milking herd is concerned, we can think of no one thing of greater importance right now than that of putting the herd in a cow testing association. It will do more toward selling feed crops for good prices than anything we know of provided, of course, the tester is big enough for his job and the members work with him.

Husking Corn With Hogs

How times change! Thirty years ago turning a bunch of shotes in the corn field to help themselves would have been looked upon as a lazy man's way of harvesting the crop. Today one is behind the times if he does not know something about hogging down corn. Many experiments have proved the economy of the practice when rightly done. A suitable supplement is of greatest importance. If good forage is available near the corn, it will serve a very useful purpose. Alfalfa, rape, and clover are best in the order named. If forage is not available, tankage or skimmilk is best. A mixture of tankage 70 parts, linseed meal 15 parts, and shorts 15 parts is better than tankage alone. Skimmilk is fed at a rate of 3 lbs. for each pound of corn consumed or about a gallon and a half per head daily.

Feed Mixture for Eggs

As long as we are culling the flock and getting the chicken house ready we might as well finish the job by planning the mash and scratch mixtures to be fed. In every state where poultry is of significant importance, experiments have been carried on to determine good rations for laying hens. Write to your experiment station for this information. If you don't like to write, try the New Jersey mash and scratch mixtures. The mash is composed of 100 lbs. each of wheat bran, middlings, ground oats, corn meal, and meat scraps. ... kept before the hens all the time ... is fed dry. The scratch mixtur... be fed twice daily is made of 100 ... each of wheat, cracked corn, ... heavy whole oats. Don't forget ... shell, green feed, and water.

A Good Place for a Little Disinfectant

New calves are coming rapidly ... setback on fall calves is bad busi... They need every boost possible. ... way of preventing a possible st... still in their development is to d... fect their navels shortly after ... are born. The next time to t... stop in at the corner drug stor... wherever it is and get a coupl... ounces of tincture of iodine and s... powdered boracic acid. Paint ... navels of young calves with io... and dust on some of the boracic ... powder. Of course, one will ... calves clean places to be born in.

Fit the Flock to the Floor Spa...

Last issue we urged you to get ... winter quarters and feeding eq... ment ready for the early housing ... the flock that is just about read... lay and cackle. A good sugges... at this time is that you plan to ... out poor prospects before putting ... flock in for the winter. A gen... tendency on farms is to try to ca... 200 hens through the winter i... house none too big for 125 h... Undersized, poorly developed pul... should not be carried through ... winter and under such conditions.

Feeding the Young Boar

Did you buy a boar pig at the ... and, if so, what provision have ... made to bring him up to breed... season in tiptop, thrifty conditi... As a rule, less attention is give... boar than his importance requi... Too often any kind of a pen that i... hold a boar is the kind he gets. ... ercise and correct feeding are ... greatest importance. Enough e... cise is usually induced by plenty ... range in the place he is kept. A b... pig to be used late this fall sho... have about the same combination ... feeds used for gilts. Green feed ... limited corn supplemented with sk... milk or a mixture of tankage ... parts, linseed meal 15 parts, ... shorts 15 parts is good feeding. Cl... confinement and too much corn i... bad combination.

Keep Calves a Little Hungry

There is no better way to up... the sensitive stomach of a new-b... calf than to allow it to gorge ... much milk at one feeding. Sm... amounts fed frequently from cl... pails is a good practice. Keep ... calves just a little hungry.



CHAMPION AYRSHIRE COW AT KILMARNOCK SHOW, SCOTLAND



THREE GO-GETTING INTERNATIONALS

Owned by Range & Frank, of Atlantic, Iowa. Left to right, a 3-ton, a 2-ton, and a Speed Truck, 1½-ton, all loaded with stock and ready to set out. These boys have been highly successful, hauling livestock 65 miles to South Omaha. The trucks haul as many as 15 to 20 loads per week, reducing the road time 10 to 18 hours and effecting big savings in shrinkage.

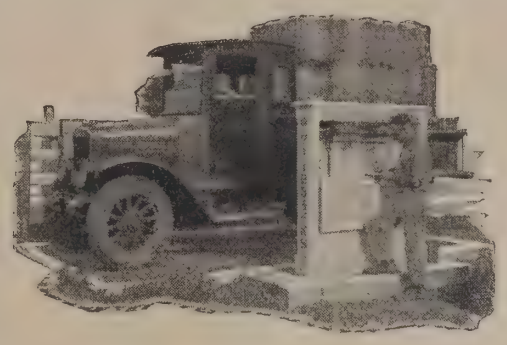
INTERNATIONAL TRUCKS

For Year-Round Service On The Farm

AN International is the natural choice. International Harvester has been building better and better motor trucks for over 23 years, and its history of heavy-duty machine development goes back nearly a century. International Trucks today are an unbeatable product, declared so by a great army of owners. The conservative man places his faith in this good reputation, based on such experience.

International offers the farmer a truck to be proud of, in the size to fit his hauling. Sizes run from the ¾-ton "Special Delivery" and the 4 and 6-cylinder Speed Trucks for 1¼, 1½ and 2-ton loads, up to the 5-ton Heavy-Duty unit. They are on display and sold through 136 International Branches, the widespread Company-owned service organization which International Harvester maintains over this country. It is good to know that service will always be available during the years the truck will be on the job.

Let a good-looking International save time for profitable work on your farm. An International Truck folder will be sent on request.



Work For An International Truck

A load is just so many pounds, or tons, to an International, whether it be milk and cream, livestock, sacked or bulk grain, baled or loose hay, shelled or ear corn, fruit, vegetables, butter and eggs, chickens, coal, lumber and general building materials, feed, or any other of the many products that need hauling to and from and on the average farm. And it will haul trailers, pull scrapers, do road work and even substitute for the automobile in emergency. Body styles provided to suit every need.

INTERNATIONAL HARVESTER COMPANY
of America
(*Incorporated*)

606 So. Michigan Ave. Chicago, Illinois

Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

W. D. HOARD & SONS CO., Publishers
H. L. HOARD A. R. HOARD F. W. HOARD
EDITORS
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FOREIGN SUBSCRIPTIONS may be sent through news dealers and book sellers in all foreign countries.

All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Sept. 26-Oct. 2—Dairy Cattle Congress, Waterloo, Iowa.

Oct. 15-Oct. 22—National Dairy Exposition, Memphis, Tenn.

Oct. 24-Oct. 29—Dairy Industries Exposition, Cleveland, Ohio.

Oct. 25-Nov. 5—Pacific International Live Stock Exposition, Portland, Ore.

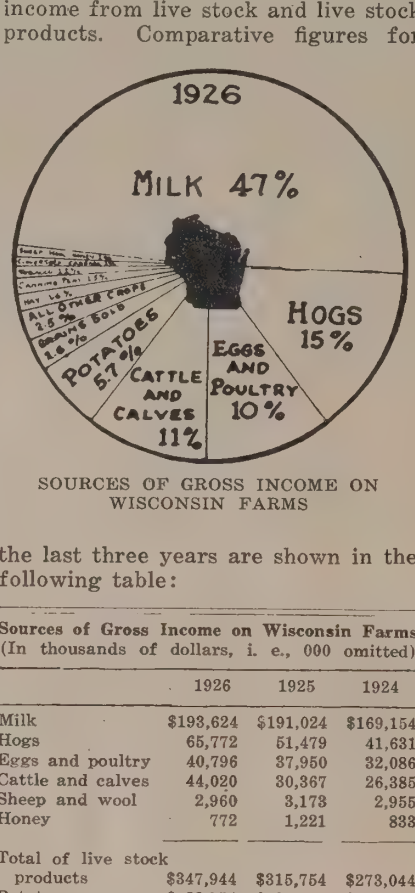
Oct. 29-Nov. 5—Western Dairy Products Show, Portland, Ore.

Nov. 14-19—Pacific Slope Dairy Show, Oakland, Calif.

Nov. 29-30—National Creamery Buttermakers' Association, Nicollet Hotel, Minneapolis, Minn.

Wisconsin Farm Production in 1926

A study of the 1926 production figures shows that the gross income on Wisconsin farms for that year exceeded 1925 by a little over 6 per cent. There was a decrease of about 10½ per cent in the income from cash crops, but an increase in the income from live stock and live stock products. Comparative figures for



SOURCES OF GROSS INCOME ON WISCONSIN FARMS

the last three years are shown in the following table:

Sources of Gross Income on Wisconsin Farms
(In thousands of dollars, i. e., 000 omitted)

	1926	1925	1924
Milk	$193,624	$191,024	$169,154
Hogs	65,772	51,479	41,631
Eggs and poultry	40,796	37,950	32,086
Cattle and calves	44,020	30,367	26,385
Sheep and wool	2,960	3,173	2,955
Honey	772	1,221	833
Total of live stock products	$347,944	$315,754	$273,044
Potatoes	$ 23,774	$ 29,540	$ 9,400
Tobacco	4,606	5,920	3,215
Canning peas	6,678	6,387	7,643
Hay	6,890	5,369	8,490
Clover seed	2,761	3,387	957
Cabbage	1,436	1,411	1,157
Grains	11,055	12,094	12,286
Fruits	5,289	3,675	3,909
All other crops	5,026	6,847	4,706
Total of cash crops	$ 67,515	$ 74,630	$ 51,763
Total gross income	$415,459	$390,384	$324,807

The gross income figure is made up of the total value of live stock sold and live stock products and the value of the portion of the grains and other crops not fed to live stock. No effort is made to include inventory changes or changes in the value of farm property.

The decrease in income from cash crops is accounted for by the lower value of the 1926 crops of potatoes, tobacco, clover seed, and to some extent other marketed crops. The bulk of the decrease came in potatoes, which crop had a much lower value in 1926 than in 1925 in spite of a larger production.

The increase in the value of the live stock production is chiefly the result of a bigger income from the sale of cattle, hogs, and poultry products, most of which brought somewhat better prices in 1926 than in 1925, and in addition the amount of cattle, hogs, and poultry marketed in 1926 showed an increase over 1925. A new high point in cattle shipments was reached last year when over 405,000 head were shipped to packers and stockyards in addition to record shipments for other purposes.—Wisconsin Department of Agriculture.

Pacific Slope Dairy Show

The seventh annual Pacific Slope Dairy Show will be held in the Municipal Auditorium, Oakland, Calif., November 14 to 19.

The executive committee is composed of Sam H. Greene, C. O. Hagen, C. E. Gray, J. J. O'Neil, George W. Prising, E. A. Greene, and Robert E. Jones, all of California.

The live stock show will be under the supervision of a special committee: R. A. Cordee, Sam H. Greene, G. E. Gordon, W. N. Regan with Superintendent Arthur Folger in active charge. The premium offerings for dairy cattle total more than $7,000.

Superintendent of Dairy Products, G. D. Turnbow, has announced the judges for the Dairy Products Division as follows: milk—S. J. Pearce, Utah, H. E. Ball and C. E. Tegner of California; butter—G. H. Benkendorf and F. H. McCampbell, California; cheese—H. R. Lochry, Utah, O. A. Ghiggoile and C. A. Phillips, California; ice cream—C. A. Phillips, California, and S. J. Pearce, Utah.

How Sperling Succeeded With Cows

HOARD'S DAIRYMAN:—Parents of Fred Sperling would have made him a doctor, and did induce him to enter college for this. At the end of the first year of study Sperling still maintained that he chose to be a dairyman, so he went at the business on a very rough eighty in Pottawattamie County, Iowa, with such common cows as he could buy. That was five years ago, and now Sperling is a success with a herd of Holsteins that supplies a city milk route that includes two hospitals.

In the beginning, Sperling thought he would keep Shorthorns but a trial with a few of them changed his mind, so he began to develop the Holstein herd that he now has. They are the only kind for volume production for the whole milk market, he believes, and he relates changes that he has made since the beginning in his program of feeds and feeding.

Some of his land is so rough that it cannot be plowed, but here and there are spots that can be turned, so these are planted to sweet corn for use if the sweet clover following small grain should happen to turn short. No dependence is placed upon the virgin bluegrass sod of the steep slopes at all. He happens to have land enough in a bottom to give him corn for silage and enough area for the sweet clover pasture following small grain.

"I like to sow a little alsike with the sweet clover," Sperling has said. "I don't need it the first year, but I do the second, for I let the sweet clover run over. Then by August in the second season it is about passed out, but the alsike remains to finish that season. I don't hold the field, though, for the alsike alone. The next spring it goes into corn for silage."

In the first two or three years he had to buy alfalfa in the bale from Nebraska, but since then he has managed to raise a little himself, and to get more by putting it up on shares on neighboring farms.

Because he has a big power mill for grinding the grain, he runs his alfalfa hay through it, maintaining that it pays by making the roughage go farther in the ration, and by avoiding the waste of stems.

His formula for grain feeding is 600 pounds of corn and cob meal, 300 pounds of bran, and 100 pounds of cottonseed meal, giving about one pound of the mixture to about four pounds of milk. He feeds straight through the summer to keep the cows in good flesh and to maintain the regular flow of milk so that the milk route will not see a lack. There are times of abundant green feed that the cows refuse to eat much of the concentrate, but he gives what they will devour of it. If the pasture gets short, there are the patches of sweet corn for summer feeding, but Sperling plans to add another silo so silage can be used for summer ing when necessary.

There were lessons in indi cow production to be learned. ling thought that he could tel paying cow from the boarder co by watching the pail, but after he joined a cow testing assoc and discovered that he had guessing wrong in several Since then he has sold eight cow did not pay, although he had th by the old rule that they did. some that I believed were not as good as those eight, prove weight and test to be better," ex Sperling. He stood about third association when this was writt

You've got to raise high prod crops to feed high producing and be so careful with the mil the customers can find no fault the flavor. That spells success, ling has been showing.

Iowa. G. R. HARRIS

Better Sires Special

Making nine one-day stop Northern Indiana, a "better special" train will operate ove Erie Railroad, September 27 to ber 5, distributing four carloa superior sires of the leading breeds and demonstrating feeding and other dairy practic thousands of farmers.

Many agencies, local, state, a tional, will co-operate to mak tour a success. Besides the four of Holstein, Guernsey, Jersey, and Ayrshire bulls the train carry exhibit cars fitted by P University and the U. S. Depar of Agriculture, a flat car for ou talks and motion pictures, a bu car, lecture coaches, and a suppl

The daily program will devot morning to the inspection of bull exhibits with the dairy exper hand to explain and answer ques At 1:30 p. m. specialists from due, the breed associations, an Erie railroad will give talks on feeding and breeding, and the i tance of growing legumes. Im ately following this program including one or two sires, w given away. At 7:30 p. m. a ve teresting and instructive progra motion pictures on dairy topics be given.

The "better bull special," ope by the Erie railroad through N ern Indiana in 1924, has br about an increase in the numb pure-bred dairy animals, and a crease in milk and butterfat pr tion. More than 4,000 cows ha ready been bred to pure-bred placed by that train. To further ulate the dairy industry in the tory through which it passes purpose of this special.

The speakers and demonstrato the present tour will be: fo Erie Railroad: H. B. Rogers, agricultural agent, and T. M. Pa agricultural agent; for Purdue versity: E. A. Gannon, associa dairy extension, E. T. Wallace sistant in dairy extension, J. H. ton, association in dairying, Pence, associate in soils and cro tension, and K. E. Beeson, assi in soils and crops extension; fo Indiana Holstein-Friesian As tion: C. W. Newman, president the American Jersey Cattle Cl E. Dennison, fieldman; for the A icon Guernsey Cattle Club: Holden, field representative; fo Indiana Ayrshire Breeders' As tion: R. M. Gore, president, a A. Eby.

Aunt Ada's Axioms: Not things can hurt a child so much discourage his enthusiasm.

ld Dobbin Tramps Silage

HOARD'S DAIRYMAN:—As we were ving along the concrete road south Provo, Utah, one day last summer saw the figure of a horse outlined ainst the sky some distance ahead l to the right of us. At first we ught our eyes were deceiving us, ; as we got closer we saw that the se was tramping bean and pea e silage on top of the largest stack its kind that we had ever seen.

We recalled a story that we had d in our youth about some boys



ORSE TRAMPING PEA AND BEAN VINE SILAGE ON A STACK NEAR PROVO, UTAH

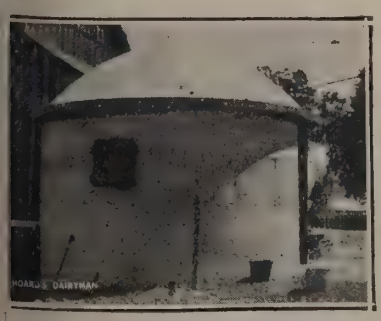
o had tramped the hay in their her's barn by driving three colts nd and round in the mow. All went l until the barn was full when the s discovered that there was no y to get the animals down. The ey was continued, and to this day have never learned what they did h those colts because our subscrip- n ran out and it was never re- ved. Perhaps that is why we pped to see how this horse would r get down from its high position. Ve found that the descent was easy ause the driver had built an in- ied plane of hay to the top as the k rose higher and higher. The se not only tramped the silage but hauled it away from the elevating te as well. Seven or eight viners e at work in the building below the depodded vines were dropped o an apron that deposited its load a single elevator. This elevator ried the silage to the top of the k, so it was made to do the work seven or eight, thus materially re- ing the power required to run the chinery. We were satisfied that idea was a good one and that the se would get down, so we started motor and went on our way.

Visconsin. GUY A. PETERSON.

Round Milk House

HOARD'S DAIRYMAN:—A very nice crete milk house has been erected past month by one of the mem- s of the Poynette Association of sconsin. This is circular in shape. s about ten feet across and about ht feet high to where the roof be- s its curve to a hole in the center. s will be filled in some time with upola.

A concrete milk cooling tank takes one-third of the interior floor ce; right outside at back in the nyard there is another tank made the same material but larger and



ONCRETE MILK HOUSE WITH BOTH INSIDE AND OUTSIDE COOLING TANKS

used for watering cattle. One feeds into the other. It certainly looks sanitary and to add to the cleanliness of what has always been a dirty and muddy barnyard, a concrete walk almost the width of a car has been laid from here to the cow stable, a matter of 35 or 40 feet. Instead of wading through mud between house and barn, a person can make the trip quite cleanly.

While working around my car, I could not help noticing the curiosity it creates from passersby who stop to investigate. W. ERIC CONSTABLE.

Nebraska Creamery Short Course

The Dairy Husbandry Department of Nebraska is offering a six months' course in the fundamentals of dairy practice, extending from October 10 to April 18. This course is intended for inexperienced men wishing to learn the dairy business. It is an elementary course covering buttermaking, cheesemaking, ice cream making, market milk and testing as well as some fundamentals in chemistry and bacteriology.

Students enrolling in this course should have completed the eighth grade or have had equivalent educational opportunities. Registration and incidental fees are approximately $10. Books, white suits, and rubber shoes will cost from $10 to $15 and board and room may be obtained near the campus for from $6 to $10 per week.

For further information address Professor H. P. Davis, Dairy Husbandry Department, University of Nebraska, Lincoln, Nebraska.

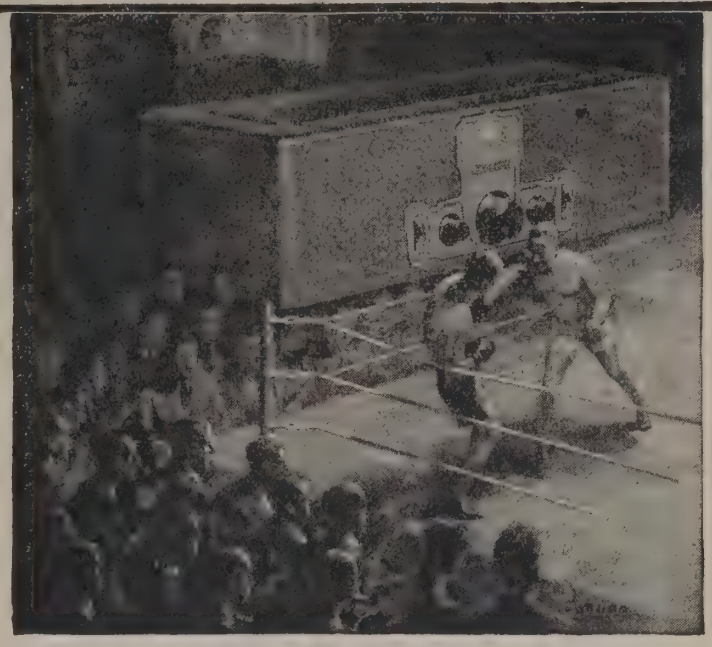
Railroad Rates to National Dairy Show

The railroads in the South are offering such splendid co-operation in the way of rates and service that every locality which has a dairy interest is expected to organize a party of farmers, dairymen, and business men who want to see the big exposition which is being held in the South for the first time. The special rate of a fare and one-half for the round trip from almost all parts of the country will draw many similar delegations which have not been reported.

Aunt Ada's Axioms: The way to teach children to accept responsibility is to give them responsibilities to accept.

~when the crown stands or falls....

"—You're *there* with a Crosley..."



The Crosley Radio Corporation:
Folks who buy radio are vitally interested in what they get for their money. Why don't you radio manufacturers stop talking like a lot of doctors and tell us what it's all about in one cylinder words. What's this "shielding" business anyway?"
Yours truly,
A Crosley Dealer.

Shielding is necessary in a modern radio receiver. The more sensitive the set is, the more you need it. Some sets are merely housed



in a metal case. This helps to keep strong local signals from breaking through, but it is even more important to keep them where they belong after you get them the proper way from the antenna.

A set has tubes, condensers and coils. Here is a coil. The lines around it are the magnetic field. You know the earth's magnetic field will work a compass down in a mine, or up in a plane (it certainly worked for Lindbergh) and the fields around unshielded coils get all mixed up and the set howls and squeals and has to be choked off by turning down the filaments in the tubes.



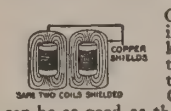
Now if the coils are housed in copper shields the fields can't mess each other up, and the tubes can do a real job of amplifying. The coils in Crosley sets have these copper shields, and there isn't anything better.



Then there are the condensers and if it wasn't for the shield around them, the fields would act like those in the coils, and the results would be just as bad, or worse.



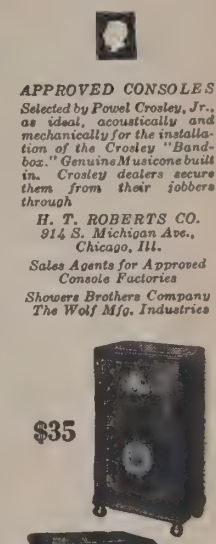
It isn't enough to shield the coils and the condensers, because even the wiring of the set has fields around it. This, too, is shielded, as it is in all really high grade sets.



Of course, it's all in knowing how to do it, but that's why Crosley sets can be as good as the best without costing half as much.



APPROVED CONSOLES
Selected by Powel Crosley, Jr., as ideal, acoustically and mechanically for the installation of the Crosley "Bandbox." Genuine Musicone built in. Crosley dealers secure them from their jobbers through
H. T. ROBERTS CO.
914 S. Michigan Ave., Chicago, Ill.
Sales Agents for Approved Console Factories
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The Wolf Mfg. Industries



Prices slightly higher west of the Rocky Mountains



IMPROVED MUSICONES
Musicones improve the reception of any radio set. They are perfect affinities in beauty and reproductive effectiveness for Crosley Radios. A tilt-table model with brown mahogany finish stands 36 inches high. $27.50—16-inch Super-Musicone as pictured above with "Bandbox". $12.75—12-inch Ultra-Musicone, $9.75

The BANDBOX
A 6 Tube Receiver *of* unmatchable quality at $55

Many features of this set have been found heretofore only in the most expensive radio. Since Crosley is licensed to manufacture under nearly all important radio patents, this combination with Crosley leadership and experience, naturally produced an amazing radio, the remarkable value of which can be judged by the following features incorporated and by seeing it and hearing it at your dealers.

1. Completely shielded coils, condensers and wiring. 2. Acuminators for sharper tuning. 3. Completely balanced genuine neutrodyne. 4. Volume control. 5. Single tuning knob. 6. Illuminated dial. 7. Single cable outside connections. 8. Designed for easy installation in consoles. 9. Beautiful frosted brown crystalline finished cabinet.

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NEUTRODYNE

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EDITORIAL COMMENT



NOW AND THEN

Major E. E. Critchfield, born and raised on a farm in Pennsylvania and a dairy farmer during his early years but later a leading business man of Chicago, writes us as follows:

"In a recent issue you quote butterfat at 50 cents per pound. Surely times have changed. In going through a volume of the "Cultivator" for March, 1838, I came upon the following item:

Jesse Bull—Sir: Below is a statement of the amount of butter and cheese made from my dairy of six cows in eight months of last season, which I think will do credit to the farming and dairy interest in this town:

1448 lbs. cheese which sold at my door at 7¼ cents	$104.98
452 lbs. cheese at 8 cents	36.16
415 lbs. butter at 18 cents	74.70
	$215.84

Making an average of $36.58 1-6 per each cow. Sir, will you please give the above insertion in your valuable "Cultivator" and you will much oblige yours. (Rev.) Ephriam Crocker.

This man was evidently proud of this record or he would not have requested its publication. As Major Critchfield says, "Surely times have changed."

SOIL AND LIVE STOCK

We have striking evidence that there is a direct relationship between the development of cattle and the fertility of the soil. When land is impoverished through years of cropping or when it lacks certain elements of fertility, it is often expressed in the physical condition of live stock fed upon the crops it produces.

In Northeastern Wisconsin there occurs among some herds of dairy cattle a disease called pica. A recent investigation discloses the fact that this disease is due to the lack of phosphorus in the soil. The plants grown on it, whether grass, hay, or grain, do not provide a sufficient quantity of this element to nourish dairy cows properly.

Investigations by the Wisconsin Experiment Station show that supplying phosphoric fertilizer to the land or phosphorus to the ration serves to prevent the trouble. Cattle grazing on pastures not reinforced with fertilizers should be given bran or should be provided with steamed bone meal.

Instances of this kind show conclusively that there is a direct relationship between the quality of the soil and the quality of live stock. In sections where the soil is incomplete in its fertility, it necessitates an understanding of what it lacks before stock raisers can hope to produce the finest kind of animals or to get the highest returns from them.

CURE FOR TUBERCULOSIS

Considerable publicity is being given to the cows recently treated with Dr. Kirkpatrick's so-called cure for bovine tuberculosis. An experiment was conducted in Oregon to determine whether or not this particular so-called cure for tuberculosis discovered by Dr. Kirkpatrick possessed any merit. The cows used in the experiment had responded to the tuberculin test and were considered tubercular. Several months after they were given the treatment they were slaughtered under federal supervision.

We wrote to Dr. J. R. Mohler, Chief of the Bureau of Animal Industry, concerning this experiment and he informs us that well-pronounced lesions of tuberculosis were found in five out of the seven animals slaughtered.

The Willamette Valley Medical Association has also, in substance, stated: "Many of our members witnessed the autopsies of these animals in Portland, August 6—10, 1927, and discovered no visible evidence indicating that the Kirkpatrick treatment actually effected a cure of any of these cattle under experiment."

It is hoped, of course, that some effective cure can be discovered for tuberculosis, but until some treatment has been thoroughly demonstrated to be a cure, laymen and live stock owners should place no confidence in it. Tuberculosis is too insidious and serious a disease to warrant any one to use a so-called cure unless it has been positively demonstrated to be a cure.

COLLEGIATE EDUCATION

Elsewhere in this issue will be found a communication commenting on our editorial entitled "Collegiate Eucation."

It was not our intention to convey the idea that an advanced education is not of value to a girl. We should aim to provide all the education that the girl or boy is able to use. No one possesses too much knowledge. The girl who takes advantage of a college course is stronger and better for it and can get more out of life. She can build a better home with less effort. This is due to the work which she did in college and to its training.

We must not lose sight of the fact that to develop a human being who is worth anything more than average, requires struggle. The kindness of parents leads them to the desire to fit their children for life's work without denying themselves of any pleasure and without expending long hours of toil. This amounts to almost a visionary hope, for few individuals can be developed unless they plan and work. The world demands men who find no task too difficult for them to tackle. To prepare for such duty requires, in a great majority of cases, students who do something more than receive money from home and get passing marks in college.

What we desired to emphasize in the editorial, pertaining to a broader education, is that we are sending too many boys and girls to college who have no particular object in view. Many who are sent to college simply drift through and get their diplomas. In a great number of such instances sending children to college injures them rather than helps them.

Our correspondent fell in love before she finnished high school. This is not at all unusual and she should not brood too much over the handicap of being very young and inexperienced when married. It is quite possible the training she has had in the college of experience has made her more capable than if she had gone to college. It is a false idea to think that college is the only place for young people to obtain useful and advanced training.

WISE ENOUGH

The purpose of Hoard's Dairyman is to give its readers accurate and useful information. This is not always appreciated; in fact, it is not always desired. In soliciting the subscription of a dairy farmer, we received this letter in reply:

"I am not interested in your paper for the reason that you are advocates of the tuberculin test. Whatever else your virtues may be matters little so long as the tuberculin test continues to do so much damage to the dairy industry with so little corresponding good either to the industry or the public health."

We took occasion to write this man, and in part said:

"We, of course, would like to have you as one of our readers, but we are more interested in the eradication of bovine tuberculosis than we are in securing a large circulation. We would not advocate the tuberculin test unless we knew it was an accurate diagnostic agent and it was to the benefit of the live stock owners to free their herds from tuberculosis. It seems to us that we are giving helpful information when we advise our readers as to the cost of this disease and outline plans to eradicate it. If you do not care to have accurate and useful information, you would not be interested in Hoard's Dairyman. It is not ou purpose to publish just pleasing material bu rather give information that will assist dairy farm ers to increase their incomes and improve the business."

We do believe the day is not far distant whe the consumer will demand all dairy products to b produced by cows free from tuberculosis, and seems we would be negligent in our duty if w failed to give information as to the best way fo the dairy farmers to proceed to clean up the herds.

Twenty-five or thirty years ago when the tu berculin test was not generally understood an the purpose of eradicating tuberculosis did no seem so important, a letter such as quoted abov might have been excusable. Today it is differen for millions of dairy cows have been tested, thou sands are upon the waiting list, and public opin ion is in favor of subduing tuberculosis. It seem strange that a dairy farmer would close his eye and shut himself away from information that of value to him.

DAIRYING AND OVER-PRODUCTION

In an address by Lloyd S. Tenney, Chief of th Bureau of Agricultural Economics, delivered a the Institute of Co-operation, he pointed out tha since the war several nations have materially in creased the production of dairy products. Severa of these nations are producing more than the consume. New Zealand, for example, has becom a large exporting nation of both butter and chees and produces milk at a exceptionally low cost, du to her equable climate and good pastures.

The question was raised by Mr. Tenney as t whether this increased production of dairy pro ucts would not sooner or later influence mater ally the prices of dairy products in this country It has been fortunate for the dairy industry th past few years that there has been an increase i the consumption of milk and that the farmers hav not increased production so that it is necessar to export any dairy products. The small quantit which is exported has little or no effect upon in fluencing the prices of dairy products consume at home. It is fortunate, too, for the dairy indus try that it has had leaders who have laid plans t take care of seasonable surplus and to secure tariff on dairy products which has given the in dustry real protection.

The dairy farmer must not be misled by th statement frequently made that agriculture has n protection, for his industry is well protected. I the tariff were to be lowered or we could becom a free trade nation, these nations that have a sur plus of dairy products would send them to us There is no question but what this would lower th prices of dairy products and to the disadvantag of the dairy farmer. So long as we maintain ou present tariff on dairy products, we do not loo forward to the surplus dairy products of the worl influencing our market to any large degree.

As we have many times pointed out, we are in creasing the production of dairy products to kee pace with the increased consumption and decreas ing the number of dairy cows. We have ove 600,000 less cows than on January 1, 1925, an over 3,000,000 more mouths to feed. This show that dairying is making genuine progress in tha it is increasing the efficiency of cows and increas ing the consumption of milk and its products.

The American dairy farmer should keep on im proving the production of his herd, eliminatin the low producing cows and urging his organiza tion to do more work in educating the consume concerning the food value of dairy products. H should also extend his organizations for marketin his products and for the taking care of seasonabl surpluses. If all these things can be done, w have little fear of foreign influence depressing th prices of dairy products to unprofitable levels.

Salting Hay and Silage

Is the salting of hay or silage beneficial, and es it increase their feeding value?
'Duluth, Minn. S. S. E.

We have never had any great faith in salt as aid in storing hay, but there is considerable nion to the contrary held by many farmers. would hesitate to advise the use of more than ounce of salt to ten pounds of hay, for if more t is used the cows would receive a larger ount than is generally considered desirable. is would mean that not more than ten to fifteen nds of salt per load of hay should be used. e salt may tend to prevent some fermentation l check the growth of mold, but we apprehend largest use is in rendering hay of mediocre ality somewhat more palatable. We do not sider salt of any advantage in ensiling corn I would not advocate its use. It will probably no harm but we are quite certain that it will no good.

Corn Stover Silage

n an investigation as to the digestibility of n stover silage when fed to beef cows, Profes- s Hamilton and Rusk of the Illinois Agricul- al Experiment Station report the following clusions:

. Apparently no considerable change in chemi- composition is brought about by ensiling corn ver.

. The availability to ruminants of the nutri- s in corn stover silage is practically the same as t of the nutrients in ordinary corn stover.

. There is about 85 per cent as much total estible nutrients in stover silage as there is in same weight of whole corn silage; however, erimental feeding trials at this station indicate t in practical feeding stover silage is only about -thirds as valuable as normal silage.

. The advantages of feeding stover silage over inary stover from the shock or pasturing in fields are (1) reduction of loss of material n exposure to rain and wind; (2) no loss from nping; (3) an increased palatability, causing a ater consumption and smaller waste in feeding to the fact that stalks have been softened, ken up, made juicy and palatable; (4) a much ater ultimate utilization of the nutrients of corn crop than when the stover is fed from shock or is pastured in the field.

Free Martins and Twins

s a free martin a heifer twinned with a bull? useful as a breeder? I am under the impres- that a very small per cent of them will breed ll.
uluth, Minn. S. S. E.

is unusual that a heifer twinned with a bull breed and she is ordinarily termed a freemar- A freemartin is a female in which the re- ductive organs have failed to develop properly this animal is not only sterile but tends to de- p many of the characteristics of a steer. In- igators tell us that this condition is due to the m with one another of the membranes which ound the male and the female twins. If these abranes join, the circulatory systems of these individuals also join. In consequence, the d of one is enabled to circulate through the y of the other. While the blood of the female does not seem in any way to interfere with normal development of the bull calf, yet the d of the latter circulating in the female's veins ns to have the effect of inhibiting its full ual development. When these twins separate irth, it is then too late for the organs of the ale to recover and develop normally, so she lops into an imperfectly sexed heifer and al- t invariably causes disappointment to the op- stic owner whe retains her in the hope that will prove a breeder.

ccasionally when a male and female are twins, female develops in a normal way. When this rs, it can only be attributed to the fact that union of the two membranes has not taken e or if it has occurred, this has only taken e at a late stage in the development. The fe- in this case is not a freemartin, as a free- in never proves to be a breeder. The evi- e thus far is that in the great majority of s in which twin calves are reported as being and female, the so-called female in reality freemartin and not a true female. It is rather ult for the ordinary observer to distinguish een a freemartin and a heifer at the time of birth, although the distinction will become more apparent with age.

Where both twins are females they will breed and twin bulls will breed, also a male twinned with a female will breed. It is so unusual that a so-called heifer twinned with the bull will breed that we consider it unwise to raise such an animal for the small chance that she may reproduce.

Roughening Concrete Floor

About a year ago I noticed in your columns a suggestion as to how to roughen a smooth, concrete barn floor. As the floor in our barn is washed daily, it has become so smooth that our stock is down on the floor daily. Any suggestions you may have to offer will be appreciated.
Chino, Calif. A. M. W.

Mr. W. G. Kaiser, of the Portland Cement Association, has given us the following reply to this inquiry:

"Perhaps the easiest solution of this problem is to etch the surface with muriatic or commercial hydrochloric acid. In doing this the muriatic acid is diluted with water in about the proportion of one part acid to five parts water. The acid is applied on the floor surface and allowed to remain until the desired amount of roughening occurs. Then the acid should be thoroughly washed off the surface to prevent further action. It may be necessary to apply the acid two or three times to get the surface etched to the desired depth.

"Another way to roughen the floor would be to use a pick point hammer or chisel. This is a rather slow method and entails considerable hard work."

Sampling Milk and Cream

What is the correct way of taking samples of milk and cream? In our co-operative a man may have from 2 to 4 ten-gallon cans. Should this be mixed before sampling? At the present time the same sized sample is taken from each can no matter how much milk is in the can. These samples are held for two weeks and then mixed and tested.
Farson, Wyo. J. E.

While technically the most accurate means of testing milk and cream is to make an individual test each day, this would represent a rather high cost and may not be practical. The composite sampling of milk is practical and will give you as good results as daily testing.

The purpose of taking composite samples is to reduce the labor and expense of testing, as under this system tests are made only once every week. The proper sample consists of proportional parts of the milk from each can and each day's delivery from the same patron. The sample jars in which these are placed must have a tight seal in order to prevent the evaporation of moisture as otherwise the sample will test higher than it should. Pint jars sealed with glass, rubber, or cork stoppers or metal caps may be used for this purpose. Bottles with paper caps or jelly glasses with tin lids do not furnish tight seals. A separate jar is used for each patron and should bear his proper number. The jars should be thoroughly cleaned and should be conveniently arranged on shelves near the weigh jar.

Direct composite samples may be obtained by the use of a milk thief or a graduated pipette which may be secured from any of the dairy supply houses that advertise in Hoard's Dairyman. The milk thief consists of a tube which, when inserted into the can, allows the milk to rise to the height in that can. If the cans are of the same size this will give a proportionate amount of milk from each can delivered daily, or if the cans are dumped into the weigh can then it may be taken directly from this. Another method of taking composite samples is the use of the small dipper holding about one ounce. If the weights of milk do not vary greatly from day to day this will give a practically reliable result.

Before the sample is taken the milk should be thoroughly stirred so that it will be of reasonably even composition throughout the entire can. In order to prevent the composite samples from souring it is necessary to add a small amount of preservative to the sample jar with the first sample taken. This is most conveniently done by adding a corrosive sublimate or bichromate of potassium tablet in each sample jar before the first sample is taken. During the hot weather it may be well to add two tablets. As each daily sample is added to the sample jar the contents of the jar should be gently shaken by giving the jar a rotary motion in order to insure a complete mixture of the preservative with the entire contents of the jar. When doing this, care should be exercised that the milk does not unnecessarily slobber up the side of the jar, as otherwise it will dry there and it is difficult to re-mix it when the test is made.

Another method that is frequently used is to sample each patron's milk every third, fourth, or fifth day. The patrons are divided into groups so that the tester will have the same amount of work to do each day but each patron's milk will be actually sampled and tested only 8 to 10 times a month. Tests of these samples are averaged at the end of the month. This method, according to tests conducted by Hunziker at Indiana, gave practically accurate results for the average test of the milk delivered during the month. This is explained upon the basis that the samples are taken directly and immediately tested, and the slight inaccuracy due to the composite sampling is done away with.

The correct sampling of cream is much more difficult than it is with milk. A slight error in the sampling will produce a much greater error in the resulting test. For this reason composite sampling of cream is not desirable and it would be preferable to follow the method of either daily testing or testing every third to fifth day. It must be remembered that special care must be used to stir the cream thoroughly so as to get a representative sample of the cream. Professor Hunziker gives the following suggestions as to sampling cream:

"After the cream is properly mixed, a small sample is taken by transferring the cream with a small cone-shaped or cup-shaped dipper into a small sample tube or jar, which is immediately tightly sealed. It is customary to place the dipper into a can containing hot water after each dip, so as to rinse it and facilitate the sliding of the thick cream of the next can into the sample jar. The use of a cold dipper would cause the cream to stick to it and thus delay the work of sampling. These cream sample dippers should have a small hole in their bottoms in order to facilitate rapid and complete escape of water when the dipper is removed from the hot water and before it is dipped into the cream. The sampling is best done while the cans are still on the floor and before they are placed on the scales, as the stirring jars the scales and shortens their life."

In the case cited where a member may have had two 10-gallon cans of milk and one 5-gallon can it would be well to take a full dipper of milk from each of the 10-gallon cans and a half dipper from the 5-gallon can; or, if this milk is dumped into a weigh can and mixed, a sample can be taken from this weigh can and will then require only one dipper of milk for the sample. While reasonably accurate results are secured by keeping the composite samples for two weeks, it would be better to make the test at weekly periods.

Rye for Silage

Would rye sown this fall and cut in June or when it is in blossom and put in silo make good feed for cows when you were short on summer feed? Would winter hairy vetch be good to mix with it? Any information in regard to this will be greatly appreciated.
North Baltimore, Ohio. W. E. D.

Rye when cut in the flower or early dough stage will make a fair to good grade of silage. The silage is liable to be rather strong smelling and is liable to taint the milk although this can be largely overcome by feeding the silage directly after milking rather than before. Care will also have to be exercised that the mangers are well cleaned out and the silo is cut off from the barn as otherwise the odor in the barn itself may be taken up by the milk during milking time. One investigation indicated that rye silage was about 10 per cent less valuable for milk production than was corn silage. It is, perhaps, not quite as palatable as corn silage and has not been largely used for silage.

Vetch may be combined with the rye and will make a good grade of silage. However, a better combination would be winter wheat and hairy vetch as this avoids some of the strong smelling silage resulting when rye is used. It is quite largely used in the western states for regular silage although there they generally use spring vetch. Hairy vetch would be preferable in cold climates and it is doubtful whether the the spring vetch would come on in time to provide summer silage. It is recommended that at least one bushel of wheat—some use a little more—and from one-half to one bushel of hairy vetch be sown per acre.

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The 1927 Wisconsin State Fair

Continued from page 886)

and a little better length, so the two-year-old went up only to lose a moment later to the junior champion.

La Crosse, Monroe, and Manitowoc counties showed county herds that placed in the order named.

Senior and grand champion bull—Oxfonde Noble, owned by H. J. Trost; junior champion bull—Bessie's Fontaine's Duke, owned by W. S. Dixon. Senior and grand champion cow—Knight's Nellie Dear, owned by The Oaklands; junior champion cow—Majesty's Oxford Fairy Ann, owned by W. S. Dixon.

Brown Swiss

Judge—Professor G. C. Humphrey, Wisconsin.

Professor Humphrey had 71 Brown Swiss entries to pass on this year, 26 more than in 1926, and with his tops just about on a par with those of a year ago.

The only class with but a single entry, that for aged bulls, brought out the senior and grand champion, Meadow Green John, owned by W. A. Drollinger. He is a big, growthy 4-year-old, not too smooth a bull, but a good one that makes an acceptable champion.

N. C. Schmid had all the best of the female classes with six blue ribbons and both championships. His cow, Cinnamon's Maiden, an outstanding entry two years ago, was easily the best female shown.

Schmid entries sired by Vronicka's College Boy were good winners in the get of sire class as they have been at more than a few shows in the past.

Senior and grand champion bull — Meadow Green John, owned by W. A. Drollinger; junior champion bull—Bonnie's Butternut Jim, owned by Fred Reuter. Senior and grand champion cow—Cinnamon's Maiden; junior champion cow—Mary Lee of M. G., both owned by N. C. Schmid.



MEADOW GREEN JOHN, GRAND CHAMPION SWISS BULL
Owned by W. A. Drollinger, Wisconsin

Holsteins

Judge—R. E. Haeger, Illinois.

Wisconsin had a smaller Holstein show than usual this year; there were 325 entries by 99 exhibitors besides those in the calf clubs, and while the tops seemed to be up to the usual standard, we doubt if the average quality of the show, particularly in the aged classes, was quite as good.

Tritomia Pietertje Lad, owned by the Wisconsin School for the Blind, and first in his class at the last National Dairy Show, headed the aged bulls. He was hardly so good as Rudolph's winning three-year-old, and when it came to senior championship competition he in turn was beaten by King Homestead Piebe Lad, an outstanding two-year-old owned by J. D. McDonald. The latter made a first class senior and grand champion.

The aged cows were not easy to place. There were 31 entries, good cows without any single, flashy, outstanding top, and the rail birds had hard work deciding where to begin. When Judge Haeger finally lined them up Lynn River Sylvia Duchess owned by Carnation Farms was first and Lady Boeringhurst Pontiac from Pabst Farms a close second. Both cows were in milk, as were the first prize winners selected by Judge Haeger in all the senior female classes, and while this is a practice that cannot always be followed, it has much to commend it. We have had too many dry cows head the Holstein classes at important shows.

The Jefferson County Asylum showed the two outstanding junior females, junior and senior yearling daughters of Dutchland Creamelle Denver Prince and although the judge selected the latter for junior champion her stablemate would have done just about as well.

Pabst Farms headed the get of sire class with four head by Creator that were hard to beat, the second prize three-year-old bull, grand champion female, a third prize four-year-old heifer, and the winning two-year-old.

Nine counties were out with county herds,—Jefferson, Waukesha, La Crosse, Sheboygan, Walworth, Washington, Manitowoc, Dane, and Iowa. They placed in the order named.

Senior and grand champion bull—King Homestead Piebe Lad, owned by J. D. McDonald; junior champion bull—Nirvana Ormsby Lad, owned by E. C. Wipperman, L. Schreiber, and E. J. Beuchel. Senior and grand champion cow—Pabst Korndyke Cornflower 2d, owned by Pabst Farms; junior champion cow—Artis Madam Wayne Denver, owned by Jefferson County Asylum.

Guernseys

Judge—J. P. Eves, Iowa

The Guernsey show was smaller this year but it was nevertheless the best quality show of the fair, with a particularly good lot of senior females. Larsen's Fern Dell Farms took home all the championship ribbons but it was not easy work for them at any time and on more than one of the classes competition was so close that the judge had to take more time than the size of the class seemed to warrant.

The female classes brought out the hardest competition and none of them were more difficult to settle than the aged cows or the senior championship. Imp. Country Flower of Langwater, a big stretchy cow owned by the Wm. Larsen Canning Co. of Wisconsin, and Imp. Kitchener's Irene, a corking big, little cow from Mrs. Chauncey McCormick's Illinois, herd seemed to be the two outstanding entries and it was quite some time before they were placed. The former has almost a perfect top and shoulder but she didn't have the bottom of the other cow and even when Judge Eves gave the stretchy cow the advantage, there were those at the ring side who would have reversed them.

Mrs. McCormick's three-year-old was quite as good as her aged entry better perhaps because she had more stretch, and in the race for senior championship it was very evidently between this heifer and the aged cow. The heifer had a better udder and much better veins but she didn't have the top and was noticeably lower at the pins than the 10-year-old and in the end the old cow won both senior and grand championship honors.

The get of sire class was another close one with gets by Ladysmith's Cherub and Meadowbrook's Dann Duff, the contenders for first. Mr. Tenney's foursome, first prize winners including a 3-year-old and a yearling bull, with a 4-year-old and 2-year-old heifer, had a maturity advantage over the four juniors owned by Larsen's Fern Dell Farms. The youngsters were the smoother, however, and the blue ribbon went their way.

A check-up on the winners shows that Larsen's Fern Dell herd won 11 blues, Shorewood Farms had 6, Mr. McCormick 2, L. P. Martiny 1, and M. A. Seybold & sons 1.

The state association has urged more county entries for the state fair and will undoubtedly succeed in getting out more county groups another year. They had three out this year, Waukesha, Jefferson, and Manitowoc that lined up as named.

Senior and grand champion bull—Border King of Roberts; junior champion bull—Lebeau Petit de Fern Dell, both owned by Wm. Larsen Canning Co. Senior and grand champion cow—Imp. County Flower of Langwater; junior champion cow—Myrtilla of Fern Dell, both owned by Wm. Larsen Canning Co.

Ayrshires

Judge—James Linn, Kansas.

The Wisconsin Ayrshire show was not up to standard this year, and certainly wasn't so good as it should be to fairly represent the state's red and whites. There were only 50 head shown by two exhibitors, Aldebaran Farms and Adam Seitz & Sons. These, together with two calf club entries, made up the show.

Seitz took all the blues, winning grand champion female on their cow Cavalier's Celia Pender, and grand champion bull on the 7-year-old Cavalier's Ping Pong. The old bull doesn't look quite as smooth as he did a year ago but he is still a real contender. He has campaigned every year since he was a junior calf and has won upwards of $4,000 in prize money for his owners, which we think certainly ranks him head and shoulders above any other bull that has followed the shows. Cavalier's Lady Lola was junior champion cow and Cavalier's Admiration was junior champion bull.



CAVALIER'S CELIA PENDER, GRAND CHAMPION AYRSHIRE COW
Owned by Adam Seitz & Sons, Wisconsin

oducers Trade-mark Milk

'he Twin City Milk Producers' As- ation has just completed an ar- gement whereby the dealers to m they sell their product will dis- the trade-mark emblem of the ciation on all of their 454 milk very wagons. They have also



Trade-mark of the Milk Producers' As- iation of St. Paul and Minneapolis that to be used in connection with an ad- rtising campaign.

'ked out an advertising program h these dealers on a 50—50 basis reby display boards will be scat- d throughout the city emphasiz- this trade-mark. Newspaper ad- tising will also be carried on upon same basis, the first newspaper ertisement reading as follows:

'Announcing a new plan to insure quality of our most important ds! From now on, look for this blem (cut of emblem) on the wag- your milkman drives. It is the blem of the Twin City Milk Pro- ers' Association, 7,000 dairy mers who live near the Twin Cit-

'These 7,000 dairy farmers do not ply milk and cream direct to nes or stores. They do furnish e, fresh dairy products to most of city's modern, reliable dairies.

This emblem, displayed on a milk gon, means that the milk company using T. C. M. P. A. service. It ans clean herds, modern dairy ms constantly inspected by our ex- ts.

It means laboratory tests and field s for purity and sanitation. It ans a double protection for you— louble guarantee of quality for r most important foods!

'The Twin City Milk Producers' ociation is first in the Northwest develop this service and the only in the Northwest today which es this protection. Look for our blem."

g and Attractive Exhibits for Dairy Farmers

airymen attending the National ry Exposition at Memphis, Tenn., ch is being held from October 15 22, inclusive, will have an oppor- ity to view the last word in farm elopments all the way down the . The exposition is being held this r in conjunction with the Tri- te Fair which, for years, has been of the South's foremost agricul- al shows. The Tri-State Fair par- pates in the $85,000 appropriation le by the Tennessee legislature for m improvement at its last session. e prizes this year will total nearly 0,000 at Memphis.

wine, chickens, pigeons, and horse plays at the Tri-State Fair are l to be second to none in the South. e National Dairy Exposition's dai- equipment display will be housed a modern building which is longer n a city block. This building was ted solely for the exposition but be a permanent feature of the -State Fair, according to Frank D. ler, general manager. The Dairy Exposition will occupy three build- ings in addition to the great display structure.

The attendance at this year's expo- sition is expected to be more than 300,000.

More Production Records Needed

Last spring a county agent in In- diana drove to a county in Wisconsin in search of calf club calves. He wanted calves from cow testing asso- ciation dams whose records were from 300 to 400 lbs. fat, depending on age. He was disappointed. He likely will not go back. Why?

The county in which he had a right to expect to find the kind of calves he wanted, while boasting of some 60,000 dairy cattle and two county breed associations, has only one cow testing association.

The secretary of one breed associa- tion made every effort to please the prospective buyer and showed him calves that met every requirement but one—that of production records of their dams.

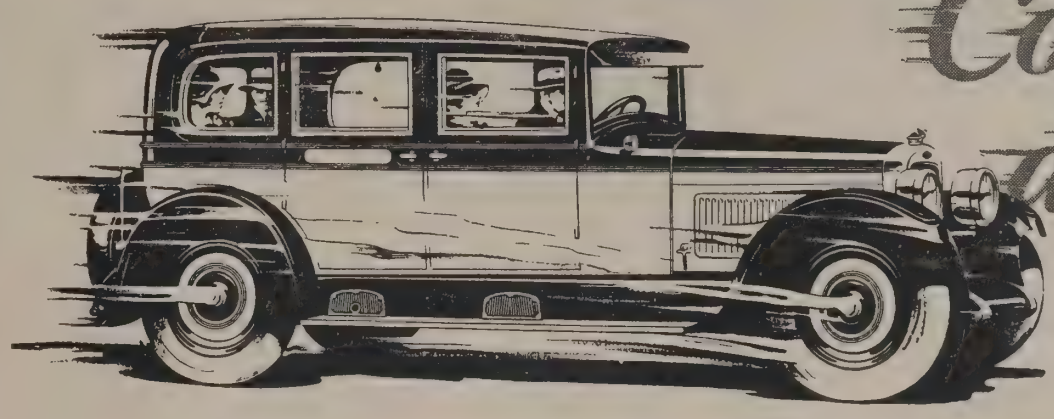
Earlier in the season a buyer from a western state came to the same county to buy 100 heifers whose dams had reasonably good cow test- ing association records. Of course he could not find what he wanted. He went away and likely will not return.

These buyers represent a trend in the exchange of dairy cattle. The number of herds in testing associa- tions is wholly inadequate to meet the demand. The greatest need in dairying today is more records for the purpose of finding the unfit cows as also those worthy to be the an- cestors of herd replacements. More cows should be standardized by pro- duction records in order that those who go out looking for cattle may not only find what they want but also have confidence that they will get what they pay for.

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The Effect of Line in Dressing

"What do you think it was that almost broke off our engagement?" asked one of the most happily married men I have ever known.

Of course we guessed that his wife had laughed or shown a sense of humor at the wrong moment; that she had some time displayed a temper; that she had refused to leave her mother, and so on.

"Nothing of the sort," replied the man. "It was her hair and her hats. Of course you know what I think of Ethel, but all the same she has a long pointed chin and she used to wear her hair in a knot on top of her head at the back so that there just seemed to be a long line from chin to top-knot that gave her a strong-minded look that was entirely unfair to her disposition and emphasized her chin strongly. Whenever she bought a hat she always got one that had the trimming in the same position as her knot of hair.

"One day I ventured to suggest a change. You know I always adored her from the first time I saw her and I suppose I was only trying to make her more perfect. Well, she was furious at me and the result was such a quarrel that we almost parted. But she got to thinking it over and the result was—well, it's a long story, but would you ever notice now that her chin is especially long? It's all because she wears her hair low on the back of her neck and buys hats that are either entirely untrimmed or else have the trimming at the side."

This man is as far as possible from the nagging husband who fusses about everything his wife does and wears but he happens to be very sensitive to artistic effects and his wife has him to thank that she is now an extremely smart looking woman.

The smallest alteration of line in costume can make the most amazing difference in a woman's appearance. Take, for instance, a picture of a smiling, happy face. Get a fine pen and add a tiny line between the brows—a line hardly bigger than a dot—and see what happens. The smile is now counterbalanced by the frown and the whole happy expression is gone. In the same way similar good effects in dressing may be lost.

If the lines of your face are downward, mouth drooping at the corners, and so on, don't wear a hat with a drooping brim; wear either a straight one or one that turns up. Also if your nose turns up more than it should, don't wear a hat turned up in front; it only accentuates the effect of the nose.

Every stout woman in these days of thin styles is trying to make herself look as slender as possible and much can be accomplished by her if she will pay attention to the line of her clothing. The little, round shallow hats are not for her but then they are not fashionable now and she has a wealth to choose from in hats that are deep of crown and more angular in appearance. This type of woman can wear the V-shaped necks to advantage and also the new square ones. An upturned brim seems to give a slenderizing effect as does also center trimming on a hat.

In all clothes buying I think there is no more important warning to heed than that of buying nothing that has not been tried on in a good light in front of a full length mirror; it helps immeasurably in getting the right line effect to go with your particular style and figure.—LUCY THOMPSON.

The Sunday Outing

I once attended a service in the church Mr. Roosevelt used to attend when he was president of the United States and I was reminded of a story I had heard in connection with his habit of regular church attendance.

A man once asked him rather sneeringly why it was he always went to church on Sunday. His reply was that he needed the benefits he got from the worship.

"Well," retorted the questioner, "I go out in my car on Sunday and do my worshipping of God in God's own out of doors."

"Nobody would ever suspect," replied Mr. Roosevelt quietly, "that that was your motive."

And so it is with many others. They say they take their Sunday outings away from church in order to worship God in His own out of doors and yet, follow most any of them, you would have a hard time to believe that such had been the motive. With many it is a means of escape from the truth that they cannot remain quietly at home in enjoyment because they have never learned to entertain themselves; others want to "see how fast the old bus will go now that she has been overhauled" and they set out in a cloud of dust to pass everything on the road; others work hours to prepare a picnic dinner which is eaten in 30 minutes and whose littered remains are left as a reminder of how little they care for wayside beauty; while still others leave this ugly reminder in the form of uprooted wild flowers whose supply is every year becoming less.

Of course these are extreme cases but they are all too common and in spite of the benefits we receive from the automobile I cannot help feeling that it has taken away from us a good many valuable things, one of them being the quiet of a contemplative hour at church.

"I'm not religious," said a man to me once, "but I can't do without going to church. Nowhere else is there the atmosphere that enables me to lose myself in contemplation of eternal things and I always come away uplifted and helped."

It is right to enjoy Sunday. The day was made for rest, and rest means relaxation and enjoyment and change but while we are planning our Sunday excursions may we not at the same time give a thought to whether we might not attend church or Sunday School before starting and another thought to leaving nature at least as beautiful as we found it? City people are far the worst offenders along these lines but not all country people are blameless, either.—LUCY THOMPSON.

Seven Sins of Parents

A man in New York, Angelo Patri, has made himself famous all over this country for his wise and sympathetic study of children. He does not advocate giving in to a child and spoiling him by soft and flabby ways but he does believe that every parent should make it his first concern to understand his child and give him the training his individual nature demands. Here are what he calls the seven sins of parents:

1. Snubbing children. Nature has endowed children with an insatiable curiosity. It is through this curiosity that their minds develop. A great many children are met with scolding; are snubbed and put off.

(Continued on next page)

The Latest Creation!



"Daisy Dell" All Wool Felt Hats

These are the most wonderful hats in their class that have ever been placed before the women of this country. When finished, they have all the style and smartness of an importation direct from the Paris Boulevards.

The hats come flat, stamped on finest quality all wool felt, in the most popular millinery shades of the day and are correctly styled from every standpoint. Everything furnished except embroidery silk, as the colors for the finished hat are at the discretion of the purchaser.

Can be completely made up in less than an hour's time and their low price makes it possible for every woman to have a "chic and becoming" hat to match each of her costumes.

4891 comes in rose with hickory ornamentation.

4892 comes in Castilian red with black ornamentation.

4893 comes in Copenhagen blue with hickory ornamentation.

4894 comes in white with Castilian ornamentation.

4895 comes in monkey skin with rose ornamentation.

4896 comes in black with white ornamentation.

These hats are packed flat in special glassine envelopes to insure safe delivery.

Price of hats is only $1.25 each, postpaid to any address, delivery guaranteed. Prompt attention will be given all orders. Send to Embroidery Department, Hoard's Dairyman, Fort Atkinson, Wis.

Miscellaneous Fashions



No. 865—Dashing Two-Piece Type. Pattern cuts in sizes 16, 18, 20 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3¼ yards of 40-inch material with ½ yd of 36-inch contrasting.

No. 872—Trim and Slender. Pattern can be had in sizes 16, 18, 20 years, 36, 38, 40, 42 inches bust measure. Size 36 requires 2 yards of 40-inch material.

No. 867—The Jacket Bolero. Pattern can be had in sizes 16, 18, 20 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 4⅝ yards of 40-inch material with 3 yards of ribbon and 5 yards of binding.

No. 2900—For Classroom Wear. Pattern can be had in sizes 8, 10, 12, 14, and 16 years. Size 8 requires 2 yards of 40-inch material.

No. 3135—Charmingly Simple Lines. Pattern can be had in sizes 36, 38, 40, 42, 44, and 48 inches bust measure. Size 36 requires 3½ yards of 40-inch material with 3½ yards of binding.

No. 3136—Decidedly Chic. Pattern can be had in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3 yards of 40-inch material with ¾ yard of 27-inch contrasting.

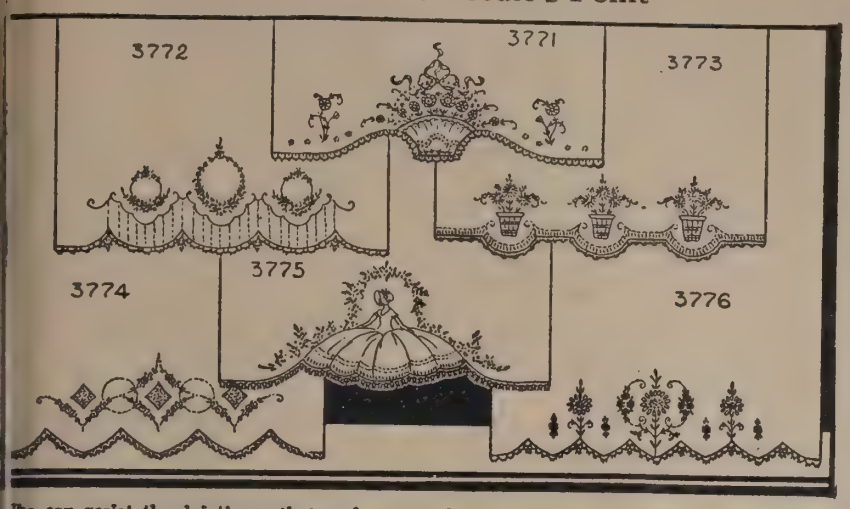
No. 3138—Dashing Junior Frock. Pattern comes in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1¾ yard of 40-inch material with ⅜ yard of 27-inch contrasting and ¾ yard of 36-inch lining.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Flowers Grow at Needle's Point



Who can resist the daintiness that a cheery touch of embroidery expresses? And with her dle, woman has no better opportunity to exercise her own conception of color combinations n in these newest of stamped patterns.

he feature of these six attractive designs is that you can have dainty appointments that ch, both for your bed, dresser and chifferobe, for these designs come made up in pillow- s and scarfs.

esign 3771 is most effective finished in shades of lavender and yellow flowers with shaded n stems and leaves, with baskets of yellow.

esign 3772 is individual if worked up in two shades of blue, with yellow and white flow- t centers.

esign 3773 worked up in shades of lavender, yellow and green, is exceptionaly pretty in ooms that have a tint of lavender in the decoration.

Design 3774 is done in orange, lavender, and green, it is most unusual.

esign 3775 is lovely when finished in shades of blue and pink flowers, with the colonial dressed in light and dark shades of yellow.

ades of pink, rose, and yellow make an unusual combination for Design 3776.

he pillow cases in any of these designs come in sizes forty-two inches at $1.45 a pair, forty-five inches at $1.50 a pair. Scarfs to match any of the pillow cases can be obtained izes eighteen by forty-five, price sixty-five cents each. Both pillow cases and scarfs are aped on the finest quality white linen finished material. A detail working chart showing uggested color scheme is enclosed with each design. Send to Embroidery Dept., Hoard's yman, Fort Atkinson, Wisconsin.

result is that when a boy leaves h school, at a time when his initi- e should be in full swing, he is , listless, dependent, and fearful.

Neglecting to study the child. parent decides what his son ht to be and proceeds to train him rdingly. They would make an- r child instead of accepting the they have.

Failure to realize that childhood distinct phase of growth. Fre- tly in an effort to give a child piness a parent brings disaster n him by forcing him ahead of his years. A child is not a little man. He is potentially a man and must be allowed to develop rythmically and in order.

4. Robbing a child of his leisure. A boy is lying on his back watching the clouds. His mother sees him and her conscience smites her. "He is wasting his time. I ought to make him go in and study his algebra. Last month he got a bad mark." He needs his extra time for cultivating his imagination. School hours are long enough. Study can be confined to them.

5. Nagging. "You are the size of your father and you act like a baby," says one parent. This was because the lad cried unexpectedly. "You great lumbering calf—why don't you look where you are going." The boy had tripped over the spindle-legged furniture in his aunt's tea room. One must be very gentle and patient in correcting the young. Hold your temper while he finds his legs and arms.

6. Exploiting the child for the parents' gain. This is as varied and widespread as the population of the world. It is practiced by the rich and the poor, the intelligent and the stupid.

7. Lying to children. "If you do that the bogey-man will get you." The child will soon know that this is not true, but the harm has been done. He has learned to fear and to doubt. —LUCY THOMPSON.

He was buying spring lawn and garden equipment, and had asked to see nearly everything in the store.

"Are you sure that is all the hose you have?" he questioned, finally, voicing his extreme disappointment.

"Yes, sir," the clerk answered, "except the pair I have on."—Good Hardware.

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You simply must have a copy of our Fall and Winter Fashion Magazine, for it contains too many good things for you to miss. All the new fall and early winter styles of course, and then there are pages of novelties for the masquerade. Articles about health and beauty and reducing safely, and pages showing correct hats, fancy needle work, special lingerie, etc.

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DAIRY MARKET NEWS

Wisconsin August Condensery Prices

Forty-nine condenseries reported to the Wisconsin Department of Markets the prices paid in August per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $1.86 to $2.50, the average being $2.06.

Sixteen factories sent delayed reports for July, the average being $2.05. This is 10c above the previously reported average of $1.95 for 49 factories.

August Butter

Butter averaged 41.9 cents in New York for August, a slight increase over July and over August of last year but is a cent and a half under August of 1925. The first two weeks of September saw butter hold fairly steady at 44½ cents.

Storage holdings of butter during August showed an increase despite a continued heavy production of condensed milk and firm cheese markets at prices in excess of those prevailing for the same month since 1919. "There are only two explanations," says the government report, "for the piling up of butter stocks—either consumption has been inadequate or the members of the butter trade feel that crop and feed prospects indicate a decreased production this fall and winter and that a large reserve is necessary, and hence, profitable. It is apparent, however, that the latter belief is the ruling one, else prices would seek lower levels for additional consumption.

Creamery butter production for the first seven months of the year was 930,858,000 lbs., an increase of 11½ million pounds over last year. Net imports were 4,248,000 lbs., an increase of nearly four million pounds over last year. Storage holdings on August 1 were 145,146,000 lbs., an increase of nearly 14 million pounds over last year. This brings the estimated trade output to 1,192,947,000 lbs., a decrease of 27½ million pounds or 2 per cent less consumption than last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices on 92-score butter (extras) at four of the principal markets, together with receipts and storages:

	Aug. 1927	July 1927	Aug. 1926
	lbs.	lbs.	lbs.
Chicago	41.5	40.	40.1
New York	41.9	41.7	41.8
Boston	42.1	41.8	41.9
Philadelphia	42.9	42.6	42.8
*Receipts for month	53,302	68,645	47,673
*Receipts since Jan. 1	423,492	370,189	411,380
*Storage (End of month)	75,090	66,783	73,149

*In thousand of pounds at the four markets (i. e.—000 omitted.) Ninety score butter averaged 39.2 cents for August in Chicago, with centralized butter at this market selling for 39.0 cents. Jobbers' prices on extras sold to retailers averaged 44 cents in Chicago, a spread of 2.5 cents above wholesale.

August Cheese

The wholesale price of cheese on the Wisconsin boards averaged 24 cents in August, an increase of a cent and a half over July and three cents over August of a year ago. Despite the relatively higher prices that have prevailed this year, cheese production has been somewhat under that of a year ago.

Cheese production for the first seven months of the year totaled 264,096,000 lbs., a decrease of nine million pounds from last year. Net imports were 44,206,000 lbs., an increase of 13 million pounds over last year. Storage holdings of American cheese are 6½ million pounds less than last year, with other cheese types 4½ million pounds greater. This brings the total estimated trade output to 282,453,000 lbs., a decrease of 14½ million pounds, or four per cent less consumption than last year.

Daily quotation from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during August:

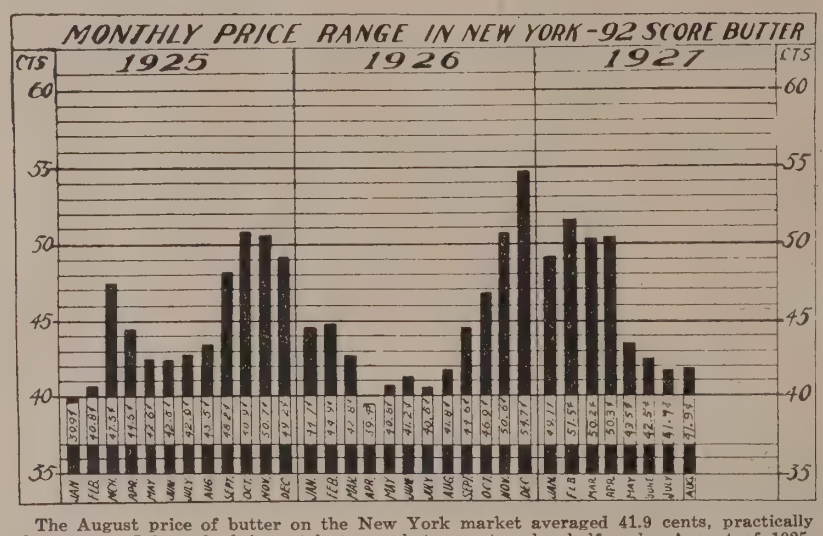
	Aug. 1927	July 1927	Aug. 1926
	lbs.	lbs.	lbs.
Twins	23.3	22.	19.8
Single Daisies	24.0	22.4	20.9
Longhorns	24.5	22.3	20.9
Square Prints	24.7	23.9	21.5
*Receipts since Jan. 1	140,668	120,178	130,150
*Receipts for month	20,489	23,221	19,186
*Storage end of month	14,679	14,374	23,614

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e—000 omitted.)

Wisconsin July Butter

Wisconsin co-operative creameries paid producers a net price of 45.2 cents a pound for butterfat in July according to reports from 74 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 39.3 cents a pound for butter, making spread of 5.9 cents between the price received for butter and the price paid for fat.

The range in prices paid for fat was from 40 to 48 cents, with the price received for butter ranging from 37.2 to 41.1 cents. The overrun ranged from 20.0 to 23.4 per cent. Receipts of butterfat averaged 35,444 pounds per creamery.



The August price of butter on the New York market averaged 41.9 cents, practically the same as July and of August last year but a cent and a half under August of 1925. The first two weeks of September saw advancing prices, but as this is written it is doubtful whether September of last year will be exceeded or September of 1925 equalled.

August Foreign Butter

The following table of foreign butter prices gives the average of weekly quotations as published by the U. S. Dept. of Agriculture:

Market	Aug. 1927	July 1927	Aug. 1926
	Cts.	Cts.	Cts.
New York	41.9	41.7	41.8
Chicago	41.5	40.0	40.1
Copenhagen	35.0	32.1	35.7
Berlin	37.1	33.1	36.1
London:			
Danish	37.7	34.9	38.2
Dutch*	36.3	34.1	34.5
New Zealand	36.8	34.7	37.2
Australian	36.3	34.5	36.5
Argentine*	34.8	34.9	33.0
Siberian	31.4	33.9	30.4

*Unsalted.

Milwaukee August Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of August:

For the portion sold as fluid milk, $2.90 per cwt.; and for the portion manufactured, $1.76 per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Seventy-nine per cent of the total receipts were sold as fluid.

August Dry Milk

(From Report by U. S. Department of Agr.)

The wholesale prices given below are based on reports from manufacturers governing actual sales F. O. B. factory during July.

Dry Skimmilk: Prices ranged from 7 cents to 12 cents for dry skimmilk in bulk, averaging 9.12 cents a pound for sales, totaling 7,760,484 lbs. When packed in one-pound cans the price reported was 34.5 cents pound.

Dry Whole Milk: Prices ranged from cents to 28.5 cents for dry whole milk, aver ing 26.25 cents for sales totaling 216,856 l When packed in one-pound cans the price ported was 46.7 cents a pound.

Dry Buttermilk: Prices ranged from cents to 10.5 cents for dry buttermilk in bu averaging 8.28 cents a pound for sales tot ing 2,160,965 lbs. When packed in one-pou cans the price reported was 9.81 cents pound.

August Condensed Milk

(Report by U. S. Department of Agricultu

Prices paid producers for 3.5 per cent m f. o. b. factory were as follows for Augu covering those factories manufacturing b case and bulk goods:

Geographic Section	Price per cwt Range	Aver
New England	$1.97	$1.9
Middle Atlantic*	2.12—2.40	2.2
E. No. Central	1.88—2.40	2.0
W. No. Central	1.75—2.03	1.8
North Western	1.75—1.80	1.7
South Western	1.75—2.05	1.8
United States	1.75—2.40	2.0

*Fifty-nine additional factories repor prices based in part on current month's wh sale butter quotation. Twenty-three facto reported prices not determined as yet and reported factories closed.

Manufacturers' wholesale selling prices sweetened condensed and unsweetened ev orated milk were as follows for August:

	Range	Aver
Condensed, per case	$5.26—$6.65	$6.1
Condensed, per cwt.	9.25—13.00	10.2
Evaporated, per case	3.57— 5.20	4.5
Evaporated, per cwt.	6.58— 9.50	8.4
Condensed skim, per cwt.	4.55— 7.75	5.7
Evaporated skim, per cwt.	2.50— 6.45	3.6

Philadelphia Milk Prices

The Inter-State Milk Producers' Asso tion announces that the September basic p for milk will be $3.29 F. O. B. Philadel and $2.71 per hundred at receiving station 51—60 mile zone.

The August surplus price was $2.14 F. O Philadelphia. The August surplus price at receiving stations on railroad was $1.57.

These are based on milk testing 3 per butterfat with a differential of 2 cents each half point of test up and down.

Feed Market Situation

(By Grain, Hay, and Feed Market News S ice U. S. Bureau of Agricultural Economi

September 7—Weakness in feed grain m kets, together with an increased output wheat feeds, caused lower prices for hom feed and most wheat feeds late in August early in September, but gluten feed quotat were advanced, while most other feed s ruled steady to firm. Warmer weather in corn belt, together with the increased ma offerings of corn, was largely responsible a decline of about 12c in the corn mar during the past two weeks while oats around 2½c lower in spite of private re claiming disappointing threshing retu These lower prices of feed grains made bu cautious about anticipating their needs trading recently has been of small volume though relatively low stocks in many sect have helped to maintain a steady volum small inquiries.

Production of wheat feeds has show sharp up-turn recently, according to t reports and weekly figures on flour out-pu milling centers, while the out-put is expe to show a further increase since the den for flour has improved at the lower le of wheat prices. Mills were anxious to sales but storage stocks are unusually s at the present time according to trade ports and a number of dealers have bo on each decline. Bran prices in general about $1.50 lower than two years ago, v shorts and middlings range from 50c to $ lower with most points about $2.00 lower the period.

Linseed meal averaged fairly steady. mand slackened at Buffalo where prices fractionally lower. Crushers there were ious to make sales but production conti light and they were endeavoring to mai current quotations. The output at Chi was just about equal to current demand prices there showed $1 advance, but in Northwest buyers are holding off in anti tion of increased production of meal new crop seed.

Gluten feed prices were advanced in of the weakness of most other feeds. T reports suggested that production of this would be restricted since manufacturers n not be able to advance the price of product to off-set sufficiently the high of corn.

Cottonseed meal continued to advance l ly because of the prospects for a much sm cotton crop than was secured last year. T ing, however, was of limited volume with

(Continued on page 913)

ews from Washington, D. C.

[SPECIAL TO HOARD'S DAIRYMAN]

Washington, D. C., Sept. 13—The rpretation of one of the provis of the income tax law, which ides that the corporation income does not apply to the co-operas is the subject of a controversy at this time, which is of some rest to the local co-operatives op- ing in the butter and cheese in- ries. This provision of the law been interpreted to apply only to e co-operatives all of whose kholders are bonafide producers patrons of the factory, not to e in which a part of the stock is ed as a matter of investment by iness men, or others in the com- nity, or elsewhere, who do not pa- ize the factory.

epresentatives of certain co-op- ives, in which stock is held joint- by farmers and milk producers, bankers and business men, who sted in order to supply necessary ital, are asking for a different in- rpretation. Several of the Minne- and Wisconsin Congressmen e joined in the request for the e liberal interpretation.

⚜

he Tuberculosis Eradication Di- on of the Bureau of Animal In- try has just issued a brief sum- y of changes in state laws passed ing recent legislative sessions con- ning either appropriations for T. work, or the legal provisions gov- ng the eradication of this disease attle.

o far as the figures show, and as- ing that when an appropriation is le for two years, one-half is to set aside for each year, the fig- s reported by the B. A. I. show over $7,120,000 is now appro- ted for use in 1927—28 to pay mnity for cattle slaughtered in T. B. campaign, while practically ry state has an ample fund for inistering the laws, and in addi- to this stupendous sum, there are ivided appropriations reported of rly $4,000,000 more. In other ds, the total for the next fiscal r from state sources alone, for n indemnity and administrations amounted to a total of about ren and a half million dollars.

Before long the Bureau will have details of these appropriations l worked out to be ready to pre- t to Congress.

⚜

nother feature of Canadian trade be investigated by the U. S. Tar- Commission, following the recent ition of hay growers in New York an increase in the rates of duty that commodity. Congressman ber of New York, joint author of Canadian Milk and Cream Import , has interested himself in the hay ff, and has urged the Tariff Com- sion to make the investigation. A el feature of this case is that ry interests in Northern New Eng- d are protesting against any in- ase, saying that they are depen- dent on Canadian hay because of their limited crop, and their distance from available surplus domestic hay.

⚜

The Tariff Commission will resume active work on September 17, the members who have been absent on either vacation or official travel are expected back by that time. One of the first cases to be forwarded to public hearing and final decision will be the Milk and Cream Tariff case, started last year.

⚜

With the appointment of Dr. Henry G. Knight of West Virginia as Chief of the new Bureau of Chemistry and Soils, the separation of the regulatory work heretofore in the Bureau of Chemistry from that Bureau, and the reorganization of both regulatory and research activities of a chemical character in the department is completed. Dr. Brown who formerly headed all of this work as Chief of the old Bureau of Chemistry remains as Dr. Knight's associate chief. Under the change all regulatory work, heretofore under this Bureau, including especially pure food work, drug and patent medicine inspection, as well as the fungicide and insecticide inspection work, all go to a Food, Drug, and Insecticide Administration, directly under Walter G. Campbell, Director of Regulatory Work. The research work of the Bureau of Chemistry was then combined with the Bureau of Soils, and the Fixed Nitrogen Laboratory work, and named the Bureau of Chemistry and Soils. The dairy industry finds its regulatory work—except the inspection of renovated butter factories—now all combined under the new Food, Drug, and Insecticide Administration. Dr. Dunlap and his associates who have had charge remain in charge but in the new environment. The change places Walter G. Campbell, head of the Regulatory work, much closer to the butter regulatory work than formerly. It also frees the research workers from the regulatory bureau, and it is hoped, will go a long step toward increasing the effectiveness of the chemical research work of the department.

⚜

An official invitation from the British Government addressed to the United States government, and inviting it to send official delegates to the International Dairy Congress, in London in July, 1928, has been received. It recently reached the Secretary of State, communicated in a cordial note from Sir Esme Howard, British Ambassador.

Secretary Jardine has taken the matter of sending an official delegation from his department under advisement. It is considered probable that steps will be taken to have at least the Departmental officials in charge of this work delegated to attend.



STAFF OF THE DAIRY SCIENCE FACULTY AT CORK UNIVERSITY, IRELAND
Left to right: G. T. Pyne, J. Lyons, Professor C. Boyle, M. Grimes, F. MacGrath.



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Cows Make More Milk with water bowls. Reported gains of 10% to 25%. Lengthen lactation period. Prevent spread of disease through water. Fill out the coupon.

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Labor Saving Barn Equipment

The coupon will bring you the latest information about Louden Stalls and Stanchions—how they save you time and labor and give cows real pasture comfort while stabled. Louden Water Bowls end the job of turning the cows out to water—increase milk production—bring in more money. The Louden Manure Carrier takes the drudgery out of barn cleaning.



One Trip—Five Wheelbarrow Loads An easy push. Louden Manure Carrier ends drudgery. Makes boy's play of barn cleaning. Send the coupon today.

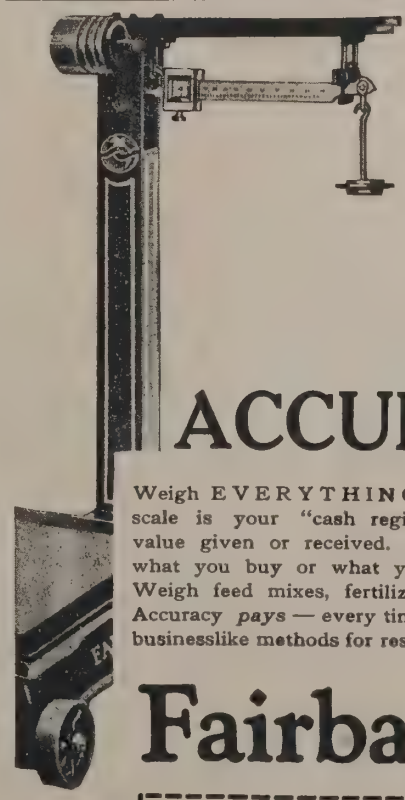
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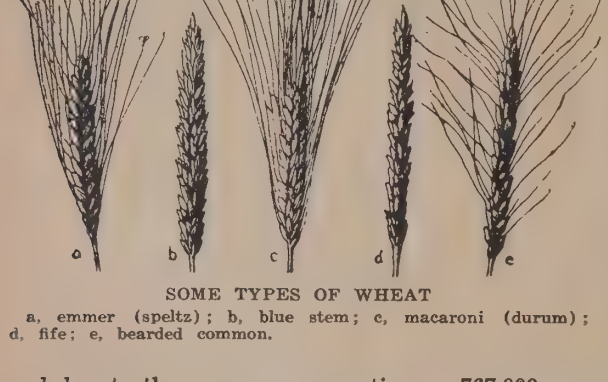
HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Cereal Study for Juniors

WHAT do we mean when we speak of *cereal* crops? We mean those grasses whose seeds are used for food. You commonly call them *grains*. Corn, wheat, oats, barley, rye, and rice have been called the six great cereals of the world. The word cereal comes from *Ceres*, the goddess of harvests. We are going to talk about wheat, barley, and oats in this story.

While the grain from these crops finds its chief use as food for man and beast, the crops are sometimes cut green before the grain ripens and fed to farm animals. When this happens they are referred to as *soiling* crops.



SOME TYPES OF WHEAT

a, emmer (speltz); b, blue stem; c, macaroni (durum); d, fife; e, bearded common.

Wheat the Bread Crop

Which of our grain crops is most used for food by man? Wheat, that's right. Wheat makes flour for bread, and bread is the "staff of life." By-products of wheat flour are bran, middlings, and shorts which are used extensively as feed for dairy cattle and other farm live stock.

Where did wheat come from, and how old is it? The name, wheat, has an interesting history. The English people used to call it "whete," and earlier still they called it "hwaete," which is closely related to "hwit," meaning white. The German word for wheat, "weizen," is related to "weisz," which also means white. Now why should these people use names for wheat which meant white?

If we stop to think that the bread of the Europeans of the poorer classes, especially in Northern Europe, was as often made from rye flour as from wheat flour, we find our reason. Rye is a dark colored grain, and quite naturally people called wheat white to distinguish it from rye or other dark colored grains.

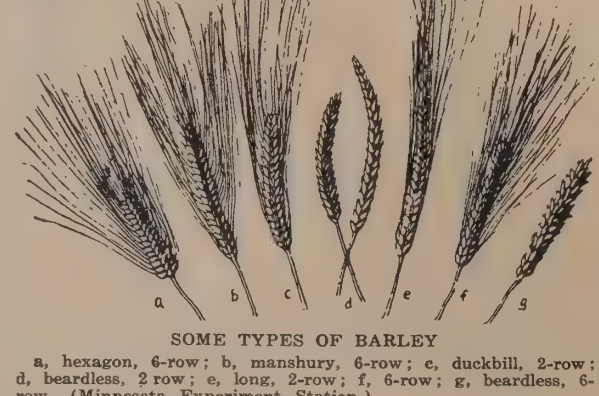
It is probable that wheat grew wild in the valleys of the Tigris and Euphrates rivers in Asia Minor and that it has spread from there to the rest of the world. It was cultivated in Egypt long before the birth of Christ and records indicate that the Chinese cultivated it as early as 3,000 years B. C.

Wheat 5,000 Years Old

Think of it, boys and girls, wheat has probably been a cultivated crop for the last five thousand years, and possibly longer. At that time men used to prepare the ground by scratching it with a stick, and it is quite likely that our own ancestors of that date lived in caves and would not have known what to do with a loaf of bread had it been given them. Since then wheat has spread with civilization. It was introduced into Mexico about 1530 by the Spaniards, and was first cultivated in Virginia about 1611.

Today wheat is grown the world over. No other crop is so important to the civilized world. According to the Year Book of the U. S. Department of Agriculture the total production of wheat in this country for 1926 was 832,305,000 bushels on 56,575,000 acres. Canada produced 405,814,000 bushels on 22,767,000 acres. The five leading states and their production were: Kansas 150,084,000 bushels, North Dakota 77,224,000 bushels, Oklahoma 73,745,000 bushels, Montana 44,665,000 bushels, and Michigan 41,034,000 bushels.

Wheat is classified as either *winter* or *spring*, depending on the season at which it is sown. According to the texture of the kernel, wheat is further classified as hard or soft, and there are both hard and soft varieties of winter and spring wheat.



SOME TYPES OF BARLEY

a, hexagon, 6-row; b, manshury, 6-row; c, duckbill, 2-row; d, beardless, 2 row; e, long, 2-row; f, 6-row; g, beardless, 6-row. (Minnesota Experiment Station.)

Do you know how much a bushel of wheat weighs? Sixty pounds is the correct answer. The standard weight for a measured bushel of oats is 32 lbs. while 48 lbs. of barley is a bushel.

Barley Ancient Cereal

Barley is a very old cereal. Barley and wheat have some things in common. Both were cultivated before we have any history of man. Both are, or have been, bread plants. In early times barley was the chief bread plant of all nations from which our civilization came. Both are cultivated in many countries and many lands. It is said that barley is successfully cultivated in a wider range of climate than any other cereal. It is grown in Lapland and Iceland and in semi-tropical California; it matures at an elevation of 11,000 feet in the Andes Mountains. Barley is classified according to the number of rows of grain on the head as two-rowed, four-rowed, or six-rowed.

In 1926 there were 191,182,000 bushels of barley produced in the United States on 8,200,000 acres. The five leading states and their barley production were: Minnesota, 32,675,000 bushels; California, 23,400,000 bushels; North Dakota, 21,050,000 bushels; Wisconsin, 17,974,000 bushels; and Illinois, 12,710,000 bushels.

Oats Only 2,000 Years Old

Not so much is known of the early history of oats but it is not such an old crop as wheat or barley. The earliest cultivation of the oat plant was probably in Central Europe. Grains have been found among the remains of the Swiss Lake dwellers perhaps not earlier than the bronze age. The cultivation of oats has not been traced much more than 2,000 years.

Just as wheat is known best as a food for man, so is oats recognized as a food for live stock. Oat meal, however, is a product of the oat plant, and is a food consumed in considerable quantities by man. Oats grow best in a cool, moist climate.

The total production of oats in the United States last year was estimated at 1,253,739,000 bushels on 44,394,000 acres. Iowa led in production with 195,960,000 bushels and the four next states in production were: Minnesota, 129,162,000 bushels; Illinois, 123,516,000 bushels; Wisconsin, 96,638,000 bushels; and Texas, 83,660,000.

Juniors at Wisconsin Fair

The boys' and girls' 4-H club department at the 1927 Wisconsin State Fair was the biggest and best that it has ever been. All records were broken for both quantity and quality of boys and girls attending the club camp, of live stock and other exhibits, and demonstrations.

Some 630 club folks were registered by Mrs. Charlotte Wald at the big 4-H camp on the fairground under the genial and efficient direction of Wakelin McNeel, assistant state club leader. The number exceeded the biggest club camp held previously at the Wisconsin State Fair by more than 100.

The tent city, otherwise known as the club camp, consisted of more than 75 big, brown tents for sleeping quarters, and a regular circus tent for the dining room. Harold A. Hovde and Bruce Cartter assisted Mr. McNeel in making this the best camp ever held at the Wisconsin State Fair. The girls were chaperoned by Mrs. Britton and the delicious, nutritious meals were prepared by the famous camp cooks—Mrs. George Mason and Mr. and Mrs. Ernest Hausen.

A large sign on the end of the grandstand which read "Boys' and Girls' 4-H Club Exhibits" brought crowds of state fair visitors to the second floor of the grandstand which was devoted to demonstrations by club members and exhibits of their handiwork. It was also the office of State Club Leader T. L. Bewick, superintendent of the 4-H club department, Miss Beth Salter, assist state club leader, and F. B. Coon charge of demonstrations.

About 150 demonstrators took p in contests during the week. Fi four home economics and 24 agri tural demonstration teams compe Twenty-nine fine county club boo made a very attractive display of work. In addition, the U. S. Dep ment of Agriculture had a series booths on club work. What can made from flour sacks was dem strated in another display wh everything from table cloths, napk and baby rompers to aprons and t els were on exhibit.

The 4-H Club Journal was campers' own newspaper printed d by courtesy of the Milwaukee J nal and edited by Roland C. Hart with the help of a number of members and leaders. Features the entertainment during the w were trips to the zoo at Washing Park, an evening in the grandst an evening at the horse show, stunt night, the latter event in cha of John Burke.

R. A. Turner of the U. S. Dep ment of Agriculture judged dem strations and gave a series of talks, each talk featuring one of H's in the 4-H emblem. Helene Fr and Mrs. Margaret Baker also jud

A live stock judging contest held on Wednesday with about entrants. Irene Boese was the girl to enter. A team from Wes Wisconsin, won first place. It composed of Tilmer Hansen, Nor Egestod, and Myron Ottum. A t from Jefferson County coached by A. Hovde and consisting of Wil Loga, Paul Ramsey, and LaVerne ersohl placed second; the teams f Mondovi, Belleville, and Marshall lowed in the order named. L. M. man and E. M. Tiffany helped duct the contest.

The high individual judges for classes of live stock including d cattle, horses, and hogs were: Kenneth Chrystol, (2) Albert Pa ter, (3) Julius Moy, (4) LaV Ebersohl, (5) John Mueller. judging dairy cattle Clinton placed first, Marshall second, Trempeleau third. Ted Swenson the Trempeleau team was high i vidual, Albert Palmiter second, Ramsey third, Chester Run fourth, and Herbert Ryder fifth.

About 314 dairy calves of quality made as large and fin showing of dairy calves as has been assembled at the Wisco State Fair. Other live stock exhi included 96 hogs, 48 sheep, and 6 entries in the poultry departm George Price, superintendent.

The winnings of little 13-year Wilma Klitzkie were outstand She won first and champion on senior pure-bred heifer in the lar class of the day, second in a st class of 34 junior Holstein h calves, and third in the junior s man's contest. When the se Guernsey heifer class of 26 judged, the first six were member one club, the Guernseyway Calf of Jefferson County. Another i tory was scored for Jefferson Co in the strong competition in the groups in which 15 groups were hibited. Fifteen uniform, typy Gu sey heifers from the Guernsey Calf Club and a like number of

y Holstein calves from the Ideal ein Calf Club made Jefferson ty's exhibit an outstanding one. the junior showmen's contest Dopp won first, Harvey Jensen d, Wilma Klitzkie third, Chester fourth, Una Gruhle fifth, and Schmid sixth. Prizes for this st were given by the Wisconsin Stock Breeders' Association, Arucks, secretary.
l Hildebrand gave valuable asce in the junior live stock deent, and Bill Ibenthal worked beaver keeping the camp in

aners in the dairy calf club exwere:

Holsteins

r heifers—34 shown—1, Stewart Flem- Wilma Klitzkie; 3, Theodore Swenson. heifers—62 shown—1, Wilma Klitzkie; nond Bast; 3, Willis Holsten. 2-yearers—1, Lloyd McDonald 2, Earl Quack- Yearlings—10 shown—1, Clara Piek; F. Piek; 3, Josephine Zoberlin. Grades own—1, Hugh Hogdson; 2, Anna Dopp; h Rossow. Bulls—8 shown—1, Ralph 2, Clayton Heitz; 3, Lloyd McDonald. on Holstein calf—Wilma Klitzkie.

Guernseys

r heifers—21 shown—1, Arthur Erd- Edw. Day; 3, Donald Hardie. Senior -26 shown—1, Orin Anderson; 2, Smithback; 3, Arvilla Boese. Yearling -7 shown—1, Franklin McCraig; 2, Boese; 3, Everett Smithback. Grade -38 shown—1, Helen Anderson; 2, Ber- Meske; 3, Vernon Lein. Champion y calf—Arthur Erdman.

Jerseys

r heifers—8 shown—1, Harvey Jensen; on Knudson; 3, Horace Wyatt. Senior -10 shown—1, Vernon Knudson; 2, oot; 3, Lawrence Frye. 2 years or shown—1, Vernon Knudson; 2, Gail Root; 3, Ada Wyatt. Grade calves—11 shown —1, Lawrence Frye; 2, Herbert Smith; 3, Elizabeth Smith.

Brown Swiss

Junior and senior heifers—9 shown—1 and 2, Lila Schmid; 3, Ralph Cook. 2 years or over—4 shown—1, Norman Magnussen; 2, Ralph Cook; 3, Victor Magnussen. Grades—3 shown—1, George Kuehni; 2, Victor Magnussen; 3, Norman Magnussen.

Ayrshires

Junior and senior heifers—3 shown—1, Robert Seitz; 2, Owen Davis; 3, Francis Starrett. Yearling—Robert Seitz.

County Groups

1, Jefferson; 2, Washington; 3, Green; 4, La Crosse; 5, Dane; 6, Marathon.

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

For further discussion of the following see the September 10th issue.

How much did Mr. Jones figure it cost to produce and deliver milk? Just 13.3c for a quart of milk which delivered to his city customers for 15c. (See page 827.)

What are some of the items figured in the cost of a quart of milk? For labor—washing cows, milking, feeding, cows to pasture, cleaning barn and bedding down, 1.6c; for milk house—cooling, bottling and capping, crating and icing, loading, cleaning utensils, washing bottles, boiler and ice labor—1.32c; operating costs—barn, milk house, silos, ice house, water system, crates, bottle washer, separator, steamer, cooler and strainer —.6c; milk delivery—1.85c; incidental expenses—ice, bedding, insurance, taxes, bottles and caps—.93c; interest 1.67c; feed 4.72c; buying cows—.44c.

What big contribution did Professor Haecker make to the science of cow feeding? He conceived and worked out the idea of fitting the ration to the fat test of the milk produced. (See page 828.)

How important is agriculture in India? It occupies three-fourths of the entire population. (See page 829.)

How was the first agricultural fair in India advertised? Since more than 90 per cent of the people are illiterate, the only advertising that could be effective was by word of mouth. Volunteers visited villages and got the leading men interested. The village crier, preceded by a tom-tom, proclaimed the coming show.

How can sweet clover hay be made? L. S. Gillette has had success using the binder to make a fine hay from sweet clover. Using the binder saves the leaves and leaves the stubble in good shape for a second crop. (See page 838.)

What is the name and record of the new United States champion cow? The largest butterfat record ever made in one year by a cow in this country has just been completed by Daisy Aaggie Ormsby 3d a 7-year-old Holstein owned by Lakefield Farms of Michigan. She produced 33,140 lbs. of milk containing 1,286.23 lbs. butterfat. (See page 846.)

Junior Letters

My Calf Club Experiences

Hoard's Dairyman Juniors:—On June 1, 1926, I enrolled in the Pine Creek Calf Club of Dickinson County, Michigan. Mr. Lonsdorf is our county agent. My father purchased a registered Holstein calf for me from our neighbor for $35.

I was given entire charge of this little calf. I brushed him three times each day and also rubbed him with sweet oil every day. I took him out for a walk two or three times a week, a half hour at a time. He was also fed three times a day at regular hours. The amount of grain fed per day was 6 to 8 pounds, 19 pounds of milk, and 5 pounds of hay.

This little animal became a regular pet. He recognized my voice as soon as I entered the barn, and I petted him a great deal. At first he was quite wild when I took him out, but I finally succeeded in making him walk nicely.

On September 4—8 Dickinson County held a fair and all calf club members were notified to prepare their calves for entry. I clipped him, shined up his hoofs and horns, and gave him a bath. I made a new halter of rope with green ribbon, a pretty white blanket trimmed with green and green lettering "Pine Creek" and an American flag on one side.

When entry day came I was so proud of him. During the fair week he did just what I wanted him to. In the parade I was first with my calf behind the band.

To my surprise, the judges awarded my calf first prize in the calf clubs and first prize for the registered stock. I also got grand champion of Dickinson County and our club took first prize which was $10. It was divided between the eight members in our club. The total amount of money I received was $17.25.

My address is Route 1, Vulcan, Michigan.

Marie Rozine.

Testing Seed Wheat

Hoard's Dairyman Juniors:—I tested our own wheat this year for germination. The way I did was to take a pie pan, fill it full of sand, take an ink blotter, count out 100 kernels of wheat, put them on the blotter and place it on the sand and put another blotter over that; then moistened thoroughly each day and set in a warm place. My birthday is July 21st.

Ziela E. Golden.

North Dakota.

EN PALS

at's one of the many fine things you get by joining the

OARD'S DAIRYMAN JUNIORS

love pen pals and sure have many hem, nearly 100 altogether, from all the United States. I have every r that I receive put away in boxes."
Merle Alderman, Wisconsin.

'hat's what one of our ard's Dairyman Juniors te us. You, too, can have *pen* s. Just JOIN THE JUNRS.

f you are under 20 years of and some member of your nediate family is a regular scriber to Hoard's Dairyn, sign the application and d it in at once.

'our watch fob or necklace, ed, and pin, the emblems of a ard's Dairyman Junior, are ting for you. Costs you hing.

MEMBERSHIP APPLICATION
ARD'S DAIRYMAN
Junior Editor
Atkinson, Wisconsin, U. S. A.
Sir:—

hereby apply for membership in Hoard's Dairyman Juniors' Club. I e to read the Junior Department Hoard's Dairyman regularly and do I can to make the Juniors' Club a ess. Will you please send me the h fob [ ] or necklace [ ] (mark after your choice), the pin, and Hoard's Dairyman Junior's Creed.

ie .....
(Write distinctly, or print)

ress .....
(R. F. D.) (City)

..... I am ..... years old.
(State)

rd's Dairyman comes to my home

essed to .....

favorite breed of dairy cattle is

..... My father's name is

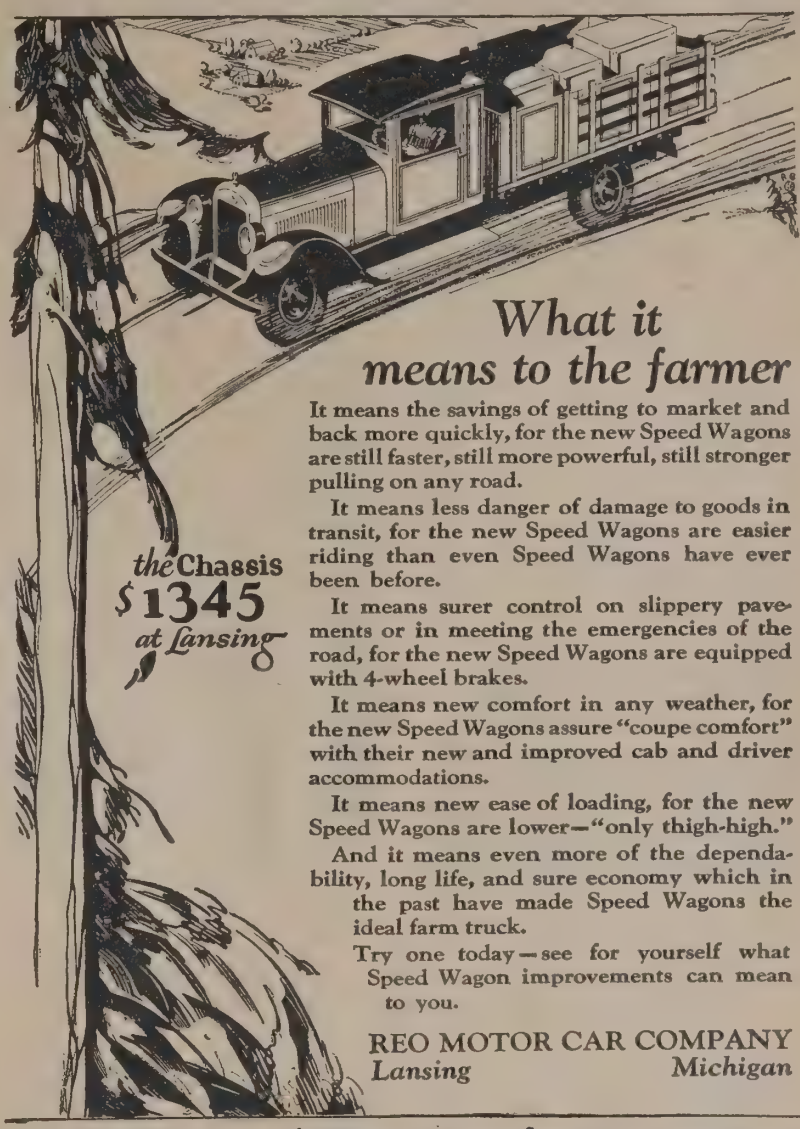
..... Do you belong to a

' and Girls' 4-H Club? .....

o, what kind? .....



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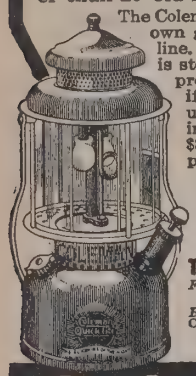
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ENGLISH ROYAL SHOW

JESSIE M. HILL, WISCONSIN

I ATTENDED the English Royal Show this summer which is the largest show in the British Isles. It is held at the end of the show season, the first part of July, and all the exhibits entered are the winners at the county shows. In many ways this Royal is like the fairs held in this country, but in more ways it is different. First, its interests are wider. It is not a live stock show, a machinery show, or any other special kind of a show. It includes all the branches of agriculture.



A model suit for the dairy as exhibited by the Reading Experiment Station in a clean milk demonstration.

The buildings are the property of the Royal Agricultural Society and each year they are set up in a different city. This has been done for 86 years. This year the show was held at Newport, Monmouthshire, a port on the fringe of the rich Wales coal fields. The buildings covered a 127-acre park belonging to Lord Tredegar, president of the society.

The attendance was small the first part of the week, but swelled greatly toward the end. This was partly due to the rain and partly to the policy of price charged for admission. The first day of the show all except a few of the classes are judged and the admission to the grounds is $2.50. The price decreases about half each day and the last day it reached 25 cents. One member of the society admitted to me that the reason for this was that they wanted to keep the crowds away on the day that most of the exhibitors wished to attend the show.

The largest number of entries were made in the cattle department; 1,214 was the total for the 20 breeds represented. Dairy Shorthorns topped the list with 183 entries and there were 130 regular Shorthorns.

It is interesting to note that although we hear a great deal in England about the many local dual-purpose breeds, the Holsteins, or British Friesians as they are called, had the second largest number of entries—155. Jerseys were fourth with 91 and Guernseys sixth with 78. These three breeds of cattle were the only ones shown that were not originated in the British Isles. Herefords were fifth in the number of entries with 88 animals.

There are separate outdoor rings fenced off for each breed of cattle and judging was all done on the first morning in the pouring rain. One man judged all the cows of a breed and another all the bulls. Prizes of $75, $50, and $25 were offered for the first, second, and third, respectively. In the largest classes $20 and $15 were given for the fifth and sixth. The blue ribbon at all English shows goes to the second prize animal and a red one is given to the first.

Every afternoon a parade of the prize cattle was held in front of the grandstand. There were many breeds that I had never seen before although they may have representatives in this country.

There were the mottled beefy Sussex cattle with drooping horns; the black horned Welsh, hardy natives of the hills around Newport; the ugly spotted black, white, and tan Longhorns with horns worse than the old time Texas steer; the large white Park cattle descended from the wild Park cattle. There were only 10 entries of the last breed and there are but a few herds in England. Also there were the Belted Galloways much like other Galloways except for a white belt around their bodies and the white and bluish gray mottled Blue Albion cattle. The last breed in the parade was the Dexter, a black milk breed that is very small. The head of the largest bull was not as high as the waist of the man leading him and their legs were so short that they had to run to keep up with the other cattle.

Other breeds shown were the Aberdeen-Angus, Galloway, Lincolnshire Red Shorthorn, Devon, South Devon, Red Poll, and Kerry.

The total number of horses entered was 429, and 524 sheep shown this year from 18 breeds. Records for past shows give 28 breeds of sheep, all of British origin, that have been represented at at least one of the shows during the last four years.

Six hundred sixty-four pigs were entered from nine breeds. Large White headed the list with 150 entries, Middle White was second with 150, Large Black third with 122, Berkshire fourth with 72. Other breeds entered in order of their numbers were Wessex Saddleback, Gloucestershire Old Spots, Long White Lop-Eared, Tamworth, and Essex.

All of the milk was taken dairy and used in a demonstrati butter and cheesemaking. times a day a clean milk demor tion was given by the governmer periment station at Reading. attracted many of the farmers the questions they asked were elementary.

I noticed that nowhere at the was there any exhibit to show value of milk as a food and t courage the use of it. I asked leader of the clean milk demor tion about that and he told me



OCEAN PREMIER, CHAMPION JER BULL AT ENGLISH ROYAL SHO Owned by L. G. Gisborne

their first job was to teach the fa to produce milk that the public depend upon.

The machinery exhibit was different than that shown at the and county fairs in this cou Only two milking machines and tors were exhibited. At least ticed no others and the ones tention. The big drawing card the churn. One tent that must shown at least 30 kinds and of small hand and machine c was filled with buyers all the The large steam trucks which common in England and the de stration of fireplaces were also lar.

The farmers in the counties Newport had orchard and plant competitions for orchards and lots of various sizes, ages, and of trees. One class called for less than 1,000 acres of wood The judges were to take into acc the systematic management for production of timber, ornam planting, planting for sporting poses, and management of the h rows. There were 15 entries in class.

There were no home econo demonstrations and no boys' girls' club work, but I believe there was most everything else you could think of. Some of the exhibits were horseshoeing, seed ing, wool, honey and bees, c cheese, butter, marketing and g ing of products, gates made on estate of the exhibitor, flowers, pared stock food, farm papers, c ens, ducks, geese, turkeys, fen and agricultural education.

College Ayrshire Cow Sets World's Record

A world's champion Ayrshire record in the 305-day class has been made by Sir Robert's Romona Bell, owned by the Pennsylvania State College. Completing her year as a junior 4-year-old, this Ayrshire champion produced 14,744 pounds milk and 572.42 pounds fat. Because of this record she wins a French cup.

When she was a junior 2-year-old she produced 12,861 pounds milk and 534.5 pounds fat, winning a French cup in 1924 by producing more milk and butterfat than any other 2-year-old that year.

Sir Robert's Romona Bell was presented to the college by the Masonic Homes farm, at Elizabethtown.

Farmers' Judging Contest

The fourth annual Farmers' Cattle Judging Contest will be held at the National Dairy Exposition, Memphis, October 15 to 22. This contest is open only to farmers who have had no regular training in cattle judging.

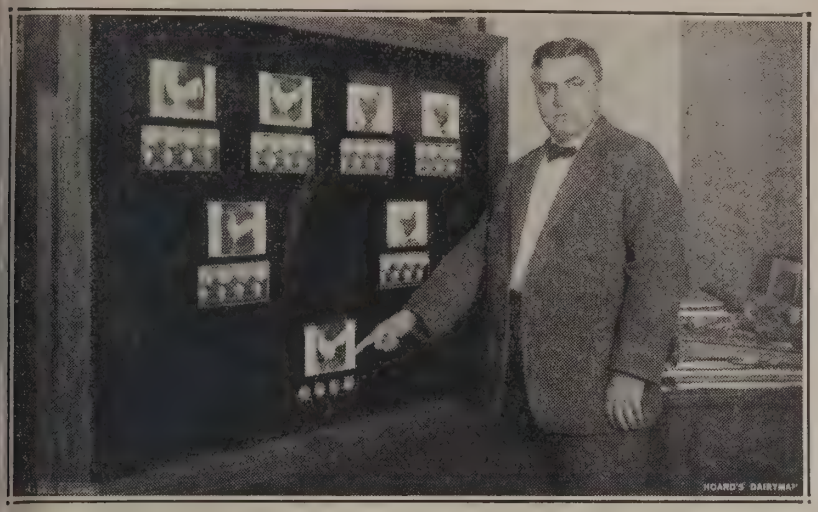
Last year it drew more than 300 tries from seven states. Becaus the great interest now being take dairying in the South and the w spread demand for dairy cattle, believed that more farmers will c pete this year than ever before.

L. A. Higgins, dairy specialist f Mississippi and a well known da man, is superintendent of the test. Classes are offered for team three members and for individu Entry blanks and announcem may be had by writing the Exposi office at Memphis.

Herediscope Demonstrates Inheritance

A MECHANICAL contrivance called a herediscope has been invented by R. R. Graves of e Bureau of Dairy Industry, U. S. A., to aid in teaching the Mende n theory of inheritance in dairy imals.

"Inheritance," says Mr. Graves, "is ch a complex study that the aver e person is unwilling to expend the ne and effort necessary to gain an derstanding of the subject merely reading about it. Furthermore, it extremly difficult even for those ll versed in the subject to write



R. R. GRAVES OF THE BUREAU OF DAIRY INDUSTRY, U. S. D. A., AND HIS NEW INVENTION, THE HEREDISCOPE, FOR TEACHING THE THEORY OF INHERITANCE IN DAIRY AND OTHER ANIMALS

lecture on heredity so that it can clearly understood by those who ve not made some study of the sub t. By means of this newly de ed machine, tentatively named rediscope, it is hoped the most sim and fundamental principles of edity can be more easily explained those whose work demands that y have some knowledge of the vs of inheritance."

The use of the herediscope need be confined to teaching inheri ce in dairy cattle. Fundamental nciples of heredity are the same in plants, animals, and humans.

The machine consists of a number of groups of aluminum cups, each group representing an individual animal and arranged in the form of a pedigree showing three generations: four grandparents, two parents, and one offspring. Numerous small, colored balls, each representing a given hereditary character, such as the "factors for high production of butterfat" or "low production of butterfat," are placed at random in the cups of the starting generation. When the operator presses a trigger connected with the mechanism, half of the character-symbols from each parent-cup are transmitted to the offspring, the selection of the characters being merely by chance as is the case in actual matings. By repeated matings the observer is able to note how certain characters may be transmitted from generation to generation, or how they may be lost entirely in the process, how they may be present in an individual but covered up by dominant characters, and how in the absence of dominant characters they may again appear.

The 1927 Ohio State Fair

(Continued from page 884)

n the groups, Gayoso won four ts, and Firestone got one. Gayoso o got 3 of the 6 second places in groups.

n the championships, Firestone's geant's Governor of Montrose re ted last year's performance and s made senior and grand champion; yoso won junior championship on yoso Golden Beau. Sepascot Pearl Georgland Farm likewise repeated t year's performance by being de senior and grand champion cow. yoso was runner up with Gayoso lden Beauty.

Ayrshires

Judge: S. M. Salisbury, Ohio.

Six Ayrshire breeders with 54 ani ls sought the favor of judge Salis y's eye in hopes of making some ney or at least getting enough to d their cattle home or to the next test arena. When all the ribbons l been distributed, it was found t James E. Davidson, of Michigan, l won seven firsts in the singles and ry blue in the groups, to which he led a purple each for his senior l junior champion females and ior champion bull calf. This left blues in the singles which were ided 3 to T. T. Hileman of Penn vania and 2 to B. G. Betts & Sons, Ohio. Hileman won a purple on his senior and grand champion bull, Favorite Crusader.

Top places in most classes were not filled by outstanding animals like, for example, Strathglass Roamer and Primrose of B. M. 4th, champions of last year.

Brown Swiss

Judge: C. L. Blackman, Ohio.

Last year in writing the Brown Swiss show we said, "George H. Neuhard of West Virginia battled with Hull Bros. of Ohio but was badly beaten. What could he do with no other exhibitor to help break up the Hull herd defense?"

This year, for some reason, it was different. While Neuhard himself didn't get so much of the blue and red, he had the satisfaction of seeing the Hull herd defense badly cracked. A breeder by the name of A. E. Bower and Son came over from Illinois and took 7 firsts to Hull's four in the singles; between these two Neuhard got 2 blues. Bower also went a step down the line and took 5 reds to the same number for Hull Bros.

When it came to groups, Bower took four firsts and 2 seconds to 1 first and 3 seconds for Hull Bros. Neuhard got 3 whites in the groups.

When the best from the singles were led in for championships, however, it was found that Ursula Stasis and old Swiss Valley Girl 9th of the Hull Bros. herd are still hot campaigners and they were made senior and grand champions. The Junior champion bull was likewise from the Hull Bros. herd. Bower got a little purple to take home when his Septana of Bowerhome was made junior champion female.

Nature has furnished crisp, green vegetables to take the place of the old fashioned spring tonic.



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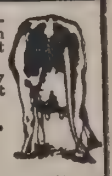
Grinds any feed, dry, damp, wet or oily—to any fineness. Any roughage, hay—Kaffir corn—fodder—snapped corn, husks on—leaves no sharp edges to cause sore mouths, as with buhr mills. No hulls in oats. No rats' nests in shock corn. No metal touches metal. No friction. Grinds the feed cool. No breakdowns. Always dependable. Biggest capacity. Lowest operating cost. UNEQUALLED as grinder — feed saver—money maker. Free feeding booklet, literature, etc. Stock in principal cities.

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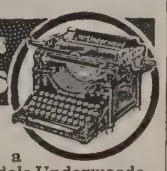
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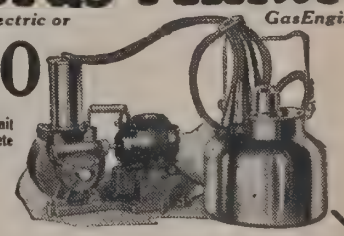
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If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman—Ask Him Why!

"Don't Wear Hayseeds in Your Hair"

(Continued from page 882)

worth. He still believes that the American farmer will some day have "spunk" enough to stand up and fight for his rights instead of lying down to grumble about his lot while misdirected politicians claw the air for his votes.

What is more, Henry still has faith that education will eventually teach the farmer sense enough to do what all other lines of business are doing and he will put his shoulder to the wheel of co-operation and push to the common weal of all. That is just what is happening in the Land O' Lakes Creameries Association, Inc. The farmers of this organization are finding that they can turn a pretty big wheel when all of them get together and push at the same time, as they improve the quality of their products.

Henry Happy Among Flowers

Most readers of Hoard's Dairyman are already familiar with W. A. Henry's book on Feeds and Feeding and with the work that he did in developing the Wisconsin College of Agriculture, but perhaps there are many who would be interested in an account of his present activities. He has never entirely recovered from the nervous breakdown that led to his resignation of the college deanship in 1907, but he has sufficiently built up his pre-spent health so he can find pleasure in living.

He had just returned from his daily visit to the Balboa Park Zoo when we rang his doorbell last D cember to give him our greetings. interested was he in getting the ne of the Middle West that he not on invited us to have dinner with the but to stay at his home for the nigh In the course of the evening's co versation we learned that he expec to remain in California until death. He recalled his early e periences at the college when started out on a salary of a thousa dollars a year and with only a $2,0 yearly appropriation to run the fa and the agricultural college togeth

Henry has no more use for a d honest man now than he ever ha He takes great pride in the fact th he rarely made a mistake in choosi a man for a position in the colleg This resulted in what is conceded be the strongest group of agric tural scientists on his faculty of a college in the country. If the tru may be said, we believe that his re greatness lay in his ability to g good men to work for him and to i spire them to do their best. He w a close friend of former Govern Hoard from whom he received mu valuable advice and assistance.

After he left the college he help his son develop one of the finest fr farms in the East at Wallingfo Connecticut. He built himself home among the flowers of southe Florida where he made a remarkab botanical collection. His sister, Lyd in the meantime was teaching scho at Riverside, California, most of t year and spending her summers Florida. The climate there did n agree with her, however, so she pe suaded her brother to move to S Diego. This he did a few years a and they now live together in a bea tiful home not far from Balboa Par Henry's Florida home was injured the hurricane, but the damage w not irreparable as the buildings we well made, so only minor repairs the roof were necessary.

Since Henry invited us to go wi him to the zoo on the following da we started early to visit his "friend in the park. We spent several hou walking up and down the hills of th magnificient enclosure, so we mu have covered six or seven miles b fore we got back to his home agai He did not seem greatly fatigu from the exercise, though. Many the birds and animals know him a wait for his coming, as he always ca ries a big bag of popcorn and peanu to further cement their friendship.

This daily walk and his work in h garden now constitute his main e joyment in life. When the opport nity presents itself, however, he lik to take a ride to the Chula Vista di trict to see the land that he on owned and directed. He set out t first lemon trees in this area that now noted in all the country for i fine quality of citrus fruits. Some the trees that he set out are still li ing and we were told that a few them will probably be preserved f their historic value. Just before v bid the Henrys goodbye, the gra old man presented us with some fr of his own raising. We are sorry report, however, that the governme inspectors of Arizona took it from when we crossed the state bord line, as they are trying to keep ce tain diseases in check there just the corn borer committee is doing the Middle West.

Often since we have returned Wisconsin and have walked up t Henry Quadrangle on the colle campus, we have thought how fitti it is that memorials have been erec ed here for both Hoard and Hen because of the work they have done helping to make agriculture wh Washington said it is: "The most n ble occupation of mankind."



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COW TESTING ASSOCIATIONS



Monthly Association Averages and High Herds

Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk Lbs.	Ass'n. Report Ave. fat Lbs.	High Herd Breed	High Herd No. of cows	High Herd Ave. milk Lbs.	High Herd Ave. fat Lbs.	Owner
Pioneer	July	455	690	26.6	R. J.	9	769	38.9	P. N. Neer
Lamoille Valley	Aug.	468	400	18.2	R. J.	4	784	37.7	W. C. Hadley
Henry Co.	July	404	642	24.6	S.-J.	9	803	32.8	L. Good
Poultrie Co.	"				R. J.	7	1095	49.1	C. O. Patterson
Pueblo Co.	"	485	697	25.3	H.-J.	19	965	32.4	T. Donley
Wise Co.	"	343	599	27.6	G. J.	10	992	45.7	J. W. Taylor
St. Louis Co. 1*	Aug.	307	716	28.6	G.	6	873	37.0	F. W. Hutchinson
Sts.-McIntosh*	"	389	529	21.0	G.	13	721	30.0	A. McWilliam
Watonwan Co.*	"	411	472	19.8	H.	13	803	34.9	A. Sosinski
Winona Co. 4*	"	423	520	21.0	G.	14	676	32.4	E. J. Wirt
Loudoun 2	"	593	516	23.1	M.	19	784	32.8	Myers Bros.
Oneoda Co.*	July	232	578	31.1	G. J.	9	866	40.5	I. Shantz
Algoma*	Aug.	473	731	30.3	R. G.	15	872	43.7	J. Bondnik
Poynette*	"	438	432	16.2	H.-J.	13	627	24.5	Osgaren-Skaret
Fond du Lac-G. Lake	"	411	428	17.4	H.	10	1132	33.3	A. Hammen

est rules followed.

h Herds from Continuous Testing

ARD'S DAIRYMAN:—The annual of the Allegheny County Asso- n of Pennsylvania brings to many facts not easily noticed ier times. Chief among these to be the outstanding improve- made by herds in their second of testing over the first year. ear we had 14 herds with over -lb. average. Only one of these n its first year of testing, the all having two or three years rk to their credit.

show the value of the second testing over the first I will give ures on four different herds for o years:

umber	Pounds fat per cow 1926	1927
	410.9	495.9
	296.8	369.3
	272.5	350.1
	268.2	330.4

ny more figures of the same ould be given if time and space permit. Needless to say the on these herds increased along heir production. The average per cow in herd Number 2 was $50 higher than last year, or than enough from each cow to or the year's testing of the en- erd of 20 cows. Does this not that it pays to keep on testing after year,

previous records were broken s year's work. The pure-bred of Guernseys, owned by Fair- Farm, was high herd with an re of 495.9 lbs. fat. Their cow, was high with a production of lbs. fat.

association average for the was 8,528 lbs. milk and 327.2 at. This is an improvement ast year's average of 580 lbs. nd 22.9 lbs. fat.

GORDON J. RICE, Tester.

veet Clover in August

RD'S DAIRYMAN.—The month gust with dried up pastures has no exception in the Erskine— osh Association of Minnesota, usual drop in milk production stify. One fact, however, has t out vividly the superiority of clover pastures and its ability hstand the hot, dry weather of fall. All five high herds for August are herds having suffered the least slump in milk production and they had sweet clover pasture. In fact every herd producing over 25 lbs. of butterfat per cow this month produced it on sweet clover pasture.

Cow testing association records show that sweet clover offers a better pasture for cows and, other things being equal, cows do not drop off in milk as fast in the early fall on sweet clover as on any other pasture except alfalfa. Having an extra month or two of good cheap pasture can effect a saving of from $5 to $10 per head in the feed bill besides saving additional labor at the busy time of harvest.

A plan that has been followed with great success is to pasture the second-year growth until after harvest. Sweet clover is seeded in small grain and after the grain has been harvested the fresh pasture is made available for cows. Sweet clover seems to stand a reasonable amount of fall pasturing better than other clovers. If good rains occur shortly after the grain has been cut, a long and abundant pasture season is assured.

To make sure of plenty of fall pasture a generous acreage may be seeded, as the seed is usually cheap and part of it may be plowed up in the spring for corn or other crops. By plowing in the spring instead of fall, sweet clover will not be troublesome in the following crop. Some of the advantages in favor of sweet clover are its adaptability to most soils, it fits in well in rotations, pastures more cattle per acre, the seed is cheap, it is not affected so much by drying weather, and is a good method to control weeds.

MORRIS C. GROVE, Tester.

Alfalfa Pasture Saves Money

HOARD'S DAIRYMAN:—The following comparison of alfalfa and bluegrass pasture tells the story:

Month	No. of cows	Average milk	Average fat	Kind of pasture
		lbs.	lbs.	
July	9	804	32.2	bluegrass
August	9	907	35.3	alfalfa
Gain per cow		103	3.1	

The nine cows were fed $3 worth of 16 per cent protein dairy ration per cow in July, while in August they received $2.45 worth of the same feed. This leaves a saving of 45c

(Continued on page 913)

Annual Association Reports

Association	Year ending	Total cow years	Ass'n Ave. Milk	Ass'n Ave. Fat	Cows culled	300-pound Cows	300-pound Herds	Fat records High cow	Fat records High herd	Tester
			Lbs.	Lbs.				Lbs.	Lbs.	
omfret	Feb.	274	6,150	322		28	12	561	444	E. H. Loveland
ells.-College Ward*	May	476	8,190	312	57	213	33	571	431	R. Hansen
legheny Co.	July	375	8,528	327	110	173	14	739	495	G. J. Rice
o. Newaygo*	June	215	7,236	306	42		14	640	458	C. Prentice
elanau Co.*	July	186	6,384	269	19	65	4	688	435	W. Kirkpatrick
andiyohi*	Mar.	309	8,454	308	77	180	12	832	387	A. Anderson

st rules followed.

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Bovinol is a pure and highly refined oil, stainless, odorless, and tasteless. It contains nothing that will irritate or injure the hide of the animal—in fact many dairymen use it as a dressing for cuts and scratches.

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Louisiana Flood Area

HOARD'S DAIRYMAN:—I have had a number of inquiries from people in different sections of the country as to the flood damage done here and I would like very much to inform readers of Hoard's Dairyman that this (western) section of Louisiana is not in the flood area.

DeRidder has an elevation of 206 feet and is twenty-five miles east of the Sabine river which does not overflow from its bottom. It is approximately 125 miles west of the present overflow of the Mississippi and its tributaries.

DeRidder, La. L. N.

Jones Corrected

HOARD'S DAIRYMAN:—I notice in your July 10 issue a letter from F. M. Jones, New York, entitled "Want More Milk." Apparently Mr. Jones is unaware of the fact that upon May 1 this year the League paid back to the holders of Series A certificates the entire principal and interest due at that time, a total of something over $2,500,000.

His reference to certificates and revolving fund in his letter leaves the reader with the thought that the League was not meeting its obligations in this respect, which is very far from the truth. As a matter of fact, and as no doubt you probably know, this association redeemed nearly half of Series A certificates previous to their maturity, the original issue being something over $4,000,000.

New York. D. J. CARTER.

Unity and Organization

HOARD'S DAIRYMAN:—In your July 10th issue is an article on "Teaching Agriculture Self-reliance." I suppose it is a joke but as a farmer I fail to see it. In the cartoon Shipping, Mining, and Manufacturing are standing in a swimming hole laughing at Agriculture who is afraid of the water and is being tossed in by Unity and Organization.

The government allows mining, manufacturing, and railroads, unity and organization but forbids them to agriculture. The McNary—Haugen bill would create unity and organization among wheat growers, cotton, and hog growers through a nation wide co-operative pool (Unity) of those products and would furnish the necessary operating machinery (Organization) to make the pool effective. President Coolidge by his veto refused to allow agriculture the aid of unity and organization in learning to swim.

Manufacturing, railroads, and banking are not "self-reliant." Manufacturing works behind a high tariff wall and is aided by corporate organization. The steel trust founded in 1901 with a $600,000,000 capital half water, and working behind a government constructed tariff wall has taken out the water and recently declared a 40 per cent stock dividend. True, it is highly successful, relying on the strongest kind of government aid. If the steel trust is self-reliant, why did President Coolidge raise the tariff fifty cents a ton on steel the same week he vetoed the farm organization pool of cotton, wheat, and hog producers?

If the railroads are self-reliant, why did that same government pay them $500,000,000 because of war losses and pass laws guaranteeing return on capital through increas rates?

The banks are very far from s reliant. Consider the Federal Res Bank Act—a government pool of national banks and national b credits.

California. ROBERT D. KELLOG

Collegiate Education

After reading and studying sound logic which you have dispe in "Collegiate Education" I ca do otherwise than admit that have convinced me of the error in judgment of education, but like "man who convinced against his is of the same opinion still"—ther one point on which I do not see light. According to your point view it is of little consequence girl does not receive a college ed tion if she is not willing to sp from six to eight years earning studying. Suppose that same wishes to marry in less time that? A college education is meant to fit a person to earn a li only, it is meant to fit them for in its various aspects and proble to my notion, and therefore a should not be entitled to a college cation only with the understan that she is going to devote her w life to a career. Surely motherh is more noble and should requir much thought, education, and pr ration as any other position of li

My folks were not in a positio send me to college without too gre sacrifice on their part. I could permit that. I was engaged t married before I graduated from school. My plan was to go to col by borrowing the money, ther teach until I had paid it back, but fiance was not willing to wait long to be married. He would l waited the four years it would l taken me at college but not eight his people wanted to leave the f and he would be here alone. Natu ly I gave up my dreams of colleg

I was too young to marry, and w is more, my ideas and opinions, my own character was not e enough formed and definitely enc founded to bear up under the t bles that descended upon my inno head. I have conquered at least of the difficulties, but I have a monition that I am not through e The ten years that it has taken even to get where I am have been years of floundering and despe struggle as far as I was concer I still believe that if I had had a lege education behind me which w have helped to strengthen my id mold my character, and give mea inkling of which way to turn, to a nothing of maturing me a bit, a my struggle would have been infi ly easier.

It is not the dollar and cent p sition or even the position one is to obtain with a college education a interests me the most; it is the e it has upon one's own character.

My brother-in-law is working way through the University an quite agree with you in regard what he will get out of it. It has the making of that boy to hav work his own way, and he neede for he was spoiled. His parents not believe in college, though. I certain that he will be twice the because he was so determined to an education at any cost.

May I congratulate you upon very remarkable editorial.

Wisconsin. MRS. MARY

nesota State Fair and Northwest Dairy Show

(Continued from page 885)

with some of the surplus flesh carried by a springer, she milk it off.

Holsteins

e: Axel Hansen, Minnesota

e were several right good erds among the 227 Holsteins at Minnesota this year with no two exhibitors having a mo- on the tops, as evidenced by t that the 18 blue ribbons were among seven men, the heavi- ner taking five. Forum Farm, vas that one. Carnation Farms ur firsts, Femco Farms of Min- and J. D. McDonald, Wiscon- h won three and Hargrove & , and Paul Stewart of Iowa, E. Griffith, Oklahoma, had one

two best bulls shown were two- ds, King Homestead Piebe Lad by J. D. McDonald, and Prince ohanna Beets, from Carnation The latter is a very smooth th the right lines, but he just quite good enough to beat the ald entry, and Judge Hansen e Wisconsin grand champi-

o Farms' senior yearling, Pride, was a good junior on.

m Farms' 4-year-old, Long Mercedes Butter Boy, headed aged cows nicely and a little as senior and grand champion, the three-year-old, Miss Las- sby, by just a narrow margin. fer doesn't look quite so good C. E. Griffith purchased her Minnesota Holstein Co. sale in it she should be a very strong ler for All-American honors r, nevertheless.

ation's 12-month-old daughter Inka May was junior champi- on. First prize get of sire went to Forum Farms on a group by Forum Patriarch, fifth prize aged bull.

The four county herds shown, Carver, Freeborn, Yellow Medicine, and Mower, placed in tha+ order.

Guernseys

Judge: W. W. Yapp, Illinois

Minnesota had a larger Guernsey show this year than did Wisconsin but it wasn't of quite such good quality, particularly in the classes for milking females. There were 131 head shown by 21 exhibitors.

D. D. Tenney's three-year-old bull, Cherub's Golden Secret of Shore- wood, was the best of the bulls. He isn't the outstanding show bull that his sire, Ladysmith's Cherub, was some years ago, but he made a very satisfactory senior and grand cham- pion.

The junior champion, Cherub's Se- quel's Leader, owned by F. B. and E. H. Hardy, is a calf with very good lines and one that could be made a strong contender at almost any show.

Dr. H. T. Smith of Iowa had the winning aged cow, Faith's Wonder of Smithdale, just a little smoother cow with what appeared to be a better udder than most of her near com- petitors, but the judge didn't find her quite so good as Miss Myrtle of Maple Hill, a three-year-old owned by Boulder Bridge Farm, and the lat- ter was senior and grand champion.

Radisson Farm showed the junior champion, Ultra Coronet of Radisson, a senior yearling.

In the final check up of awards, D. D. Tenney won 6 firsts, Radisson Farm, four, and Boulder Bridge Farm and F. B. and A. H. Hardy, Minnesota, Dr. H. T Smith, Iowa, and Ransom Farm of Kansas each had two blues.

xercise for the Bull

D'S DAIRYMAN:—The first demonstration of constructing exercise yard was held on the David F. Mazelin of Adams Indiana, last May. The dem- on was in charge of J. H. Hil- Purdue University.

October when the Adams Cow Testing Association fin- he second year's work, there even herd sires with three or aughters included in the rec- At a meeting held to discuss ults obtained, it was learned of the eleven sires had been the block. At least two of ills gave promise of being out- g sires.

ng the discussion which fol- d the importance of retaining the community until at least ughters had completed yearly was brought out. By com- these records with those of ns, the real value of the bull measured. The writer, who was at the meeting, suggested the more general use of exercise yards for bulls as a safe and satisfactory means of retaining bulls now in serv- ice until records could be secured on their progeny.

The meeting unanimously voted to hold a bull pen construction demon- stration on some member's farm dur- ing the spring. Roy L. Price, the cow tester, was instructed to select a suit- able place and date for the demon- stration. Conditions on the Mazelin farm offered many inducements, in- cluding splendid co-operation on the part of the owner. All preliminary arrangements were planned by Roy Price, L. M. Busche, the county agent, and J. H. Hilton.

Discarded two-inch gas pipe was selected as the most economical and satisfactory material to use. The yard, which is located at the south- west corner of the barn, is 76 feet long and 30 feet wide. Aside from the labor required to set the posts, the total cost of material and fitting the pipe, including three strands of barbwire between each row of pipe, was approximately $45. Posts were set six feet apart. A breeding pen of similar construction is located at the entrance of the pen. In this way, all necessity for handling the bull is eliminated. A tree at the edge of the pen furnishes shade when the bull does not choose to remain in the stable.

Each year there are scores of good sires sent to the block which could be retained for a longer period of use- fulness if each dairy farm were equipped with a substantial bull pen. A small cost outlay and a little time, when work is not rushing, invested in a bull pen would return a handsome profit. There is an urgent need for more proved bulls in the Middle West at the present time.

G. A. WILLIAMS.

Indiana College of Agriculture.

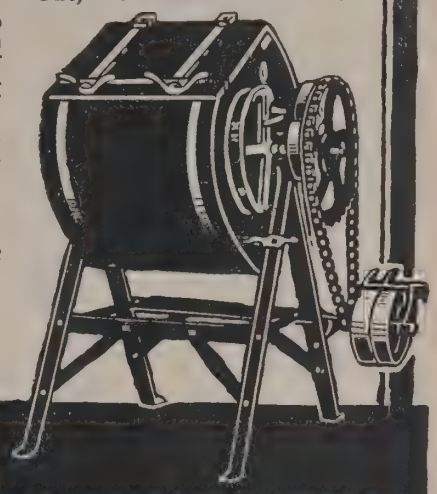


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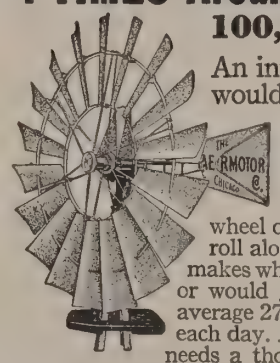
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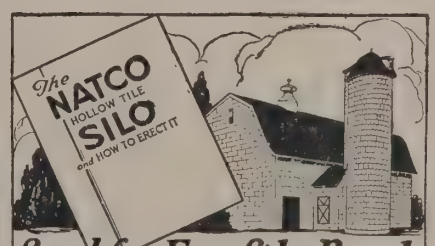


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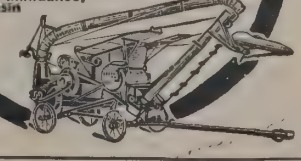
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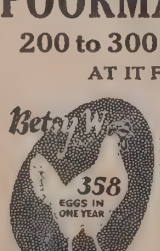
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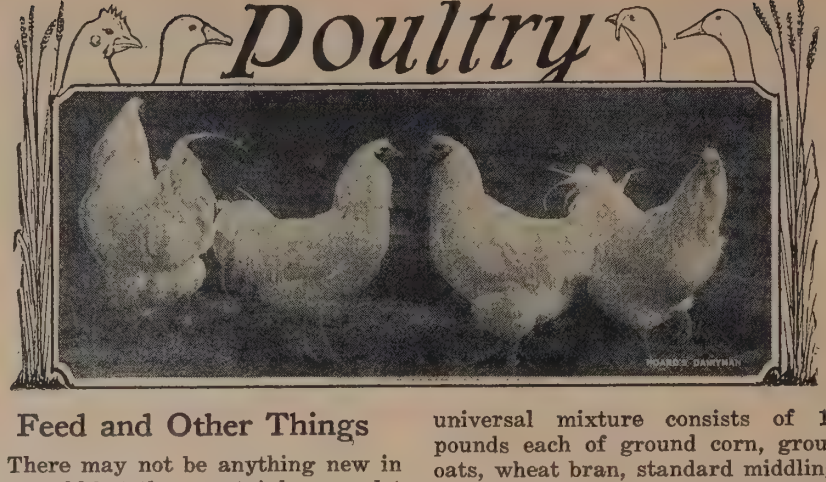
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Poultry



Feed and Other Things

There may not be anything new in the world but there certainly are a lot of the old things that demand constant repetition before much of an impression is made. If continued dripping of water can wear away most any surface, possibly constant telling may result in adaption of better practices. This fact is particularly applicable to the use of dry mash during the entire year.

Last week, before attending a meeting, a visit was made to the local farmers' feed mill. This is in an exceptionally good farming section and is typical of any of the better parts of any state.

A monthly record was kept of sales of all classes of feed. They do not handle any commercial feeds but either sell a locally mixed feed based on a standard formula or will grind oats, corn, or barley that the farmer may grow and add the other necessary ingredients required for a complete mixture. They will also mix any concoction that the farmer may desire.

The sales of laying mash feed follow: January, 11,575 lbs.; February, 13,550 lbs.; March, 10,150 lbs.; April, 7,175 lbs.; May, 4,725 lbs.; June, 4,350 lbs.; July, 3,925 lbs.

Egg production would in this case show the same trend because, although this was a dairy section, they produce whole milk or cheese and have no skimmilk or buttermilk as a source of animal protein. This record shows that feed is purchased when the egg price is high. Just as soon as the price drops the feed is also decreased, the ration is limited, production drops, and the cost of production is raised and the flock becomes unprofitable. Any flock can show some profit when the price of eggs is high and feed cost is low. When the margin between selling price and cost of production is decreased it becomes increasingly necessary to pay greater attention to efficiency. Dry mash feeding is one part of that program that one cannot afford to ignore or neglect.

Not only should this mash be kept in an open hopper available at all times, but during July and August a moist mash should also be fed at noon. This additional feed sort of concentrates production and results in one obtaining the last few eggs that a hen will produce that season in a shorter time. It is much like using some water to rinse out the milk pail. The regular dry mixture, moistened to a crumbly condition with milk or water and fed in an amount that the flock will clean up in ten to fifteen minutes, is sufficient.

In our state, as in most of the others in this section, probably not over ten per cent of the farm flock owners feed mash during the entire year. In Connecticut, which is a poultry section, not more than five people raising poultry in the state do not feed mash continuously. If it is profitable for them to do this when located in the section of high feed prices, it is profitable to do so in all sections.

Numerous mixtures are available and recommended. Probably the most universal mixture consists of 100 pounds each of ground corn, ground oats, wheat bran, standard middlings, meat scrap or digestive tankage, and one per cent of table salt. This means one pound of salt to each hundred pounds of mash mixture.

Colds

From now on until housed for the winter, it is not unusual to detect colds in the young flock. The condition is usually indicated by a sniffling, watery discharge from the eye or nose, and often swelling of the eye.

In great measure this is caused by improper management. Too often one forgets that as the pullets grow and develop the house must increase in proportion. One means by which this may be done is removal of all the cockerels and a second by transferring part of the flock to another house.

Roosting on the ground beneath the colony house or on the floor of the house should be discouraged. Early in the chicks' development is the most opportune time to train them to roost but it may also be done later.

The colony house should be well ventilated by opening the windows. Crowding caused by roosting on the floor or by insufficient number of perches may cause colds which can later develop into roup, pox, canker, and the other associated troubles.

To prevent any possibility of the other forms due to nutrition, one should feed liberally on yellow corn and also fresh, succulent green feed.

A treatment is always a mighty poor recourse. In this case if one is unfortunate enough to run into such trouble, Epsom salts may be used. This material can be given at the rate of three-fourths to one pound per hundred birds, dosage being dependent upon growth. Mature fowls usually get one pound per hundred and the rate is decreased in proportion to development.

It is, of course, unnecessary to stress the importance of final finish on a pullet which means having them in excellent physical condition with sufficient reserve to continue producing without interruption after having started.—J. B. HAYES.

Poultry Feeding Experiments with Soy Beans

Bulletin 147 of the Delaware Experiment Station by A. E. Tomhave and C. W. Mumford reports the results of two experiments as follows:

Soy beans for baby chicks.—Three pens of 350 chicks each were used for comparing protein supplements of meat scrap and dried buttermilk, ground soy beans and dried buttermilk, and ground soy beans. At 7 weeks of age the average weights of the males and females receiving the two types of animal protein were 1.020 and 0.957 lbs., while those receiving ground soy beans and dried buttermilk averaged 0.860 and 0.740 lb., and those receiving ground soy beans as the only protein supplement averaged 0.433 and 0.557 lb.

Ground soy beans in the ration for laying pullets.—Preliminary results of a comparative test of meat and ground soy beans as protei plements in a mash of laying showed that those receiving scrap laid larger numbers of eg consumed considerably more fe

Ten Years with Dairy

(Continued from page 883)

"You seem to be doing a go of it," we remarked. "What feed during the winter?"

"I feed silage twice a day, a will eat. I feed alfalfa or clov three times a day all they will make a grain mixture of groun ley, ground oats, ground corn and either linseed meal or feed. Right now it is gluten fe cause I am in the gluten feed c I feed this grain mixture 1 pou 3 pounds of milk produced. I aim to let a cow go down beca lack of feed. If I feed her rig then she don't make me a profit her and feel that I have bee with her. If I should not fe cows enough of the right ki feeds and they did not produc I think they ought to produce, my fault and not the cows' fau

"Your pastures are pretty burned up right now. What a doing to hold your cows up in p tion and flesh?" we asked.

"I am feeding grain," he

"Have you ever tried sweet for pasture?" we asked him b of finding out what his plans for solving the midsummer p problem.

"No, but I am surely going it. Right now this whole cou in bad shape because of these up native pastures. We've got something and sweet clover see be the answer."

Mr. Guildner's herd is now fifth year in the cow testing a tion. It costs him a flat rate a year. He said he could aff pay $100 a year rather than b out the knowledge gained t this work.

He hopes some day to have of pure-breds. What he ha with grades makes quite a ch to pure-breds. He will have of pure-breds and they will b ones because he will deman they make money for him. He how to find out how good th In fact his trump card is k how to make a real cow out someone else has failed with partly accounts for the produc is getting from grades.

In counting the difference b income and expenditures, M Mrs. Guildner are counting t when they will have a better and barn, a better herd of more comforts for themselve quate education for their c and a lasting satisfaction in k that they have done a hard p work in a successful way.



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Increasing the Effectiveness of Corn and Tankage

As a rule, winter rations for pigs are deficient in vitamin factors affecting growth and health. The Ohio Station has carried through several experiments to find out how these deficiencies may be corrected. A brief summary of some of this experimental work is reported as follows:

Limestone.—In the fourth experiment of a series dealing with the problem of increasing the effectiveness of a corn and tankage ration for winter feeding, 1½ per cent of limestone in the ration failed to improve it. Calcium carbonate was used in one of the four trials. A summary of the three, in which limestone was used, shows the addition of limestone to have increased the rate of gain 17.4 per cent, and to have lowered the feed cost 12 cents for each 100 lbs. of gain. A ration of corn and tankage is thus apparently slightly deficient in calcium for optimum growth.

Skimmilk.—The possibility of improving the quality of the proteins of a corn and tankage ration was suggested by the favorable results again secured by replacing a part of the tankage with a little skimmilk in a ration of corn, tankage, salt, and limestone. Much larger returns were secured for skimmilk when it was used in this manner than when it was fed as the only supplement.

Cod liver oil added to yellow corn, tankage, salt, and limestone at the rate of .5 pound in each 500 lbs. of feed produced more rapid growth, as well as a larger amount of growth from a given quantity of feed. Cod liver oil that had been treated to destroy its vitamin A content gave results similar to those from the untreated product. Pigs on yellow corn and tankage seldom show symptoms of rickets, nevertheless it seems probable that these feeds are too low in the anti-rachitic property for optimum development, although not appreciably deficient in vitamin A.

Alfalfa meal is regarded as a more practical feed than cod liver oil for swine. The mixture of tankage 2 parts, linseed meal 1 part, and alfalfa meal 1 part, again made an excellent showing. In this trial it gave cheaper and more rapid gains than a supplement of tankage only, or one of tankage and limestone. Limestone with tankage, linseed meal, and alfalfa meal did not reduce the cost but did still further increase the rate of gain. Linseed meal and limestone made a less effective supplement than the same feeds with alfalfa meal included. Bright green, third-cutting alfalfa hay was tried as a possible substitute for alfalfa meal. It was readily eaten, particularly during the early part of the test, and proved as efficacious as the alfalfa meal which also was of excellent quality.

Direct sunlight apparently has a beneficial effect upon growing pigs receiving certain rations. In one test two groups of pigs were given corn, tankage, linseed meal, salt, and limestone. One of these groups was confined indoors, the other housed and fed indoors but given access to a small outside pen with a board floor. The pigs having access to sunlight made the more rapid and economical gains. The difference in favor of the pigs having access to the outside pen was not great at first during the cloudy days of winter, but became more marked as spring advanced and there was a greater amount of sunshine.

Fermenting a ration of corn, tankage, salt, and limestone, and one of the same feeds plus linseed and alfalfa meals resulted in a little more rapid growth, and in slightly greater gains from a given amount of feed, but the saving was not sufficient to cover the extra cost when commercial yeast was used. Practically the same results were secured with self-propagated or home-grown yeast, but despite the fact that this method involves practically no expense it is doubtful whether the benefit derived will ordinarily pay for the extra labor required. A ration of yellow corn and tankage is apparently not deficient in anti-neuritic properties.

Milk and Coffee Drinking Survey

(Continued from page 882)

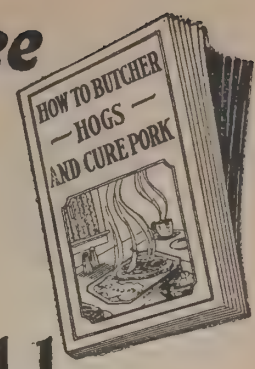
throughout the day in exactly the same manner as did the children of the larger groups previously discussed; that is, more of both the better class children and poorer children had milk for lunch than at any other time; more of them, rich or poor, took coffee for breakfast than for lunch or supper, and supper was the meal at which the least number of each of these two groups had either beverage.

"Every dairyman should weigh carefully these facts relative to the milk and coffee consumption in this community," states P. S. Brenneman, President of the Dairymen's Co-operative Sales Company, Inc., the milk producer organization in the Pittsburgh territory. "This information shows up more strikingly than ever before the need for more education among the public relative to the value of milk for physical health and mental ability. It points out our responsibility as an industry to the welfare of the children of our country and offers us an opportunity of increasing the net profits of the dairymen by teaching the public to use more milk in the fluid form."

A pamphlet containing more complete results of the survey together with charts picturing important findings may be secured upon request from the National Dairy Council, 910 South Michigan Avenue, Chicago.

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Holstein cows in carload lots for sale. Young, sound, close up, 50 to 70 lbs. a day. CARL WESTERHEIDE, Behnke Restaurant, Marshfield, Wis.

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Twelve registered yearling Holstein heifers. Well grown. Excellent type. HOMER DOPP, Oconomowoc, Wisconsin.

Three handsome Holstein heifer calves, $65.00 tested, crated. ALFAKORN DAIRY, Evansville, Wisconsin. 14-5

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Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Auction—September 27. Guernseys bred to sire of coming GGG Leader. J. SHUMWAY, Clear Lake, Wisconsin.

For Sale—Thirty-nine very high grade Guernsey heifers. 15 bred and balance open. F. J. GLANVILLE, Lancaster, Wis. 17-2

Summer Bargains in Guernsey bulls, heifers. FRANK KLEMM, Baraboo, Wis. 15-4

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Jersey Heifers and Cows—Will sell thirty out of herd of seventy. Your choice. COLD'S JERSEY DAIRY, Reinbeck, Iowa. 17-2

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Wanted—Two registered Jersey heifers 1 year old. J. S. SKINNER, Marcellus, Ky.

Holsteins or Guernseys Wanted. Due soon. 1,000 to 1350. Address BOX 507, care Hoard's Dairyman.

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Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

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Wont to Rent on shares by October first fully equipped dairy and grain farm with modern buildings. Lifetime experience. Age 33 years. Best of reference. Would prefer northern or central Wisconsin. H. J. F., 1711 North Albany Avenue, Chicago, Illinois.

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Experienced dairyman wants to lease large dairy. Wholesale or retail route. NEAL PLANTZ, Oil Hill, Kansas.

FOR RENT

Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. Go now and see the harvest. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

Wanted—To hear from a man who is capable of running a two hundred acre farm, on shares. All in good state of cultivation, have cut one hundred tons of hay this season, have twenty acres of corn, twenty-five acres of oats, also other crops. Tractor, horses and all machinery. Farm will handle sixty cows and is located near Scranton on State road. Man must be able to furnish some stock. F. E. PAYNE, Dalton, Lackawanna County, Pa. 18-3

For Rent—Fully equipped dairy farm. Good market. University town. DR. W. H. DONOVAN, Iowa City, Iowa.

FARMS WANTED

Want 200 to 400 acres near school. WALT. MILLER, Carpenter Bldg., Milwaukee.

DAIRIES

For Sale—Controlling interest with manager's position in modernly equipped milk and ice cream plant in best dairy section in Florida. $8,000. Address BOX 499, care Hoard's Dairyman. 18-2

For Sale—Splendid dairy opportunity for experienced dairyman; good terms; write for particulars to ILLINOIS SALES COMPANY, Lock Box 275, Quincy, Illinois.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

TOBACCO

Homespun Tobacco—Guaranteed good flavor. Chewing 5 lbs., $1.00; 10, $1.75. Smoking, 5 lbs., 75c; 10, $1.25. Pay when received. FARMERS' UNION, Mayfield, Kentucky. 18-2

AGENTS WANTED

Agents—New Plan, makes it easy to earn $50.00 to $100.00 weekly, selling shirts direct to wearer. No capital or experience needed. Represent a real manufacturer. Write now for Free Samples. MADISON CORPORATION, 564 Broadway, New York. 5-Spl

Agents—We start you in business and help you succeed. No capital or experience needed. Spare or full time. You can earn $50-$100 weekly. Write MADISON CORPORATION, 564 Broadway, New York. 18-11

BUSINESS FOR SALE

A Real Bargain—Blacksmith shop for wife's health forcing sale. A dandy stand. petition. Good building. Only takes $10 make the deal. Act quick. Write LOCK B Greenwood, Wisconsin.

TESTERS WANTED

Testers Wanted—10 testers wanted Octobe November 1. Prefer single men with trainin ricultural school or as assistant herdsmen w dairy cow feeding, milk testing and record Salary $900.00 per year and up, plus board. experience, two references in first letter. Wri CRAMER, Madison, Wisconsin.

Iowa Cow Testing Associations need teste ary $900 per year and up, plus board. courses offered. Give age, experience, refere letter. DAIRY EXTENSION, IOWA STAT LEGE, Ames.



Advertising in this department is 8c per Remit in advance.

HELP WANTED

Wanted—Single herdsman to have charge head Holsteins, and be working foreman barn and milk house. All modern equipmen have knowledge and experience in feeding and producing clean milk. References requir character and ability. Give age, experier wages expected. Farm located in McKean Address BOX 506, care Hoard's Dairyman.

Wanted—Young married man by December reliable and able to do any part of the work dairy farm producing and retailing 150 gallon A milk. Will also have job open on milk the right man that can qualify and give sma Apply with references, salary expected to B care Hoard's Dairyman.

Wanted at once a working farm foreman for Wisconsin on a modern dairy and grai Must be good tractor and all around farmer have excellent references. Not over 40 ye Address JAMES SCANLAN, 306 City Hall, Illinois.

Wanted—Married man and wife by year good milkers. House, light, heat, fruit, pota milk provided. All conveniences. Wages month to start. Position open now. W. B & SON, R. 3, Canton, Ohio. Phone Co 94

Wanted at once—Married man experienced and also farm work. Modern equipment. hustler, neat and sober. Good wages, and p New England or New York man only. LANE FARM, Kinderhook, N. Y.

Middle aged married man without children and dairy work. Machine milking, steady $75.00 per month, milk, fuel, light. Furnishe BOX 1616, Butte, Montana.

Wanted—Energetic young woman, capable and farm worker. Farm operated by women pay and living conditions. Jersey herd. MISS I. H. OGILVIE, Airlie Farm, Bedford

Help Wanted—Single dry hand milkers. G ing conditions; chance for advancement. Can married men with small families. HARTMAN FARM, Columbus, Ohio.

Wanted—Experienced creamery man, ma single, who understands all branches of wor clean milk is produced for city distribution. proposition for the right man. Address B care Hoard's Dairyman.

Wanted—Farm manager who will take som cial interest in finest clear dairy farm close 400,000. Desire to produce certified milk. state. Address BOX 500, care Hoard's Dairy

Wanted—Single experienced man for assis dairy barn on large Holstein farm 50 miles fr cago. Dependable worker, clean milker, BOX 504, care Hoard's Dairyman.

Farm superintendent on farm west of Lake Illinois, 200 acres. Highest of reference Must be married. Address BOX 505, care Dairyman.

Wanted Immediately—Experienced herdsm test cow milker. Must be good feeder and kno work. Married. Registered Guernsey herd. BURG FARMS HERD, Foxburg, Pa.

Wanted—Three good dry hand milkers to large modern dairy farm. One of the thre willing to care for dairy work. REYMANN M IAL FARMS. Wardensville, W. Va.

Wanted—Thoroughly competent married he pure bred Guernseys. Apply, SUPERINTE La Belle Knoll Farm, Oconomowoc, Wis.

Firemen, Brakemen, beginners $150-$250 railroads everywhere (which position?). RA ASSOCIATION, Desk M-10, Brooklyn, N. Y.

Wanted—Milk wagon driver. State experie give reference. Do not answer unless you c duce results. FARWAY DAIRY, Hallandale, F

POSITIONS WANTED

Wanted—Position farm manager. Experie large propositions. Understand thoroughly c feeding of all classes of live stock. Expe mechanic. Can build up run down soil. W one or more unprofitable farms and put on basis on small salary plus commission. G NICHOLS, R. 4, North Milwaukee, Wis.

Position Wanted as Manager modern Holstei Understand the dairy business thoroughly a duction of high grade milk. Have been i business for years. Would accept a profit basis plan. Married, best of references as to ter and ability. Prefer southwest. Addres 486, care Hoard's Dairyman.

Herd Manager—Woman, experienced and ca handling purebred herd; breeding, feeding, ca ing, and the production of Grade A milk. sought where results are expected and where ful application to the work will be appreciate cellent references. Address BOX 510, care Dairyman.

Hollander wants position as working man herdsman on up-to-date dairy farm. Life ex in all dairy lines. Prefer certified dairy. trained. Have been running a hundred cow d city production for myself in the South. St ticulars in first letter. Address BOX 494, care Dairyman.

Position Wanted—By married man, small as farm manager or herdsman on modern da producing Grade A milk. Familiar with fe feeding, general farming, also testing. Good No bad habits. Wife willing to board help. BOX 501, care Hoard's Dairyman.

Position wanted as herdsman. Age 35. Exp in A. R. O. work, certified, milking machine feeder and calf raiser. In charge of herd at stitution 8 years. Very best references. Stat in first letter. Address BOX 498, care Dairyman.

Position wanted as manager or herdsman. M son 21; life time practical experience live st grain farming, show ring, A. R., Grade A.. C son dairyman, truck or tractor operator; lea help; no liquor, cigarettes; reference. Addre 508, care Hoard's Dairyman.

Wanted—Position as herdsman or farm man married man. Understands feeds and feedin duction clean milk. No children. Wife to boa Experienced in institutional work. Not af work. Address BOX 495, care Hoard's Dairy

Man, single, steady, sober, wishes work with lic people on farm in Illinois. $65.00 a mont dress BOX 502, care Hoard's Dairyman.

POSITIONS WANTED

ted—Position as manager by young married College graduate. Experienced advanced registrm crops, certified milk. Address BOX 496, loard's Dairyman.

faman or test milker wants position. Years exe with test cows and also very good calf raisvailable October first or sooner. Address BOX are Hoard's Dairyman.

tion Wanted—As farm manager stock or Holdairy farm. Lifelong experience farming, breedid feeding cattle. German, age 35, married, ces. Address BOX 511, care Hoard's Dairyman.

le young man, Catholic of good habits, exed dry hand milker desires work on modern farm. State wages and living conditions. Write 509, care Hoard's Dairyman.

tion Wanted—By Swiss herdsman, married. Or ent modern farm on shares. A. STEINER, 2, Ridott, Illinois.

erienced herdsman wants place for self and two Capable taking full charge any size dairy. C. C. . R. 2, Box 278, Atlanta, Ga.

erienced herdsman and dairyman, middle-aged, Best of references. Address BOX 497, care 's Dairyman.

ted—Position on modern farm by experienced d man, 42 years old, with four high school R. SLAWSON, R. 1, Jefferson, Wis.

skeeper, with boy 10 years old, wants position ry farm. H. P. BRAN, Fetterly Bros., R. 2, ro, Wis.

alfa Pasture Saves Money

(Continued from page 907)

cow in August, plus $1.80 for 3.1 fat, a gain of $2.25 per cow.

A. Hart, owner of the herd in Richland Association of Wisconsays he can grow alfalfa on every e of land on the farm and he sure that no farmer can grow much alfalfa. When bluegrass , alfalfa or sweet clover pasture keep cows in good condition with grain and still maintain continual uction.

ne Richland Calf Club made a t showing at the county fair. nty-eight calves were exhibited as individuals, condition, train- and showmanship were equal to ig shows. In the open classes of rge a show of cattle as ever exenced in Richland County, the club won five firsts, a junior champion, one second, and two thirds. Calf club work has made a hit with the members of the association. PETER NELSON, Tester.

Feed Market Situation

(Continued from page 900)

ers and sellers rather widely apart in their ideas of prices.

Tankage quotations were unchanged. Demand at Chicago seems to be in rather small lots but inquiries were reported from a wide territory and the market appeared firm, offerings removing readily at Missouri River markets.

Quoted September 7

Standard spring wheat bran: $30 Buffalo, $33.50 Philadelphia, $28.75 Chicago, $26 Minneapolis. Hard winter wheat bran: $32.50 Buffalo, $35 Philadelphia, $32 Cincinnati, $28.75 Chicago, $27 Omaha, $26.50 Kansas City. Soft winter wheat bran: $33.50 Buffalo, $35.50 Philadelphia, $32 Cincinnati, $29 St. Louis.

Standard wheat middlings: $38 Buffalo, $39 Philadelphia, $35 Chicago, $32 Minneapolis.

Soft wheat middlings: $41.50 Buffalo, $46.50 Philadelphia, $44 Cincinnati, $39 St. Louis. Gray shorts: $41.50 Buffalo, $36.50 Omaha, $35.50 Kansas City.

Cottonseed meal (43%): $46 Buffalo, $47 Philadelphia, $44 Cincinnati, $44 Minneapolis, $44 Omaha, $43 Kansas City, $37 Fort Worth.

Linseed meal (34%): $47 Buffalo, $50 Cincinnati, $48.50 Chicago, $46.50 Minneapolis, $51.10 Omaha. Gluten feed: $39 Buffalo, $40.20 Philadelphia, $34.20 Chicago. White hominy feed: $42.50 Buffalo, $44.50 Philadelphia, $42 Cincinnati, $37.50 St. Louis, $39.50 Chicago, $37 Omaha. Alfalfa meal No. 1: $25.50 St. Louis, $26.50 Chicago, $22.50 Omaha, $23 Kansas City.

Judging Dates

Dairy Cattle Congress

Sept. 27—Brown Swiss, C. S. Rhode; Guernseys, W. W. Yapp.

Sept. 28—Brown Swiss and Guernseys completed; Jerseys, C. H. Staples.

Sept. 29—Jeseys completed; Ayrshires, L. V. Wilson; Holsteins, H. H. Kildee.

Sept. 30—Ayrshires and Holsteins completed.

DISPERSION SALE — J. W. Burbach Herd

40 PUREBRED HOLSTEINS (Herd Federal Accredited for 8 Years)

Wednesday, Oct. 5 - at the farm - Waukesha, Wis.

SALE OF FARM MACHINERY AND CROPS IN FORENOON.
FREE LUNCH AT NOON. CATTLE SALE IN AFTERNOON.



KING PIETERTJE CLOTHILDE ORMSBY
493728
(To Be Sold)

Dam has 27 lb. record. Grand champion bull Waukesha Dairy Show, 1927. Full sister was highest U. S. heifer National Dairy Show, 1926.

Farm is located on U. S. Highway 18—5½ miles east Waukesha. 10 miles west of Milwaukee.

One of the best Opportunities of the year to buy foundation animals from a breeder.



QUEEN ORMSBY PRINCE 1127496

2nd prize Sr. heifer calf Wisconsin, 1927. 1st prize Sr. heifer calf Waukesha County Calf Club round up.

HERD INCLUDES—14 daughters of Pietertje Prince Clothilde, sire of animals in photos, from 1 month to 2 yrs. old and 4 sons from 5 months to 1½ years old. 18 animals milking age all with records up to 500 lbs. fat in C. T. A. or up to 27 lb. official record in 7 days.

Auctioneers—HAEGER & WALKER

Write for catalog to W. L. BAIRD, Sales Manager, WAUKESHA, WIS.

BEARDSLEY FARM DISPERSAL SALE!

WOOSTER OHIO WED., OCTOBER 12

31 GUERNSEYS — The Famous Paul Poster Family



PAULINE OF SHADY LAWN

A truly wonderful Herd

Ohio has never sold better cattle

Production of 12 cows with records averages 617 lbs. butterfat including Pauline of Shady Lawn, 18,218.6 lbs. milk, 912.3 lbs. fat. 2 bulls; 3 bull calves; senior sire, Dairy Maid's Warriot of Shuttlewick by Warrior of Destiny A. R., and out of Dairy Maid Queen of Spring Hill, 1,011.2 lbs. fat. Junior sire, Bleu-Bell's Cherub of Barkrest has 785 lbs. class D dam and is grandson Ladysmith's Cherub.

THIS SALE OFFERS REAL FOUNDATION STOCK

Auctioneer — Walter F. Andrews — Catalog only upon request

— *Sales Managers* —

OHIO GUERNSEY BREEDERS' ASSOCIATION, WOOSTER, OHIO

REGISTERED HOLSTEINS

Fifth Annual Sale — FLINT HILL FARM

THURSDAY, SEPTEMBER 29

Offering About Twenty-Five Head Selected to Supply a Variety of

Foundation Stock from the Big Families of Holsteins

COWS, BRED HEIFERS, HEIFER CALVES, BABY BULLS

Lunch on grounds, picnic accommodations. You are invited. J. E. Mack, selling

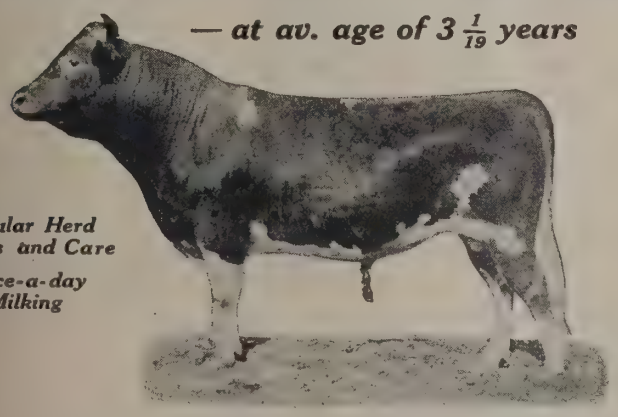
FLINT HILL FARM On Grant Highway, R. 5 One mile east of . . . Elizabeth, Illinois

His First 19 A. R. Daughters Average 422 lbs. fat and 8739 lbs. milk

— at av. age of 3 1/19 years

— Regular Herd Rations and Care

— Twice-a-day Milking



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. °K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money.

PLAN NOW FOR THE FUTURE !

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

KEEP TAB ON YOUR COWS!

Send 5c in stamps for samples and prices of our weekly and monthly **MILK RECORD SHEETS**

Hoard's Dairyman **Fort Atkinson, Wisconsin**

SALE ANNOUNCEMENTS

Sept. 27—Guernseys. J. Shumway, Clear Lake, Wis.
Sept. 28—Guernseys. Blue Earth County Guernsey Breeders' Sale at Mankato, Minn. Dr. M. B. Wood, Mgr.
Sept. 29—Holsteins. Flint Hill Farm, Elizabeth, Illinois.
Sept. 30—Guernseys. George C. Stone, Pawling, N. Y. The Herrick—Merryman Sales Co., Sale Managers.
Oct. 3-4—Holsteins. Dispersion of Hollyhock Farm Holsteins at Dousman, Wis. Melin—Petersen Co., Minneapolis, Minn., Sale Mgrs.
Oct. 5—Holsteins. J. W. Burbach Herd, Waukesha, Wis. W. L. Baird, Sale Mgr.
Oct. 5—Louis Merryman's Second Annual Grade Sale, Timonium, Md. The Herrick—Merryman Sales Co., Mgr.
Oct. 6—Jerseys. Dispersion of Vergewood Jerseys at Holmen, Wis.
Oct. 6—State Guernsey Sale, Minnesota State Fairground, St. Paul, Minn. Dr. M. B. Wood, Mankato, Minn., Mgr.
Oct. 6-7—Louis Merryman's 17th Semi-annual Sale, Timonium, Md. The Herrick—Merryman Sales Co., Mgr.
Oct. 8—Jerseys. First Annual Sale of Ravine Farm Jerseys at Prairie View, Ill. A. Lawrence Mills, Owner.
Oct. 12—Ayrshires. Consignment Sale of Edgerstoune and Monstone Farms Ayrshires at Springfield, Mass. J. G. Watson, Sale Mgr.
Oct. 12—Holsteins. A. M. Brush & Son Dispersal 60 head Registered Holsteins at Mankato, Minn. Melin—Petersen Co., Sale Mgr.
Oct. 12—Guernseys. Beardsley Farm Dispersal, Wooster, Ohio. Ohio Guernsey Breeders' Ass'n., Sale Managers.
Oct. 20—Guernsey Dispersal. Spillers & Executrix, Versailles, Ohio.
Oct. 24-Nov. 5—Holsteins. Wisconsin Holstein Sales Ass'n. Sales. James R. Garver, Madison, Wis., Mgr.
Oct. 24—Holsteins. Iowa Holstein Breeders' Association sale at the Dairy Cattle Congress grounds, Waterloo, Iowa.
Oct. 26—Holsteins. Sixth State Sale, Michigan State College.
Oct. 26—Holstein. Dairy Center Sale at Owatonna, Minn. Melin—Peterson Co., Sale Mgrs.
Nov. 1-2—Holsteins. Dispersion of Loeb Farm Holsteins at Grand Rapids, Mich. Melin—Petersen Co., Minneapolis, Sale Mgrs.
Nov. 3—Guernseys. Wisconsin State Guernsey Sale at the Sale Pavilion at Waukesha, Wis. Gavin W. McKerrow, Sec'y., Pewaukee, Wis.
Nov. 8-9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H. Bird, Mgr.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.
Nov. 30—Guernseys. La Crosse Co. Guernsey Breeders' Sale at West Salem, Wis. H. W. Griswold, Sale Mgr.
May 23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florham Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
May 24-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herrick—Merryman Sales Co., Mgrs.
May 26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hopewell Junction, New York.
June 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.

Watch Our Special Opportunities Page for Real Farmers' Bargains

Calf Scours



Abortion



Retained After Birth

CALF SCOURS is easily prevented and controlled by disinfecting new-born calves with dilution of B-K, and feeding them a little B-K. Get our book on Scours.

For removing **Retained Afterbirth** B-K in warm water loosens adhesions, stops inflammation, prevents fever and odors. The afterbirth comes away naturally; the parts are restored to health.

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How to deal with diseases of cattle, poultry and hogs, is thoroughly covered in our free book.

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All Livestock and Poultry Healthy

Kills Lice, Mites and Fleas. For Scratches, Wounds and common skin troubles.

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"Diseases of the Dog and How to Feed"

Address

H. CLAY GLOVER CO., Inc.
Dept. J. N. 71, 119 Fifth Ave., N. Y.

GLOVER'S IMPERIAL DOG MEDICINES



Heaves, Coughs, Condition-er, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.

The Newton Remedy Co.
Toledo, Ohio.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

The Bleeding Bull

It occasionally happens that bleeding takes place from the urethra of the penis just after service. The bleeding may be slight, coming in drops or little dribbles; but sometimes the blood flows freely and the hemorrhage continues for some time. We have even heard of a case in which the bleeding proved persistent, could not be stopped by treatment, and eventually caused death. The bleeding, no doubt, is due to rupture of a small blood vessel during engorgement of the penis with blood. In most instances we think the blood vessel is located in the penis, probably close to its free end, but in some cases the blood comes from the prostate gland, or possibly from the bladder. Overservice may be the cause. In one case, recently reported, the bull had been used for service from the time he was 9 months old and was, at the time, being used almost daily in a large herd. One or two services in succession were allowed, which is a serious mistake. It is also inadvisable to use a bull for service before he is at least 18 months of age and when he is used at that age he should not be allowed to serve more than 8 or 10 cows, or give more than one service at a time of heat.

Not only does too early service tend to cause partial or complete sterility or impotence; it may weaken the generative organ and make bleeding more likely to occur from rupture of a blood vessel. Overservice is even more likely to have that effect, as the blood vessels of the organ become distended, sometimes varicose, and in time have their walls weakened to such an extent the rupture readily occurs during engorgement. Judicious use of the bull is advisable both as regards the effects of service on the cows and the effect of it upon the bull. Light service during the early years of life conserves the powers of the bull, enhances his powers of procreation, insures stronger progeny, and keeps the animal fertile and potent for many years.

When bleeding occurs after service and is not found to be due to a superficial wound which is readily healed, the bull should be retired from service for at least 2 months and during that time should live on a light, laxative ration and take plenty of outdoor exercise, away from the cows, on every fine day. Treatment to stop the bleeding should consist in the application of cold, wet compresses to the small of the back and at the same time cold water should be continuously applied along the course of the penis. Cold water may also be injected into the sheath. If the penis is prolapsed and pendulous it should be supported with a bandage around the body and be kept saturated with cold water and vinegar. At the same time the veterinarian will give internal treatment with a drug that has the effect of constringing the blood vessels and stopping hemorrhage. Ergot is generally used for that purpose.

Warts on Teat

I have some pedigreed heifers with warts massed on teats, some large. These are so closely connected to teat that it is not possible to cut or tie. Is there something I can dress same with which will not harm teat?

Blandford, England. J. T. Y.

Masses of small warts will come off in time if the teats are immersed twice daily in warm water containing one tablespoonful of washing soda per cup or frequently are bathed with the solution. We also advise covering the affected parts each evening with a thick paste of cold-pressed castor oil, salt, and flowers of sulphur. Oil of white cedar (Thuja), or an ointment of it, is also effective for the removal of such warts.

Moldy Silage

I lately read complaints concerning silage spoiling in cement blocked silos. I have had a similar experience. Our corn in 1925 was frosted before it was quite mature. We put it up promptly with great care in wetting and packing it down. We ceased feeding the ensilage January 15, 1926, and resumed feeding in November, 1926. We have found that there is irregular molding all the way down and very little of the silage looks as it should.

We have fed this silage to the cows and one of them happened to get sick at this time about the last of April. We had another die about the same time with what the veterinarian said was milk fever; a dead calf was removed from her.

May I ask if molded silage may be fed with reasonable safety in moderate quantities or if it is always toxic and dangerous?

Chicago, Ill. C. G. B.

Moldy silage must be considered possibly dangerous, as it may contain the germ known as *Bacillus botulinus* which causes botulism. Often it has been fed, however, without apparent harm to cows, but one never can be sure that that will prove true. It is considered most dangerous for horses We have had no experience in feeding it to hogs. Dr. Robert Graham, veterinary pathologist of the Illinois Experiment Station, at Urbana, has done special research work on the subject and has published an instructive bulletin on botulism which should be studied. He also prepared an antitoxin which is fairly effective as a preventive of botulism and has also some curative value. If fed at all, the damaged silage should form but a small part of the ration along with sound roughage and concentrates and even then we cannot guarantee that it will not prove injurious.

What is a Heifer?

At what age does a heifer become a cow or is recognized as a cow?

West Salem, Wis. W. T.

It is usual to apply the term heifer to the female of the bovine race up to breeding time and until maturity at four years of age when the animal becomes a cow.

AYRSHIRES

PENSHURST AYRSHIR

Accredited certificates recently renew both tuberculosis and abortion. 235 tested. Penshurst Man O' War hea herd. His dam is world's champion A producer and reproducer. Sire's da champion (their records average 24,0 milk.) His progeny is excellent. Wi for the best in Ayrshires.

PENSHURST FARM, Narbert

PROFITABLE — PRACTICA

AYRSHIRE

The home of Mistress Thistle of South Farm, Champion Jr. 4 yr. old, and Boggie of Eastsid Champion and ex-World's Champion R. of 3 yr. old. Each of these famous cows has a service in our herd. If you want bull calves big, heavy producing cows with long teats, at able prices, write us. Federal Accredited Her

SYCAMORE FARMS, Douglassville, Berks

AYRSHIRE BULLS-$35 an



Edgerstoune Wide Awake

Nicely marked, deep bodied, bull calves from dams with lbs. milk or better. By such Edgerstoune Wide Awake Howie's Wait and See, Imp. Ringmaster and Imp. Beauty Champion, sires th over 15,000 lbs. milk back for 5 generations. Bulls ar low because we need the room. $35.00 and u under State and Federal supervision. Write.

BOOTHSTOCK FARM, Roy F. Booth, Mgr., North

AYRSHIRE COW

FULLY ACCREDITED

300 Head in the H

Present offering: Fresh cows—spring calf to our noted herd sires—yearling —heifer and bull calves.

ALTA CREST FARMS, SPENCER, MASSACHU

GLEN FOERD FAR

TORRESDALE, PENNSYLVANI

AYRSHIRE BULL—Born: June 24, 1927. Colo with red spots. Sire: Penshurst Rising Star, 2 R. 260, with 38 daughters having 52 records a 10,900 lbs. milk, 441 lbs. fat, 4.04%; winne French Cups, 1 Gold Medal, 1 Association Cu Silver Medals. Dam: Good Jessie, 46271, Medal Winner with the following records: Cl 10,991 lbs. milk, 461 lbs. fat, 4.20%; Class B 1 lbs. milk, 518 lbs. fat, 4.14%; Class A, 14, milk, 602 lbs. fat, 4.20%.

Six World's Records in Six Years

Spring Valley Ayrsh

(Accredited Herd)

BULLS FOR SALE

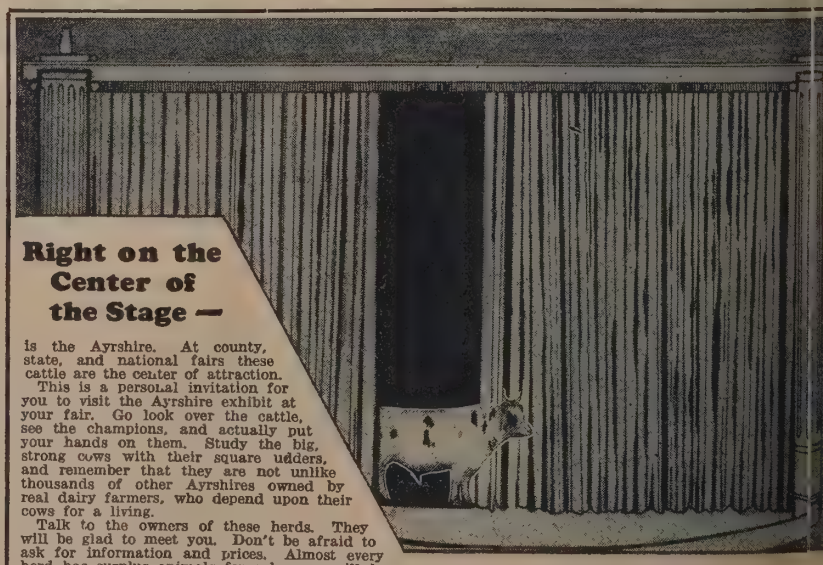
We still have for sale a few good bulls, with the best of type, backed b breeding and production. Priced rig

SPRING VALLEY FARM, Warr

Purebred Ayrshire Cattle For S

Herd headed by a full brother to our two-a State Champion heifer, 13,280 lbs. milk, 475 in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Cent



Right on the Center of the Stage —

is the Ayrshire. At county, state, and national fairs these cattle are the center of attraction.

This is a personal invitation for you to visit the Ayrshire exhibit at your fair. Go look over the cattle, see the champions, and actually put your hands on them. Study the big, strong cows with their square udders, and remember that they are not unlike thousands of other Ayrshires owned by real dairy farmers, who depend upon their cows for a living.

Talk to the owners of these herds. They will be glad to meet you. Don't be afraid to ask for information and prices. Almost every herd has surplus animals for sale; you will be surprised how reasonably they may be bought. If you can't get what you want from the exhibitors at your fair, or if you wish for further information, write to

AYRSHIRE BREEDERS' ASSOCIATION

10 Center Street BRANDON, VERM



Now is the Time **All wise Dairy get their or placed for Baled Shavings.** They are plentiful now and can be bought at a reasonable price. Don't wait until the are scarce and high and be left without them. Write us t and reserve a shipping date and it will save you mo

FRANK MILLER & SONS *(The Sawdust Millers)* **3613 Auburn Ave., Chicago**

Buy from Hoard's Dairyman advertisers. They are reliable

Our Rural Schools

(Continued from page 881)

ion of successful farms, show a d determination and strength haracter unsurpassed by other s. The station they have ed has demanded of them the ighest mental, moral, and phys- qualifications. Looking again it picture of the Michigan farm n Hoard's Dairyman, I would hat the school he went to has omething to do with his pride in life. It may be possible to find en with a cityfied education on ssful farms, but not likely. system of education that trains and girls away from industry work and makes them parasites as economic production is con- d, is an intolerable evil. If you to know where to find the fu- residents of the United States, ory is to repeat itself, you will nd them yonder in some great sity, nor lounging in the Pea- Alley of some great hotel, but ill find them out in the great sippi Valley doing chores on rm, doing the common things to the best of their ability, do- em in such a way as to inspire nfidence of those about them in tegrity of their character. If s what it takes to be a 'hick,' he more 'hicks' we turn out of hools, the better we will be." o said that? Some old grouch farmer? Not at all. John J. , National Commissoner of tion, said that and enough like it to fill a column at a re- t state teachers' convention. are only two excuses imagina- r a man to talk that way. One t he believes in what he says, e other is that he thought such might do the teachers some

outh we have our troubles be- s; in age we leave pleasure be- —Proverbs of Ireland.

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REGISTERED ABERDEEN ANGUS CATTLE
CHOICE INDIVIDUALS
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al quality, production considered.

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xtra large production in a herd of le cows may be gained by breeding a Brown Swiss bull. They sire ng calves of a uniform type, well ted for the general dairy farm. ure bulls weigh between 1,800 and 0 lbs.

e will be glad to help you secure a wn Swiss bull and, if you desire, a er or a cow.

WN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

E'S HILL FARM
MORRISTOWN, N. J.
ROWN SWISS
(The Former Kinnelon Herd)

es for sale from the famous Kinnelon dams. O. P. records, sired by Nellie's Stasis, 6721. ng combination of show type and production none in this country. Let us know your Herd fully accredited.

JERSEYS

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

JERSEYS

Jap and Gamboge Strains

Heifers of all ages for sale.

Accredited herd. Priced to sell.

SPENCER W. & LAURA A. HINDES
Orchard Home Farm, Kinderhook, N. Y.

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

Dispersal - 40 Head
REGISTERED JERSEYS
THURSDAY, OCTOBER 6th
at Farm 17 miles north of La Crosse on Fed. Trunk 53.

Daughters of four different grandsons of Fauvic's Prince, the greatest sire of the breed. Daughters of Marie's Nobleman, Rozel's Oxford Majesty, Harbinger's Chief. Herd Sires: G. M's. Wrioh, sired by a full Brother to Fauvic's Nic Nac 759 lbs. fat. His dam, Golden Maid's Jewel 705.3 fat. Combine Rustique's Cid, 3 yrs., out of the dam of Fauvic's Rustique that made 850 lbs. fat at 3 yrs. and a M. of M. 19 cows in milk, including the show cow Viola's Hayward Belle. 5 two year old heifers. Yearlings and heifer calves by Fauvic's Physgills' Cid. Fed. Accredited herd. In C. T. A.

VERGERONT AND JOHNSON, Holmen, Wis.
For Catalog Write
GLEN W. VERGERONT, Mgr., BARRON, WIS.

Jersey Bulls of Serviceable Age

Also bull calves and a few springing heifers strong in Vive La France blood lines. Priced to sell. Herd Federal accredited.

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Tell the advertiser you saw his advertisement in Hoard's Dairyman.

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Good, pure-bred Jersey bulls give their daughters desirable type and the ability to produce economically and profitably. They provide the shortest road to success in dairying.

We will be glad to assist you in locating good Jersey sires. Send for free booklets on Jerseys and profitable dairying.

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324 West 23d St., NEW YORK, N. Y.

PREMIER JERSEY BREEDER and EXHIBITOR
at the Wisconsin State Fair, Milwaukee
WON BY "THE OAKLANDS" HERD FROM MICHIGAN

THIRTY-ONE PREMIUMS won by 21 Jerseys from "The Oaklands," including first for Dairy Herd, four cows in milk.
FIRST PRIZE FOR "GET OF SIRE" taken by offspring of Oxford Sultan of Oaklands, our premier service bull for four years.
FIRST PRIZE FOR "BREEDER'S YOUNG HERD," all bred at "The Oaklands" and close descended from Oxford Sultan of Oaklands.
GRAND CHAMPION COW, Senior Champion bull; First Prize in three mature bull classes, won by three sons of Oxford Sultan of Oaklands.
AT THE OHIO STATE FAIR, The Oaklands Jerseys won more prize money than any other exhibit. Both Grand Championships Eight First-Prizes, including Dairy Herd and Graded Herd; First and Second aged cows, First 3-year-old cow, all won by daughters of "Forward," our herd sire, grandson of Oxford Sultan of Oaklands.

A. H. GOSS, Pres.
GEORGE C. COOPER, Mgr.
THE OAKLANDS
P. O BOX 396
Ann Arbor, Mich.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Easton Farm
-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

"SYBILS and MAJESTYS"

No. 1—SYBIL'S COMET—A real Star. A Jan., 1927, solid colored bull calf. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Granddaughter (double)—Sybils Gamboge.
No. 2—RENOWN'S ROYAL OXFORD—A March, 1926, solid colored bull of quality and size. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Majesty bred with record of 492 lbs. butterfat.

CEYLON COURT FARM
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

A "Testimonial"

A prominent breeder in Wisconsin bought a bull from us in October, 1924. Under date of July 11, 1927, he wrote us as follows:

Ravine Farm, Prairie View, Illinois.
Gentlemen: The bull which I purchased of you has proven very successful. I now have ten of his heifers and am looking for his successor. Have you anything around a year old? (Signed) J. A. Martin.

We have just sold Mr. Martin a new herd sire of excellent breeding. Send for our circular describing the Jersey bulls which we have for sale at the present time.

Herd Accredited and Free of Abortion
RAVINE FARM, Lake Co., PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle
Established 1913

JERSEY BULL

Dropped Feb. 18, 1927, solid color, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

AMBERG FARM, HILLSBORO, WIS.

FIRST PUBLIC SALE of RAVINE FARM JERSEYS
PRAIRIE VIEW, Lake Co., ILL., SATURDAY, OCTOBER 8

FIFTY-FIVE HIGH-PRODUCING "RALEIGH BRED" REGISTERED JERSEYS — COWS, HEIFERS and BULLS



THE OWL'S MAY BLOSSOM, 402743
Class AAA Champion Junior four-year-old of the State of Illinois for the year 1921—The dam of one of our future herd sires.

Twelve heavy producing cows and heifers recently fresh; twenty-three cows and heifers to freshen from October to April.

Sires represented are **Meridale Cowslip Jap 135642,** until recently the only living son of The Imported Jap, 75256; **Sayda Rose's Jap 166586,** grandson of The Imported Jap; **Fern's Xenia Sultan 233032; You'll Do Handsome Raleigh 174340; Raleiph's Bright Prince 163966; Peter The Great Pennithorpe 194829** and **Raleigh's Jolly Golden 210509,** half brothers and out of Raleigh's Maggie, 389426, a high producing daughter of Pennithorpe's Raleigh.

Nine open heifers and four calves mostly sired by Meridale Cowslip Jap and Fern's Xenia Sultan. Seven "Raleigh Bred" bulls ready for service. Ages one to three years, including a son and two grandsons of Meridale Cowslip Jap; one son of The Cid's Fontaine and others.

This is not a closing out sale. It is an offering of carefully selected "RALEIGH BRED" JERSEYS that will appeal to you as a breeder.

Our herd numbers over 100 head, the largest in Northern Illinois, if not in the whole state. Attend the Sale and see for yourself what we have been doing for the last fourteen years.

Herd Federal Accredited.

Send for Catalogue to RAVINE FARM, PRAIRIE VIEW, ILL., A. F. Block, Sale Mgr., Route 6, Waukesha, Wis., or to Col. W. F. Andrews, Auct., Beach City, Ohio

All Champions Drink Milk, but—

Both Dempsey and Tunney Choose Guernsey Milk

(We win — either way)

The Chicago Guernsey Farm sells the milk supply for the training camps of both of these champions. There must be a reason. More butterfat, more solids not fat, more total solids in Guernsey milk.

Ask for "The Story of the Guernsey Cow"

The American Guernsey Cattle Club
8 Grove Street **Peterboro, N. H.**

All Championships
TWENTY-TWO FIRSTS

Illinois State Fair, 1927 **Wisconsin State Fair, 1927**

Outstanding Type Backed With Splendid Production.
Guaranteed right — Priced right.

WRITE FOR BULL SALES LIST.

LARSEN FERN-DELL FARMS, A. W. FOX Manager **Green Bay, Wis.**

CORIUM GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

Purebred Registered Guernseys

Heifers three to eighteen months old. Also a number of cows and several registered bulls. All papers furnished and T. B. tested. Priced reasonable for quick sale. All good type, well bred, and nicely marked.

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OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

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RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

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Six months old show type, sired by the best son of the Famous World's Record Cow, Lone Pine Mollie Cowan A. R. No. 11278, who sold for $15,100 at Stout Dispersal Auction. Dams have A. R. records.

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FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,
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HELENDALE GUERNSEYS

Two AR cows 502 lb. and 553 lb. records, one untested cow, and two heifers nine months and one year of age. Good size and types. Cows with calf. Good producers. Herd Accredited and free of Abortion. Prices moderate.

WM. A. ERBACH, Owner, ATHENS, WIS.

LINWOOD FARM GUERNSEY BULLS FOR SALE

Linwood's Lucky Strike, age 12 mos. Dam 675 lbs. fat.
Linwood's Successor, age 12 mos. Dam 515 lbs. fat.
Linwood's Merit, age 12 mos. Gr. D's. 566 & 740 lbs. fat.
Linwood's Charm, age 12 mos. Grandams 540 G and 740 lbs. fat.
Linwood's Best, age 11 mos. Dam 517 GG, Gr. D. 804 G.
Linwood's Regent, born April. Dam 707 lbs. fat.
Linwood's Actor, born Apr. Dam 744 C, grandam 804 G.
Linwood's Victor, born April. Dam 669 lbs. A.
Linwood's May King, born April. Dam 634 A, grandam 804 G. Write for New Sale List

LINWOOD GUERNSEY FARM,
Homer Rundell, Livingston, Wisconsin

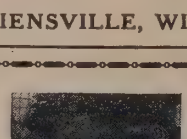
HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

BUTTERGOLD GUERNSEYS

Federal Accredited No Abortion



HERD SIRE

Offering **TWO CHOICE TYPY BULLS** sired by 1922 National Grand Champion and out of tested dams, born last August and November. Two choice senior heifer show calves out of tested dams and sired by son of National Grand Champion whose dam has just completed a record of over 700 lbs. fat, not yet verified. Boss' daughters on test are doing very well. One in A is going at 800-lb. clip, has made as high as 3.26 lbs. fat in one day and retest requirements her 4th, 5th, 6th mos.

TARR BROS., NEW AUBURN, WIS.

BULLS

A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.

GEO. E. LARSON,
Amherst Jct., Wisconsin.

Luxerin (B. F. Sheridan)

Three choice, typy, well grown, young bulls, 7 to 9 mos. old and out of A. R. dams and sires with dams up to 828 DD.

FOND DU LAC WISCONSIN

Minnesota State Guernsey Sa

At the Minnesota State Fair Grounds

Between St. Paul and Minneapolis

THURSDAY, OCTOBER 6th, 19

COMMENCING AT 11 A.M.

The Best Lot of Guernseys Ever Put in a Minnesota Sale R

55 High Class Females, including several A. R. Cows and p winners at Minnesota state fairs. **7 Very High Class Bulls** personally selected by the committee, from the best herds in M nesota. Direct your inquiries to

DR. M. B. WOOD, Manager of the Sale, MANKATO, MI

Tellier, Tilghman, Auctioneers. Catalogs Sept. 25

This Sale is Under the Auspices of the Minnesota Guernsey Breeders' A

Eighth Annual Sale of the Blue Ear County Guernsey Breeders' Ass'n

MANKATO, MINN., Pavilion, Commencing at 1 o'clock, sharp **SEPT. 28**

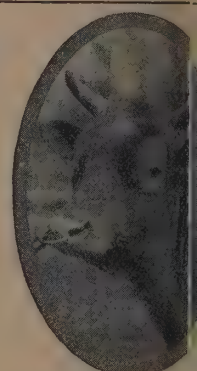
23 Purebred Females from Blue Earth and surrounding coun **12 Purebred Bulls,** and **16 Grade Cows** and **Heifers.** Blue Ea county Guernseys are free from tuberculosis. Direct inquiries

DR. M. B. WOOD, Manager of the Sale, MANKATO, MI

Tellier, McRell, Auctioneers. Catalogs ready Sept. 20

Foundation Guernseys

HOME OF
LANGWATER JUVIS 100894
By Langwater Warrior A. R.
Dam, Imp. Barlotteries Rose of Langwater A. R.
Milk 14774.2 lbs. Fat 730.7 lbs. Class D.



LANGWATER JUVIS

A Number of Good Bulls

From A. R. Dams to 719 lbs. fat. Reasonable!

May Rose-Glenwood Breeding

ELM FARM, Deerfield, Illinois

28 miles north of Chicago, 1 mile east of Everett on 42A

HEALTHY COWS

....., Wis., ...19

TO WHOM IT MAY CONCERN:

This is to certify that the cow Ear Tag No. ———— was purchased for by Reid Murray. Also certify that my herd is under federal and state supervisi and that this cow was in my herd when herd was tested and that all my he passed a clean T. B. test. Also certify my herd is free from contagious abortion.

Signed .....

Address .....

WE CAN FURNISH COWS IN CARLOTS WITH THIS RECORD BEHIND THE

Oshkosh, Wis. **REID MURRAY** Union Stock Yards, **Chica**

H-O-L-L-I-S-T-O-

SPELLS

PERSISTENT PRODUCTION and REAL ANIMALS

Build up your herd by using a bull calf whose sire and dam come from *persister* ducers and real individuals. Our prices will interest you if you want a REA

D. G. TENNEY 15 West Fourth St., NEW YORK

MARSH FARM GUERNSEYS

Founded upon CHERUB combining modern show with production. At the National Dairy Exposition out of 78 championship been awarded to cattle fr farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Cla to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, th ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IO

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

BULLS 6 to 10 M. From A. R.

Prices to Suit the Present Ti

They are sons of Anton's King and King B. from dams with rec up to 600 lbs. Some from good ducing dams not yet tested, at fice prices. Write me today.

A. R. HOARD, Fort Atkinson, W

A Federal Accredited Herd



Order Now

...ding, most convenient, serviceable and ...y. Write for special, delivered prices. ...n Fuel Company, Neenah, Wis.

...-WUZ-ON EAR TAGS

...patented Rib Point and Double Bar ...t. They are superior to others. Cost ...more. Attached in one operation. They are guaranteed. WRITE FOR FREE SAMPLES. ...r-Mtn. Machine & Stamp Works, Inc. ...East 2nd South, Salt Lake City, Utah.

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...GUERNSEYS

...HOREWOOD CONSIGNS to ...OUIS MERRYMAN'S FALL SALE October 6th, 1927

...egal of Shorewood

Born November 9, 1926

...—Courtier of Shorewood. Grandson ... Langwater Holliston.

...—Cherub's Royal Gem of Shore... ...od. Daughter of Ladysmith Cher... ... On test in G. Junior Champion ... D. S. 1925.

Our Consignment to

...INNESOTA STATE SALE ... Grounds — October 6, 1927

...des Challenger's Elizabeth of ...ewood, granddaughter of Lady... ...h's Cherub and out of Imp. Eliza... ... of St. Croix, 568 lbs. fat, Class A. ... the cow, Sweet Blossom of Adams, ... lbs. fat, Class G, a granddaughter ...da's May King. Send for pedigrees.

...y Ladysmith's Cherub Blood

...IOREWOOD FARM

CRYSTAL BAY, MINNESOTA

...DISSON FARM GUERNSEYS

... offering at attractive prices a few ...ulls sired by RADISSON'S GOLDEN ...IST 91632. whose get was awarded ...ize at Dairy Cattle Congress in 1926. ... son of GOLDEN CORONET OF JEAN ...TH 81283, world's champion Guernsey ... AA, 968.80 lbs. fat.

E. IVERSON, Herdsman, ...otel Radisson, MINNEAPOLIS, MINN.

...HILLIER FARM GUERNSEYS

Federal Accredited

...e for sale grandsons of Langwater ...an 21873 A. R.; also two grandsons of ...day Day 43520 A. R., 9 to 16 months. ... R. dams. Priced $150 to $250

... & LAW, Box 304, Mankato, Minn.

...NEWASHTA MAPLES ...ebred Guernsey Cattle

... TO SELL, BULLS two months to ...ble age, sired by son of Maxim of ...Vista and out of A. R. dams. Also a ...MALES. Send for sales list.

...UREBRED GUERNSEY FARM, ...'age, Excelsior, Minn.

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... of pure breds or grades. Area tested county. ... herds to select from. Prices are right. ... write.

...A CROSSE COUNTY ASSOCIATION ... Young, Sec. West Salem, Wis.

...ND DU LAC GUERNSEYS

... prices on PUREBRED CALVES suitable for ...also GRADE COWS and HEIFERS at all ...Write to

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...ade and Pure-bred Springers, both cows and ... carload lots. Also a number of yearling ...nd pure-bred bulls of serviceable age. In... ...swered promptly. Visitors always welcome. ...SON CO. GUERNSEY BREEDERS' ASS'N. ...ston, Sec'y., Box 266A, Fort Atkinson, Wis.

FOREMOST GUERNSEYS

PREMIER SHOW HERD of 1924, 1925, 1926

Eighty A. R. Cows in the herd average— 11,737 lbs. MILK, 604 lbs. FAT.

Our Producers are Show Cows— Our Show Cows are Producers!

The dams of our six herd bulls average 13,797 lbs. milk, 729 lbs. fat. (Only three mature.)

Your Opportunity!

to buy BULLS and BULL CALVES bred to sire *Production, Type, Vigor, Reproduction* — at very reasonable prices. For price and description write, or better visit Emmadine, and see a herd handled under practical farm conditions.

EMMADINE FARM

Hopewell Junction (Dutchess Co.) N. Y.

J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Bulls FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

BONNIE BRAE GUERNSEYS

ITCHEN KING 49803 AR is the Sire of King's Advocator, 126310, 1st prize and Junior Champion Bull at the N. Y. State Fair. Itchen King has two 800 lb. and one 700 lb. daughters. His Dam made over 800 lbs. fat and she has one daughter with a record of over 900 lbs. fat. We offer for sale Sons of Itchen King out of AR Dams. Priced at $250. and up.

BONNIE BRAE FARM, CLINTON, N. Y.

GUERNSEYS AT AUCTION!

OCTOBER 5, 6 and 7

MARYLAND STATE FAIR GROUNDS

TIMONIUM - - MARYLAND

Louis Merryman's 2nd Annual Grade Sale

100 YOUNG GRADE COWS from accredited herds—fresh and close springers—carefullly selected—to be sold OCT. 5TH.

Louis Merryman's 17th Semi-Annual Guernsey Sale — Oct. 6-7

20 BULLS up to our usual standard from the breed's greatest nurseries, all from A. R. dams with large records.

100 COWS, many A. R.—the majority fresh or close springers—daughters of world famous sires.

30 HEIFERS.

For Catalogue write

The HERRICK-MERRYMAN SALES Co.

Sparks, Maryland

Herd Sire Prospects FOR SALE

Write us if you want to buy a bull calf with persistent producers back of him. We have some fine individuals to offer you; some of serviceable age if you want to talk business.

Farmers' Prices!

LOMA FARMS

W. W. Blake Arkcoll, Mgr.

MARQUETTE MICHIGAN

GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

Serviceable Show Bull

FROM CLASS LEADER DAM

Am offering DAIRYDETTE'S CHERUB OF CHIPPEWA for sale. Born Feb. 20, 1926. A good show prospect. Dam has 697 lbs. fat in E. E., eighth in her class, first in Wisconsin. Sire, a prize winning son of Cherub's Prince. Write today for detailed information.

L. P. MARTINY, Chippewa Falls, Wis.

PENNCREST FARMS

ACCREDITED

WALTER SMEDLEY, OWNER

HERD SIRES—

Lancastrian—A son of Ne Plus Ultra.

Sunnybrook Ultra Noble—A grandson of Ne Plus Ultra out of a 920-lb. cow.

Fairmaid's May Royal—A son of Mixter May Royal out of a 920-lb. daughter of Langwater Demonstrator.

Penncrest's Starlight's Royal Master—Grandson of Langwater Royal Master out of 630-lb. Class G daughter of Langwater Master Fred.

Stock sired by these bulls for sale. Address inquiries to Media, Pennsylvania.

WM. P. SMEDLEY, Manager

Bargains in Bull Calves

A TWO-CENT STAMP CAN SAVE YOU

From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BLOOD Lines—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.

WAWA DAIRY FARMS,

22 So. 32nd St., Philadelphia, Pa.

BARGAIN BULLS *produce* CLASS LEADERS

Guernsey Breeders' Journal says in Feb. 1st issue—OUR NEW CLASS LEADERS— Silverwood's Diana, 20,006 lbs. milk Sire:—BROOKMEAD'S BANNER A. R. *Sold sight unseen as a youngster.* Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

AUGUST ZIESING, Deerfield, Illinois.

HOLSTEINS

UNITED STATES SOLDIERS HOME DAIRY

WASHINGTON, D. C.

OFFERS FOR SALE at reasonable prices from the first accredited herd in the United States. PURE BRED HOLSTEIN-FRIESIAN MALE CALVES from one month to seven months old, from yearly tested dams and sons of General Piebe 323266 H. B. One of the richest bred sons of the well known K. P. O. P. whose descendants have in the past eight seasons won no less than 553 first prizes. His five nearest dams, all have 1,200 lbs. butter in 265 days. Also sons of Grahamholm Colantha Pauline Lad 297377 H. B.

OHIO HOLSTEINS

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N

2029 E. 102nd St. Cleveland, Ohio.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES

K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

L. E. FERGUSON, LAURENS, IOWA.

SEDGLAND FARM

— OFFERS —

A 1000-LB. BULL

born in Feb. '26. Well grown and good individual. Sired by a Son of the 37th. Dam has 29 lbs. in 7 days and 1,000 lbs. in a year. Will be glad to furnish detailed information.

HALSEY J. SEDGWICK, Limeridge, Wis.

Come to Sheboygan County for Holsteins

We have choice grades and purebreds to select from. Write your wants to:

SHEBOYGAN COUNTY HOLSTEIN ASS'N., Frank Ubbelohde, Secy., Plymouth, Wis.

AN AREA TESTED COUNTY

The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Summer buyers are given every consideration in helping to locate and assemble their purchases, whether it be one or a carload. Can furnish you right now with

30 pure-bred heifers bred to freshen this fall.

A carload of bred, richly bred, grade heifers.

4 carloads of springing and fresh, highly bred grade cows, August and September freshening.

Also have a number of good pure-bred bulls from 3 months to 1½ years old.

Send for bull list or write your wants. Example: Bull born Nov. 15, 1925. Excellent individual, mostly white in color. Sire—King Pontiac Fayne Butter Boy, whose dam is a 30-lb. cow. Dam is Wisconsin Piebe Oak De Kol Watson, a show cow that has a record of 20 lbs. of butter in 7 days as a 3-yr.-old. Price $175. W. L. Baird, Art Bennett at your service. Write or wire.

WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

ABORTION FREE HOMESTEADS

We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.

T. B. under Federal Supervision.

MILWAUKEE COUNTY INSTITUTIONS FARM

WAUWATOSA - WISCONSIN

E. C. Thompson, Farm Manager,

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,

F. T. WILFORD, MGR., Hammond, Wis.

ORMSBYS and OLLIES

130 head of real cows and young stock—must sell 20 head to make room for winter. Cows milking up to 112 lbs. milk a day. Heifers with up to 33 lbs. butter 7 day. Pietertje Ormsby Mercedes Della the greatest producing son of 37th, sire of World's Champions, also the highest record Ollie bull in service—first prize National Dairy Show.

F. H. BOYLE, Owner, PEEBLES, WIS.

L. F. Murphy, Mgr.

Milford Meadows

Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.

Ask us about them.

W. W. KINYON, LAKE MILLS, WIS.

TWO GOOD BULLS FOR SALE

Ollie-S, P. O. M, 37th Breeding

We have two typy young bulls for sale now. One is from a 26-lb. granddaughter of 37th and by a 968-lb. son of Iowana Sir Ollie. The other is from a 28-lb. granddaughter of 37th and by Sir Ollie Mooie Watson 7th. Show calves priced right. Write today or come to the farm.

DICMERE FARM

H. E. DICKINSON, Oconomowoc, Wis.

La Crosse County Dairy Cattle Co.

Offers 75 to 150 head of high grade GUERNSEY and HOLSTEIN SPRINGERS of all ages. T. B. Tested. Sound and heavy producers. We buy and ship on orders. Visit us or write. Prices reasonable. Satisfaction guaranteed.

RAYMOND KNUTSON, Mgr. West Salem, Wis.

YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write

SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

BULL CALVES — HEIFERS

We have for sale some choice bull calves and registered heifers at farmers prices. Sired by a 990-lb. grandson of Iowana Sir Ollie and from daughters of a 1040-lb. Homestead bull. Accredited herd. Write

CHAS. HUGHES & SON, NEENAH, WIS.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,

S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holsteins

Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.

JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N, C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

GRAMLING FARMS HOLSTEINS

King Pontiac Inka Lunde Korndyke, our senior herd sire, is a son of King of the Pontiacs, a double grandson of Pontiac Korndyke. Sons and daughters by him from Homestead dams for sale. The herd is clean.

GRAMLING BROS., Dousman, Wis.

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

NORRIS FARM

Is Offering SEVERAL DESIRABLE BULLS, ready for service this fall. Also YOUNGER CALVES. Write for particulars.

MUKWONAGO (Fully Accredited) WISCONSIN

GUSTAVE PABST

HOLLYHOCK DISPERSAL

"The Greatest Herd in America"

is the frank opinion expressed by one of the leading Holstein authorities.

Did you see ad in the Sept. 10th issue ?

115 PURE BRED HOLSTEINS

—MORE 1000-LB. COWS than have ever before been offered in a public sale.

—MORE GREAT "37TH" BLOOD than can be found in any other herd in the world.

—THREE OF "37TH'S" greatest daughters.

—FIFTY DAUGHTERS of Sir Bess Ormsby Fobes, the greatest son of "37TH".

—MANY GREAT SHOW ANIMALS including All-American winners.

—TWENTY BULLS, all from record dams. Ten from 1000 to 1327-lb. dams.

—FEMALES OF ALL AGES including calves, bred heifers, fresh cows and springers.

YOU STILL HAVE TIME TO GET THE CATALOG
Send For It Today!

MELIN-PETERSEN CO., Sale Mgrs.,
306-B Gorham Bldg., Minneapolis, Minn.

OCT. 3-4, OCONOMOWOC, WIS.

At HOLLYHOCK FARM, 3 miles south of Oconomowoc on State Highway No. 67. Sale begins promptly at 10 A. M. each day.

A. M. BRUSH and SON

Dispersal

One of Minnesota's Greatest Little Herds to be Sold At Aucti

Federal Accredited **60 PURE BRED HOLSTEINS** *Retest Privileg*

THE HERD SIRES—

SIR JOHANNA GLEN ORMSBY PIEBE, a five-ye old son of Sir Johanna Glen Ormsby (1300 lbs.), fr an 1100-lb., 29,000-lb. daughter of a 1300-lb., 31,000- cow. He combines the highest record Ormsby and P be breeding and is a proved sire of producing and sh type. He will be sold, as will also several of his s and daughters.

SIR RHODA KENTUCKY SEGIS, a four-year-old of the 1000-lb. show cow, Rhoda Overton Segis. He i proved sire of excellent type; his first daughters freshen this fall. He will be sold, together with twe of his offspring; many splendid show prospects.

THE 48 FEMALES—

These include daughters of Piebe Champion, No Star Dudly Homestead and the two 1000-lb. herd sir Many of these have cow test association records up 650 lbs. butter and most of them will be fresh or soon after sale to the 1000-lb. herd sires. Included several winners at the county fairs.

THE 10 BULLS—

Mostly sons of Sir Johanna Glen Ormsby Piebe and Rhoda Kentucky Segis. Several nearly ready service.

Many Winners at the County Fairs C. T. A. Records Up to 650 Lbs. B
Many Fresh Cows and Close Up Springers

Oct. 12 At County Fair Grounds **Mankato, Min**
10:00 A. M. Free Lunch at Noon Good Roads

For Catalogue write sale managers —

MELIN-PETERSEN CO., 306B Gorham Bldg., MINNEAPOLIS, MI



NORTH STAR JOE HOMESTEAD

There is Only One Bull Out of the First Prize Aged Cow at the 1927 Wisconsin State Fair and This One is Sired by North Star Joe Homestead

Just now we are offering for sale a few sons of the famous All-American Bull, North Star Joe Homestead.

Few famous show bulls have shown such ability to transmit show type as North Star Joe Homestead and his first daughters to freshen are milking heavily and testing high.

Among the excellent "Joe" sons now being offered is one out of Frieda Schuelling Dutchland, our first prize winning aged cow at the recent Wisconsin State Fair.

SEND FOR OUR LIST OF "JOE" BULLS

Address all correspondence to

911-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



U. S. NATIONAL SALE
R. E. Haeger
W. L. Baird
Francis Darcey

U. S. National Fall Sal

November 15-16-17-18

Watertown, Wis. Waukesha, Wi

Continuing our series of great national sale events we will offer this fall a wonderful list of consignments that combine type and production to the highest degree. Look carefully for our announcements regarding these great offerings.

300 HEAD TOP HOLSTEIN

Including a fine lot of wonderful young bulls selected for type and record backing. Including a large number of personally selected fall cows, young and typy. Including a large number of show ring winners at the fall shows. Including some of the best record producers of the breed. Plan for the U. S. National this fall.

For More Information Regarding This Great Sale

Write to

R. E. HAEGER, ALGONQUIN, ILL. W. L. BAIRD, WAUKESHA, WIS. FRANCIS DARCY, WATERTOWN, WIS

Holstein Milk



Vitality!

The Production f Holsteins

ıe average butterfat produc- n of the 27,798 Holsteins ıich have been credited with ıg-time tests is 533.72 lbs. the average 331 producing ys. For the 9,774 aged ws — average producing ys 332 — the average but- fat production is 600.60.

Write for Holstein Literature

e Extension Service
OLSTEIN-FRIESIAN
ASSOCIATION of AMERICA
E. Ohio St. CHICAGO

gh Grade Holstein Springers

in the market for big production e cows will please you. Tuberculin ed. Address
ER MEADOW FARMS. Portlandville, N. Y.
. S. Come and make selections.

OLSTEIN BULLS FOR SALE

G BROOK BESS BURKE 2ND—ORMS- eding. All sold out of bulls over six of age. Herd under Federal Supervi- r tuberculosis, also blood tested for n.
RTHUR FARMS. Winterthur, Del.

Bull Calves

VE FOR SALE 2 GOOD ONES BORN JAN 18. NICELY MARKED, TYPY.
a grandson of S. P. O. M. His dam made n 7 days, 550 lbs. in 305 days at 25 months. r is by our proven son of "Piebe." His dam lbs. in 7 days, 764 lbs. in a year with first hese are good herd sire prospects. Your t $150.
L ON COLLEGE FARM, Northfield, Minn.

rost Spaulding Farm Co.

ice Bred Bulls from good record dams and KING PEITERTJE MERCEDES ORMSBY, hose daughters has just broken the World's the senior two-year-old class with 1,119 lbs. a year. This sire is a son of Sir Pietertje Mercedes from an 1,100 lb. daughter of a cow and is one of the few sons of Sir backed by two generations of 1,000 lb. dams. prices.
AULDING, MGR., Warren, Minn.

rthfield Holsteins

ion and type—Prices right. Regis- ws, heifers and bulls, calf club calves, breeding, choice grade cows and heifers.
ORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
IFIELD, MINNESOTA

Healthy Holsteins

If you are in the market for grade or registered Holsteins from tested herds write us today.
ILLINOIS HOLSTEIN-FRIESIAN ASSN.
608 S. Dearborn, St., CHICAGO, ILL.

Ormsby-Homestead Bulls

We have for sale 2 very good calves born Nov. 1 and Dec. 27, sired by Rawleigh Ormsby Pietertje Posch, our 41-lb. Ormsby sire. They are from 24- and 25-lb. 4-year-old Homestead dams with good year records, one a state record cow. Priced to sell. The herd is clean. Write
THE W. T. RAWLEIGH COMPANY
Owners Rawleigh's Ideal Farm, FREEPORT, ILL.

Show Winners

Our herd won PREMIER BREEDER awards at both Aurora and Springfield shows just passed. It was composed only of animals of our own breeding. This demonstration that type and production go in the same animals here is to your advantage.

Rock River Farms, Byron, Ill.

Buffalo Creek Farm Holsteins

We are offering BULL CALVES rich in Ormsby breeding from tested dams. These are from six to eleven months old. Some priced as low as $100.00. Write for pedigrees and further information. Herd under federal supervision.
BINGHAM BROS., Arlington Heights, Ill.

— We Can Offer —

A Few Choice Bulls of Ormsby Breeding

that will be ready for fall service. They are good individuals from good record dams. Also a few younger calves at bargain prices.
ELLWOOD & NELSON
DeKALB, ILLINOIS

HYDE PARK FARM

PALOS PARK, - ILLINOIS
Offers BULL CALVES
Sired by an outstanding 35-lb. son of Matador from Fully Accredited Registered Yr. dams with leading cow testing association records. $100.00 up for typy individuals.
JOHN A. CARROLL, Owner — WILLIAM EDGAR, Herdsman

BIG PRODUCTION HOLSTEINS

The Femco Farms herd now consists of 250 registered Holsteins. Twelve cows in the herd have yearly butter records from 1,000 to 1,426 lbs. Three have milk records from 30,000 to 34,000 lbs. Many heifers with records in proportion.

HERD SIRES

PRIDE OF SIR PIETS—Son of Wisconsin Pride 2d, highest record daughter of "37th" with 1,327 lbs. as a 3-year-old. By the highest record son of K. P. O. P.

DUTCHLAND CREAMELLE COLANTHA LAD—Sire of seven 1,000- to 1,426-lb. cows, including two with milk records over 33,000 lbs.

MANKATO FLOA ORMSBY KORNDYKE LAD—The only bull in service whose dam and sire's dam are 1,000-lb. 2-year-olds. Combines the blood of the world's greatest sires of 1,000-lb. cows.

Write us for pedigrees of choice bulls for sale.

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

Last Calf Advertised Was Sold to Nevada, But We Have *Another Good One*

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.
ST. OLAF COLLEGE FARMS, Northfield, Minn.

n Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926
R WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 daughters. He is a "PIEBE" son from a 1230-lb. former world's COUNT" daughter.
ASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old w on yearly test and producing from 750 to 800 lbs. butter this year. a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. I will put type and production in your herd and is high class in pect.



Sir Walker Segis Homestead

Send for Pedigree and Photo
ASHBROOK, NORTHFIELD, MINN.

Sixth State Sale, Oct. 26

Michigan State College - East Lansing, Michigan

GOOD STUFF, the kind that you want! For information regarding consignments

Write J. G. HAYS, Sec., MICHIGAN HOLSTEIN-FRIESIAN ASS'N, EAST LANSING, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

A BULL BARGAIN

We have for sale a 16 months old son of Sir Dutchand Colantha Denver, he a 36-lb. 1300-lb. grandson of Colantha Johanna Lad. His dam Serradella Kristje is a 27-lb. junior 3-year-old that is a good tester. This young bull is dark colored, well grown, and has very good type. A bargain at $275.

SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan

OUR 1,000-LB. COWS

Michigan State Herds now own 13 cows with records above 1,000 lbs. butter. One of these is the famous Traverse Colantha Walker with 7 records above 1,000 lbs. and four of these are 305-day records. Her highest record for 365 days is 1267 lbs. butter and 26,158 lbs. milk. Four others have records from 1100 to 1153 lbs. and eight range from 1023 to 1099 lbs.

Michigan State Herds are bred for production. Insure production in your future herd by using a sire bred by Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

A GRANDSON OF

MAPLECREST KORNDYKE HENGERVELD

Dam is LAKEWOOD MAPLECREST FLY — 7 days 30.86 lbs. 305 days 713.53, 18,394.90.

Sire is A. K. S. MODEL PIETJE — whose 6 nearest dams average 7 days 38.55 lbs.

Also a number of other exceptionally well bred Bull Calves at prices as low as $150

WRITE TODAY FOR PEDIGREES AND PRICES!

BLYTHEFIELD FARMS (Accredited) Joseph H. Brewer, Owner, Grand Rapids, Mich.

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



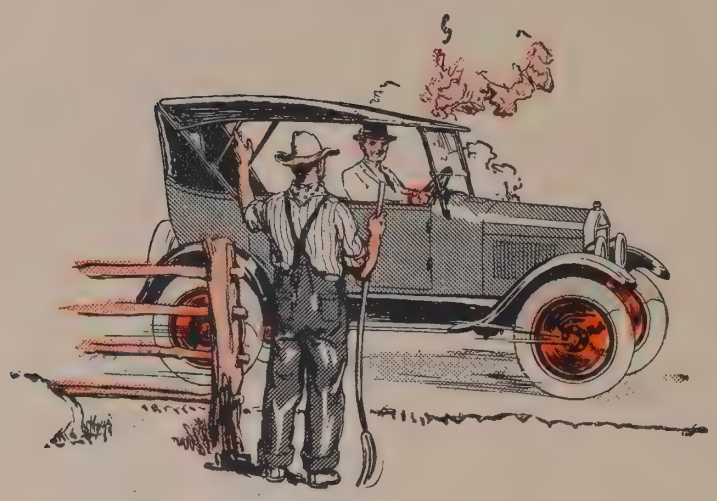
has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

STEELE COUNTY HOLSTEINS are noted for their size, type and production. Pure-breds or grades. One or a carload.
GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

AKONA HOLSTEIN FARM
BULL CALF born Nov. 24, 1926. Sire's dam 1,024 lbs. butter in year. Dam's cow testing association record 421 lbs. butter in 10 months as a jr. 3-yr.-old. Price $100. Accredited herd.
B. A. NORRIS, Anoka, Minn.

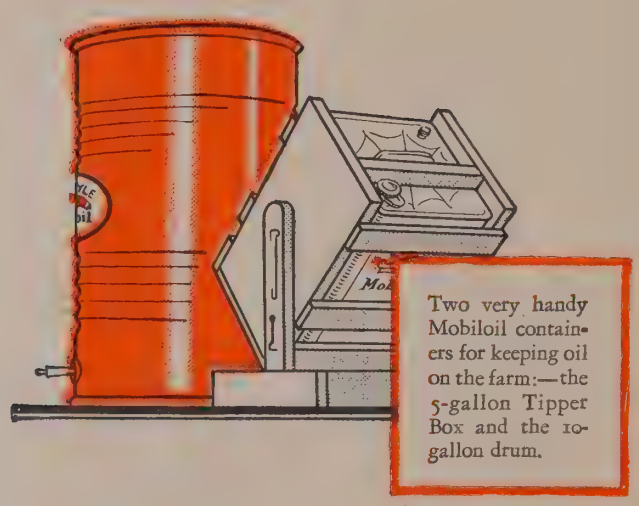
New Ford economy – through quieter, smoother starts – and lessened carbon



During the past few months countless Ford owners have discovered these two things (1) Today's Gargoyle Mobiloil "E" brings new smoothness, new comfort to Ford starting and stopping; (2) the new Mobiloil "E" leaves *amazingly* little carbon. And no other lubricating oil seems to combine these *two* advantages in such a marked way.

It was only after a way had been found to combine these two qualities in one oil that the new Mobiloil "E" was offered to Ford owners.

Thus the new Mobiloil "E" offers two definite economies in Ford operation



Two very handy Mobiloil containers for keeping oil on the farm:—the 5-gallon Tipper Box and the 10-gallon drum.

It costs money to remove carbon. It costs money to replace transmission bands. With today's Mobiloil "E" you greatly postpone *both* of these expenses. Thus Mobiloil "E" is the cheapest Ford lubricant to use. Its slightly higher price is returned to you many times over by these definite savings.

There are other savings, too. The new Mobiloil "E" has just the right character and body to protect the Ford engine, clutch and transmission. Wear is substantially reduced. Repair bills are held to the minimum. Overheating is a rarity.

Proof in one crankcase full

Four quarts of the improved Mobiloil "E," when poured into your crankcase, will show you new smoothness in Ford starting and stopping.

As the mileage rolls up, the cash savings from the improved Mobiloil "E" will roll up, too. Fewer band replacements, fewer carbon removals, and fewer repairs to pay for. Have your Ford crankcase drained and refilled with one gallon of fresh Mobiloil "E," which can be obtained in original sealed one-gallon cans, or by the quart from reliable Mobiloil dealers. Also supplied in larger cans and drums for home supply.

Use Mobiloil "E" in your Ford car and Ford truck the year round. In Fordson tractor use Mobiloil "BB" in summer and Mobiloil "A" in winter. Ask the Mobiloil dealer what grade of Mobiloil to use in cars, trucks and tractors of other makes. All Mobiloil dealers have the complete Mobiloil Chart of Recommendations.

GARGOYLE

Mobiloil "E" *for* Fords

VACUUM OIL COMPANY

MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Tulsa*

Other branches and distributing warehouses throughout the country

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



olume 72, No. 19 Fort Atkinson, Wisconsin October 10, 1927

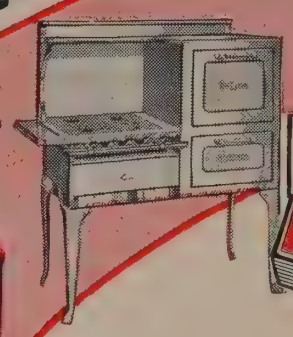
650,000 Satisfied Customers Have Saved ⅓ to ½ by buying Direct from Kalamazoo

W. S. DEWING
President





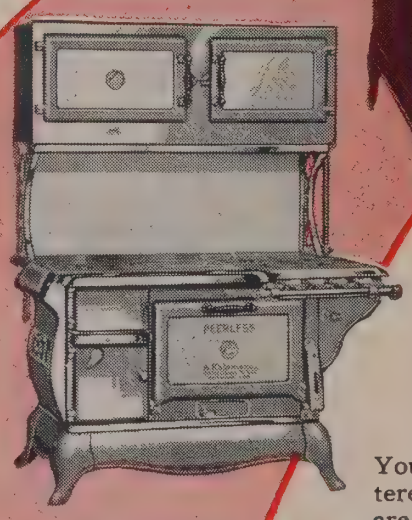
Gas Stoves $25.80 up

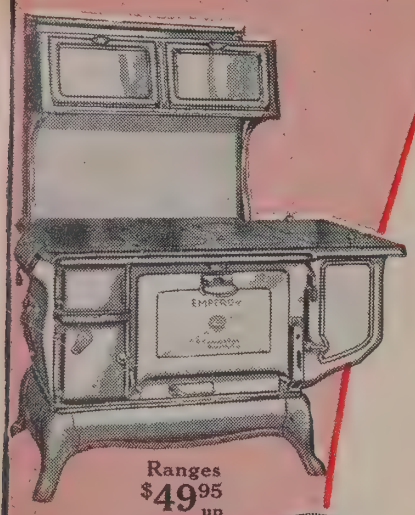


Heating Stoves $24.95 up

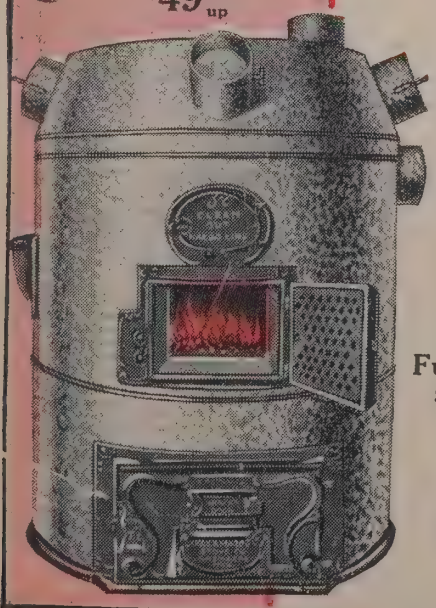


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The First Silo

It is always dangerous to say that is person or that person was first to a certain thing, as we have found t by sad experience many times. ıe mere publication quickens mem- y and lets loose the flood gates of nflicting belief and testimony.

Some few months ago we credited ancis Morris of Maryland as the st man to build a silo in America, having done so in 1876. This im- diately brought a correction from number of sources asserting that ed L. Hatch of Illinois built a silo August, 1873, and so far as known is the first person to use silage in United States. Mr. A. L. Haecker nds us the following account, which in turn secured from the Prairie rmer:

"I don't believe anybody knows who ilt the first silo, for undoubtedly process has been known for a ıg time. Some claim that Caesar siled green grasses and forage in ul to feed the horses and cattle of conquering armies. I have heard at the ancient Egyptians knew of process of fermenting green for- e in a pit and thus preserving it. lam might have used a silo wherein kept his cane (Cain); Joseph ght have been put in a pit silo; d probably if the Israelites had ed more of them they would not ve been driven into Egypt on ac- ınt of a famine.

"Fred L. Hatch of Spring Grove, Henry County, Illinois, built a silo August, 1873. This, so far as the iter knows, was the first silo built the United States. Mr. Fred Hatch is a student in the University of Il- ois from 1870 to '73; and while at- ıding this institution Professor iss translated French and German mphlets treating the subject of ıking and feeding silage from een forage. These early French d German silos were all in the rm of pits.

"Mr. Hatch's silo was built of wood, x16, and 24 feet high. It was con- ructed inside of the barn and had a ; 8 feet deep that was laid up with ne and mortar. The boarding was good flooring, which naturally kept e silo tight. Mr. Hatch explains at the silo was filled the first year th corn well in the dent. It was t up into two-inch pieces, run in d thoroughly packed. Mr. Hatch es on to relate that they fed with ccess this silage to a large herd and re greatly pleased over the results.

"The book written by August Gof- rt of France was one of the early ritings concerning the silo and its e. Other writers, such as S. Jones England and A. Reihlen of Ger- ıny, treated the silo and told of its ocess and use. These books appeared ring the period of 1860 and '75.

"Mr. Levi P. Gilbert of Ft. Atkin- n, Wis., built a silo during the sum- er of 1877. Mr. Gilbert's silo was ally a trench silo, for he dug it in e ground, making it 6 feet wide, 6 et deep, and 30 feet long. This was obably the first silo in Wisconsin, d the first trench silo in the Unit- States. Mr. Gilbert got his idea om the Frenchman, M. A. Goffert. the late seventies—that is, from to '79, the silo was talked in many the states, and in the University of nnessee they experimented with os in '79 and '80.

"Much credit is due the early agri- ltural workers and teachers of Wis- nsin for making the silo popular. ıch men as L. P. Gilbert, W. D. ɔard, W. L. Weeks, John Steele, and ıny others were early silo builders ıd advocates in Wisconsin. Profes- r Henry, coming to the state in the rly eighties, at once took up the cause of the silo and with Professors King, Gurler, and H. Smith, it was described and promoted. It soon gained favor, and Wisconsin has led in silos from this early date. They now have at least 50,000 more silos than any other state in the Union, probably with a grand total of close to 109,000."

Kinds of Milk Powder

There are two general types of milk powder on the market. One is known as the spray process powder and the other as the hot roll powder.

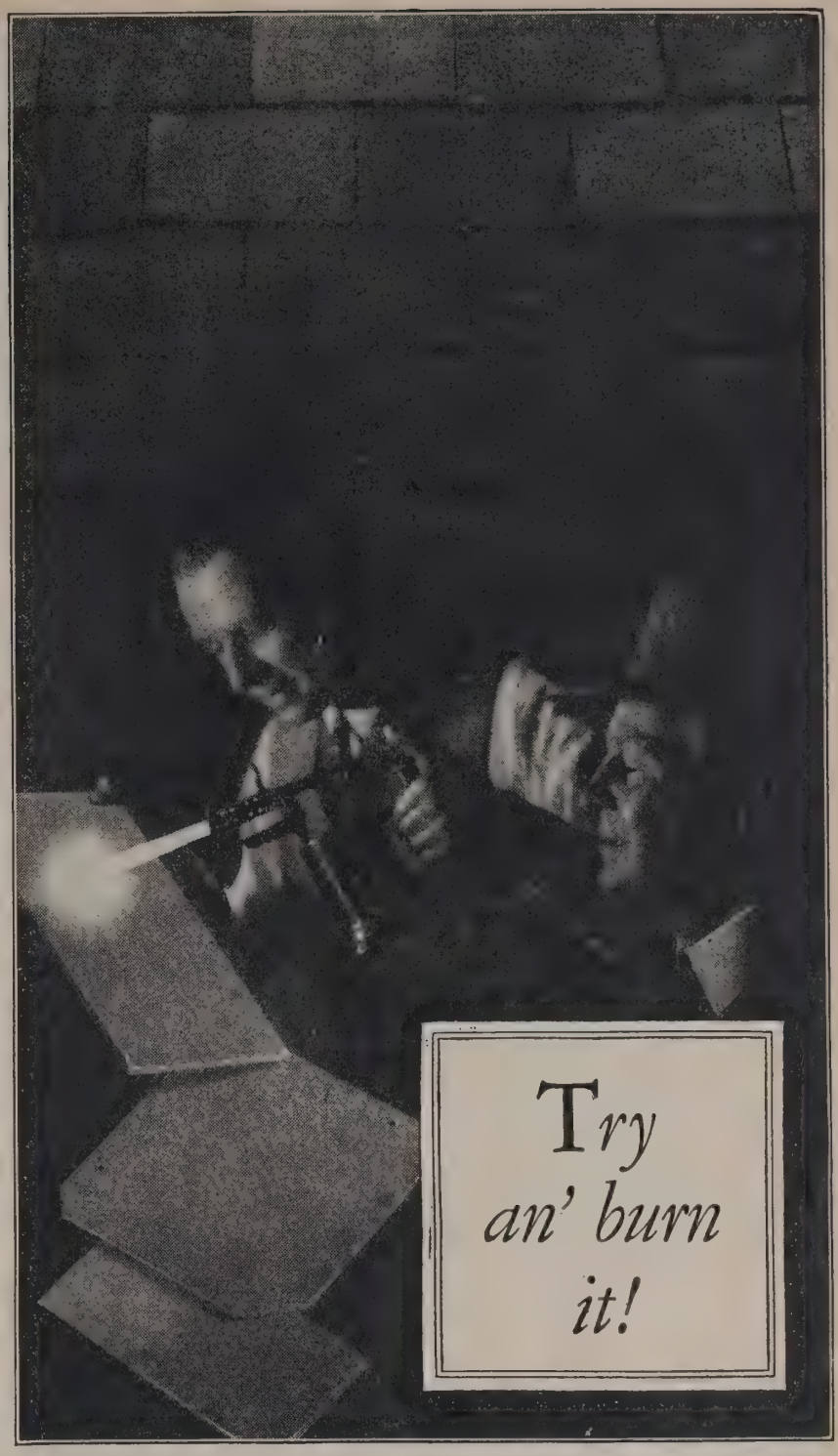
The spray process powder is made by spraying the milk under great pressure into a heated chamber. It enters this chamber in the form of a mist, and before it reaches the bottom has been converted into a very fine powder. It costs more to make this form of powder, and it is said to be at least 98 per cent soluble in water. As a rule it is this type of milk powder that is used for human food, especially in making ice cream and bread.

With the other type of powder, the milk is dried on a hollow steam roller that is heated by steam. As the roller revolves through a trough of milk and after it reaches the upper side, the dried milk is scraped off from the roll and the sheet of powder that is scraped off has much the appearance of a lace curtain. This breaks up very easily as it runs through a device known as a flaker, before being put in sacks. This type is only about 60 per cent soluble in water, which makes it less desirable for human food, but it is quite suitable for feeding live stock.

The Twin City Milk Producers' Association states that many of its members buy the hot roll powder for use in feeding calves and poultry. They state that the fact that it does not all dissolve in water does not make any material difference, as it will stay in solution long enough so that the calves will get all of the powder. It is believed that it is just as digestible as the other type, and the fact that it costs less makes it more practical for stock feeding.

A Scotchman was discovered wandering around Detroit with a pair of rumpled trousers over his arm. "Can I help you in any way?" asked a kindly citizen.

"Man," replied the Scot, who was evidently a newcomer, "I'm looking for the Detroit Free Press."



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Colorful new asbestos shingles cloak your roof with beauty as they guard it against the menace of flying sparks and the onslaughts of weather and time.

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(Signed) D. B. MacMillan
Ralph P. Robinson

Three styles—coat with or without collar and vest. Ask your dealer.

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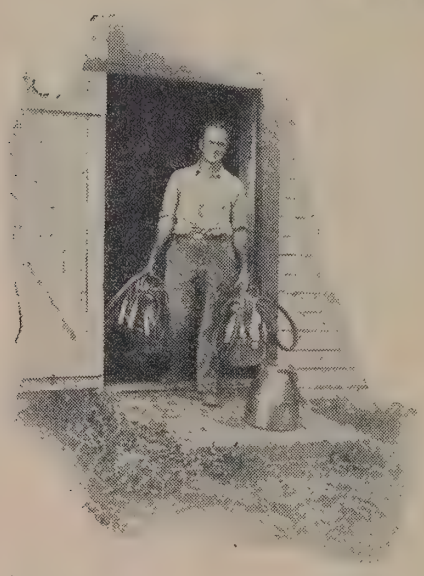
You need a Vest Pocket Herd Book

Wherever better milking, more and cleaner milk are sought after, the De Laval Milker is chosen



Three high-producing individuals from the notable purebred Jersey herd at Bridgford Farms, owned by C. W. and L. C. Bridgford at Joy, Ill. They say, "We milk from 35 to 45 head of purebred Jerseys and always have a good word for the De Laval Milker. Our De Laval milks fast and clean. The writer has milked 45 gallons from 26 cows in 47 minutes with three units and has at different times weighed the milk from the machine. The individual records and herd averages indicate that the De Laval is a real aid to greater production. Three of our De Laval milked cows have each in the last year set new 305-day records for R. M. cows in Illinois."

The De Laval Milker Helps Good Cows Make Better Records



Mr. Scott H. Hammond, owner of a splendid purebred Ayrshire herd kept at Overlook Ayrshire Farm at Brandon, Vt., writes, "My cows are all milking well, two-year-olds giving between 30 and 35 lbs. daily while the best cow has given close to 75 lbs. in one day. Since using the milker I have not had one complaint from the milk station regarding the bacteria count. My customers are profuse in their praise of 'Clean Ayrshire Milk.' I want to assure you that the De Laval Milker has been far more than a 'hired man.'"

THE best of cows need the right kind of handling and care in order to reach the peak of their production capacity, and as every breeder and dairyman knows correct milking is of the utmost importance. Owners and herdsmen seeking maximum production know that the milking operation must be pleasing to the cow. must be uniform, gentle, and unchanging in speed and manner day after day, if the best possible records are to be made.

These are some of the reasons why so many noted herds are milked with the De Laval Milker, for no other method of milking affords in a comparable way the uniformity, regularity and dependability that is of such vital importance to the cow on test or to the cow who must pay for her place in the dairy herd.

Hundreds of De Laval Milker users attribute a large portion of the credit for their high herd averages and individual records to the De Laval — and they regard its sanitary features of real value in keeping bacteria counts consistently low.

A postcard will bring the nearest De Laval representative, who will gladly go over your milking problem with you without obligation of any sort.

De Laval Milker

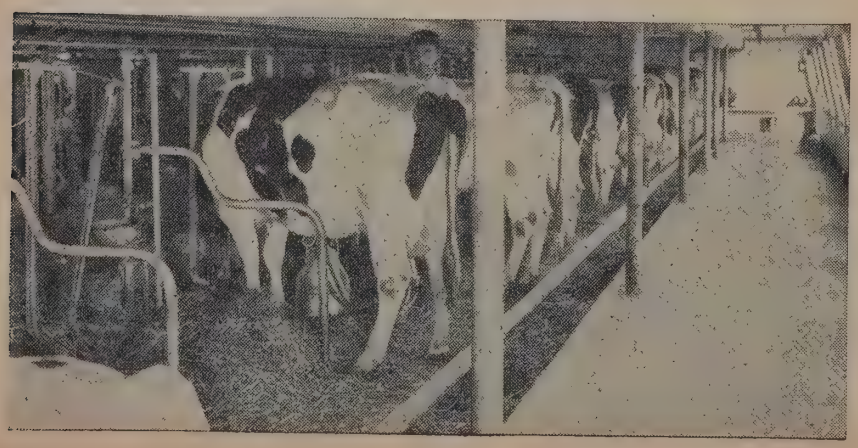
The De Laval Separator Company

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Chicago
600 Jackson Blvd.

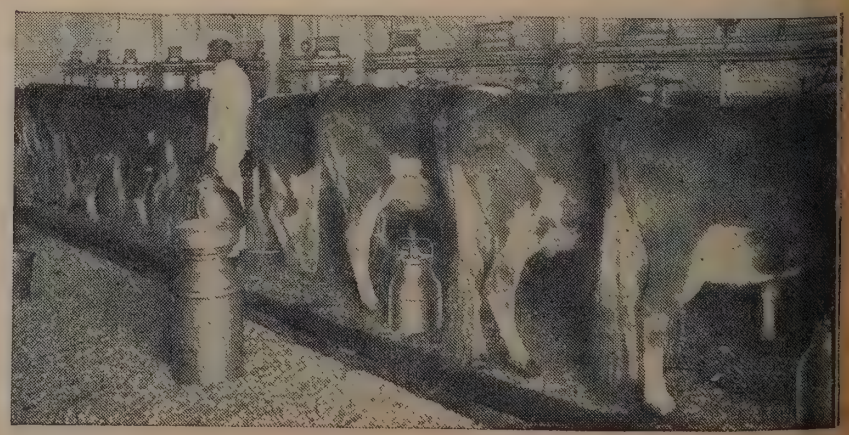
San Francisco
61 Beale Street

Mr. Harvey Firestone, the noted rubber manufacturer, has assembled a splendid herd of purebred Holsteins at his beautiful farm at Columbiana, Ohio. A De Laval Milker is used exclusively to achieve and maintain maximum production and to facilitate the production of a low bacteria count milk. Mr. Harry Chadwick, the manager, states that the results obtained with the De Laval far exceed those obtained by hand milking.



Mr. Geo. E. Sutton, superintendent of Audley Farms at Mendham, N. J., home of a well-known purebred Guernsey herd, says:

"We have used the De Laval Milker for the past five years and feel that very much of our success in largely increased production during that time must be attributed to its use. Its absolute cleanliness goes far, both from the sanitary and time-saving viewpoints."



HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ered at Fort Atkinson, , as second class matter.

Semi-monthly

Three Years $1.00

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PUTTING VAGRANT ACRES TO WORK

I. J. MATHEWS, INDIANA

AGRANT acres are the bane of a well ordered and profitable farm. And keeping these idle es at work and the whole farm ducing is a job in itself. The ual observer may think that there few vagrant acres on farms and t all the plow soil on most farms nder production, but such is far m true. Every farm has its lazy es that constitute a load for the le enterprise to bear.

When we bought Mathews Manor m, it was barnacled with several ieties of vagrant acres l utilizing them was one the first jobs I tackled. t and how to get and p the whole farm in pro- tion has been a very en- ing study. And this year he first in five that all the ds will render an account themselves.

ence rows are the most mon offenders as vags. ny farms are fenced into small fields. I always ught that the ideal farm s one divided up in small ds, but during the last five rs I have kept a detailed l accurate account of cing costs. I now know t the easiest way to keep n fence overhead per e is to have large fields— hing less than ten acres l thirty is better. What if t do only have hogs ugh to eat off five acres alfalfa? Turn them into thirty-acre field and cut at they don't eat. They y tramp some down, to be e, but it isn't lost by any ans and the loss is small npared with the yearly of the cost of fencing many small fields.

When we bought this m, it had 185 rods of use- s fence and a hedge row t I immediately set out to laim. The fence rows had wn up to a tangle of sh, grape vines, small es, and nettles. Cleaning m was tedious business by throwing a 17-acre d with a 20, we have 37 es all in one field. And en we got into that field with the -row corn plow, we sure cut off ne territory every round. The first r after clearing this off, the com- ed two fields were in corn and I enough corn off that fence row to r for digging the brush, and it was best corn in the field. That fence y took up more than an acre that l always before gone vagrant.

hen there were 85 rods of osage nge hedge. As it grew, the owner l backed off until it had appropri- d the fertility and space about nty feet on either side. I shall not soon forget the task of cutting these hedge tops and pulling out the roots. This old hedge row took up about an acre and a quarter; now the space is in alfalfa. Last year it made more than three tons of $20-hay, so I was more than repaid for the work of grubbing that old fence row.

Wet spots in the fields where the plants drown out are too often a total loss. Water covers them in the spring and nothing but weeds grow on them all the rest of the season. When one seeds these, especially to alfalfa, the seeding here will not persist. These spots should be tiled, but I believe almost any economist will bear me out when I say that tile have been too high when it is considered that they are a 50-year investment and will have to pay for themselves with produce that will undoubtedly trend lower in price. So when I seed my alfalfa, I do not allow these wet spots to just clutter up the field. When I get through sowing, I make up a mixture of about equal parts orchard grass, timothy, sweet clover, and alsike clover and go round and round. The first two of these will stand a good deal of submersion and still make a lot of pasture or hay. I think a great deal of orchard grass, ranking it next to alfalfa and sweet clover on this farm.

Then there were two spots on the farm that were just too wet to grow any kind of cultivated grass. They had grown up to willows, and there is no money in raising willows. White ash, sycamore, and silver maple will stand a lot of water, so some small seedling trees were purchased and set in these spots that are so wet and naturally run to willows.

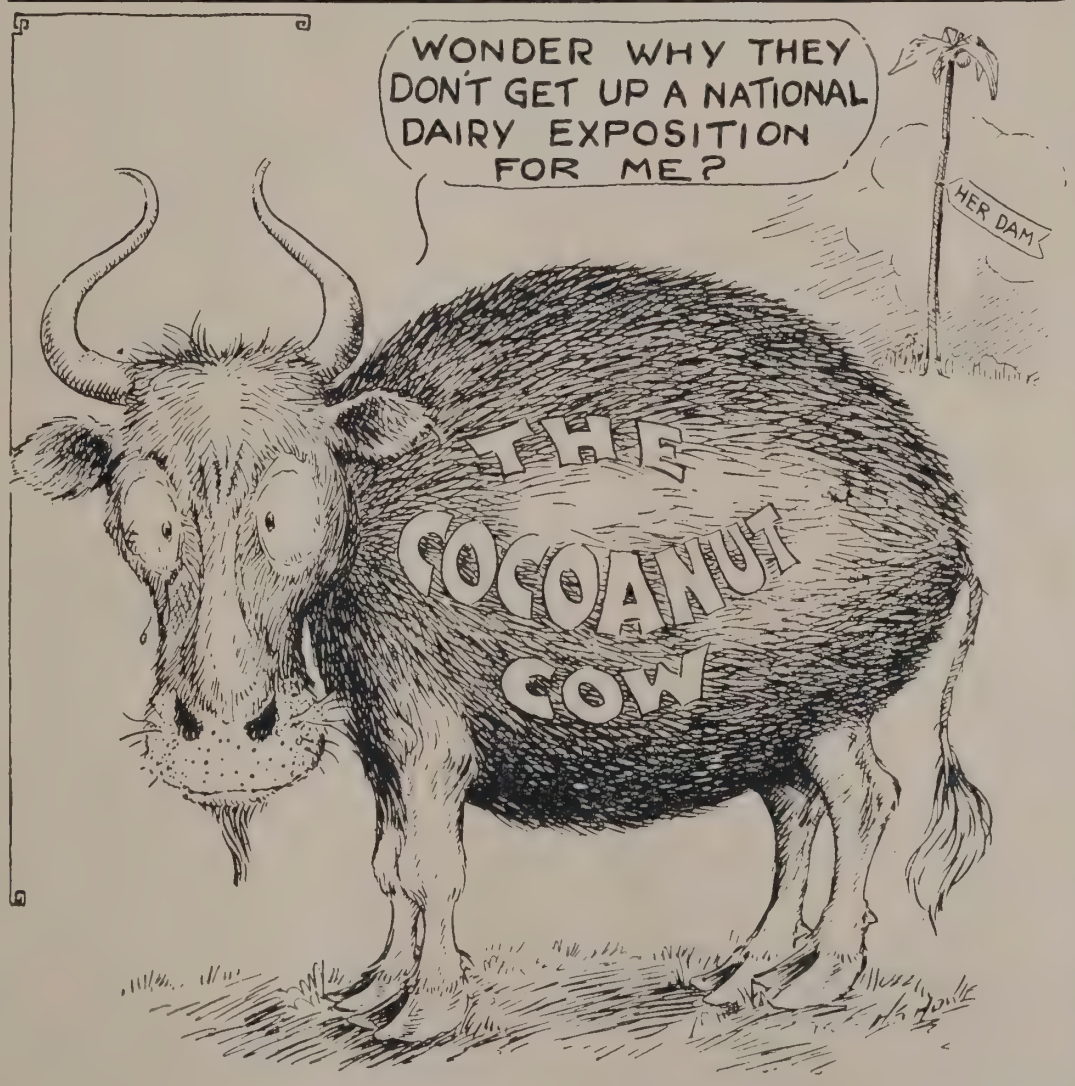
There are 80 acres of alfalfa on this farm and any man who grows alfalfa, especially if his farm is poor, finds it most successful to summer fallow his ground and sow his alfalfa early in August. This sounds good on paper but where a fellow is putting out 30 acres at a clip, he can scarcely afford to have a fifth or sixth of his farm out of production for a whole season. It is for this reason that I am getting away from summer sowing. I have found that if one has a fertile soil with some humus in it, seeding alfalfa with a nurse crop, barley or oats, is generally successful. And if it isn't, one has lost only his seed and there is yet time to prepare the ground after the grain is taken off.

The roadside adds vagrant acres to almost every farm and getting these to work remains a knotty problem. Of course, if there are both children and cows, they can keep track of each other and thus utilize some pasture off the road but I have always felt that the time required made this road pasture expensive feed. Along a gravel or limestone road, sweet clover will generally take root if sown right on the sod in the late winter. I have done this, and on the main traveled road the hay secured makes cutting the roadside less than a total loss and on the byroad we can harvest sweet clover seed which makes this pay better than almost any other part of the farm.

The barnyard is generally a bare spot although it is at the same time the richest one on the farm. We have no barnyard as such. We have found that we can best control parasites and diseases if we move the stock from one pasture to another and keep away from a permanent barnyard. Each year we rake seed in on the spots where the stacks have been on the fields, but the old barnyard is now a service court that produces its quota of alfalfa just the same as the fields.

Adding up, I find that we now have more than ten acres producing crops that were producing weeds and brush five years ago. In other words, we have added about nine per cent to the producing area on the farm simply by ridding it of its vagrant acres.

WHAT ABOUT ME?



Efforts to popularize milk as a beverage and as an item of food are being consistently made in Japan. We are just in receipt of a series of posters and publicity items issued in the Japanese language, similar to the publicity used by the National Dairy Council of the U. S. That this type of work is bearing fruit is indicated by the fact that milk production has increased from 26 million gallons in 1922 to 36 million gallons in 1926.

PRODUCTION AND USES OF MILK 1925-1926

Fewer Cows Produce More Milk In 1926

THREE and a third billion dollars is what the dairy industry contributed to the value of farm production in 1926. This is over a quarter of the total value of farm production, and the dairy industry is the biggest and most profitable branch of the farm business.

The dairy cow is on top with a production greater in value than that of the combined corn, cotton, rice, and barley crops. She supplies practically half the total value of all animals and animal products, and her products are nearly equal to the total value of all the grain crops. The farm value of her milk production exceeds that of all the gold dollars coined since 1886, and it is also in excess of the value of all automobiles and trucks manufactured last year as well as greater than the total output of the entire steel industry. These are the values of the dairy cow's product at the farm. They are not their wholesale value in the markets of the world. Consumers paid some five and a half billion dollars for these products.

Production of Milk Stupendous

Not only is the value of dairy products in excess of the production of any manufactured product, but the quantity of milk produced is stupendous. If the yearly production of over fourteen billion gallons were placed in milk tank cars, to transport it would require over eleven trains reaching across the 3,170 miles that separate New York from San Francisco. If placed in cans and transported in express cars, it would fill solidly twenty-three tracks between the Atlantic and Pacific oceans.

The one hundred twenty-one billion pounds of milk produced in 1926 is difficult to comprehend even when stated in its equivalent of over one and a third billion 10-gallon cans that placed side by side would girdle the globe fifteen times in passing from Chicago westward across the United States, over the Pacific ocean, through Japan, Asia, Europe, over the Atlantic, and then back to Chicago—a highway of milk sixteen feet wide and two feet deep going around this world of ours. Turned into a canal like the Erie Canal, this milk would float the commerce of the Mid-west from Chicago to the Gulf, with enough milk left over to fill a harbor that would float the U. S. Navy.

We see the huge tank cars of gasoline and the filling stations located at every crossroad, and marvel at this demonstration of the extravagance of the American people. Yet the dairy farmers of the United States produce a quarter more milk than the nearly eleven billion gallons of gasoline that last year were consumed by our automobiles, trucks, tractors, engines, and for other purposes.

The total production of milk for 1926 was over sixty million tons, or nearly two tons or 330 gallons at every tick of the clock during the the 24 hours of every day in the year.

Consumption Increases Fifty-one Per Cent

The consumption of dairy products has shown a startling increase, one that is gratifying to milk producers. In 1916 the consumption of milk and dairy products was equivalent to 37 billion quarts of milk, as compared with 57 billion quarts in 1926, an increase of over 51% in ten short years. the same time increasing population with no increase in number of cows has brought the number of cows down from 225 to 189 cows per thousand consumers, a decrease of 16 per cent.

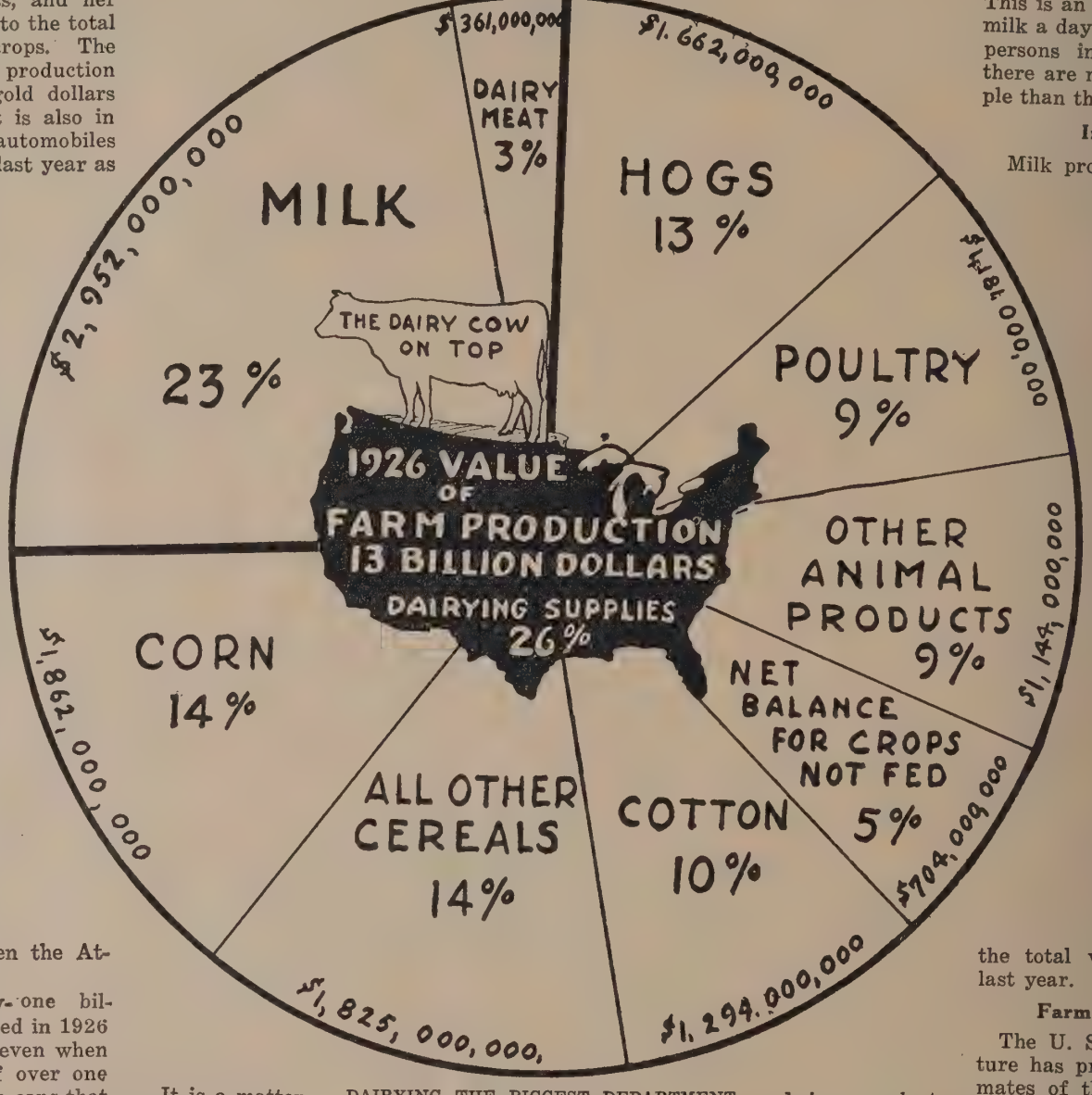
This increase in consumption of dairy products has been brought about in part by an increase of 17% in the population of the United States in the past ten years, the yearly increase now being nearly two million people. Even more important, however, has been the effect of the increased per capita consumption of dairy products, an effect doubtless due to the improved quality of milk and the educational programs have brought before consumers value of dairy products in the Per capita consumption of milk manufactured dairy products in was equivalent to 484 quarts of an increase of 29 per cent over 374 quarts in 1916.

While in 1916 the average sumption of dairy products equivalent to two pints of milk for 100 million people, in 1926 it 2.6 pints daily for 117 million pe This is an increase of over a gla milk a day for each of the 117 mi persons in the United States, there are nearly 17 million more ple than there were ten years ago

Increase in Value

Milk production has increased only in volume but in value and in the centage it bears to value at the farm o animal products the value of crops fed to farm animals.

The farm value milk, as shown in T III on the next page, increased a third billion dollars since or 13½ per cent in years. In 1919 it plied 15 per cent of value of all agricult production, increa this to 23 per cen 1926. If to the valu milk were added meat value supplie dairy cattle, we these percentages s what increased. As example, in 1926 w timate the values c than milk supplie the dairy cow to be million dollars, ma her total contribu amount to 26 per ce the total value of farm produc last year.



DAIRYING THE BIGGEST DEPARTMENT OF AGRICULTURE

It is a matter of satisfaction to the dairy farmer and evidence of his efficiency that this increased consumption has been supplied with fewer cows and with consequent better profits to the producers. Production per cow, even using the most conservative figures, has increased from 3,700 lbs. in 1916 to 4,700 lbs. in 1926, or a 27% increase per cow. At

Table I—United States Production and Consumption of Dairy Products in Terms of Milk
(Bureau of Agricultural Economics, U. S. Department of Agriculture)

Calendar year	Milk production	Balance of stocks Jan. 1*	Balance of foreign trade†	January 1 population	Total consumption	Per capita consumption‡
	Lbs.		Lbs.		Lbs.	Lbs.
1909	66,466,000,000	(even)	324,096,000	89,882,000	66,790,096,000	743
1914	75,000,000,000	—152,000,000	607,000,000	97,219,000	75,455,000,000	776
1917	84,612,000,000	12,600,000	—1,601,735,000	101,465,000	83,022,865,000	818
1918	87,906,000,000	220,794,000	—2,274,000,000	102,880,000	85,852,794,000	834
1919	90,058,000,000	—776,000,000	—2,645,000,000	104,295,000	86,637,000,000	831
1920	89,657,000,000	—180,000,000	— 552,000,000	105,711,000	88,925,000,000	841
1921	98,862,000,000	380,000,000	330,000,000	107,126,000	98,912,000,000	923
1922	102,562,000,000	698,000,000	— 123,000,000	108,541,000	103,137,000,000	950
1923	109,736,062,000	—603,000,000	477,000,000	109,956,000	109,610,062,000	998
1924	114,666,201,000	—576,496,000	283,972,000	112,079,000	114,373,677,000	1,020
1925	116,505,395,000	98,991,000	214,000,000	115,378,094	116,818,386,000	1,012
1926	120,766,487,000	570,518,000	506,396,000	117,136,000	121,843,401,000	1,040

*The balance of stocks shows the relation of stocks of dairy products (in terms of milk) on hand at the end of the year as compared with the beginning.

†The balance of foreign trade shows whether there was a net import or export of dairy products in terms of milk.

‡Average consumption of dairy products given in terms of the milk equivalent of the milk, butter, cheese, etc., consumed by each person in the United States.

Farm Production in 1926

The U. S. Department of Agru ture has prepared the following mates of the farm value of agru tural production in 1925 and 1926

Table II—Value of Farm Production in and 1926

Product	Value in mi of dollar 1925	2
Animal products:		
Cattle raised	$ 919	$
Swine raised	1,437	
Other animals raised	136	
Dairy products	2,746	
Poultry products	1,117	
Other animal products	112	
Total animal products	$ 6,647	$
Crops:		
Corn	$2,039	$
Wheat	987	
Other cereals	891	
Cotton	1,799	
Flax	50	
Fruit	668	
Hay and forage	1,471	
Legume seeds	130	
Seeds for planting	38	
Sugar crops	108	
Tobacco	234	
Vegetable crops	1,288	
Other crops	467	
Total crops	$10,170	$
Total crops and animal products	$16,817	$1
Crops fed to animals	3,783	
Total net production	$13,034	$1

*Six ciphers, 000,000, omitted.

The Dairy Cow Contribution

In the above estimates the dairy cow is not credited directly with

ier contributions to the farm value agricultural production. In order make a proper comparison we have de the following estimates based on best information available from figures issued by the U. S. Detment of Agriculture:

	Value in millions of dollars 1925	1926
ry products	$2,746	$2,952
ry veals	68	74
eased value of dairy cows	131	92
ry cows slaughtered	172	176
ry bulls slaughtered	19	19
otal	$3,136	$3,313

These figures do not include the led value of dairy cattle under two irs or the fertility values supplied the soil in the manure of the dairy v. Without these, however, the to- credit to the dairy cow in 1926 is irly three and one-third billion dols, or 25.5% of the thirteen bil- n dollars value of farm production past year.

le III—Yearly Value of Farm Products and of Milk Compared

	Total value all farm products*	Farm value of milk† Value	Per cent of total
	$17,684,000,000	$2,600,000,000	15
	14,545,000,000	2,885,000,000	20
	10,220,000,000	2,217,000,000	22
	10,192,000,000	2,097,000,000	21
	12,344,000,000	2,652,000,000	22
	12,219,000,000	2,586,000,000	21
	13,034,000,000	2,747,000,000	21
	12,985,000,000	2,952,000,000	23

Value at the farm of all animal products crops not fed to farm animals.
Does not include meat value contributed otal by dairy cattle.

Value Per Hundred

The estimated value of milk is at rate of $2.48 a hundred for 1926, ich is higher than for any year cept 1919 and 1920.

Starting with 1919 the farm value milk per hundredweight was estimated at $2.89, increasing to $3.22 in 1920, decreasing to $2.24 in 1921 and to $2.04 in the low year of 1922. It rose again in 1923 to $2.42, only to drop back to $2.25 in 1924, and then rise again to $2.36 in 1925 and to $2.48 in 1926.

Table VII—Production and Uses of Milk in the United States—1925 and 1926
(Bureau of Agricultural Economics, U. S. Department of Agriculture)

Product	Milk used per unit of product	1926 Quantity of product manufactured	1926 Whole milk used	1926 % of total milk	1925 Quantity of product manufactured	1925 Whole milk used	1925 % of total milk
	Lbs.	Lbs.	Lbs.		Lbs.	Lbs.	
Creamery butter	21.00	1,451,766,000	30,487,086,000	25.245	1,361,526,000	28,592,046,000	25.541
Farm butter	21.00	615,000,000	12,915,000,000	10.694	590,000,000	12,390,000,000	10.635
Cheese (all kinds)	10.00	427,416,000	4,274,160,000	3.539	447,514,000*	4,475,140,000	3.841
Con. and evap. milk	2.50	1,733,504,000	4,333,760,000	3.589	1,757,858,000	4,394,645,000	3.772
Powdered milk	8.00	10,768,000	86,144,000	.071	8,931,000	71,448,000	.061
Powdered cream	19.00	331,000	6,289,000	.005	339,000	6,441,000	.006
Malted milk	2.20	20,673,000	45,481,000	.038	18,050,000	39,710,000	.034
Sterilized milk	1.00	1,286,000	1,286,000	.001	1,576,000	1,576,000	.002
Milk chocolate			171,543,000	.142		228,822,000	.196
Ice cream	13.75	324,665,000†	4,464,144,000	3.698	322,729,000†	4,437,524,000	3.809
Total			56,784,893,000	47.020		54,637,352,000	46.897
Milk: For household purposes‡			56,417,000,000	46.716		54,325,776,000	46.629
Fed to calves§			3,941,600,000	3.264		4,047,105,000	3.474
Wasted (estimated)			3,622,487,000	3.000		3,495,162,000	3.000
Grand total			120,766,487,000	100.000		116,505,395,000	100.000

*Includes 4,000,000 pounds farm made cheese. †Gallons.

‡55.3 gallons per capita for 117,136,000 people in 1926 and 54.75 gallons per capita for 115,378,094 people in 1925.

§200 pounds per calf, and number of calves estimated at 85% of total dairy cows.

Production Per Cow Increasing

The total production of milk in 1925 represents the annual production of 23,186,000 cows. This would give an apparent average production of 5,208 lbs. per cow as shown in table IV. It is believed, however, that this is greater than the actual production per cow and we have therefore reduced this by ten per cent in preparing the previous comments and in the composition of the accompanying illustration as to the increased production per cow. Even when making this reduction for 1926, we still find the average production per cow to be 1,000 lbs. per cow greater than it was ten years ago.

We would call attention to the facts disclosed in table IV that we have increased the total production of milk by 48 per cent over ten years ago despite the fewer number of cows, both as to total numbers and as to the number of cows per 1,000 people.

The milk production per cow as given in table IV is based on the average number of milk cows on farms at the beginning and end of the year, plus the number of milk cows not on farms that are estimated at 1,200,000 for the years 1920 to 1926.

Table IV—Production Statistics

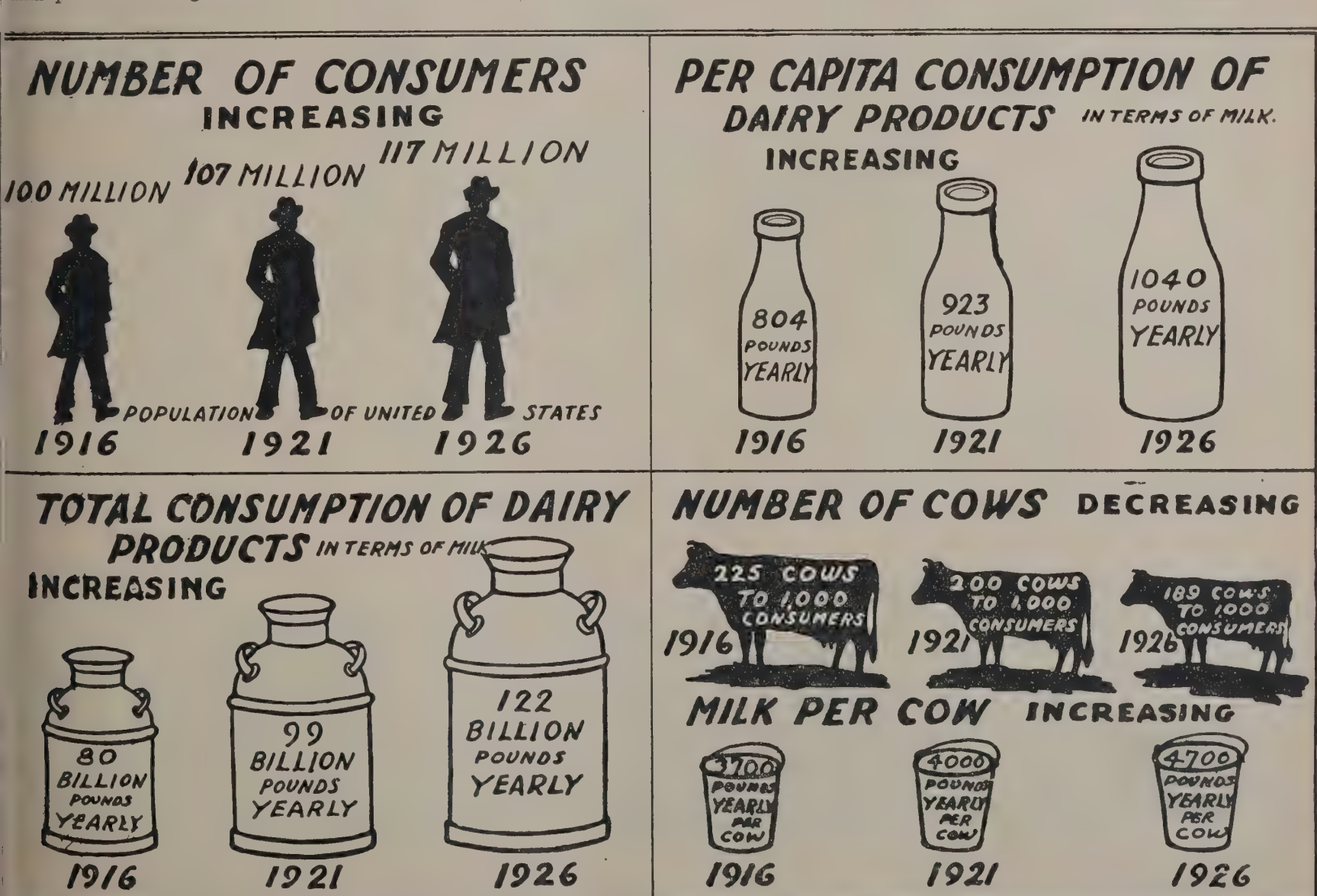
Year	Milk cows on farms Jan. 1	Ave. milk per cow*	Total milk produced	Farm cows per 1,000 people
		Lbs.	Lbs.	
1840	4,837,000			287
1850	6,385,000			278
1860	8,586,000			276
1870	8,935,000			234
1880	12,443,000			251
1890	16,512,000			264
1900	17,136,000			237
1910	20,625,000	2,902	64,211,000,000	225
1914	20,737,000		75,000,000,000	213
1917	22,894,000	3,716	84,612,000,000	226
1918	23,810,000	3,937	87,906,000,000	231
1919	23,455,000	3,412	90,058,000,000	225
1920	21,427,000	3,964	89,657,000,000	203
1921	21,408,000	4,336	98,862,000,000	200
1922	21,788,000	4,435	102,562,000,000	201
1923	22,063,000	4,698	109,736,000,000	201
1924	22,255,000	4,865	114,666,000,000	198
1925	22,481,000	4,954	116,505,000,000	195
1926	22,148,000	5,208	120,766,000,000	189

Per Capita Consumption of Dairy Products

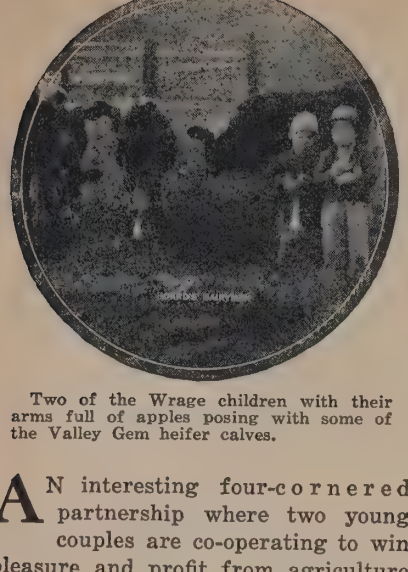
The consumption of dairy products in terms of milk has increased from 380 quarts per capita in 1917 to 484 quarts in 1926, or a 27 per cent increase in the past nine years. A very large proportion of this increase has come through the increased consumption of fluid milk. The per capita consumption of fluid milk in 1926 was 55.3 gallons for every man, woman, and child in the United States. This is an increase of more than two quarts of fluid milk per capita over 1925 and an increase of 51 quarts, or 30 per cent, over 1917, the first year for which data are available.

Butter consumption increased to 17.82 lbs. per capita in 1926, which is a half pound over 1925 and 3.2 lbs. over 1917. While this represents an increase for the past nine years of the equivalent of 31 quarts of milk per capita, yet this is an increase that is more apparent than real. Twenty-five years ago the per capita consumption of butter was nearly 20 lbs., and it is a problem for the future how we may again regain this consumption.

(Continued on page 966)



THE PROGRESS OF THE GREAT DAIRY INDUSTRY IN EXPANDING ITS MARKETS AND INCREASING ITS EFFICIENCY IS SHOWN ABOVE. PRODUCTION AND CONSUMPTION OF DAIRY PRODUCTS HAVE INCREASED 51 PER CENT WHILE THE NUMBER OF COWS PER THOUSAND CONSUMERS HAS DECREASED 16 PER CENT.

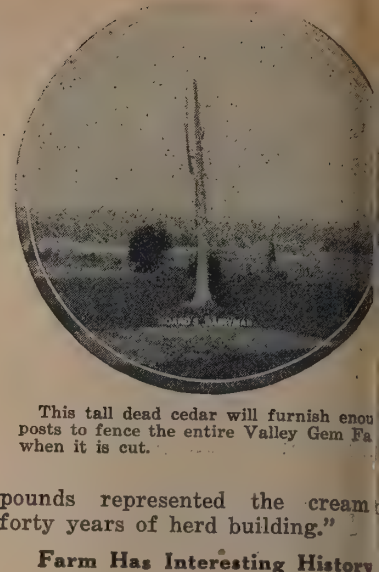


Two of the Wrage children with their arms full of apples posing with some of the Valley Gem heifer calves.

Four Cornered Partnership

Success Due to Understanding, Watchfulness, and Industry

GUY A. PETERSON, WISCONSIN



This tall dead cedar will furnish enou posts to fence the entire Valley Gem Fa when it is cut.

AN interesting four-cornered partnership where two young couples are co-operating to win pleasure and profit from agriculture may be found on the Valley Gem Farm, State of Washington. Here the especial talents of each member of the farm corporation are allowed free play. The land is owned by John Wrage's mother, but the farm enterprise is run by the son and his wife and by Mr. and Mrs. C. H. Grewe.

Mrs. Wrage does the milking on this successful farm. Her husband superintends the pure-bred hog business. "Charley" Grewe cares for the poultry department, and his wife takes care of the children for both families when Mrs. Wrage is working with the herd.

A Well Loved Herd

Neighbors the county over will tell you that the success of the dairy is due to the watchful eye and expert care that Mrs. John Wrage gives to the beautiful herd of pure-bred Guernseys as she milks them night and morning with a machine and directs their feeding with daily production and individual characteristics as the guides for the amount of concentrates to be fed.

Mrs. Wrage was just putting the milking machine together in preparation for the evening chores one rainy evening last October as we drove into the yard. Absolute cleanliness is the first law of dairying with her. The barn is whitewashed twice a year. Live steam is used to sterilize every utensil and bottle. A water cooler takes the body heat from the milk as soon as it is drawn from the cow. Each cow's udder is washed before milking and the entire herd is kept scrupulously clean with clippers and curry combs. By the use of these simple tactics she has kept the bacteria count so low that few certified dairies can equal it. Sometimes as few as 250 bacteria per cubic centimeter have been found in this milk by the Seattle inspectors.

Forty Years of Herd Building

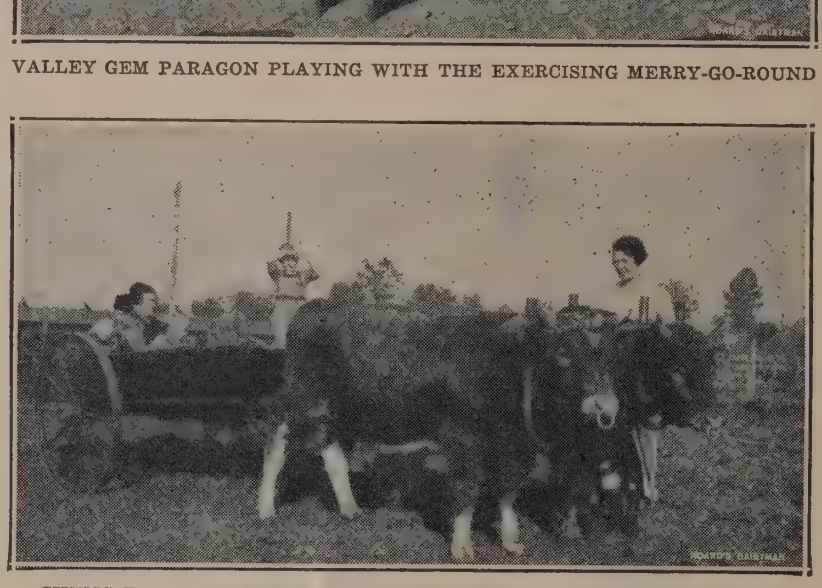
Mrs. Wrage loves cows. Everyone in the herd is her pet. That in a nutshell explains many of the commendable things that can be said about the production records of the herd. When the Snohomish Cow Testing Association, the oldest active association in Washington, was started in 1911, the Valley Gem herd was tested for the first time. The average that year was 281 pounds. Then for five years the association had no tester. It was reorganized in 1917, however, and has been active ever since with the Valley Gem herd often leading in production. The butterfat per cow averages from 1917 on for this herd were 301, 358, 382, 383, 412, 475, 483, 390, and 371.

The high average of 483 pounds per cow was made just before the last 10 grade Guernseys with a 591-pound average production were sold. Mrs. Wrage is now milking nothing but pure-breds and she hopes to get as good or even better records from them after a few years.

The fact that the grade herd averaged higher than the pure-bred is not a condemnation of pure-breds, for as John Wrage said: "If dad had started out with pure-breds and had bred for production year after year as he did with the cows he had, there is no reason why pure-breds would not have made equally good records. The ten grade cows that average 591 pounds represented the cream forty years of herd building."



VALLEY GEM PARAGON PLAYING WITH THE EXERCISING MERRY-GO-ROUND



GIVING THE YOUNGSTERS A RIDE, WITH MRS. WRAGE AT THE HELM

Farm Has Interesting History

Perhaps it may be well at this p to give a history of the farm as J Wrage told it to us, for in a way history is similar to that of m pioneer farms that have been cut of the damp wooded wilderness Western Washington and Ore "Dad took up the place in 1880," said, "when he first settled in country after emigrating from many. He packed a stove on his b for a distance of 18 miles ove blazed trail to get it to this fa Most of the pioneer household clearing necessities were car through the woods on his back in same way. About 70 acres of the that he took up was swamp land covered with water. There were th trees on the place that were n than 14 feet in diameter 10 feet ab the ground, but in those days fa ers looked upon trees as somethin get rid of, so they burned even big, beautiful cedars.

"Dad cleared about a third of place before I got old enough to h but I helped clear more than hal it as I got big enough to work. Th were no clay tile in these parts f years ago so dad used split cedar make drainage boxes. He laid th sands of feet of this and it is so l that we can stop up the drains to sub-irrigation if we ever encounte drouth.

Has Fight With Beavers

"Dad and mother almost had leave the place once because t couldn't rid their farm of beavs. These animals caused a great deal trouble with the drainage system they multiplied so rapidly that fat almost gave up hope of eradicat them. One year though he frighte them by hanging up a bright red c oil can until the high waters ca after which he finally trapped th out.

"Dad's whole ambition was to m a wonderful farm. He started with scrub stock because that was anyone had in those days, but he one of the first in the country to a pure-bred sire. He built the sec silo in the county at a time wh farmers around here didn't p

(Continued on page 956)

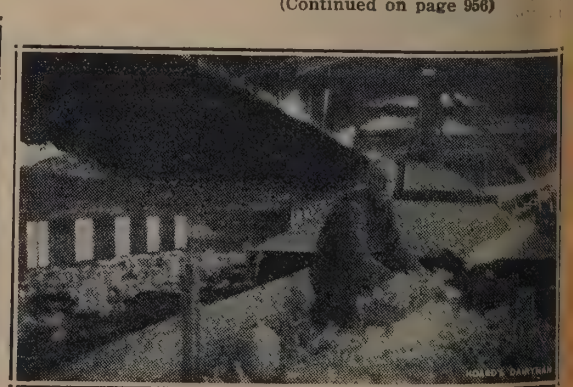


JOHN WRAGE FEEDING PURE-BRED HAMPSHIRES ON RECENTLY CLEARED LAND

The pig makes good use of the by-products of the dairy farm and pays a good sum for both whey and skimmilk when properly supplemented with grain and pasture.



Nancy Lee of Valley Gem made an A. R. record as a four-year-old of 570 pounds fat and 11,487 pounds milk and was sent to Honolulu after she had been milked by the mayor of Seattle and been dined in the Olympic Hotel as a feature attraction of the city "Drink more milk campaign."



A VIEW OF THE BROODER HOUSE ON VALLEY GE FARM WHERE 1,000 PULLETS ARE REARED ANNUALLY

Besides the pullets, 1,600 laying hens are kept. Electr lights lengthen the working days for these hens.

CAUSE, CURE, AND PREVENTION OF DEPRAVED APPETITE

OR several years farmers in certain sections of Western Minnesota have been having serious fficulty in getting normal growth, production, and milk production om their cattle. The condition was lled to the attention of the Univer- y of Minnesota Agricultural Experiment Station staff by the numer- s inquiries that came in asking out the cause of the condition and r a remedy.

In 1923 the station made an investigation in the areas affected and om this and a study of published ports of other investigators, anned some experimental work th a view to determining the spe- ic cause and of finding a remedy. ne work was carried on under the rection of C. H. Eckles, R. B. Beck- , and L. S. Palmer.

The symptoms shown by cattle in ese areas, a brief statement of ch experiment conducted, together th the conclusions of those in arge, are of interest to dairymen. ne most common symptom reported depraved appetite nich is often exhibited an extreme form. The mer usually first notes a desire on the rt of his cattle to ew bones, later the nimals gnaw wood, ten to such an extent at the mangers in the rn have to be replaced the spring. Fence sts of soft woods are most devoured. Anils chew leather and t dirt. Losses are not common from animals tempting to swallow ch material as slate or all rocks. Next to abrmal appetite the st marked symptom is ffness of the joints, ten so severe that the imal walks with great fficulty. Broken bones e sometimes observed t are by no means mmon. Owners state at affected animals se their appetite, dene in weight, and rink in milk. Testiony is uniformly to e effect that heavy ilking cows and growg animals are affected st severely. Bulls and y cows having little re than the requirents of maintenance to eet are affected less serely, or may show no sible symptoms of mineral shortge. Cows affected while in milk tend recover during the dry period.

Considerable trouble was reported th breeding, but no more than the ual amount of abortion seemed in idence. On many farms a cow is t expected to produce a calf more an once in two years. Heifers metimes do not breed until they e past two years old. The average lf crop in the worst affected dis- ict, as observed following a dry sea- n, was estimated at less than 50 r cent of the normal. The trouble reported as occurring more severe- during the late winter and early ring, especially following dry sea- ns. The cattle usually recover dur- g the pasture season and are, as a le, about normal again by fall. ature cows brought into the affected area from regions where the trouble is not prevalent do not exhibit the abnormal appetite until they have lived in the district at least a year.

Many farmers in the newly settled parts of the affected area point to wild hay as the source of the trouble. Many of them depend largely upon wild hay, straw, and corn stover as feed for their cattle during the winter. Some of the affected herds receive little or no grain. The information secured indicated that less trouble was experienced when legume hay was fed in place of the more commonly used prairie hay, but the use of home-grown alfalfa by no means insured freedom from the trouble. In fact, one herd showing especially severe symptoms, including broken bones, received alfalfa hay regularly.

Cattle were observed by the authors on some farms that showed decided symptoms after having been on pasture all summer. Visits made in the spring indicated that the description of conditions as given by cattle owners was by no means overdrawn. In one case investigated some members of a dairy herd had died from broken bones. One cow, unable to get up, was killed by the station veterinarian and found to have a broken pelvic arch. A few cases of crooked legs were observed; also some animals in which movement of the joints was accompanied by noise which could be heard distinctly at a distance of 20 feet.

Cattle grown in these areas are decidedly stunted in size and when mature their heads appear too large for the body. Animals four years of age, on some farms, weigh less than 600 lbs. as compared to a normal of 1,000 to 1,100 for animals of similar age and breeding. It was also observed that cattle on farms where the trouble prevails at times were listless and not inclined to move about, even though no positive symptoms of mineral deficiency were noticed. It was evident from conditions as seen on the farms that serious financial losses are experienced through lack of proper growth, depreciated value of the carcass due to poor fattening, lower milk yields, and a poor calf crop. The trouble is especially detrimental to the dairy cow, but interferes also with beef production.

Representatives of the live stock market at South St. Paul are responsible for the statement that the quality of cattle coming to market from the counties where this trouble was studied is especially inferior.

The first experiment conducted was that of determining the efficiency of bone meal as a cure and as a preventive of depraved appetite. With the co-operation of herd owners, six typically affected herds in the mineral deficient area were used in this trial.

The second experiment was conducted at the experiment station to determine if depraved appetite could be produced among cattle from the affected regions, but not at the time showing symptoms, by the use of feeds grown on farms where trouble regularly occurred during the winter season.

After positive results were obtained from the animals used in the second experiment, mineral supplements were added to the basal ration. Other cattle from the affected areas showing extreme but typical symptoms were treated in like manner.

The conclusions of those having charge of this work are as follows:

Conclusions

The chief cause of the condition is a lack of phosphorus in the roughages fed due to the low phosphorus content of the soil. The farm practice in the affected regions of depending too much on a ration composed largely of roughages for rapidly growing animals and lactating cows is also a factor. The fact that rapidly growing animals and lactating cows are affected most, that the condition becomes worse in late winter, and that affected animals tend to recover during the summer while on pasture, indicates that the low intensity of ultra-violet light in winter and the lack of green feed may be more or less involved as contributing to the cause of the condition.

The condition can be produced under controlled feeding of rations deficient in phosphorus.

The lack of phosphorus inhibits growth in young animals and reduces milk production in lactating cows though it does not affect the mineral composition of milk.

The data suggest that a lack of phosphorus is the chief cause of the failure of open females to come in heat regularly.

The calcium content of the feeds grown in the affected areas when compared with that of similar feeds grown in unaffected areas, does not indicate that this element is a limiting factor.

The phosphorus content of alfalfa and prairie hays is affected directly by the soil and by the amount of rainfall during the growing season.

The feeding of finely ground sterile bone meal with reasonably good dairy rations and salt will cure and prevent the depraved appetite. The feeding of bone meal or spent boneblack is the most economical method known to cure and prevent the condition. It must be recognized that this is somewhat of a temporary means of controlling the condition and that the application of phosphate fertilizers to pasture and hay lands in affected areas must be made if a more permanent control is to be effected.

A complete report of these experiments will be found in Bulletin 229 of the Minnesota Agricultural Experiment Station, University Farm, St. Paul, Minnesota.



—Courtesy Division of Soils.

Showing effect of phosphate on wheat in the area where cattle are badly affected because of mineral deficiency in crops grown and fed. Each bundle of wheat is from 6 sq. yds. Phosphate fertilizer used on area that produced bundle on right.



—Courtesy Minnesota Experiment Station.

Figure on the left shows the condition Cow E-58 was in when received at the Experiment Station from a badly affected farm. Figure on the right shows the same cow (dehorned) after receiving the basal ration and phosphorus for 13 months. She gained in weight from 498 to 860 lbs.



—Courtesy Minnesota Experiment Station.

Showing the condition of Cow E-61 when received by the Station from the same herd as Cow E-58. On the right is the same cow after 300 days during which time she received thebasal ration with tri-calcium phosphate supplement. She gained in weight from 475 lbs. to 808 lbs.



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They save money on work shoes

as well as on their rubbers

ABOUT three years ago Mr. Chaffee, whose photograph appears here, complained that he had to buy shoes too often to suit his pocketbook. A local Ball-Band dealer offered the Mishko Shoe as the solution of his problem. Today, he says:

"I get four times as much wear out of Mishko as I ever got out of any other shoe I ever wore. They are the first shoes I ever wore that never had to be resoled, and boy, that's saying something, because I sure give 'em hard wear. Half the time I'm on the run, over cement sidewalks, across soft, wet ground, up and down stairs, stairs, stairs, and jumping in and out of my wagon, swinging heavy bottle carriers before me. Any shoe sole that can stand that kind of punishment as long as the uppers can, is *some* sole."



FRANCIS P. CHAFFEE
Milk Wagon Driver for
Bryant & Chapman Dairy Co.
Hartford, Connecticut

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It is because of the manner in which they are built and the sound materials used in their construction that Mishko Shoes give the long wear that Mr. Chaffee describes. And they have such *comfort* built into them as you would hardly expect to find in a work shoe.

The sole is an exclusive Ball-Band product. It is tough, flexible and waterproof. The heel is of the same material as the sole. The uppers are grain leather, soft, pliable and very durable. The counter is solid sole leather, with the slip sole running from heel to toe. Seams are double or triple-stitched, with extra strong thread. The tongue and toe cap are grain leather and the full vamp runs to the toe. Sole leather is used for the insole.

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New Plan to Market Cream

F. R. FARNHAM, NORTH CAROLINA

ONE of the difficulties confronting many North Carolina farmers who have entertained a desire to sell cream is the long distance from their farms to the creameries. Even though a farmer may desire to start shipping cream, the quantity he has to begin with is small. The expense of purchasing cream cans, together with the time involved in delivering it to the nearest railroad station, the loss or delay in getting the empty cans returned, leads him to decide that the job is too difficult.

For years the marketing of cream in small quantities has been attempted by trying to utilize a method known as the cream route. Many county agents have expended considerable time and effort in organizing these routes, but often due to the small quantity of cream produced by the average farmer who is just starting into the business of milking cows it is found that the cost of operating a cream gathering truck or wagon was excessive. After a few initial rounds, the cream route was abandoned, leaving the farmer to market his cream the best way he could. He usually dropped back to the old system where the farm wife made butter and once each week disposed of it at the country crossroad store, receiving from one-third to one-half less per pound than what creameries were paying, and accepting store goods in payment instead of cash. Here was a real problem to solve in Western North Carolina when the dairy production work was started three years ago, before the county agent and dairy specialist could consistently visit a farmer and ask him to start milking cows. Eventually a plan was worked out and now has been in operation in several counties located in Western North Carolina, which has proven both practical and successful. To substantiate how successful it has operated, the creamery, located at Franklin, made in July over 16,000 lbs. of butter. All of this cream was delivered by the individual farmer to these cream stations. Briefly, the plan used in developing the modified cream assembling station and plan for operation is as follows:

1. The county agent and dairy specialist visit the section of the county where the local crossroad store is buying a fair quantity of home-made butter each week. After making this survey and determining that a surplus of cream is produced, arrangements are then made with a merchant to act as cream station operator. One or two 10-gallon cream receiving cans owned by the creamery are placed at the store. The merchant is paid two cents per pound of butterfat received for his services in weighing and correctly sampling each patron's cream.

2. Then the county agent with the dairy specialist will visit a number of farmers living within a radius of two miles of the cream station and at each farm will explain to the farmer and his wife that a cream receiving station has been established at the store and that cream will be received twice each week, usually on Tuesday and Friday. It is suggested to them that instead of churning they can hand skim the cream and bring it to the cream station on the proper days. All cream must be delivered not later than 2 p. m.

3. When the first cream day arrives, the county agent and dairy specialist should be present at the station to teach the merchant how weigh and sample cream correc and to record the cream recei from each patron. For a few ti the county agent places the can cream in his car and takes it to nearest railroad station and ship to the creamery the same day it collected. After doing this two three times, the quantity of cr will usually increase sufficiently make it easy to get the cream de ered to the railroad station.

4. Arrangements are made w the creamery purchasing the cre to pay once each week. This me that the patrons will be one w back in receiving their cream che and after the first week their cre checks for the previous week's de ery will be handed them as they liver their cream. This system i great stimulation for increasing quantity of cream delivered.

As a direct result of this plan following results have been obtain

1. Farmers who would not l cream shipping cans have been duced to start selling cream to th stations and many small farmers becoming intensive dairymen v probably never would have b otherwise.

2. Where the farmer can see cream weighed and properly samp it eliminates the question in his m about receiving a square deal. T country merchant, who is usually station operator, is a booster for dairy business because his patrons ceive more than he could pay cream on the country butter ba and he finds that they also spen

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siderable portion of their cream
ck at his store each week.
. By collecting the cream twice
h week automatically produces a
ter quality of butter than can be
de from cream gathered less often.
s one point overcomes the objec-
n to the old type cream station
ere the cream station operator col-
ed cream for a week or ten days
l then shipped to the creamery.
s method was not satisfactory.
. Probably one of the most de-
ble features, from the farmer's
ndpoint, is the saving of time in
ivering his cream. Usually the
am station is located within two
es of each patron's farm, and a
all boy or girl can deliver the
am without taking up the farmer's
e.
n conclusion, this method has
ed the problem of delivering
am, especially back in remote sec-
ns of mountain counties. It has
rcome the old objection of the
tralized cream station method in
t the best quality of cream is se-
ed and shipped to the butter fac-
y the same day received. To date
re are five counties in Western
th Carolina using this modified
am assembling station method and
the last two or three years they
e developed a sufficient volume of
terfat to justify the building of a
amery in each of these five coun-
within the next eighteen months.
seems reasonable to assume that
s plan can be carried out in nearly
ry county in the state.

Tuberculin Reactors Should be Branded

HOARD'S DAIRYMAN:—H. Ericksen, dairy inspector for Santa Barbara, California, who in the last three years brought that city from the lowest to the highest in the California



H. Ericksen, Santa Barbara milk inspector, in the city service car that takes him out to help the dairymen produce cleaner milk. Due to Ericksen's efforts, Santa Barbara set a new high score of 97.6 for California cities in the surprise milk scoring contests.

surprise milk scoring contests, would like to see a state law passed requiring all reactors to the tuberculin test to be branded on the jaw or hip. He says the present method of tattooing in the ear is not satisfactory because the tattoo marks are so easily effaced. He believes that branding would be a protection to the dairyman against unscrupulous men who would sell infected cattle.

In California it is lawful to sell a reactor for dairy purposes so some dairymen maintain reacting herds. However, the movement for eradication of tuberculosis is spreading even in this state where the farmer gets neither state nor federal aid when he begins about to clean up his herd. One of the first California cities to pass an ordinance requiring that all milk sold as whole milk be produced by tuberculosis free herds was Santa Barbara. This pertains to pasteurized as well as raw milk and the clean-up campaign has resulted in a great increase in consumption of milk there. When Ericksen took up the milk inspection work in Santa Barbara a little over three years ago, the city was using only 45,000 gallons of whole milk a month. At the end of three years that monthly consumption had been brought up to 75,000 gallons, although there was little increase in population and no decrease in price. This shows that people will buy more milk if they know it is good.

From the figures on milk consumption in Santa Barbara, Ericksen believes that it would pay to get rid of diseased cows purely from the standpoint of increasing the use of milk even though the farmers would get nothing for their diseased animals. To quote him, "Milk consumption will increase only in accordance with public confidence in their local supply. The state of mind of the general public is such that it will not accept pasteurization as a cloak for distribution of milk obtained from infected herds. The facts speak for themselves. Until Santa Barbara passed the ordinance requiring that all her milk supply be produced in tuberculin tested herds there was no increase in the consumption of pasteurized milk during the past three years, while the consumption of raw milk from tested herds increased more than 100 per cent during the same period."

Iowa. PETER GUYSON.

A Tightwad

A farmer man once owned two cows
He fed with equal care,
And one was fat and slick and fine,
A show cow at the fair,
But any time that cow was milked
She had no milk to spare;
The other cow was not so fat,
Her bones were almost bare,
But when the farmer sat him down
He filled his milk pail there.
A butcher came along one day
The first cow went somewhere.
—C. A. GALT.

A kind old gentleman, noticing a small boy carrying a lot of newspapers under his arm, said, "Don't all those papers make you tired, my boy?"

"Naw, I don't read them," the lad replied.



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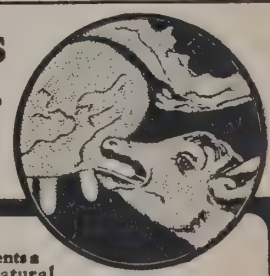
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MOST MILES PER DOLLAR

AMERICANS SHOULD PRODUCE THEIR OWN RUBBER. Harvey S. Firestone

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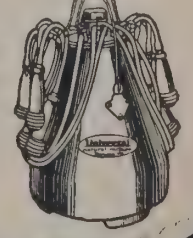


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HOT WATER IN THE DAIR

E. R. MEACHAM, WISCONSIN

ADEQUATE sterilization is one of the greatest needs on dairy farms today," says Professor G. C. Humphrey of the Wisconsin College of Agriculture.

Some states set forth quite definitely what adequate sterilization means in their dairy laws, but others merely demand that "cans, bottles, or other vessels shall be thoroughly washed and cleansed," leaving each farmer to decide for himself what "thoroughly" means.

But the big city milk companies and some of the condenseries set up a very definite standard by implication. By grading the milk according to its bacteria count, they reward proper cleansing and penalize its neglect very effectively. One of the absolute essentials for keeping the count low is the sterilization of every can or pail that has held milk. Everything must be washed and scrubbed to shining cleanliness, then rendered sterile of milk bacteria by the use of very hot water.

Proper cleansing demands plenty of hot water. Many farmers who have cold water under pressure are still troubled with the problem of getting hot water to the dairy room. If they carry it from the kitchen to the dairy, there is not enough to be effective and it cools on the way.

To the farmer who lives along a power line, the electric water heater offers one way of getting hot water. The convenience and fire safety of this method of heating water are unquestioned. Many farmers feel that these advantages alone justify the cost of electric heating. But where really clean milk commands a premium, hot water helps to increase the income as well.

The simplest form of electric water heater is a specially designed tank that may be connected to the piping of the water system so as to supply hot water at the sink where the cans are washed. If there is no running water in the dairy, the heater may be filled through a large opening in the top, and hot water drawn off through a faucet at the bottom. The electric heating elements are fastened around the outside of the water chamber, and the whole thing is covered with a thick insulating jacket that keeps the heat in.

A heater of this kind has been in use in the dairy room of the Tabbert Farm near Ripon, Wisconsin, for more than two years. Mr. Tabbert fills the tank by hand when he goes t milk. It only takes an hour to the water to boiling so it is a ready for him when he is through ing for the milk. He uses it but a day. The cans are thoro washed and scalded in the mo and rinsed with the warm wate in the tank at night. A separat ter on this tank shows that its age current consumption has be kilowatt hours a month for ten c

Another farmer in Southern consin has a similar heater set i plumbing, so hot water under pre is carried directly to the sink he washes the milk things. This is thermostatically controlled, an temperature is set to heat the hot enough for adequate steriliz He generally has eight cans of m day. The milking machine, the and all of the various utensils have held the milk are washed then rinsed with very hot water a day. The records for this h show an average consumption o kilowatt hours a month.

The proper sterilization afford the hot water, together with me



AN ELECTRIC WATER HEATER WHICH REQUIRES NO ATTENTION AND IS INSTALLED IN THE BARN AT THE ENTRANCE TO THE MILK HOUSE

ical refrigeration that enables hi cool his milk quickly, gets for hi extra 40c a hundred pounds at th cal condensery because his bac count stays below 10,000.

A summary of experiments ma several states indicates that on th erage it will take about 75 kilo hours of electric energy per mon heat the water required in a ten dairy. Naturally the amount of ter used by different men will widely. The temperature to which raised will also affect the cu required.

A heater of ten gallons cap seems to be best adapted to farm ditions. It should be well insulate retain the heat, and it should be trolled by an automatic thermost

This control may be set to mai the water temperature at any p With good insulation the heat lo when no water is drawn, are small, so merely keeping the w hot between washings uses very tle current. The thermostat makes it practical to use a small ing element as there will be no ing for hot water. It never forge turn the current on or off as requ and so protects the heater from b ing out if left empty, and from w ing the current by boiling the w unnecessarily.



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EDITORIAL COMMENT



WASTING FEED

According to a report of the United States Department of Agriculture, the domestic consumption of cottonseed meal has increased to over two million tons a year, and it is being used for feed and fertilizing purposes. Only 1,000,000 tons were used five years ago.

Cottonseed meal is a most excellent source of protein for dairy cows and it is difficult for us to understand how any system of agriculture can be carried on economically when this good feed is used for fertilizing purposes. We are not producing as much high protein feed as is required to nourish properly our 22,000,000 dairy cows. The low production of many herds can be attributed to the lack of protein and it seems deplorable that a portion of the protein which should go to these cows is put back on the land for fertilizer. This emphasizes the fact that we have by no means solved our agricultural problem and further that it is necessary to grow more legumes both for the sake of the land and our live stock. The land needs more nitrogen and our cows need more protein. The cheapest and best way to provide these elements is by growing legumes. The by-products of our mills are not producing enough high protein feeds to supply all that is needed for our live stock and it seems to us a great waste to use any for fertilizing purposes.

The right practice is to give this high protein feed to live stock, carefully conserve their manure and return it to the land.

OPPORTUNITY

A subscriber writes asking us where he can buy grade Holstein cows capable of producing 12,000 lbs. milk a year and what such cows would cost. We in substance replied that it would be difficult to purchase cows of this capacity. The farmer who owns such cows does not care to sell them. If he would have some for sale, he would probably ask $200 to $250 apiece for them. The dairy farmer who owns good cows but does not belong to a cow testing association might be willing to part with cows of such capacity for less money because he does not know what they were capable of producing.

We find, as year succeeds year, more buyers seek exceptionally high producing cows and are willing to pay good prices for such animals. The demand is far beyond the supply, and there is opportunity for the dairy farmers to produce more such cows and to get their prices for them.

Young men who may be pondering whether they should enter dairy farming or seek some other occupation, may well consider that there are always large opportunities for the man who excels. The person who does but average or below average work has little or no opportunity to make money, no matter what occupation he may follow. Legislation, co-operation, organization will not materially change the income of the average and the below average. There are large opportunities for men in dairying who own herds above the average, and especially those willing to do intelligent work.

STANDARDIZING CHEESE

The National Cheese Institute calls attention to a ruling of the attorney-general of Wisconsin that milk may be standardized for the manufacture of American cheese provided the cheese contains not less than 50 per cent fat in its water-free substance. The Institute declares "that this organization is flatly and unalterably opposed to any move or practice that may result in the lowering of cheese quality standards; that it is the judgment of the board of directors that cheese quality which will find favor with the consuming public is dependent on clean, wholesome milk delivered to a sanitary plant where it is carefully and conscientiously made up into an inviting product containing fat in excess of minimum legal requirements and moisture substantially below the lawful maximum."

It has occurred to us that we have arrived at a time when the standardization of milk is feasible for the manufacture of cheese. This does not mean a lowering of the quality of cheese, providing the courts will enforce the law requiring that cheese contain not more than 38 per cent moisture and not less than 50 per cent fat in the water-free substance. To secure the proper enforcement of the full intent of the law, we would suggest that the section of the law pertaining to cheese standards have added to it the words "all tolerances allowed for."

We believe the quality of Cheddar cheese is impaired when it contains more than 38 per cent of moisture and when it contains less than 50 per cent fat. It is well known that difficulty is encountered in enforcing any arbitrary standard unless the law specifically states that all tolerances are allowed for. It is for this reason we suggest that the Wisconsin standards for governing the manufacture and sale of Cheddar cheese be amended.

A DAIRY PROGRAM

"Your paper is in direct touch with the farmers of the state, and we would appreciate any assistance you can give to make the Congress a success. It would help us materially if you offered suggestions editorially as such suggestions could be a matter of discussion during the meeting."

This is a request made by Gov. Fred R. Zimmerman for our co-operation in building a program for the Wisconsin Farm Congress to be held at Madison, Wisconsin, October 13 and 14. We are pleased to meet a request of this kind, for all our efforts are devoted to advocating ways and means to improve agricultural conditions and to make dairy farming more profitable.

Something over a year ago we outlined the following program for all dairy farmers throughout the United States, and it is particularly adapted to Wisconsin now as it was then:

Eliminate the low producing cows and feed and care for the good cows better.

Increase the use of well bred pure-bred bulls.

Raise more legumes so less feed need be purchased and the productivity of the land increased.

Extend dairy co-operatives for manufacturing and marketing dairy products and to take care of seasonable surpluses.

Educate the consumer concerning the food value and importance of milk and its products.

Let all dairy farmers pledge themselves to eat their own products and refrain from purchasing so-called substitutes.

Improve the quality of milk, butter, and cheese.

Establish larger units of co-operative manufacture, particularly cheese, to the end that there may be higher efficiency and improved quality in the finished product.

Establish grades and standards making them effective by making payment according to quality.

Build up a higher *esprit de corps* within the industry and greater co-operation between its various units.

Lend assistance to a more equitable distribution of wealth, thus equalizing and extending the purchasing power of the consumer.

Readjust farm taxation.

Discontinue bringing new land under cultivation. Reforest the millions of acres that now produce nothing or are being farmed at a loss.

Increase use of machinery to take drudgery out of dairy work and to lower cost of production.

Enact such legislation as will not break down personal initiative and responsibility, but will fulfill the Roosevelt definition of providing rules for the game and an umpire to see that the game is played fairly and squarely.

Finally, the building of better homes and better farm life through the development of better profits by means of better cows better fed and the product of better quality better sold.

There may be methods and plans of proced which would create more enthusiasm and also c ate a more popular appeal, but we know that suggestions which we have made are fundamen to a profitable dairy industry and that they possible of execution.

NEGLECTED OPPORTUNITY

The California Dairy Council, an active agent furthering the consumption of dairy products, cured the services of Dr. E. V. McCollum of Jo Hopkins University to give a series of lectu on the subject of human nutrition. In report Dr. McCollum's talks the Council in part said:

"The dairy industry got some blunt opini from Dr. E. V. McCollum, the man upon wh work is based what is now known of vitamins the newer knowledge of nutrition. Science has en much to the dairy industry and received littl return. When he began his research work twe years ago he had no more interest in dairy p ucts than in any other and was not aware milk possessed unusual virtues as a food. But y of work by Dr. McCollum and other scientists closed that milk products and leafy vegetables the best foods of all for making up any deficie in the human diet."

It is evident to us Dr. McCollum feels that dairy industry has not made use of its large portunities and of the work done by interested ties, for he continues: "Without any effort on y own part, you have been presented with an ad tising feature such as no business ever had bef or will have again. What have you done with opportunity?"

The dairy industry as a whole may well be barrassed by the question propounded by Dr. Collum. We have not had a sufficient numbe leaders to see the tremendous opportunity for thering the industry through the work done by splendid friend of dairy products. On the o hand, we can point with some pride to our ac plishments. Several state dairy councils and National Dairy Council and other agencies de themselves to informing people of the nece and food value of dairy products. Dr. McCo need not feel discouraged even though the wo not going forward as fast as it should. We remember the dairy industry is not concentrat the hands of a few but made up of thousan human beings, and these require education b they can act effectively together.

One of the reasons why we believe so mu getting the dairy farmer and all other dairy in tries well organized is that we may make effe use of the research work done by Dr. McCo and other scientists who have found that milk dairy products are our most important foods.

SELLING FEEDS

Many comments have come to us concer our editorial entitled "Selling Feeds," which an attempt to get the dairy farmer to see tha cows are markets and that they are paying va prices for feeds.

It is well understood that the grain elevato town that will pay the most for grain will b most largely patronized by the farmers. showed that a cow that produced 150 lbs. fat year returned $21.70 a ton for grain, whil cow producing 200 lbs. fat in a year would $48.94 a ton for grain, and a cow that pro from 300 to 350 lbs. would return $90.42 for her grain consumed.

It has been suggested that our illustration have been carried farther by using herds r than a single cow. In answer to this, it m said that the range of production of the mentioned applies equally well to whole

have herds of cows kept for dairy purposes t produce less than 150 lbs. fat and we have ds that will produce more than 350 lbs. In t, some herds run to 500 lbs. of fat, so the il-tration that we used to show the different re-ns for feed consumed by cows producing vari-s quantities of fat is equally applicable to herds. would have been just as well if we would have d the word "herd" instead of "cow." The in-ased returns of the herd producing from 300 350 lbs. of fat are so much larger than the herd ducing from 100 to 200 lbs. of fat that the re-ts are staggering.

It is the purpose of Hoard's Dairyman to get its ders to see these things that they may materi-y increase their profits, for we know if all dairy mers would keep high producing cows that their fits would be increased millions of dollars. We not need greater total production of dairy ducts but we do need more herds that will pro-e 300 lbs. of fat.

Equipment for Retail Milk Dealer

What equipment would you recommend for shing bottles and bottling about 500 quarts milk day?

Valcour, N. Y. J. G.

Mr. C. E. Clement, of the United States Bureau Dairy Industry, sends us the following reply to s inquiry:

"For this amount of milk, I would recommend:

(1) A wash sink with brush run by steam bine with arrangement for rinsing the bottles l also for steaming them.

(2) A small bottler which will fill four bottles a time.

(3) The bottles could be capped by hand, but would recommend an automatic single bottle per.

(4) A steam boiler—about 10 H. P.

This equipment should be obtained for from 0 to $600. He would also need a sink for wash-the cans with steam jet arrangement for aming them. I assume he does not wish to in-ll equipment for pasteurizing."

Calf Clubs Promote Pure-breds

The Middlesex County, Connecticut, dairy calf b of 21 members now owns 55 pure-bred ani-ls while their parents own 51 pure-breds, mak-a total of 106. This is an increase of 96 pure-ds on these same farms since June, 1923. Some e ago the average production of the club boys' ds was 7,762 lbs. milk per cow.

The club was organized in 1923 after a club ry judging team went from Middlesex County the National Dairy Show in 1922. The more boys looked at the show stock there, the onger their liking for it grew. Presently they ided they would like to make a venture in the e-bred line themselves. Back at home their ents and friends favored the idea and the lowing June the Middlesex County Pure-bred ifer Club organization was completed. Thir-n pure-bred tested bred heifers were purchased l brought into the county. They went to 11 erent farms and on eight of these the club r became owner of the first pure-bred there.—R. WINTERS.

Barley Straw for Cows

As I had a light hay crop this year, I would like feed some barley straw. The barley was also a ht crop and it contained a good deal of pigeon ss and red top. Will the barley beards dangerous? Would it be better to feed the aw to horses or cattle?

Northfield, Minn. R. G. W.

There is little danger in feeding barley straw to e stock. Barley beards occasionally accumulate der the tongue or at the side of the cheeks, and s may cause sore month. However, these may easily removed and the trouble will disappear.

Straw is not a good feed for milk cows, except it may provide variety that will make the ration re palatable and secure a larger consumption of d. It should not be relied upon to furnish any d or to replace any portion of the ration. Used rely as an appetizer or to supply bulk to the ra-n, it may be fed to milk cows, but the danger is t the feeder will rely on it to supply nutrients milk production.

The digestion of straw requires about as much ergy as the straw contains in feeding value. This digestion releases heat that will warm the body, and for this reason is particularly suited as a portion of the winter feed for horses not at hard work and for cattle that are being "wintered over." Straw provides little or no nutrients for milk production. The properly fed milk cow releases considerable heat in digesting her regular ration and does not need the "heat value" of straw.

Good straw, particularly from oats and barley, is a good feed for horses not at work. We fed oat straw to our horses in winter together with a little grain, and have found it highly satisfactory. Since we started seeding sweet clover with our oats, the straw is even better relished. Indeed, this combination is some disadvantage as we find our calves are inclined to eat up their "bedding," with the result that we sometimes have to bed them down the second time.

Milking Machine Questions

Is there any distinct advantage or disadvantage of milkers using both pressure and suction over those using suction alone?

Have machines using alternating action any particular advantage or disadvantage over those working all four teats at one time?

Does the amount of suction or vacuum used have any effect on the cow either while milking or deferred effect? I notice quite a wide variation in this point in different machines.

Eureka, Illinois. J. F. F.

The milking machine has been in use for a sufficient number of years to warrant the very definite conclusion that it offers a very satisfactory method of milking as well as removes one of the chores that is considered disagreeable on many dairy farms. Like any mechanical equipment, it will not perform the impossible and it requires reasonable care and knowledge on the part of the operator as to its limitations as a mechanical instrument in noting the condition of the cow. It must be kept in repair if it is to continue to operate successfully. Perhaps the one point on which most men have fallen down is that they have failed to keep the machine clean and in good working order. Too many men have assumed that any kind of care and attention to the cleanliness of the machine was wasting time, whereas this is essential if a good grade of milk is to be produced. This does not mean that this is difficult work or that it takes a large amount of time, but it is just one of those small everyday details that too often escapes the attention that is required.

The particular questions asked are to some degree a matter of controversy and it is possible that there is, perhaps, no manufacturer who will not say that his machine is superior to all others. If he produces the alternating type of milking machine he will probably insist that this is the best, and likewise as other points in which the operation and mechanism of the machines differ. So far as we know there have been no adequate competitive trials to definitely determine what make of machine or what type of machine is superior to all others. It is probable with this as with most other machines—one type of machine will be preferred by one man while another type will be preferred by another, and both will assert from their own experience that their particular type of machine is best.

The specific questions asked have been referred to Professor C. Larsen of South Dakota, who replies as follows:

"Practically all of the milking machines employ the same amount of vacuum or suction, and very few of the machines employ pressure. The pressure that is applied in some machines is very slight. If this pressure is controlled, in some cows it would work out to the advantage of the machine, especially in connection with holding the teat cups on, and secondly, would also permit more of a complete release without having the cups fall off entirely.

"My personal opinion is that there is no particular advantage gained with alternate action over milking all four quarters at one time. The rapidity of suction stroke is about the same. The alternate idea follows up hand milking. From the standpoint of the cow, I can see no difference in the two types of machines, and from the standpoint of the mechanism of the machine, one type works as well as the other.

"The amount of suction or vacuum used during milking, without question has considerable effect while milking, but the greatest effect is on the cow after the milking is completed.

"If the suction or vacuum is too great, easy milking cows will be milked out quickly, providing the machine releases and milking goes on normally. If the milking machine does not give intermittent release and the milk is not drawn normally, then the greater suction is likely to cause the circulation in the teat to be retarded and it may ever be stopped to such an extent as to injure the cow and cause swollen teats which become hard and sore at the end, especially if this kind of machine-milking is repeated.

"If the machine employing high vacuum milks normally, then the milk will be drawn rapidly; in fact, more rapidly than the cow can release or give it down. In other words, the drawing of the milk is more rapid than the cow can give it down, and, therefore, a good share of the suction is on the inner udder tissue rather than on the milk. This often causes the cow to hold up all of the milk. A machine should not draw the milk any faster than the cow can release it.

"In addition, if a milking machine employing high pressure is left on the cow too long after the cow is milked dry, the suction on the internal tissue may prove to be harmful. There are some hard milking cows which require rather high suction. Generally speaking, the lower the suction that a machine will operate and draw the milk from the cow, the better it is for the cow."

These questions were also referred to a research engineer connected with one of the milking machines in use, and we believe he has given an unbiased and reasonable reply, as follows:

"A number of machines use vacuum and atmospheric pressure alternately. That is, the space between the liner and the wall of the teat cup is alternately 'filled' with vacuum and atmospheric pressure while vacuum is applied constantly to the inside of the liner. In the one machine vacuum is applied constantly to the inside of the liner while the space between the liner and the teat cup shell is alternately filled with atmospheric air and air actually under pressure.

"When vacuum is applied to the teat for the purpose of drawing out the milk, blood is at the same time drawn down into the lower end of the teat and the purpose of applying pressure to the outside of the liner is to push this blood back up out of the teat, otherwise congestion will result.

"There are only three milkers I think of at the moment that are using alternating action. When we first adopted alternating action we did so with the idea that there would be less danger of having the teat cups drop off, for one pair of cups will always be on the 'suck' while the other pair is on the release. We found, however, somewhat to our surprise, that actual milkometer tests indicated that most cows milked out more freely with the alternating action than with the simultaneous action. Frankly, I suspect this may have been due to the fact that these particular cows probably always had been milked by hand by the 'alternating action' and since cows are emphatically creatures of habit it might be that the alternating action 'felt a little more natural to them.' I am not sure that a heifer that had never been milked any other way would notice any great amount of difference, yet, many milk authorities believe that the act of drawing the milk from one quarter stimulates the secretion of the milk in the adjoining quarter. The fact that you will occasionally run across a cow that will begin to leak from the hind teats the minute the milker starts milking the front teats by hand, or vice versa, may furnish some ground for this belief.

"My observation is that it is not the amount of vacuum but the manner in which it is applied that counts, that is at least within reasonable limits. Our milker will milk the average cow satisfactorily with anywhere between 10" and 20" of vacuum. At 10" it milks a little too slow, with 15" of vacuum it takes the milk away just about as fast as the average cow will release it, so there is no particular object in going much above this. I believe that what holds true with our milker will hold true with any other make of milker using a teat cup so designed that congestion in the point of the teat is entirely avoided by proper massage.

"In one make of milker that I have in mind there is a little weighted control valve in the lid of the pail. This cuts the vacuum something like 2" or 3"; in other words, the amount of vacuum in the teat cup would be a couple of inches less than the amount of vacuum shown by the vacuum gauge.

"We know beyond any question that 15" of vacuum in a properly designed teat cup will cause no immediate or deferred injury. At the University of Missouri it has been customary the past two or three years, during Farmers' Week, to attach our milker to a cow and leave it on her all forenoon, simply to dispel the idea that a modern milker will draw blood if left on too long."



BACK IN THE BARN

....*for another winter*

PASTURE will soon be gone and your cows back in stanchions for another long season of heavy grain feeding.

Milk prices are higher and will be higher still before long.... some of your cows have freshened and are starting off on a new lactation period, milking heavily just now.....a good combination of factors for profits .... the time of all times to feed well, to hit upon the ration you will want to feed all winter.

The protein basis of your ration is the profitable part.

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furnishes highly digestible and productive protein economically. DIAMOND has at least 40% crude protein, over 80% total digestible nutrients, and not more than 4% fibre. Compare this analysis with other protein feeds, and then build your ration on DIAMOND this Fall and Winter. It's the logical way to keep your milk checks much higher than your feed bills.



We have several good formulas, showing how to feed DIAMOND with homegrown grains and other feeds. These formulas will be sent to you free. Just write:

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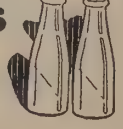
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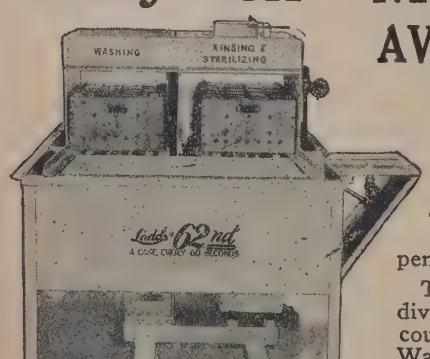
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Dairymen — Milk Dealers

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Bottles By Hand





Ladd's Pressure Washer

saves several hours of time 365 days each year. The number of hours depends upon the volume of your business.

The handling and washing of each individual bottle takes hours of time that could be saved by the use of a Ladd Washer. You certainly are interested in this. A case of bottles washed, rinsed, and sterilized each 60 seconds is the capacity of Ladd 62nd Washer.

ARE YOU INTERESTED IN PASTEURIZED MILK?

We Recommend Ladd's Complete Outfit, as Follows:

Ladd's Blue Line Pasteurizer, Ladd's Tubular Filter, Ladd's Cooler, Milwaukee Filler and Capper, Ladd's Brine Maker and Ladd's 42nd Washer. *Send for Bulletins Nos. 64 and 575.*

JOHN W. LADD COMPANY

2016 W. Lafayette **Detroit, Michigan**

KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

Tunney Trains On Milk

GENE Tunney is a milk-fed champion. In training for his sensational fisticuff with Jack Dempsey on the memorable evening of September 22, 1927, in the gigantic Soldiers' Field stadium at Chicago, Gene Tunney drank "padlocked" milk produced on the Chicago Guernsey Farms. This Golden Guernsey Certified milk was delivered at the Tunney training camp in padlocked, ice-packed cases.

Milk makes champions. Colonel Lindbergh trained on milk for his record smashing flight. Gene Tunney trained on milk for the greatest of all fights in which he defeated Jack Dempsey for the second consecutive time, thereby retaining the title of world's heavyweight champion.



GENE TUNNEY, WORLD'S HEAVYWEIGHT CHAMPION AND FORMER MARINE

We are indebted to Mr. Drew Ten Broeck, manager of Chicago Guernsey Farms, for this photograph which was autographed for him by Mr. Tunney.

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., Sept. 27—With the final decision announced this week by the President that there is to be no special session of Congress, plans for the winter legislative session have begun to take definite form. This means that Congress will get down to business December 5, and after perfecting the new organization necessary with the convening of a brand new Congress, will find itself faced with such an amount of pressing public business as to necessitate early and almost continuous sessions of both the House and Senate, and the major committees.

Tax legislation to simplify and clarify administrative procedure will be initiated by Ways & Means Committee hearings beginning in October. These will be followed by other hearings on the necessary new tax bill. It is likely that tax reductions will be provided for, but of what character or extent will depend on the hearings to be held. This will be the first business in hand and will be followed by the appropriation bills; these subjects will have legislative right of way.

Appropriation committee hearings will begin perhaps as early as the middle of November. The dairy industry will be concerned with several important appropriation bills: the general agricultural bill, which it is hoped can include about $100,000 for new dairy research; the tuberculosis eradication item in this bill which it is hoped will cover between five and six million dollars for farmers' indemnities; a new item for work on infectious abortion of cattle; and some smaller items for new equipment at the Beltsville station and other dairy experiment stations.

Next after taxation and general supply bills, Congress will take up flood relief, farm relief, railroad legislation, naval policy, immigration, and perhaps the merchant marine problem. Aviation, radio, and tariff are on the docket for some legislative forts, also general foreign affa especially Mexico and Central Ame ca. It is certain—with a president campaign in the making—to be a v interesting and eventful session.

Replies to a questionnaire sent recently by the Washington office the American Dairy Federat throughout the industry as to search problems which were rated of first importance are being stud and tabulated. One surprising facts brought to light, to the effect that practically every group and in nea every state the one problem mentioned in nearly every reply has to with either contagious abortion sterility of dairy cows. There ru through the majority of the answe it is stated, the indication that w increasing production there is a tendency to decrease the reproductive f ulties of the dairy animals. The questionnaire answers show that mu work is being done on this proble but that in particular contagio abortion seems to be a problem as which small progress toward soluti is being made. Various angles of t problem are being worked on in d ferent states, and the U. S. Depa ment of Agriculture is doing a go piece of work but the disease seems be advancing much faster than a progress toward a remedy or cont method.

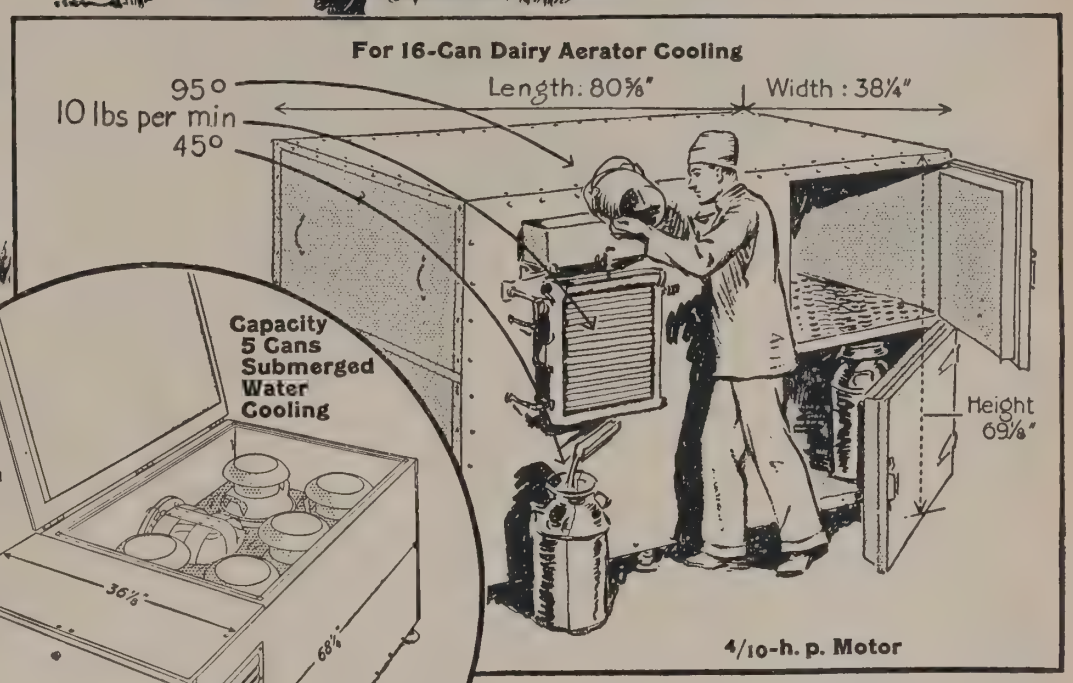
Your correspondent paid a rece brief visit to the Dairy Experime Station at Beltsville, Md., and fou the farm in good condition, with ve fair crops this year in spite of unfavorable weather conditions. Silo fi ing had just started, the machi having been operated long enough fill one-half of one of the big sil

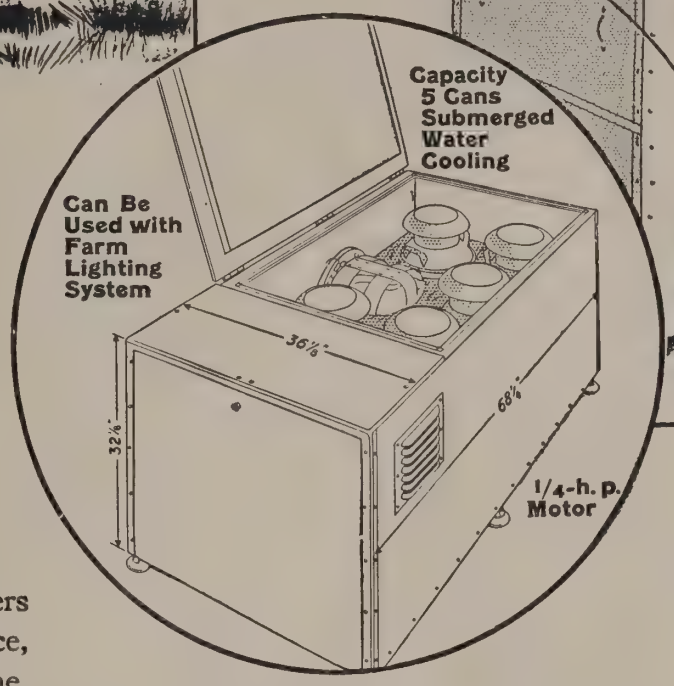
(Continued on page 961)

You Wouldn't Keep Boarder Cows









ur herd must be good producers. t the high production of many od herds is cut down to almost arder proportions by rejections receiving station platforms. ick, efficient and economical oling is as important in milk ndling as good cows, proper using and balanced rations.

zer-Kelvinator Electric Milk Coolers er new opportunities for convenience, nomy and profit. They save time, ney and labor. They bring a guar- tee of better milk with less trouble l expense. No more ice harvesting or rage to worry about. No more re- ted milk at receiving station plat- ms. Easily and quickly cool your lk to the correct temperature and p it there. The greatest dairy ad- ncement since the milker and the arator!

For Large or Small Herds

zer-Kelvinator Coolers are made in o sizes. The larger will handle up to 16 cans by aerator cooling. The smaller is for the production of a 5-can dairy, operating by ice-water submersion.

Exhibiting at the National Dairy and Ice Cream Convention, October 24th to 29th

Nizer-Kelvinator Electric Milk Coolers may be inspected under actual working conditions at the National Dairy and Ice Cream Convention in Cleveland, October 24th to 29th.

Both the large and small coolers will be on exhibition. All dairymen interested in more efficient milk handling should be sure to stop at the Nizer-Kelvinator booth. They will see a revolutionizing advancement in milk cooling. The triumph of practical engineering over old-fashioned, laborious methods.

Practically built—ruggedly built—each will stand a lifetime of wear on the farm. The larger may be used with or without water. The smaller may be operated by a farm lighting system. Easy to clean.

Farm Tested and Approved

These are the first practical electric milk coolers—thoroughly tested and approved under actual farm conditions.

Easy to Own

You can get Nizer-Kelvinator Electric Milk Coolers through your milk dealer or through most Kelvinator Dealers. Ask about them. Or, if you prefer, write direct to any Nizer branch for a complete description.

There are so many entries in the Nizer-Kelvinator name contest that announcement of the winners cannot be made in this issue.

Nizer Kelvinator

REG. U. S. PATENT OFFICE

THE PRACTICAL ELECTRIC MILK COOLER

Sold to or through Milk Dealers by Nizer Division, Electric Refrigeration Corporation, also by most Kelvinator Dealers, and in Canada by Kelvinator of Canada, Ltd., London, Ont.

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816 Sharples Bldg., Chicago
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Clip the Coupon Now!

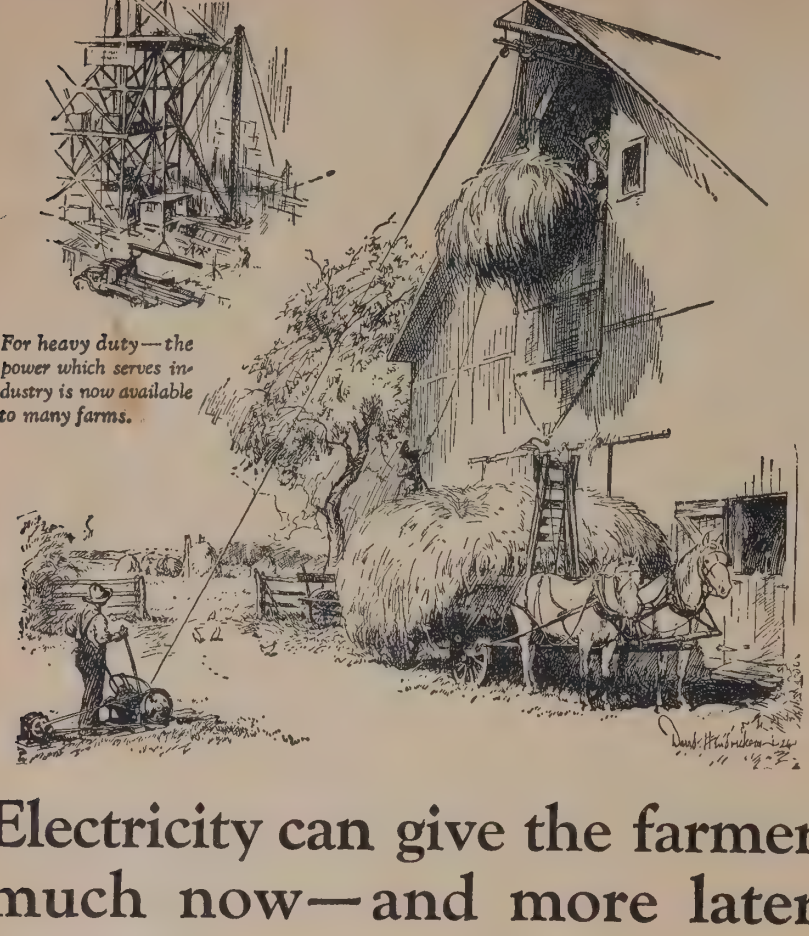
Nizer Division, Electric Refrigeration Corp., 14210 Plymouth Road, Detroit, Michigan.

Gentlemen: Please send a complete description of your Electric Milk Coolers.

Name.....Address.....

Size of dairy herd.....Name of Milk Company

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For heavy duty—the power which serves industry is now available to many farms.

Electricity can give the farmer much now—and more later

THE FARMER wants new equipment. His own may be "pretty fair," but a practical sense shows him how much more could be done with better. He wants it; but he first wants to make sure.

Users of farm-electrical equipment today are reporting good results. But the development of electrical machinery for the farm has just begun. Electrical manufacturers, aided by farm organizations and agricultural schools, will continue to make better machinery, improve the old and work out and test new uses for electricity. What discoveries in farm economy may lie ahead!

The electrical industry is bringing all the weight of its industrial experience to the service of the farmer. With its vast system of interconnecting lines, it was never better prepared to serve. The farmer wants not only light but every form of power that will make life on the farm as comfortable and convenient as in the city. A rural civilization will arise, worthy in every way of the farmer's dream.

Groups of farmers who can assure their local power company of a sufficient demand for current to make a new line self-supporting will find the company glad to cooperate. Ask your power company for information.

The Committee on Relation of Electricity to Agriculture is composed of economists and engineers representing the U. S. Departments of Agriculture, Commerce and the Interior, American Farm Bureau Federation, National Grange, American Society of Agricultural Engineers, Individual Plant Manufacturers, General Federation of Women's Clubs, American Home Economics Association, National Association of Farm Equipment Manufacturers, and the National Electric Light Association.

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Replacement Head for FORDSON means

MORE POWER

Gives 3 to 5 horse power more. Saves its cost in thirty days' operation, then it's clear profit.

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Only a wrench and an hour's time needed. Nothing to fit, file or adjust. Sold on a money-back guarantee—low in price. Sold by dealers, garage men or direct. Write for "Ricardo Replacement Head" book describing and giving prices on Fordson, Ford and Dodge Ricardo Replacement Heads.

Saves a Dollar a Day on your Fordson

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New Kwik-Mix Idea

Mix Feed, Mix Concrete

Farmers everywhere are buying the KWIK-MIX double-duty, portable mixer. Handiest, quickest feed mixer you ever saw. Also leads the world in mixing hard-as-rock concrete. More exclusive, time-saving, labor-saving improvements than any other mixer at its price. Get our latest bargain offer, and save time mixing feed for hogs and chickens, besides making your own concrete improvements inexpensively. Write today.

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1026 Cleveland Ave., Milwaukee, Wis.



Mention Hoard's Dairyman to Your Dealer—It Helps Us

Wayside Musings

"And Seeing the Multitudes"

JOSEPH S. MORRIS, WISCONSIN

JESUS was moved to preach the Sermon on the Mount by his pity and sympathy for the crowd. In the Gospel according to Matthew, the ninth chapter and the thirty-sixth verse, it is said that "when He saw the multitude He was moved with compassion for they were as sheep without a shepherd."

No man or woman may expect to do very much for people until there is developed within them a genuine sympathy, compassion, appreciation of the needs of the people.

"Seeing the multitude" is seeing it with its problems, its burdens, its sorrows, its disappointments and failures, and having heart enough and mind enough out of one's compassion to attempt to do something that will be a real help to people.

What dense populations there are in the nations of the earth today! We talk about populations in terms of millions, in terms of necessary food supplies, in terms of raw materials to supply the material needs of these multitudes. But "man shall not live by bread alone." Man has spiritual needs that are very real and unless his spiritual needs are supplied we may find him discontented though he have an abundance of material things.

The reason the spiritual teachings of Jesus have lived through the centuries may be found in the genuineness of the man himself. People felt and still feel that Jesus was sincerely interested in and concerned with the real needs of people. There was never present the feeling that He was seeking something for Himself. Indeed, so full and rich was His own life in the things that make for rounded manhood, that He had an abundance that could overflow to the blessing of other lives.

Much attention is paid to the outstanding individual, to the man or woman who achieves some distinctive thing. We need not worry but that such men and women will be recognized. There is a danger, however, that we shall fail to see that the ordered life of the world depends upon the multitudes of men and women who "do the day's work," take up their daily burdens, carry on in the education and training of their children, support churches and schools and hospitals and many other worthy enterprises, make civilization and progress and culture possible. Exceptional men or women, in their extraordinary achievement, must always stand upon the shoulders of the multitude. Without the multitude, individual achievement would be meaningless.

In the plan of the good God, the common people of the world seem able to find joy and peace and contentment in living plain, wholesome, decent lives.

We are forever having our attention pointed to the dangerous tendencies. For a change let us turn our attention to those to whom faithfulness, and loyalty, and painstaking labor are not idle terms. When contentment, a sense of duty and obligation, the desire to play the man, the woman, in a commonsense way, when these die out then and only then would there be any real danger to civilization.

We do not think, of course, that our civilization has reached the peak of perfection. We know that it has not. We also know that the best and most enduring changes come by a slow process. So long as we honestly struggle to make things better, so long as we try to think our way through to the solution of our problems, long as we "hold fast to the thi that are good" while still striving the better, just so long are we on highway to finer things.

It is impossible that we shall al wealthy in the sense of having abundance of money that opens door to untold luxuries. It is a f acy of this age that would stake ev good upon more possessions in m rial things. In the multitudes th are many, many good men and w en who have looked this thing squ ly in the face, have appraised the riches of life, and are going al from day to day in peace and cont ment in the possession of the riches, the riches of mind and he the riches of character. They are " salt of the earth." Let's think of th occasionally.

Day in and day out there are and women toiling in the fields of world, producing the food of world.

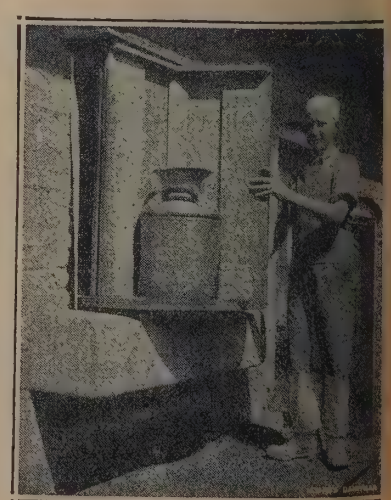
Day in and day out there are toiling in laboratories, trying to o come the diseases that attack m kind. There are men striving day ter day to invent and perfect lab saving machinery that will take burden from the shoulders of men.

What does it mean that men women are striving for comple knowledge, for fuller fact and tru men and women who are not held the dead past but are walking into sunrise of a newer and better day?

In a thousand and one places th are men and women giving of th all to the end that human life may richer, freer, happier. Are not th all co-workers together with Eternal Goodness? Need they st before that Eternal Goodness wh character is expressed in ceasel constructive effort, ashamed beca in some instances they were not qu able to express the faith of their li in some formula?

I cannot help but ponder often saying of the Great Teacher: "y their fruits ye shall know them." must be so—in the life of every l man and women the fruitage m prove the character. Faith and wo must forever go together.

When the fruitage of decency, spect for law, cleanliness of life, r erence, respect for womanhood a childhood, frugality, thrift, indus appear in the majority of the mu tude we must conclude that the tional life is, on the whole, good.



Receiving platform at the Farmers' Butter and Cheese Association Plant, Iowa is arranged with three places and swinging partitions to keep out the cold in winter and the flies in summer. Note the frame which is loaded from the outside and the window is shut; when the frame swings to the inside for unloading, the partitions still form a window.

$15,000.00 in cash prizes for a slogan about WOOD

Read the fascinating story of Nature's most friendly and useful material. Know more about its beauty, durability and economy. Learn the truth about America's vast and permanent supply of timber. Then send us your slogan!

This message may mean $5,000 added to your bank account. And remember that these slogan contest prizes are seldom won by professional writers or technical experts. Nearly always the winners are people who never expected to win. So do not skip anything—not one word.



No timber shortage

Almost everyone has been induced to believe that this country is confronted by an acute shortage of timber. This is not true.

In fact, Col. William B. Greeley, U. S. Forester, urges the nation to "Use wood, and conserve the forests." For timber is a *crop*. It needs to be cut when ripe. Failure to do so means *waste*.

There is enough standing timber in the United States today to build a new six-room house for every family in this country, Canada, South America, all of Europe and the entire British Empire! And the *additional* lumber supplied by the *yearly growth* of standing trees would build a continuous row of these houses along both sides of a street reaching from New York to San Francisco.

These are not "opinions"—but *facts* backed up by extensive investigations and published reports of the United States Forest Service.

Better lumber than ever

Not only plenty of lumber—but *better* lumber! Today, *American Lumber Standards*, adopted by the industry and endorsed by the U. S. Government, give the purchaser protection he never had before.

Universal adoption of reliable standards has won for the Lumber Industry high praise from Secretary of Commerce, Herbert Hoover.

Wood built America

Without wood there could have been no America!

Stout wooden ships brought the settlers of America across the wide stretches of the stormy Atlantic. Wood sheltered them in sturdy log cabins and wood housed their descendants in colonial mansions—many of which endure today.

Throughout the Thirteen Colonies wood built the homes, the churches, the town halls, the schools. Wood built the wharves, the warehouses, the stockades, the barns, the corn cribs, the bridges.

Later, the Forty-Niners battled their way over the long cruel trail to California in covered wagons made of wood. On ties of wood the railroads advanced unceasingly, West, East, North and South.

Uses constantly increasing

Twenty years ago there were less than 2600 commercial and industrial uses for wood. Today there are more than 4500. Radio alone uses more lumber than some states use for buildings.

From the staunch timbers in mine shafts to the buoyant strength of Lindbergh's immortal plane, wood serves mankind in countless and ever-increasing ways.

Wood endures

The oldest and most beautiful homes in America are houses built of wood. Many of them stand today, as sound in timber and beam, and *as livable*, as they were before the Revolution.

Wood endures—and the supply is enduring. For it is the only one of our natural resources that *grows*. The mine becomes a gaping hole—the forest forever renews.

Wood is beautiful

Wood possesses a pleasing natural beauty of grain and texture that mellows and deepens with age and defies imitation.

Wood can be fashioned and carved and fitted into thousands of charming designs.

And surely it is significant that the American architect prefers lumber for his own home!

Wood is friendly

Of all materials there is none so *friendly*, with such a sense of human companionship, as wood. Wood is warm and alive to the touch. The handle of a tool, the steering wheel of your car, the arm of your chair, the bowl of your pipe—you like the feel of them because they are wood.

Wood is economical

Wood is stronger, pound for pound, than any other material. It is easily and cheaply fitted to special forms for special needs.

Its moderate cost is due today, in no small measure, to the elimination of waste. There is a grade of lumber for every purpose, a right wood for every need.

* * *

To inspire renewed and greater appreciation of wood, and to make more widely known its almost endless variety of uses, manufacturers of American Standard Lumber in the National Lumber Manufacturers Association are preparing an extensive educational campaign. The first thing the Association wants is a "slogan." Send your coupon *now!*

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HD1027

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Hoard's Dairyman

Fort Atkinson, Wisconsin

Founded 1885 by W. D. HOARD

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Oct. 15-Oct. 22—National Dairy Exposition, Memphis, Tenn.

Oct. 24-Oct. 29—Dairy Industries Exposition, Cleveland, Ohio.

Oct. 25-Nov. 5—Pacific International Live Stock Exposition, Portland, Ore.

Oct. 29-Nov. 5—Western Dairy Products Show, Portland, Ore.

Nov. 14-19—Pacific Slope Dairy Show, Oakland, Calif.

Nov. 29-30—National Creamery Buttermakers' Association, Nicollet Hotel, Minneapolis, Minn.

A DAY AT FIRESTONE'S

FLOYD S. BARLOW, OHIO

SOME 625 Ohio Guernsey breeders were entertained by Harvey S. Firestone, tire manufacturer, at Harbel Manor, his Akron home, and at Firestone Farms on Thursday, August 18.

Harbel Manor is one of the most beautiful estates in Northeastern Ohio. Luncheon was served in a big tent on the Manor lawn. The Portage Riding Club has its home at Firestone Farm. The cattle barns, horse stables, and riding pavilion attracted the visitors' interest and attention.

Dr. C. H. Case of Akron and his associates demonstrated the short method of the agglutination test for abortion. The doctors recommended the use of the test and the isolation or disposal of reacting animals. When valuable breeding animals react they recommend vaccination of the clean animals each year so long as the reactors are retained.

Wayne Light, the able manager of Firestone Farms, and Banks M. Collings, County Agent of Summit County, conducted a judging contest. The men worked on a class of bulls, the women placed a class of cows, the teams worked on 2-year-olds, and the boys and girls judged a class of heifers.

H. M. Doyle's boys, representing the Wooster high school, won the cup presented to the champion school team by the Firestone Farms. Arlo Mowery, William Winkler, and Homer Billman were the team members. Other contest winners were: J. P. Bennett, men's class; Mrs. Lottie Tschumy, women's class; and Harold Huston, boys' and girls' class. Each winner was presented with a silver engraved Guernsey cream can by the Stark-Portage-Summit Guernsey Association under whose auspices the meeting was held.

A parade of the Firestone exhibition herd took place after luncheon. In response to President M. J. Barker's words of appreciation for the day's entertainment, Mr. Firestone welcomed the visitors and then compared American industrial and agricultural life with other countries, saying that we excelled in both, but that he did not believe that agriculture showed the same degree of supremacy as did industry. He told of a mach in his factory with which four n could make a tire in one minute that their aim was a machine t could make a tire in one minute w one man. He is convinced that far ers should have similar aspiration

Professor S. M. Salisbury of O State University in his talk show how efficient methods of handling a feeding the herd would do the sa for the farmer as industry is doi for itself.

C. W. Robinson of the Americ Guernsey Cattle Club gave some teresting figures on Ohio Guerns progress.



IN THE SPOTLIGHT AT FIRESTONE FARMS GUERNSEY DAY

Left to right: Floyd S. Barlow, secretary Ohio Guernsey Breeders' Association; M. J. Barker, Jr., president Ohio Guernsey Breeders' Association; H. S. Firestone, owner of Harbel Manor and Firestone Farms; and Wayne Light, manager Firestone Farms.



WINNERS IN THE JUDGING CONTESTS AT FIRESTONE FARMS, OHIO

Left to right: James P. Bennett, William E. Winkler, Mrs. E. E. Tschumy, Homer Billman, Arlo Mowery, and Harold Houston.



MRS. RUSSELL FIRESTONE AND MISS ELIZABETH FIRESTONE HOLDING FIRESTONE FARM GUERNSEYS

Creamery Men to Meet

Production of better butter will the chief topic of discussion of crea erymen from all parts of the Sou who are to gather at Memphis on C tober 19 for the first general me ing of creamerymen ever held in t South. The meeting will be held conjunction with the National Dai Exposition, October 15—22.

Some of the nation's foremost a thorities on quality improvement a cream grading will address t creamerymen, among them Profess B. W. Hammer of the dairy depa ment of the Iowa State College; Pr fessor B. F. Barnett of Purdue U versity; J. H. McClain of the U. Bureau of Dairy Industry; E. A. Ma ple, Tip Top Creamery Co., Indian C. E. Kerns, Southern Butter C Oklahoma; J. W. Ridgway, Mistlet Creameries, Texas; L. S. Edward dairy manufacturing specialist, U. Department of Agriculture, Tenne see; and others.

The Cow~The Pig~The Hen

This Combination Essential In Every Section For Farm Profits and the Proper Nourishment of the People







The cafeteria style of feeding is very acceptable to the pig. He is an animal that has no stomach troubles from overeating and like many people seem to enjoy eating between meals. The pig makes good use of a balanced diet and more than average returns depend on proper feeding and care.

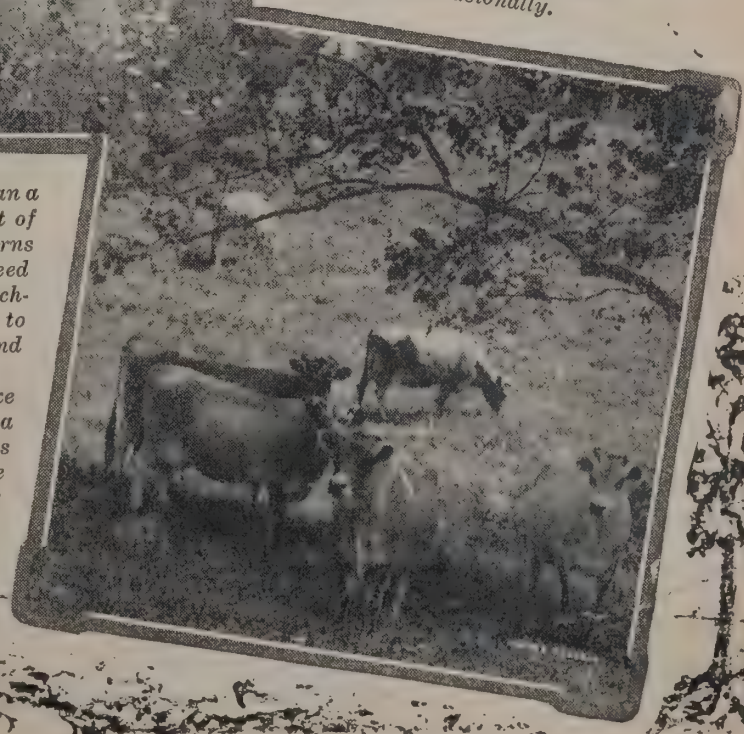


There is pleasure and profit in raising a nice flock of chickens. Select some breed that you like and then feed and care for it in the proper way. All animals require good, clean houses and yards, but the chicken particularly requires good, sanitary quarters. Yards should be plowed occasionally.



What better associates can a boy or girl have than that of live stock? A boy who learns how to take care of and feed live stock needs little coaching from his parents as to importance of work and right course in life.

How long does it take a chicken to weigh a pound? At five weeks old this chicken on the scale weighed nearly one pound.





You've had your share of HARD farming — *now come to California!*

THERE are thousands of farmers in California making as much money now from ten, twenty or forty acres as they used to make on big farms "back East." Many of them came from your own state—some, probably, from your own county. They have found that farming is easier here, and just as profitable. The hardships have been taken out of life for their families, too. They will never leave their sunny irrigated orchards and farms, their mountains and seashore, their snowless winters and clear summers for the harder farm life they used to know.

There are many opportunities here for you. California orchards and farms produce 180 different crops commercially. We count many of our fruit crops by millions of boxes and by hundreds of thousands of tons. Our hay crop is worth over $75,000,000 a year. We raise every year over forty million dollars worth of eggs and chickens—a quarter of them in one county near San Francisco and three-quarters of them in the Great Valley and neighboring valleys. Yet California still needs more all 'round farmers.

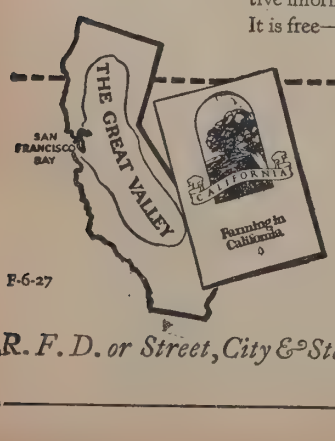
Farmers with dairy herds are getting cream checks 20% higher than the price on the average check throughout the country, and their cows give the highest average butterfat production in the United States. Dairying is economical in cost; cheap and plentiful electricity and fine roads make it easier; the winter shelter problem is a small one in a climate where cows graze on growing alfalfa all through the winter. The hogs we raise on the side find a high market because we still produce only 25% of our pork.

These are surprising facts about some of the items that make up California's $700,000,000 farm production. You can verify them by government and other official statistics, or by your own observation.

That is the best way—come out and see for yourself. It's a great vacation trip to San Francisco, the center of it all. Californians Inc., will be glad to tell you what to see, what to look out for and where you can find the farm and home you have in mind.

Low summer round-trip fares to California —$90.30 from Chicago for example.

Californians Inc., is a non-profit organization that has nothing to sell. Its members are thousands of business firms and citizens who are interested in developing the state's great resources by advertising them to capable, intelligent settlers with sufficient capital to make these opportunities pay. "Farming in California," an 84-page booklet of authoritative information, will tell you much that you want to know beforehand. It is free—simply clip and mail this coupon today.



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How Much Milk In The Udde

W. L. GAINES, ILLINOIS

HOW much milk is present in the udder of a cow at the time the milker starts to milk? Some have contended that there is not room in the udder for the storage of more than a small quantity of milk and that therefore the most of it must be formed during the process of milking. This contention is based on the idea that all the milk present is stored in the milk cisterns.

That the whole udder may be filled with milk, like a fine sponge may be filled, is indicated by some experiments conducted by the Dairy Husbandry Department of the Illinois Experiment Station. The method of the experiment is based on the fact that milk contains an almost constant percentage of sugar. The per cent of sugar in cow's milk usually lies between 4.5 and 5.0 per cent. When one puts a heaping teaspoonful of sugar in a cup of coffee he has a drink containing about 5 per cent of sugar. Nature has seen fit to provide the calf

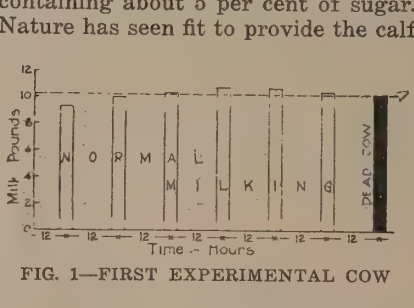


FIG. 1—FIRST EXPERIMENTAL COW

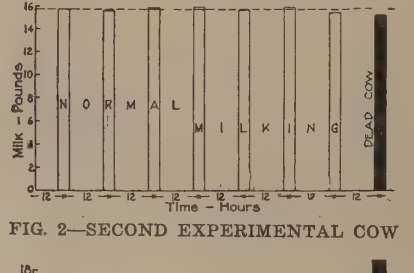


FIG. 2—SECOND EXPERIMENTAL COW

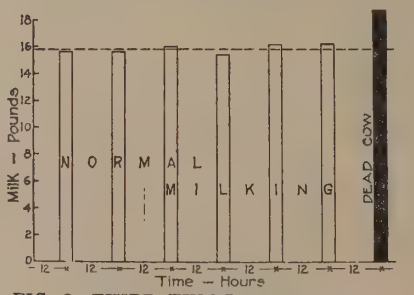


FIG. 3—THIRD EXPERIMENTAL COW

The cows in these experiments were milked at exact 12-hour intervals. The yield of milk at each milking is shown by the open columns. The average yields are shown by the broken horizontal lines at the tops of the charts. At the last regular milking hour the cows were killed without having been milked and the black columns show the amount of milk found in the udders of the dead cows.

with milk containing about 5 per cent of sugar. Although milk sugar, or lactose, is not as sweet to the taste as cane sugar, it serves the same purpose as a food. But the point of interest, so far as our experiment goes, is that there is a large amount of sugar in the milk and only a bare trace of sugar (glucose) in the blood and practically none at all in the solid tissues of the animal body. This makes it possible to determine the amount of milk in the udder of a dead cow by analyzing the whole organ for lactose. One could not use the protein or fat of the milk in the same way because the solid tissues of the udder contain much protein and fat.

The plan of the experiment then was to put a cow on a regular and sufficient ration, to milk her at uniform 12-hour intervals, to weigh and analyze the milk for lactose; and finally, at a regular milking time but without milking the cow, to kill her by the usual butcher's method of knocking in the head and bleeding. As soon as the cow was dead the u der was removed, taken to the labo tory and subjected to chemical ana sis.

Three cows were used in all. T first cow was not milking very hea ly, about 20 pounds per day. T amount of lactose found in the ud was very slightly greater than the a erage amount present in the milk the six preceding milkings.

The procedure with the seco cow was similar to the first one cept that after cutting the ud away from the body it was suspend and milked. The amount of milk tained was 5.5 pounds, about 1-3 the average yield of the 7 precedi milkings. When the udder was slic up preparatory for grinding for an ysis an additional 5.0 pounds of mil fluid drained out, which proved to about 80 per cent pure milk and t rest was other body fluids includi a trace of blood. The drained ud tissues contained the equivalent of pounds of milk judging by t amount of milk sugar found. T total amount of milk found in t udder was equal to 96 per cent of t average yield of the 7 preceding mi ings.

The third cow was treated in t same way as the second cow. Mi ing the amputated udder gave pounds of milk, and from the slic udder there was obtained mil drainings of 6.0 pounds which aga appeared to be about 80 per cent pu milk. The drained udder tissue co tained an amount of milk sugar equ to 10.4 pounds of milk. The to amount of milk recovered was equ to 118 per cent of the average yie of the 6 preceding milkings.

These experiments show clearly th all the milk is present in the udder the time of milking and the stimul of milking is not necessary to t formation of the milk. The questi arises why the milk could not milked out of the udder of the de cow. The reason is that in the livi cow a nervous reflex is set up by t act of milking which results in a co traction of the fine milk ducts a forces the milk out into the milk c tern and teat where the milker c squeeze it out. In the dead anim this nervous reaction cannot ta place, and so only the small part the milk already present in the m cisterns and large ducts can be c tained by milking the amputat udder.

We often speak of a cow "holdi up" her milk. What this really mea is that for some reason the nervo reaction of milking does not proce in the usual or natural way and t milk is not forced out of the fi ducts, and consequently the milker unable to secure the full flow of mi Nervous reactions are always eas upset. Any excitement, alarm, or d comfort of the cow is apt to interfe with the nervous response concern in the milking process and thus i terfere with the regular and full yie of milk. The accumulation of mi in the udder tends to check the fu ther formation of milk. On this a count complete and thorough milki is necessary to secure the highe yield.

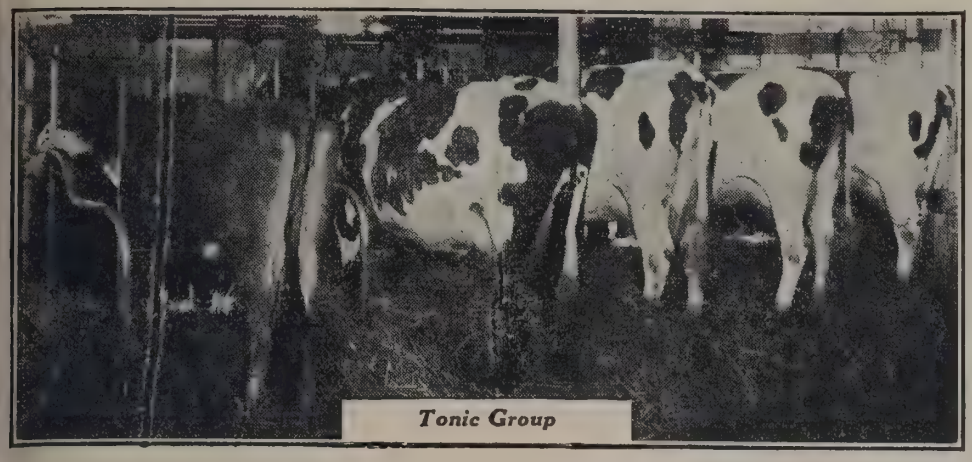
New York Class Leader

Wyebrook Merrymaid owned C. L. A. Whitney, New York, h just completed a junior two-year-o record which puts her eighth Class G. She produced 16,219.1 l milk, 761.7 lbs. fat, carrying a c 200 days of her record period.—T. American Guernsey Cattle Club.

BULLETIN

Weekly Milk Records on 10 Cows for 42 Weeks

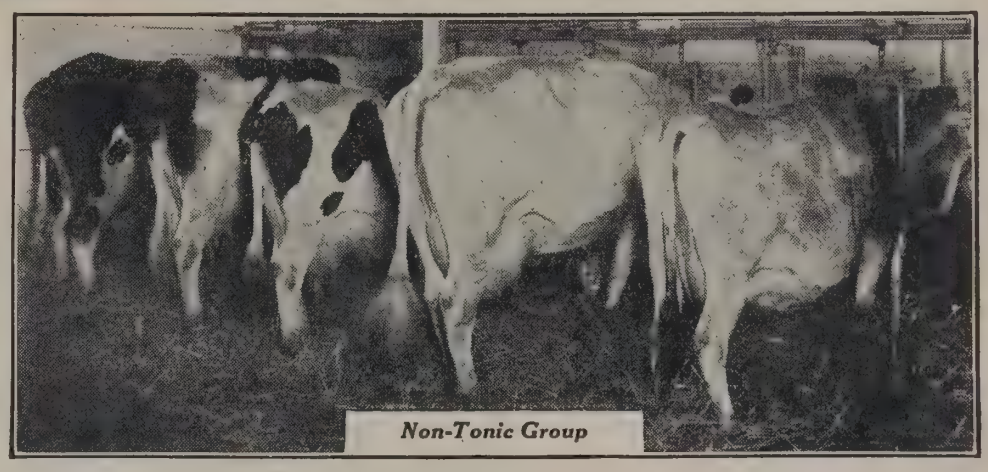
Research Farm—Dr. Hess & Clark, Inc., Ashland, Ohio



Tonic Group

These five ordinary-grade cows were on pasture in August when they freshened. In September they received a common dairy ration of ground oats, corn, bran and oil meal. Beginning October 1st Dr. Hess Improved Stock Tonic was added to their ration and they were placed in competitive test with the five other cows shown below.

These five cows are as nearly like the cows above in grade and condition as possible. They also freshened in August while on pasture. During the month of September they received the same ordinary ration and care as the cows above. However, during that month these cows gave more milk than the others on the same feed and care. After October 1st they were continued on the same feed with the exception that they did not receive any Dr. Hess Improved Stock Tonic.

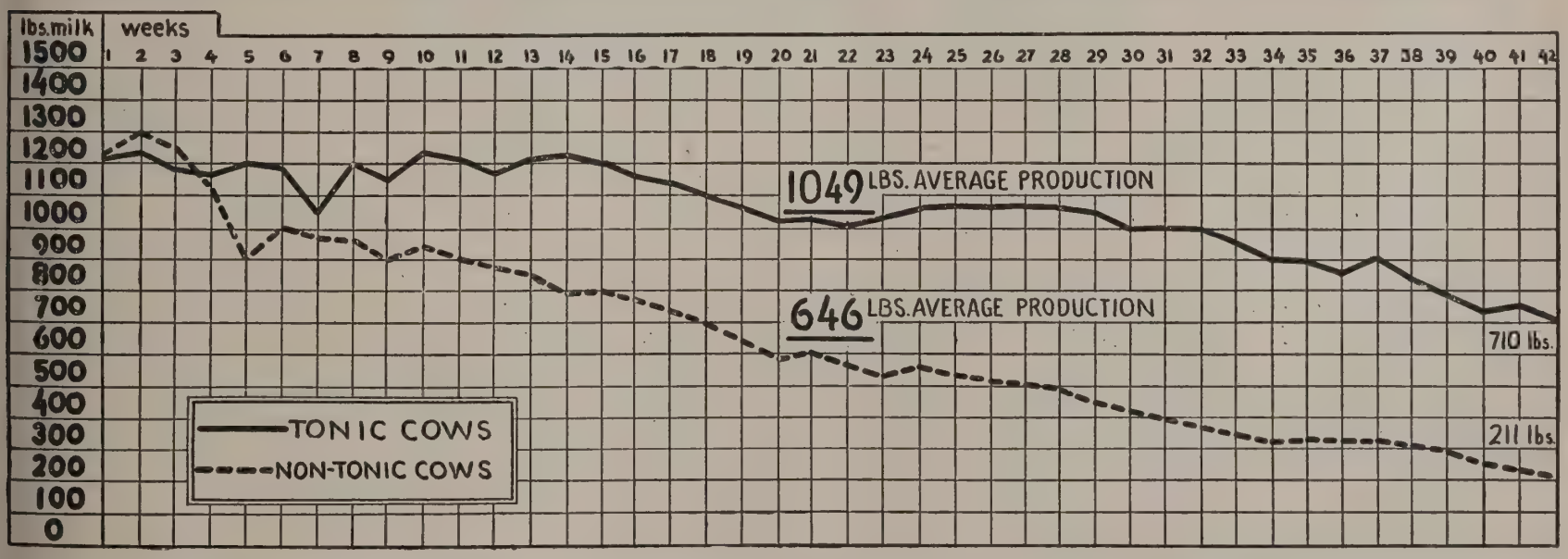


Non-Tonic Group

We give below a graph showing the milk production by weeks of the above two groups of cows. Follow carefully these two lines which tell a very interesting story. They demonstrate the effect of Dr. Hess Improved Stock Tonic on milk production.

Remember this is purely a comparative test between two groups of ordinary grade dairy cows both receiving an ordinary dairy ration, and ordinary care. No effort was made for high production.

Note: The cows in both groups were on pasture until the end of the 10th week. Returned to pasture at the end of the 36th week. In the meantime ensilage and hay were substituted.



OBSERVATIONS—In the above graph note a sustained milk production by the Tonic cows. These cows started at 1209 lbs. per week and averaged 1049 lbs. for the 42 weeks. During the same period the Non-Tonic cows averaged 646 lbs. per week.

While the Non-Tonic group decreased in their production at a normal rate of approximately 9% per month the Tonic group lost approximately only 3% per month.

As a result of this sustained production the Tonic group gave 16,900 lbs. more milk than the Non-Tonic. Tonic used cost $22.50.

The Non-Tonic group were irregular eaters, off their appetites occasionally, four of the five cows were gargety at times.

The Tonic group were regular eaters; steady every-day producers. While associated with the other cows in the barnyard and pasture not one of these five showed any symptoms of garget

Dr. Hess Improved Stock Tonic

APPETIZER—REGULATOR—MINERAL BALANCE

All combined in one product

PRICES: 100-lb. drum, 10c per lb.; 500 lbs. 9½c per lb.; 1000 lbs. 9c per lb.
Ton lots 8½c per lb. *(Except in extreme West and Canada).*

EASTERN STATES EXPOSITION



COLANTHA HARK DELAPHENE, SENIOR AND GRAND CHAMPION HOLSTEIN COW
OWNED BY ELMWOOD FARM, ILLINOIS

HURLWOOD SIR SEGIS WALKER, JUNIOR CHAMPION HOLSTEIN BULL
OWNED BY HURLWOOD HOLSTEIN FARM, MASSACHUSETTS

CLEMATIS OF KINNELON, SENIOR AND GRAND CHAMPION BROWN SWISS COW
OWNED BY W. J. KINNEY, NEW JERSEY

WHEN one goes to the Eastern States Exposition he expects to find a good show and so far we have never been disappointed. It is an unusually good display of the Eastern States agriculture including, of course, the machinery which helps to make that agriculture possible.

The eleventh exposition held at Springfield, Mass., Sept. 18—24, was, if anything, larger than last year and was certainly as good as previous shows. There was but one day of bad weather during the entire week this year and as a result attendance records were broken, thousands more going through the gates than did in 1926.

Eleven judging teams representing Vermont, Cornell, Maine, Massachusetts, Pennsylvania, Maryland, Rutgers, New Hampshire, Syracuse, Connecticut, and Rhode Island entered the college students' judging contest and finished in the order named. This is the first year that Vermont has had a judging team and since their coach, Professor M. H. Campbell, came to the college less than a month before the contest their placing speaks very well for the work of both the boys and their coach.

The Maine boys were the best judges of Guernseys, those from Maryland led with Holsteins, Cornell judged Ayrshires best, and Pennsylvania State led in the judging of Jerseys. L. H. Marvin of Vermont was the best individual judge, all breeds considered, but his teammate, R. T. Holden, led with Guernseys; D. S. Stubbs of Maryland ranked first on Holsteins, C. F. Blener of Cornell was the best Ayrshire judge, and R. R. Peters was the ranking Jersey judge.

Junior work is an important part of the Eastern States Exposition. Camp Vail and the Junior Achievement Building house some exceptional exhibits by Boy Scouts and by members of 4-H clubs from the eastern states. There is, in addition, a very good showing of live stock by these club members. The dairy calves they showed this year, particularly the winners, were a distinct improvement over those of 1925 or 1926 but there are still too many poor calves being shown by those youngsters, something for which their parents or club leaders must take most of the responsibility. Barbara Luchsinger of New York showed the best Jersey, a senior yearling heifer; Frederick Brewster, Massachusetts, won the championship on his 2-year-old Guernsey; Vito Luciani, Connecticut, led the Ayrshire club boys and girls with a 2-year-old; and Hilton Boynton's (Massachusetts) senior yearling was the best of the 26 Holstein calves shown.



THE WINNING UNIVERSITY OF VERMONT DAIRY CATTLE JUDGING TEAM AND COACHES

Standing, left to right: R. T. Holden, L. H. Marvin (high man in competition), H. N. Montague (alternate), R. E. Reed. Seated, left to right: R. W. Smith, Jr., coach of Dairy Products Judging Team; H. B. Ellenberger, head of Dept. of Dairy Husbandry, University of Vermont; M. H. Campbell, coach of Dairy Cattle Judging Team.

The Dairy Cattle

The dairy cattle show this year was larger than ever and while one or two breeds weren't quite up to the usual Eastern States standard, the others more than made up for it. A part of this increase is, of course, due to the Brown Swiss classes which were not included in previous shows. This breed is making rapid strides forward and should have been represented here before.

There were, all told, just over 700 dairy cattle from 12 states and Canada shown in the open classes and these, of course, pretty well included the good ones from earlier eastern fairs and some from farther west.

The Jerseys

Judge: G. C. White, Connecticut

The Eastern States Exposition always has one of the best Jersey shows of the season and it was that this year. There were a few less animals through the ring than in 1926 but the quality was better and that quality extended pretty well down the line in many of the classes. There were 120 head from four states that kept judge busy a full day and a half

In the aged bull class Benedicti Oxford Lad, last year's grand ch pion from Hempstead Farms, Fern's Rochette Noble, owned by linghuysen, were outstanding. The ter, although he lacked the stretc last year's winner and needs to be up better behind, is a better balan better topped bull and very few of ringside questioned his right to place.

Three more of the four remain bull classes were won by Frelingl sen and while we would have ferred to see Elm Hill win the year-old class as well as that calves it would have made no di ence in the championship competi The aged bull was the best one sh and Fern's Signal of Oaklands, winning senior yearling, was the junior. The championships placed way.

The thirteen aged cows were best class of milking females of breed that we have seen for quite s time. There was just one that did carry a full udder, and there was even one really poor cow in the lot

Last year Blonde's Cunning Mo owned by John S. Ellsworth, Con ticut, was just about the best Je cow shown anywhere. She was in ring and looking fit this year, there was one better cow th Eagle's Grey's Princess, from He stead Farms. She wasn't quite good at the rump as was Mr. Ells worth's entry, but she is a stron cow with a better spring of ribs, ter depth, and a very good udder. was a good winner in a good class

Mr. Ellsworth came right back a winning 4-year-old. Elm Hill the best 3-year-old and we thou their daughter of Xenia's Sultan the best 2-year-old but the ju picked on a refined little one f Twin Oaks.

When these four cows came out senior championship, the 4-year



SENIOR AND GRAND CHAMPION JERSEY COW, SUCCESSOR'S CROWNY
OWNED BY J. S. ELLSWORTH, CONNECTICUT

CHAMPION JERSEY CALF, SYBIL'S SEA GIRL'S MAY LADY, AND OWNER, BARBARA LUCHSINGER, N. Y.
Miss Luchsinger won showmanship prize over all breeds.

SENIOR AND GRAND CHAMPION JERSEY BULL, FERN'S ROCHETTE NOBLE
OWNED BY TWIN OAKS FARM, NEW JERSEY

l the aged cow were outstanding. her was good enough to be a first ss champion but the 4-year-old, cessor's Crowny, was enough bet- from withers to pins to win.

Oxford Noble's Briar Rose, a junior rling owned by Twin Oaks, was an y winner among the junior heifers. Elm Hill headed the line in the get sire class with four good ones by ia's Sultan—the first prize bull t, the second prize 2-year-old bull, fourth prize cow, and the second ear-old heifer.

The Guernseys

Judge: John Clark, New York

The Springfield Guernsey show this r was the best the breed has had quite some time. There were 160 d from 21 herds in five states that e into the ring for the single sses—a big show without any ft spots" for a showman. While a. H. Williams, The Larsen Can- g Co., and Emmadine pretty well nopolized the head of the line—Mr. lliams was the heaviest winner h nine blues—there wasn't a ss where other contenders weren't hing those from these herds hard their places.

The two outstanding entries in the d bull class, Shorewood Resolute m Emmadine Farms and Border g of Roberts owned by the Larsen , have met several times in the t three seasons, usually to the ad- tage of the New York bull. A year they placed that way but this r the Wisconsin entry looked bet- to Mr. Clark and he placed him He found "Border King" better nted, better at the pins, and better his feet, enough better to overcome ough tail setting and a little heavi- s at the shoulders. The Larsen l was an easy senior and grand mpion after that.

Mr. Williams' Aiyukpa herd had of the three winning junior bulls neither was quite good enough to t Resolute's Eminent, the senior rling son of Shorewood Resolute m Emmadine, and he was junior mpion.

When the fifteen aged cows lined up imagine more than one breeder at ringside looked at them with cov- us eyes. They were such a ring Guernseys as one seldom sees— d enough so that some of those m the line would be champions at re than one state fair. Shuttlewick rity, one of the best Guernseys we r saw, was a recognized first. She a class leader with the right kind conformation to fit her to be the n of real herd heading sons. Her sest competitor was Imp. County wer of Langwater, a 10-year-old tron of much the same type but king a little in udder veins and tom line. Either of these two would t most Dairy Show champions but, course, "Levity" came first.

Another daughter of Langwater rity, Shuttlewick Happy Girl, also m Aiyukpa, beautifully bodied but so good as to udder, won the 4- r-old class and a 3-year-old from Larsen herd made a good top to 3-year-olds. When it came to the ear-olds it was close between Cher- s Queen of the Prairie, owned by lliams, and Foremost's Babette, madine's grand champion at the w York State Fair. The Cherub fer had the advantage in scale, a le better head, and was better over rump but Babette was smoother l seemed to us to carry the better ler. Judge Clark favored the larg- heifer and put her up. Below those were several good heifers; one of m, Lady Renown of White Farms, d enough, it looked, to go higher n sixth place where she finished.

Shuttlewick Levity was an out- nding senior and grand champion and Imp. Aiyukpa Comique, a junior yearling, was junior champion.

In the get of sire class Emmadine Farms came to the front with a quartette by Langwater Foremost that included a third place junior yearling bull, the second and third place 2-year-old heifers, and the fourth senior yearling.

The top two placings in the produce of dam class went to an unusual group from Aiyukpa; the grand champion, Shuttlewick Levity, and her 4-year-old sister were first, of course, and immediately below them were two daughters of the grand champion herself, altogether such a family group as one seldom sees in the same ring.

The Ayrshires

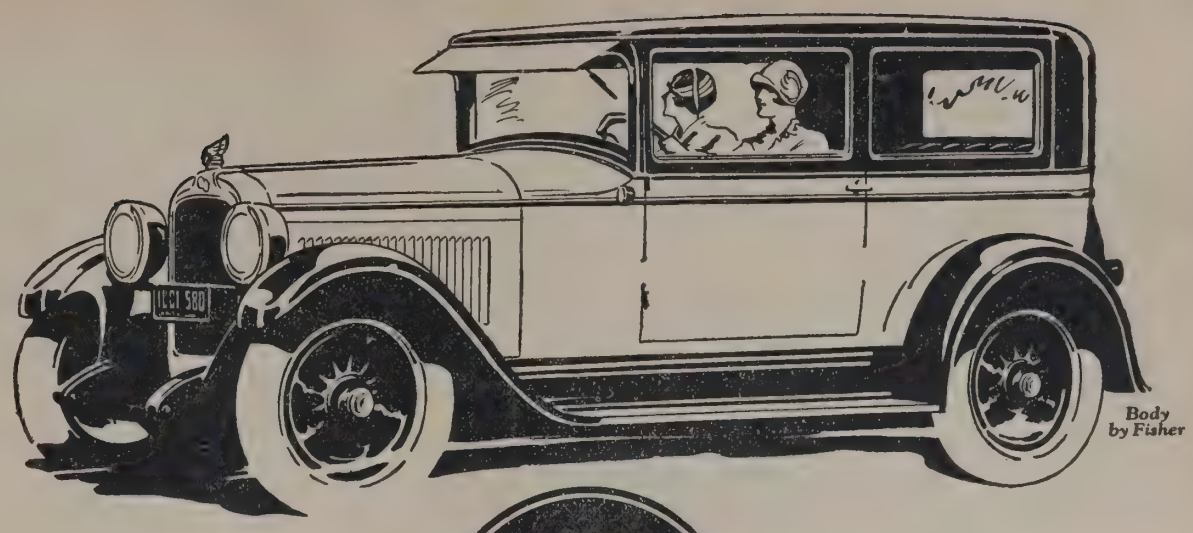
Judge: Louis Seitz, Wisconsin

This was Ayrshire year at Eastern States for not only did the red and whites make the largest showing of any of the breeds but it was a corking good quality show as well. There were just short of 200 Ayrshires from 15 herds representing Massachusetts, New York, Connecticut, Pennsylvania, Maine, Michigan, and the province of Ontario—undoubtedly the largest showing of the breed we will have in this country in 1927.

They started the judge off with one of his hardest classes, 23 bull calves, most of them good ones, but it wasn't until he got to a small group of senior yearlings that he found his junior champion, Strathglass Kirbo, from Mr. Chisholm's Strathglass herd.

The two best bulls of the show were Alta Crest Ringleader and Hobsland Lucky Star in the aged class. Lucky Star, grand champion at the Syracuse

(Continued on page 969)



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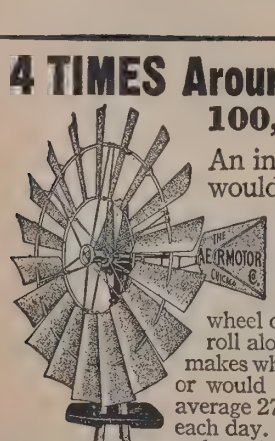
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HOW THE STATES RANK

IN the accompanying table is given the production of dairy products by states for 1926, but it includes only those products manufactured in factories and does not include milk and cream consumed as such or milk made into butter or cheese on the farm. It includes about 47 per cent of all milk produced, percentages used for various purposes being given in Table II.

When all manufactured dairy products are reduced to terms of whole milk, Wisconsin stands first with 7,902,252,000 pounds whole milk equivalent, or 19% of the total milk going into manufactured dairy products. Minnesota comes next with 14%, and is followed by Iowa with 9%. The next seven states in their order of production are: Ohio, Michigan, California, Nebraska, Illinois, New York, and Missouri. These ten states produce 73% of all manufactured dairy products.

Minnesota Leads in Butter

We give below the leading states in the production of the more important dairy products in 1926:

Creamery Butter: Minnesota is first with 269,550,000 pounds, or 18% of the total, followed by Iowa with 12% and Wisconsin with 11%. No other states produced in excess of a hundred million pounds. The next seven states are: Nebraska, Ohio, Michigan, California, Missouri, Illinois, and Indiana. These ten states produced 75% of the total factory butter.

Factory Cheese: Wisconsin comes first with 304,777,000 pounds, or 71% of all the factory cheese. Next in order comes New York with 12% and Oregon with 3%, followed by Minnesota, Idaho, Illinois, Michigan, Pennsylvania, California, and Washington. These ten states produce 97% of nation's factory cheese.

Condensed and Evaporated Mi Wisconsin again ranks first w 533,490,000 pounds, which is 31% the nation's total. Next in or comes California with 10% and Mi igan with 9%, followed by New Yo Illinois, Ohio, Washington, Penns vania, Indiana, and Utah. These states produce 80% of the natio condensed and evaporated milk.

Ice Cream: Pennsylvania forges the front with 32,280,000 gallons, 15% of the total. New York co second with 11% and Illinois is th with 8%. Next in order come Oh California, Michigan, New Jers Massachusetts, Wisconsin, and In ana. These ten states produce 64% all the manufactured ice cream.

Skimmilk Powder: While a product of whole milk, the manuf ture of skimmilk powder is of int est here because it has increased fr 73,317,000 pounds in 1925 to 91,71 000 pounds in 1926, or 25% in c year. California leads with 26,352,(pounds, or 29%. New York follo with 25% and Washington with 11 Other states with production in cess of a million pounds follow in order given: Wisconsin, Michig Pennsylvania, Illinois, and Minneso These eight states account for 95% the total production reported.

Other Products: On a national sis the other manufactured produ of milk are not of so great imp tance, but it may be of interest note the leading states. New Y leads in cottage, pot, and bakers che with 21,198,000 pounds, or 31% of total; in whole milk powder w 6,194,000 pounds, or 58%; in dr

Dairy Products Manufactured in 1926 by States
(Compiled from Report by Bureau of Agricultural Economics, U. S. Department of Agricultu
(Given in thousands of pounds; i. e., 000 omitted)

	Factory butter	Factory cheese	Condensed and evaporated milk	Ice cream	Skimmilk powder	Total in milk equivalent* 1926	192
	Lbs.	Lbs.	Lbs.	Gals.	Lbs.	Lbs.	Lb
Alabama	991		3,614	1,325		47,064	38,5
Arizona	1,489	830	3,956	378		53,657	40,1
Arkansas	1,325			760		38,275	36,8
California	71,771	4,278	162,983	11,004	26,352	2,111,389	2,077,2
Colorado	18,255	1,491	27,399	2,053	316	495,774	500,4
Connecticut	617		268	3,004		54,932	55,9
Delaware	67			539		8,818	9,3
Dist. of Columbia	52			2,206		31,425	43,7
Florida	105			3,031		43,881	32,8
Georgia	1,982			1,701		65,011	62,3
Idaho	18,514	8,289	9,265	389		500,196	418,2
Illinois	62,548	7,737	93,523	17,049	2,072	1,870,772	1,718,4
Indiana	57,592	296	43,455	6,309		1,407,924	1,401,4
Iowa	168,829	472	12,417	5,909	500	3,662,421	3,385,0
Kansas	51,126	211	36,333	3,257	741	1,211,383	1,136,0
Kentucky	16,975			1,853		381,954	321,8
Louisiana	92	169	131	1,309		21,949	25,9
Maine	547	128	1,675	1,341		35,394	31,5
Maryland	1,406	1	11,442	4,057	866	113,925	93,3
Massachusetts	2,150	114	7	7,633		151,462	150,2
Michigan	72,043	7,546	152,952	10,165	9,994	2,126,669	2,084,8
Minnesota	269,550	9,426	20,220	5,729	1,480	5,890,902	5,360,5
Mississippi	6,896		7,898	687		174,007	112,3
Missouri	67,201	312	15,177	6,037		1,535,293	1,284,9
Montana	15,664	1,501		587	6	352,025	314,3
Nebraska	90,882	728	872	2,476	423	1,952,185	1,799,0
Nevada	2,432	80		137		53,756	56,3
New Hampshire	90	47	1,927	501		14,067	12,5
New Jersey	49	52	4,949	8,787	291	134,743	146,1
New Mexico	455			81		10,669	8,9
New York	14,582	50,268	21,904	23,529	23,077	1,709,300	2,001,3
North Carolina	1,680	61	616	2,247		68,326	64,7
North Dakota	34,898			922		745,536	672,4
Ohio	79,394	2,290	82,562	15,245	497	2,164,053	2,144,3
Oklahoma	19,664	5		2,476		447,039	369,3
Oregon	22,737	11,636	16,579	2,026	731	690,844	668,7
Pennsylvania	11,813	5,671	78,902	32,280	4,893	1,009,829	1,118,3
Rhode Island	75			1,458		21,623	18,3
South Carolina	364			736		17,764	19,2
South Dakota	29,814			782		636,847	624,1
Tennessee	11,826	172		2,668		286,751	266,3
Texas	14,594		76	4,693		371,198	290,3
Utah	8,037	1,809	36,496	749		288,406	258,5
Vermont	8,310	1,643	26,269	612		266,028	283,3
Virginia	4,378	49	3,085	2,347	56	132,412	126,7
Washington	28,914	3,209	79,609	3,024	10,212	881,841	828,2
West Virginia	487		693	2,309		43,709	46,1
Wisconsin	161,798	304,777	533,490	6,596	9,211	7,902,252	8,070,7
Wyoming	2,300	2,118		255		72,986	64,2
U. S. total—1926	†1,457,360	427,416	1,733,504	215,248	91,718	42,308,661	40,675,9
U. S. total—1925	1,361,526	443,514	1,757,588	214,382	73,317	40,675,899	

*Equivalent in whole milk of factory butter, factory cheese, condensed and evapora milk, sterilized milk, powdered whole milk and cream, malted milk, and ice cream.
†Includes for 1926 whey butter, renovated butter, and butter oil as well as creamery but

ein with 5,079,000 pounds, or 30%; milk sugar with 2,083,000 pounds, 46%; and in ice cream mix with 854,000 pounds, or 37%. Pennsylnia leads in sterilized milk with ,000 pounds, or 44% of the total; io leads in condensed and evapoed buttermilk with 13,061,000 nds, or 15% of the total; Minnea leads in powdered buttermilk h 7,129,000 pounds, or 23% of the al; and Wisconsin leads in malted k with 13,109,000 pounds, or 63% the total.

Farm Fire Prevention

Just 56 years ago, a cow in Mrs. eary's barn kicked over the lann that started the great Chicago on October 9, 1871. Fire Preition Week, October 9 to 15, 1927, perhaps a reflection on Mrs. eary's famous cow. Our everyday elessness now costs annually 10,) lives and over a half billion dols.

sn't it time to do something to p the terrible destruction brought ut by the dragon tongues of fire? What a picture of desolation and pair is contained in the following wspaper clipping:

'When the sun rose this morning farm house and chicken coop re the only buildings left standing the farm of Joe Turney, six miles t of Thomson. Lightning struck barn during the electrical storm ween midnight and 1 a. m....The n was burned to the ground. The n crib, hog house, and garage, ig-ed by sparks from the blazing n, were also destroyed...One se and three hogs were lost in flames."—Savanna, Illinois, Times rnal.

And from a Pennsylvania newspacomes this one:

'Montrose, July 27.—Twenty cows re hurled to the floors of their lls, one of them falling on a womwho was milking, and a farm se nearly caught fire when bolts lightning struck the barn and se of Lewis Rose last night at 7 lock."

Lightning is one of the chief causes farm fires. It has been estimated t the annual farm property loss m lightning is $20,000,000 at a imum.

This loss can largely be prevented proper lightning protection on ldings and by grounding at reable intervals all wire fences ensing pastures or yards for live k, according to a report of the m fire protection committee of the ional Fire Protection Association. The annual number of farm pers killed by lightning is between and 500 and the number injured nore than twice those killed.

Metal fences, wire clothes lines, or exposed wires should not be conted to buildings because they act feeders for electric energy which pt to bunch up in its structure.

Something like 200 years ago Ben nklin had an idea. One stormy ht he flew a silk kite in the clouds saw electricity travel down the p string, felt the shock from the to which the cord was attached. Ben Franklin discovered that lightng is composed of electricity. He ented the lightning rod which has n perfected by modern manufacers into a very efficient means of tection for property and human s.

An ounce of prevention is worth ound of cure" is certainly true of fire hazard on the farm. To put fires as soon as they start is aner way to cut down farm fire loss-

D. L. Williams, a dairy farmer Waukesha County, Wisconsin, has extinguishers conveniently located in his barns and other farm buildings, as protection in emergencies.

To secure water pressure for fire fighting is a real problem on the average farm. In most cases of need the old bucket brigade to the pump is entirely inadequate and many a barn has burned to the ground which might have been saved either completely or partially had there been water pressure available.

Some communities are solving this problem by purchasing and maintaining, for rural use only, trucks and fire fighting equipment on a par with the modern city fire apparatus.

Up on the experiment station farm for the Upper Peninsula of Michigan located at Chatham within eight miles of Lake Superior, two fires coming at a close interval destroyed expensive farm buildings. They are now equipped to meet such an emergency should it arise again with a power outfit which can be attached to an automobile engine, a type of fire fighting equipment which is on the market.

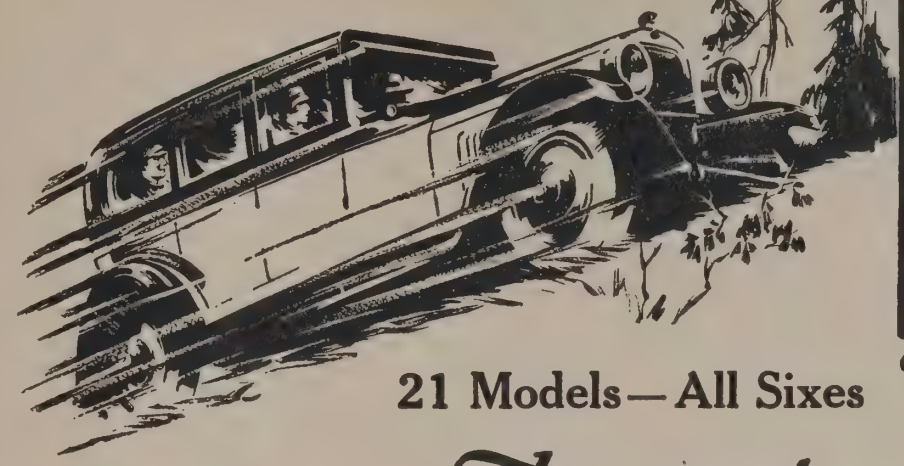
Has fire ever gutted one or more of your farm buildings? Has lightning exacted a toll from your household? Don't wait until you have paid the price of carelessness and negligence. Properly installed and maintained lightning rods protect. Fire extinguishers are a safeguard. Equip to meet the emergency! Every week is fire prevention week!

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All crankshafts are balanced integrally with clutch and flywheel to make the new Nash the smoothest, *"sweetest"* car you ever drove.

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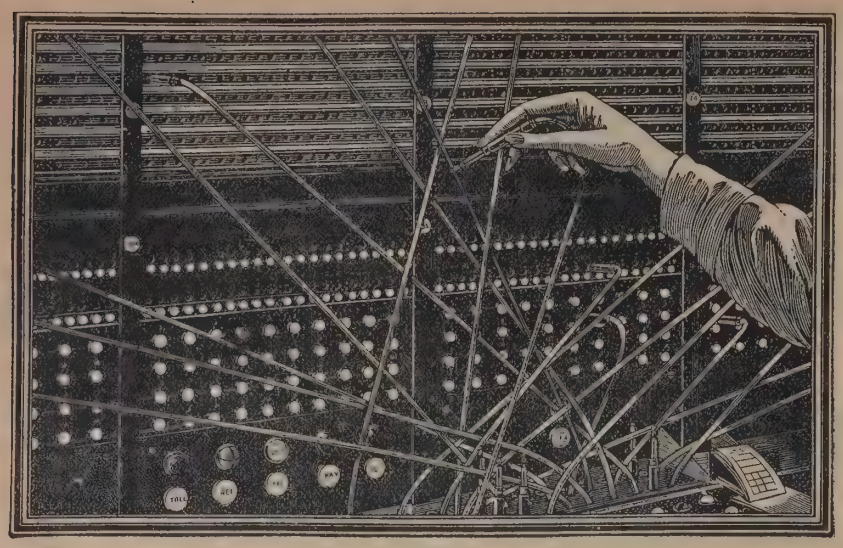


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Every section of a telephone switchboard typifies the co-ordination of human effort and mechanism which makes possible America's far-reaching telephone service. Its cords link for instant speech those who are separated by a few miles or by a continent.

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COW TESTING PAYS

E. B. FITTS, PENNSYLVANIA

DOES membership in a cow testing association pay? John Wirt of Pennsylvania says that it does. He joined the Mifflin County Association in 1924. The milk production of the twelve cows in his herd for the first year averaged 5,500 lbs. per cow. Mr. Wirt was a careful observer of the work of each individual cow during that first year and was impressed by the great differences in amounts of milk produced by different cows in the herd under the same general conditions. At the close of the year when the final results were at hand, he concluded that the milk production of four of his cows was so small that he could not afford to support them longer and they were sold.

The second year from the eight remaining cows an average milk production of 7,300 lbs. per cow was realized; an increase of 1,800 lbs. over the average of the previous year. During both the first and second years he was carefully studying the question of feeds and methods of feeding and herd management, drawing lessons from the experiences of other members of the association, and picking up information and ideas from the tester and from other sources.

At the beginning of the third year Mr. Wirt set for himself a still higher goal in average production. Two of the lower producing cows we sold during this year and two adde one a heifer from the herd and o purchased. As this is written, t third year is not quite complete b the average yield will equal or e ceed 9,000 lbs. per year. This is increase of 3,500 lbs. per cow ov the average of the original herd. T total production of milk from t eight cows will be 72,000 lbs. a will exceed by 6,000 lbs. the tot produced by the twelve cows in original herd. The value of this i creased production at $3.00 per hu dred is $180. To this sum should added the saving in milk producti costs realized through the prese higher average production per co if we are to show the total increas net return. According to figur compiled by the Extension Far Management Department of t Pennsylvania State College, the d creased cost associated with an i crease of 3,500 lbs. of milk is n less than $1.25 per hundred pounc Applying this factor to the 72,0 lbs. of milk produced, the result $900. This, with the $180 mention above, makes a total of $1,080 whi is the sum of increased net retur from the present herd over that the original herd.

The cost of association membe ship is less than $50 per year. Is any wonder that Mr. Wirt is a boos er for cow testing association worl

Small Grain for Silage

HOARD'S DAIRYMAN:—Three years ago we built a crib silo as recommended by the Minnesota Farmers' Institute for farmers in wooded sections. It was built octagon, or eight-sided, of tamrack 2x4's and plastered inside with a double coat of cement plaster. We took advantage of a rainy season and built the silo when we had nothing else to do. It took perhaps sixty working hours to complete the building. The cash outlay was $43.50, which included cement, nails, and other incidentals as well as the cost of the logs and sawing them into 2 x 4's. We cut the logs ourselves.



BARN AND CRIB SILO ON GROVE FARM

As there was no silo filler in the community, we planned to use oats and barley as a silage crop the first year. As this first trial was so successful, we have used the same combination ever since. The gin pole, 55 feet long, was placed beside the silo and slanted about 65 degrees from horizontal so that the top was nearly over the center of the silo. It was held in place by a cable from the rear and a guy wire on either side. One end of the hay rope is tied to the top of the gin pole and then runs through a pulley in the hay fork, up through a pulley at the top of the gin pole again, and then down along the pole to a pulley at its base and then to the team.

The fields of grain containing the most sow thistles were harvested for the silo. The grain was cut at t late dough stage, raked and put in t same day if possible. No water w used unless the grain was badly wil ed. Rather small forkfuls were tak up each time and great care w taken to spread it evenly and tramp it well along the walls. Ea forkful was spread out so no airhol would form and start mold.

The silage comes out a dark gre color, sweet smelling, and is great relished by the cows. If it freezes the wall, a hay fork or an axe is us to cut it loose.

As there is no roof, the silo packed full to the top and ev heaped. We always refill ours aft it has settled several days. Late the fall after we have begun feedi and before cold weather sets in, false roof is hung inside the si about two or three feet from the to This cover is made of poles and th straw is placed on top and secure fastened down. The snow, as it fa on it, effectually seals the top again cold weather and the elements.

The advantages of the silo and t combination silage is that it is entir ly home-made at a small expens There is no investment in a silo fill and all the crew required is one two teams and two or three men. has proven very successful with small herd but might be impractic with a large one. There is anoth advantage in this plan, it allows t early removal of crops from a wee field. This is especially useful in section badly infested with sow thi tles. By plowing immediately aft cutting the grain and keeping t field cultivated until fall, we ha been able to cope successfully wit one of the worst pests of the Re River Valley, the sow thistle.

Minnesota. MORRIS C. GROVE.

"An' how's yer wife, Pat?"
"Sure, she do be awful sick."
"Is it dangerous she is?"
"No, she's too weak t' be dange ous any more."

New Finger Pull milk bottle cap



A dandy new low cost bottle cap that is sanitary. Easily removed with fingers. Protects both milk and bottle. Makes new friends; holds the old ones. Adds to the popularity of your product. Try them on your trade and note the quick response. Write us for free samples and prices. We also make the superior "Midwest" Standard Disc Caps.

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SANITARY-EASY PULL

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REFRIGERATORS
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AGENCIES IN MOST LARGE CITIES

If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman—Ask Him Why!

"If—for *any* reason, the valve chamber on this Milker should be damaged, or get out of order, we will repair or replace it free of charge, *during the life of the machine.*"

What THIS Guarantee Means

19 years ago, the first Hinman Milker carried the above guarantee.

From that day to this, *no Hinman owner has ever had to buy a new valve to replace the original one.*

THIS GUARANTEE MEANS

1. That from the start, the Hinman idea has been to sell *dependable, day-after-day machine milking*—not just a machine.
2. That the Hinman Valve, so simple it hasn't even a spring, *has* to be reliable or we couldn't afford to make that guarantee.
3. That of the two moving parts on the Hinman (aside from power) the only one that needs factory attention to adjust it, is protected by free service *as long as you operate a Hinman Milker.*

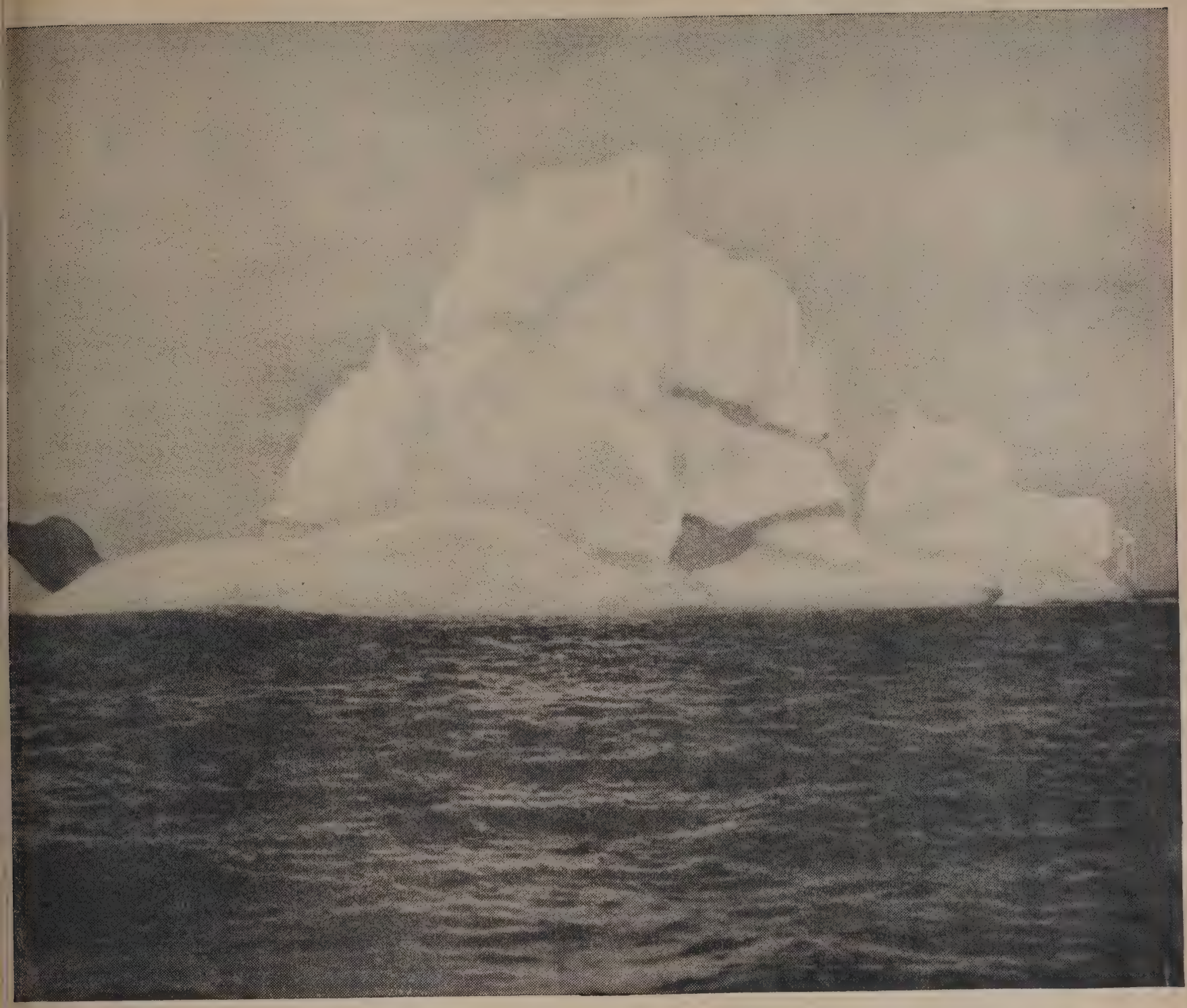
Think what that guarantee means! And then get *all* the facts. Find the other reasons why the Hinman is today "the milker most dairymen use."

Send for the Hinman Catalog. Write today.

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PORTABLE GAS ENGINE + STANDARD + PORTABLE ELECTRIC
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AFTER SHAVING



HERE IS A GOOD BET

Have you ever tried Listerine after shaving? You will like that cool as ice sensation.

We are so certain of this that we are willing to risk the cost of this page (more than the average man's yearly income) to tell you about it.

After your next shave, just douse Listerine on full strength and note results. Immediately, your skin will tingle with new life and vigor. Then, over your face will steal a lingering and delightful sense of coolness such as you have never known before.

And as it cools, Listerine also heals—takes the smart and burn out of tiny wounds left by the razor and lessens the danger of infection. Go ahead and try Listerine this way. We dare you. Lambert Pharmacal Company, St. Louis, Mo., U. S. A.

EVERYBODY'S TALKING

Everybody's talking about the marvelous whiteness of teeth after using Listerine Tooth Paste a short time. You will be delighted. Large tube, 25c.

LISTERINE

—the safe antiseptic



Dining Room—Living Room Combination

A young friend of ours who married and planned a home a few years ago has always been of the old fashioned hospitable type that loves big rooms and a spacious air outside and in. We visited her after she had been married five years and the house she had planned expressed her personality perfectly, the kitchen especially. It was as big as the ones down South you read about, with huge cupboards on two sides and a pantry as large as a modern kitchen opening from it, besides a back porch that had another closet built on it for overshoes, brooms, and other such things. Everything was immaculate and the lovely air of hospitality that pervaded every nook and cranny warmed the heart of a guest.

The other day a letter came from her. "We are building again," she wrote. "You'll think when you see the enclosed plan that I've gone crazy but I feel that I've really come into my right mind. The house of my dreams is still the roomy, big place with stores of supplies and everything ready for any amount of company but I find that the world has changed too much to make such living feasible. I am simply exhausted trying to rear my family and keep up with my house, so don't laugh when you see these plans."

They were, indeed, different and the most noticeable difference lay in the fact that there was no dining room at all and the kitchen was no more than a patch on her old one. It lacked the homey, comfortable look of the other but it did look easy to work in.

With life speeding up as it is, such arrangements as this are becoming more and more common. They usually have a breakfast nook in one corner of the kitchen and a folding gate-leg dining table in one end of the living room so that it can be put away and the space used. These tables can now be had with extensions that make them large enough to seat ten persons.

The arrangement shown in the accompanying pictures was worked out on a model basis. The living room is very large with windows along one side, a fireplace in one end, and in the other a built-in cupboard that serves for dishes, linen, silver, and a few books.

A bedroom opens from one end of this room at right angles to it, the kitchen is in a corresponding position at the other end, the bathroom opens from the bedroom, and between kitchen and bedroom is the entrance hall. For two people it is an ideally cosy arrangement and the principle of it can be enlarged to accommodate many more.—LUCY THOMPSON.



DINING END OF BIG LIVING ROOM

Blood-building Foods

A lecture I heard last winter at a Farmers' and Home Makers' Convention struck me as particularly interesting as I had just been hearing a good deal about blood deficiencies; not enough red corpuscles in the blood, deficiency of oxygen in the blood with consequent difficulty in breathing. This lecture, given by a scientist who has experimented long and successfully with diets, was on blood building foods.

He explained that the reason some new-born animals can live so long on milk alone while others cannot is that in the case of the former the liver and spleen are loaded at birth with iron and their systems dole out this mineral to be used along with milk, thus making an adequate diet. This is the case with most of our familiar animals such as the calf, pig, and colt. With the guinea pig it is different; Nature does not provide him at birth with a liver and spleen full of iron but she does provide him with an instinct that tells him he needs it so, often within an hour of his birth, he is seen hopping off looking for a cabbage leaf to supply his mineral needs.

If your doctor has put you on a diet of blood-building foods here are some recipes that may help you with your problem. It is to be hoped that you like liver for it is one of the most valuable blood-builders and is in all these recipes.

Stuffed Tomatoes

Cut stem end from tomatoes, remove pulp, salt, and invert to drain. Parboil one pound of calves liver or beef liver and grind. Season with salt, pepper, and two tablespoons chopped onion. Stuff tomatoes with this mixture, cover with buttered crumbs or small strips of bacon and bake in a moderate oven about half an hour.

Liver Chowder

1 cup ground liver
¼ cup sliced onion
½ cup sliced potato
½ cup chopped celery
1½ inch cube salt pork
1½ cups water
1 teaspoon salt
⅛ teaspoon pepper

Cut pork in small pieces and cook in water 15 minutes. Drain. To the liquor add other ingredients. Simmer slowly for half an hour. Beat the yolk of an egg with 1 cup of milk, add the chowder and stir. Serve hot.

Braised Liver

1 carrot
1 onion
1 stalk celery
1 small turnip
1 pound calves liver
¼ pound bacon or salt pork

Cube vegetables or cut lengthwise and place in bottom of a casserole or tightly covered dish. Place liver on bed of vegetables. Place slices of bacon or salt pork on top. Almost cover with stock or water in which a boullion cube has been dissolved. Cover and bake in a moderate oven for two hours.—LUCY THOMPSON.

Don't Quit

When things go wrong as they sometimes will,
When the road you are trudging seems all up hill,
When the funds are low and the debts are high,
When you want to smile but you have to sigh,
When care is pressing you down a bit,
Rest, if you must, but don't you quit!

I don't know who it was wrote the little verse above but I approve of it for it fits us all.

I was visiting last week a friend whose little boy is four years old. Running across the room as hard as as he could he tripped and fell and at once began to cry. His mother left him alone a moment and then said, "Courage, Jimmie! Don't cry." A few more blubbers and the lad got up and soon was playing happily. There was something so calm, so staying about that mother cry of help and the little fellow's manly response that I felt myself deeply stirred. She was helping him so that later he could help himself for she was giving him in the very tones of her voice sympathy and love and the ability to be self-reliant.

Some recent books have been written around the theme of the mother love that ties its child closer and closer to itself, strangling the child's initiative and independence until it is too old to develop properly and the child is left a moral weakling for life, unable to make his own decisions. The mother who can teach courageous independence to her child when he is small need never fear that she will lose him; he may seem to be lost to her in the years of his youthful growing up but when his mature understanding comes his natural affection will be mingled with the admiration and respect that is the strongest tie of love.

Looking back over what I have written, I seem to have somewhat

(Continued on page 955)

Send for Our Fall and Winter Fashion Magazine

You simply must have a copy of our Fall and Winter Fashion Magazine, for it contains too many good things for you to miss. All the new fall and early winter styles of course, and then there are pages of novelties for the masquerade. Articles about health and beauty and reducing safely, and pages showing correct hats, fancy needle work, special lingerie, etc.

While you have the matter in mind send 10c for your copy to our Fashion Department, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 3147—Mode of Feminity. Pattern in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 2⅞ yards of 40-inch material with 2 yards of 36-inch contrasting.

No. 3134—Decidedly Chic. Pattern in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. Size 36 requires 3½ yards of 40 inch material with 5 yards of binding.

No. 3139—Fan Plaited Inset. Pattern comes in sizes 8, 10, 12, and 14 years. Size 8 requires 1¾ yard of 40-inch material with ⅜ yard of 40-inch contrasting.

No. 874—Perfect Lines. Pattern comes in sizes 36, 38, 40, 42, 44, 46, and 48 inches bust measure. Size 36 requires 3 yards of 40-inch material with 1¼ yards of 32-inch contrasting.

No. 870—New Drape Movement. Pattern cuts in sizes 16, 18, 20 years, 36, 38, 40, 42, and 44 inches bust measure. Size 36 requires 3⅜ yards of 40-inch material with ¼ yard of 11-inch contrasting and 3½ yards of ribbon.

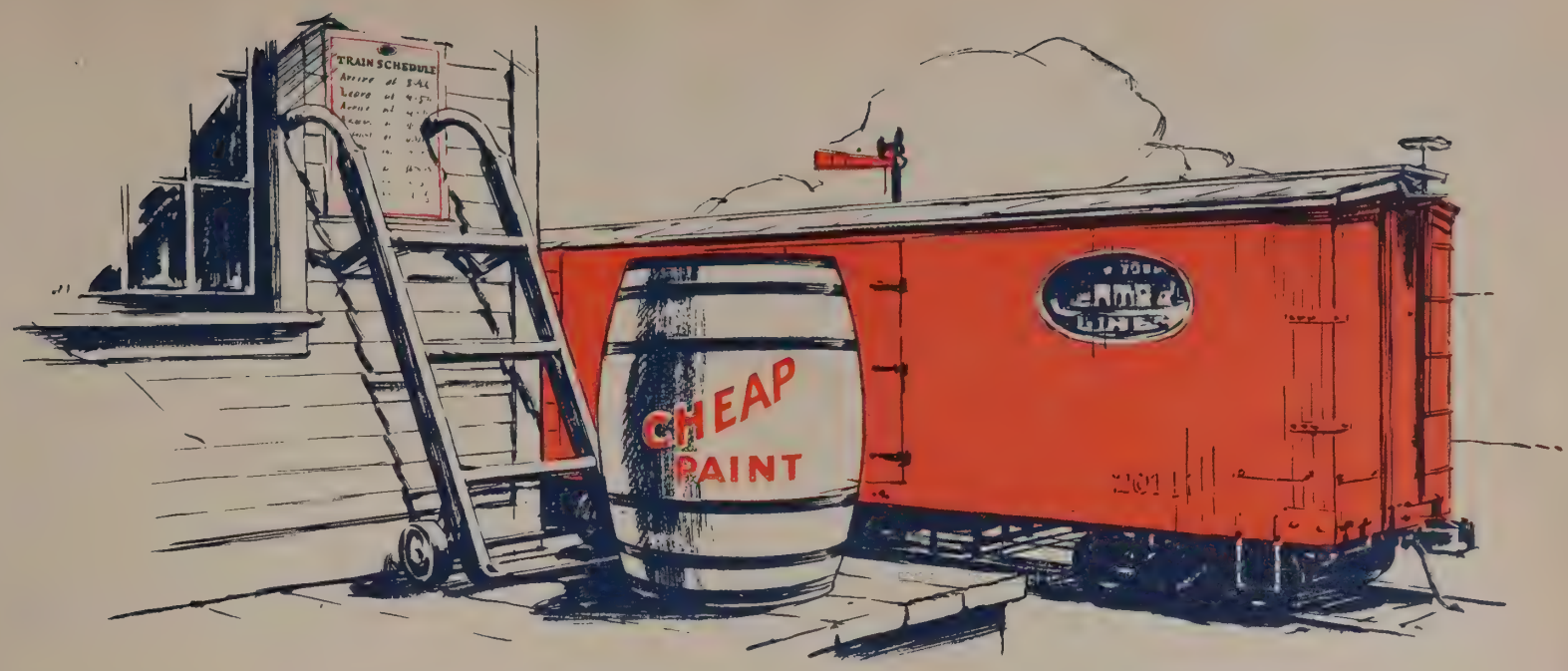
No. 2996—Individual Coat Dress. Pattern comes in sizes 16, 18 years, 36, 38, 40, 42, 44, and 46 inches bust measure. Size 36 requires 3½ yards of 40-inch material with ⅝ yard of 18-inch contrasting.

No. 2954—Ragland Sleeves. Pattern comes in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 1⅞ yards of 40-inch material with ⅜ yard of 32-inch contrasting.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.



There's a joker in the "cheap" paint barrel

WHEN anyone offers you a very tempting proposition on "cheap" paint, keep your eyes open. There's a "catch" in it somewhere.

No reputable concern can sell *good* house paint at a "cheap" price per gallon. And no *unknown* house is safe to deal with. No barrel of SWP House Paint is ever "planted" on the station platform. Don't be fooled by this "apple-sauce."



No "quality" paint is ever peddled from door to door or offered in highly colored circulars by some very *friendly* person whom you do not know who tells some impossible tale about saving money for you.

These are sharp tricks that have fooled many unwary buyers. Don't let them fool you. Remember, "cheap" paint isn't cheap at all.

Why SWP *costs less*

"You can't make a silk purse out of a sow's ear." And you can't buy a house paint that will cover and hide and *wear* for years—for a "cheap" price.

Fine old SWP House Paint costs more per gallon. That's because it is made of super-fine materials—in the world's greatest paint laboratories. Because it is mixed and ground to creamy-smooth texture by power-driven machines which no hand-mixing can possibly equal.

But "gallon price" does not indicate the cost of painting. "Low price" is a delusion. Actually, a "cheap" paint costs you from two to five times as much as SWP House Paint. And here is why:

A gallon of SWP House Paint covers 360 square feet, two coats. The average "cheap" paint must be greatly *stretched* to cover, poorly, a mere 250 square feet, two coats.

Therefore, nearly twice as many gallons of "cheap" paint are needed as of fine old SWP to cover the same area. Figure out the cost of the paint on that basis and your eyes will be opened. That is one angle of the "joker" in the "cheap" paint barrel.

Wonderful colors that last

But that's only the beginning. SWP House Paint will beautify and protect your building from two to five times as long as "cheap" paint.

SWP colors are unusually rich and true to character. They do not fade. Weather does not affect them. The film of SWP is tough and elastic. There is no chipping, peeling, chalking.

Most "cheap" paint begins to peel and chip and chalk almost before it is dry. It deteriorates very rapidly. Colors become "wishy-washy." In a very short time you have to burn or scrape the old stuff off and do it all over at heavy expense.

It's easy to see why cheap, trashy paint costs twice as much as SWP House Paint by the year. That's another angle of the "joker."

Sherwin-Williams

Commonwealth Barn Paint

(Red and Gray)

For barns, corn cribs, roofs, fences and similar outdoor surfaces.

Costs less on the wall than "cheap" barn paint

See "Paint Headquarters" —save money

SWP House Paint is sold by reliable dealers in every part of the world. Each one is "Paint Headquarters" in his vicinity.

Before you let any "bargain" offer lure you into a waste of money see the SWP dealer near you. He handles dependable merchandise. You probably know him personally. Get his advice, then decide. If you want color cards, advice from our experts or a copy of the famous Sherwin-Williams Farm Painting Guide, write us.

THE SHERWIN-WILLIAMS CO.

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COVER THE EARTH

COVER THE EARTH



Good old P. A.!

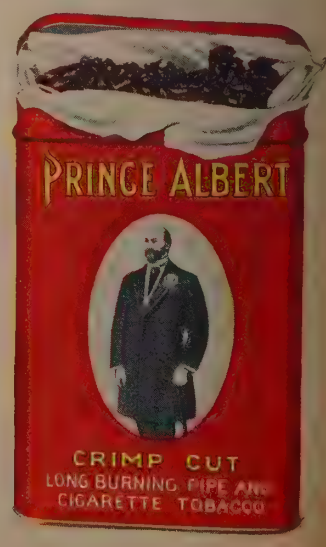
THEY say that "no other tobacco is like it." I want to go a step further and say "no other *experience* is like it!" And I'm ready to prove *that*. Just get yourself a tidy red tin of long-burning Prince Albert. Throw back the lid and release that tantalizing aroma.

No more appetizing fragrance ever floated out of a package, you'll agree. Then tamp a load into your old jimmy-pipe and light up. Here is the supreme test—that *taste*—that Let-me-at-it, Gee-how-I-like-it taste! Never have you experienced anything like this, Men.

Cool as a drink from an artesian well. Sweet as a pear, ready to drop from the tree. Mild and mellow as October sunshine, yet with that full, rich tobacco-body that bangs your smoke-spot in dead center on every fire-up. A thrill you can repeat from morning to midnight.

Not the least of Prince Albert's many virtues is that it doesn't bite your tongue or parch your throat, no matter how swift your pipe-pace. I could tell you a lot more, but I want P. A. to tell you *in a pipe*. For that is testimony no seeker-after-truth can question. Get some Prince Albert now and find out!

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



PRINCE ALBERT

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Balanced and shaped for foot comfort

FOR over a generation Hood Red Boots have set the standard for boot quality. Freely imitated in color—but rarely in wear—their tough grey tire-tread soles and non-cracking red uppers are the outdoor man's identification of all-around durability.

Hood Red Boots, like all Hood Work Footwear, are scientifically balanced to feel lighter on the foot—have trimmer lines—they are made over foot-shaped lasts to prevent heel slipping and give greater comfort.

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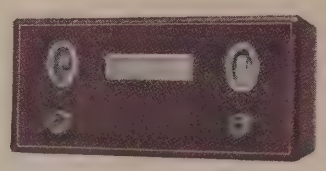


This amazing Radiola 16—
the widest musical range ever achieved with one-dial control

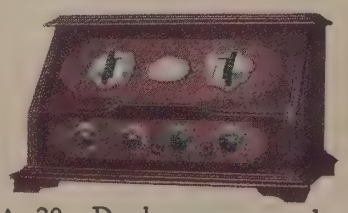
IN the new, complete line of RADIOLAS that has just come from the famous research laboratories of RCA, Westinghouse and General Electric, the marvelously compact RADIOLA 16 is an outstanding achievement.

Particularly adapted—like the popular RADIOLA 20—for use on the farm, its simplicity of operation, perfection of tone and high selectivity and sensitivity make it a worthy companion of the more costly sets that carry the well-known RCA mark. The only rival of this new model in the low-price field is the RADIOLA 20.

When used with one of the RCA Loudspeakers, this storage battery set brings into your home the programs from the great broadcasting stations—the finest music, university extension courses, crop and weather bulletins, and the latest news of the world.



RADIOLA 16—Storage battery receiver of great compactness. For selectivity, sensitivity and tone quality, it sets a new standard for receivers in its price class. The cabinet is finished in mahogany.
Less accessories $69.50 . with Radiotrons $82.75



RADIOLA 20—Dry-battery-operated receiver, with amazing sensitivity and many times as selective as the average antenna set. Ideal for distant reception. Can readily be adapted to socket operation. Ideal to use with the new RCA Loudspeaker 100-A.
Less accessories $78 . with Radiotrons $89.50

Like RADIOLA 20 this expertly designed 6-tube receiver can be adapted for alternating current operation from the house lighting circuit by the addition of socket power devices.

• • • •

You have not really heard radio until you have listened to a RADIOLA and RCA Loudspeaker. Ask any RCA Authorized Dealer for a demonstration of these marvelous instruments.

Buy with confidence Authorized Dealer *where you see this sign.*

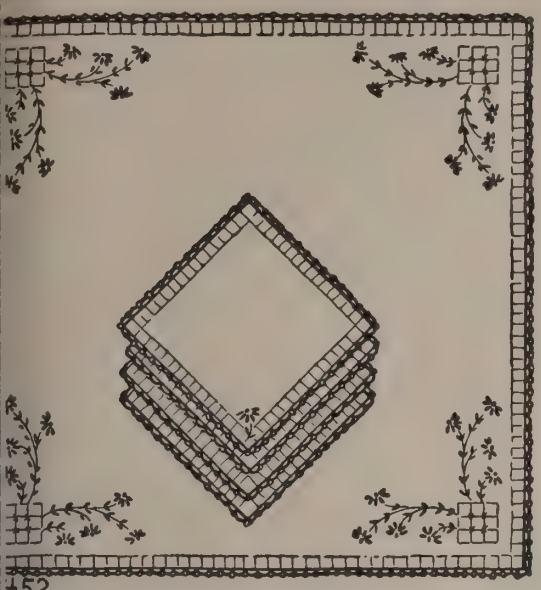
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s beautiful luncheon set is stamped on heavy round thread, oyster bleach linen, and will give years of service. The n is charmingly developed in shaded orange and lavender rs with green and white stems and leaves. The square in a combination of blanket and cross stitch in shades of and orange is unique and striking. Size of cloth, 36x36 s, and four napkins 12x12 inches, all sent postpaid on t of price, $1.45. A detailed chart showing where each is to be used is enclosed. Send to Embroidery Department, l's Dairyman, Fort Atkinson, Wis.

ed my theme but if I have it is use, in my mind, the teaching of age to the child is sure to de- p into the "Don't Quit" for the t and that is one of the finest oons with which we can attack job.—LUCY THOMPSON.

Women's Sorcery

n every side today we hear how en are taking up men's ways—dress, their habits, their speech, even their privilege of proposing riage! Modern girls insist that have just as much right to go a man who attracts them as a has to woo a girl. How many of actually do it and what the re- are, is another question.

en have always guarded rather usly their sentimental rights and leges and only lately I have read the men of France have just vered a law passed some 150 s ago which may be the means of ng some of them easily out of their marriages. The law reads something like this:

"Whoever attracts into the bonds of marriage any male subject of his majesty by means of rouge or powder, perfumes, false teeth, false hair, steel corsets, hooped petticoats, or high heels will be prosecuted for sorcery and the marriage will be declared null and void, if the accused is convicted."

The law, they find, has never been repealed. In these days of making Nature "look like what she ain't" it would seem that the married French women might have to go cautiously with such a law on the books. But somehow, "it is to laugh," as they would say, at the simple mindedness of men who, having walked open-eyed into a trap about which they were warned and which they probably enjoyed supremely for a time, then use the law to get themselves out.—LUCY THOMPSON.



TRODUCING THE THREE BEARS

ou've met them of course in y. Now spend some of your e time making them for the lie and let him meet them in per- Xmas day. They appear on page 33 of our new Fashion Magazine. re you'll see a number of attrac- things you can make for Xmas. f course there are, besides, hun- ls of styles for all occasions. The dresses, lingerie, home apparel, roidery, etc. Too many good gs to miss. Send 10 cents for copy of the book or, better still, l 25 cents in stamps or coin for a year subscription of three issues ou will have a good fashion and ern book at hand the year round. ress Pattern Dept., Hoard's yman, Fort Atkinson, Wis.

Use Soap in Place of Putty —Cooking Eggs

I was despairing over the number of nail holes in a casing over a door when I was painting the other day. I said to the workman who was tearing out cupboards, "Why will people mar their woodwork so by nailing nails in anywhere? I haven't any putty to fill them up." He asked, "Do you know what my wife uses when she is painting? Soap!"

I had a bar of white soap right there and ran the corner over the holes and low and behold the trick was done. Any unevenness was as easily remedied and being white did not show through even the first coat of white paint. I tried to find the filled places when the second coat was on but could not. So I am passing the idea along.

Soap is always to be had easily whereas putty dries up so quickly it cannot be kept over for little odd jobs from time to time.

⚜

A neighbor brought my little son a very tiny egg that she had found among her others. In his eagerness he cracked the shell. I thought we couldn't hard boil it for him then and he was going to be very disappointed as that was the only way he liked eggs. She told me if I put salt in the water the egg would not run outside the shell while boiling which proved to be the case and well worth remembering.

⚜

I have just learned that eggs should not be hard boiled in leaping water. It makes the whites hard and indigestible. Pour the boiling over them, pull back and let cook, not bubbling, 20 minutes. The eggs are much nicer.—E. A. ELLIOTT.

Grocer Brown (between the dances): "There's a lady over there who has been watching you for ever so long; she'll be asking for an introduction soon."

Grocer James: "She won't—she's my wife!"

Aunt Ada's Axioms: Harsh thoughts and words curdle dispositions and digestions.

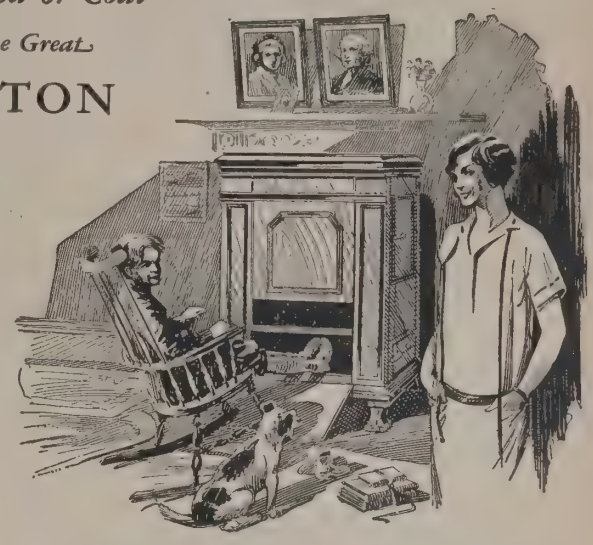
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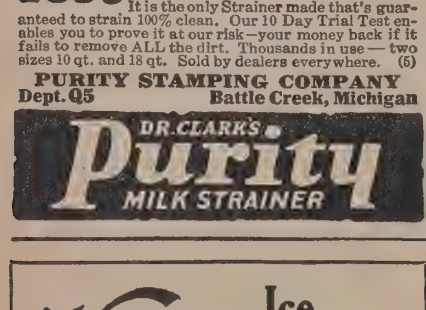
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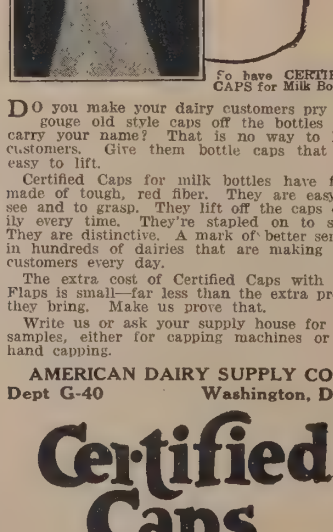
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Four Cornered Partnership

(Continued from page 928)

much faith in silos. It stood until six years ago when our big barn caught fire and burned to the ground."

Graduates From Short Course

Many of the best farmers in every state are graduates from the short courses of agricultural colleges. John Wrage finished such a course at the Washington College of Agriculture in 1907. He then studied dairying at Ames, Iowa, for a year. After he was married to Lena Thomsen in 1909, he took over the farm and he has been operating it ever since.

"We had always had a desire to start raising pure-bred Guernseys," continued Wrage, "but we never felt that we had the money. In 1916, however, O. E. Gibson, dairy extension specialist at the state college, convinced us that we should borrow a thousand dollars and buy some good foundation stock. With this money we bought Gana, and two heifers, Nan and Nancy of Birchwood. Nan of Birchwood later became a class leader and Nancy was a close second. Before Gana could be shipped here from the East she dropped a heifer calf. Her next heifer calf was Gana of Valley Gem who produced 13,285 pounds milk containing 632 pounds fat, which for a year and a half was the world's record in her class. In the same lot with Gana and the two heifers was the bull that sired Nancy Lee who was supped and dined at a Seattle banquet a couple of years ago and later sent to a Honolulu dairy breeder. From that beginning we have sold as many females as we have bought and in 10 years' time our herd has increased to 50 females."

Herd Improvement the Cow Testing Way

At the time we were at Valley Gem Farm the herd held 18 A. R. cows with a mature credit average of 654 pounds butterfat. Thirty of the 50 females in the herd were descendants of old Gana. Some official or semi-official testing has been done every year since 1919, but the whole herd has been in the cow testing association all the time.

Wrage finds that the cow testing association records on different cows are almost always practically the same as the semi-official records. Because of this he said: "We will probably always keep up our official testing but we hope to do our herd betterment work through the cow testing association. We are like most of the other in that we don't run a cow on official test unless she is in good condition. The association records, on the other hand, are for the entire herd and they show what a cow will do year after year."

Cows Have Night Shed

The Valley Gem cows stand in stanchions only when they are eating and are being milked. The rest of the time they are outside or in a large night shed where they can walk around and be comfortable. This shed is "spotted," or cleaned out, every day. It is bedded down once a week with dry shavings and sawdust that are purchased in car load lots from a small lumber mill nearby at a cost of $40 a car. Any waste feed left in the mangers is pushed into a "junk rack" outside where there are always a few "scavenger" cows ready to clean it up and turn it into milk.

Only two cows have aborted in this herd since 1920 and both Wrage and Grewe think that these were caused by accidents. Shortly before that time they had had some breeding trouble but they started feeding a little fishmeal and iodine in the daily ration and have had no trouble since.

The concentrate mixture that fed according to Mrs. Wrage's dir tions is made up of 1100 pou wheat screenings, 550 pounds c screenings (a by-product from cra ing corn for poultry), 350 pounds a whole grain mixture of barley, o and peas, and 200 pounds of meal that they buy through the co-op.

Grain and Hay for Silage

Almost any kind of a crop is into the silo on this farm. If a sm grain gets weedy, as it often d here where they have so much ra the boys do not bother to let it ripe but just mow it down and cut up for silage. If rain comes up wet any hay before they can get cured, they cut this up too. Th started raising sweet clover for p ture in 1925 when they seeded acres. Last year they had nine. Th are getting started with alfalfa t The grass seed mixture that th were using is 3 pounds alsike, 2 tim thy, 8 red clover, and 3 of alfa This is cut for hay the first year a pastured the second.

Four acres of Golden Tank mangels are usually planted ea spring and about the same amount sweet corn. After the corn has b sold on the market the stalks are in the silos. One of the crops t is bringing in a considerable cash come is their hill selected certi Netted Gem potatoes. As they pl only from "super-hills," they have veloped a good demand for their se

Grewe Cares for Poultry

"Charley" Grewe entered the st in 1920 when he came into Snohom County as a cow tester. Both he his wife were graduated from University of Illinois, but they r like the western country better th the East. Wrage saw that his pl for the future were too large to sw alone, so he offered Grewe a partn ship in the corporation. All four p ties to the transaction are satisfied they all enjoy their own lines of w and the enterprise is making a pro

Sixteen hundred laying hens, which 1000 are pullets, are kept the Valley Gem farm and the eggs all sold through the Washington operative Egg Association. Gre spends much of his time superinte ing the poultry end of the deal, well he might, too, for the inco from the two long houses full white Leghorns is several thous dollars a year. He has had seve heavy losses of hens, but for the m part all has gone well. He has l as high as 20 a month from "bl outs" for a few months after the p lets started laying. They just r tured themselves when they were i ing to lay their first eggs. One t he bedded the houses with some st that had been baled just five days fore on a warm, damp day. It h pened that there was some act mold in this straw so when he ca back a short time later most of birds were sick and 22 of them ne recovered.

Electric lights lengthen the wo ing days for these hens and they glad to work, for their enthusia caretaker feeds them well. They h all the skimmilk they can drink there are always many bunches fresh kale or other green stuff hag ing where they can peck at it to th hearts' content.

Train Bulls to Be Driven

Much attention has been drawn the Valley Gem Farm these last years from the fact that the two uable herd sires, Valley Gem Paraq

Mixter's Senator, have been ned to work. The bulls have a ry-go-round to play with but they tired of working on this, so two s ago the boys hired Jack Fowler, famous "bull skinner" who works rm almost entirely with oxen, to e over and train these blooded to be driven. Fowler fashioned r yokes with care and soon had n pulling a stone boat as he red a highland of stones. So well he break them that the boys now them for work around the yards reference to horses as it is easier hrow the yokes over their heads to harness a team.

hen these bulls were hitched to dynomometer at the 1926 Pacific rnational, they made a tractive of 1500 pounds which is more half as much as the best heavy ht teams of horses in some states been able to make.

ving Side of Farming Stressed

any interesting things could be about this "foursome" who are ing a name for themselves with pure-bred cows, hogs, and hens, ay nothing about the selected ns of crops that are being grown. will close, however, with the re- that with all their work and y farm activities they find time to y life as they go. The gun and rod are often taken down from hooks as their owners wing the e from the woods or lure some kled beauties from a nearby m. Flowers grow here, too, and the two homes a cheery aspect, hough these couples are partners single farming enterprise, they work out the all important prob- of making a home without the e or surveillance of the other.

rm Production by States

connection with the report given here as to the total value of production in 1925 and 1926, the wing report as to value of pro- on by states may be of interest:

bution of Estimated Gross Value of Farm Products Among the States

au of Agricultural Economics, U. S. Department of Agriculture)

illions of dollars; i. e., 000,000 omitted)

All crops		Animal products			
1925	1926	1923	1924	1925	1926
248	192	60	57	64	70
35	29	17	16	18	20
246	211	71	66	75	82
517	469	174	164	184	203
157	120	99	93	105	115
38	42	28	26	30	33
19	16	8	8	9	10
90	78	16	15	17	18
248	233	77	72	81	89
126	103	53	50	57	62
495	429	423	399	449	493
266	248	275	258	291	320
515	472	559	526	592	650
334	363	295	278	313	343
210	199	150	141	159	175
212	148	26	25	28	30
109	89	42	40	45	49
80	78	43	40	46	50
52	49	45	43	48	53
288	276	189	178	201	221
397	360	220	208	234	257
314	212	58	54	61	67
334	304	382	360	405	445
126	127	72	68	76	84
338	283	267	252	283	311
11	10	13	12	13	15
23	22	23	21	23	26
64	59	41	38	43	47
30	37	35	33	37	40
352	314	301	283	319	350
362	361	79	74	83	92
301	210	67	63	71	78
332	330	320	301	339	372
308	340	156	147	165	182
109	99	72	68	77	84
320	286	250	235	265	291
5	5	7	6	7	8
177	157	39	37	41	45
200	131	101	95	107	118
208	193	154	145	164	180
636	695	289	272	306	336
50	41	30	28	32	35
45	47	46	43	48	53
176	190	109	103	116	127
192	162	69	65	73	80
81	82	62	58	66	72
360	331	321	302	340	374
34	34	38	36	41	45
10,170	9,266	6,271	5,902	6,647	7,300

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Great New Chrysler "62" —6-cylinder motor. 7-bearing crankshaft. 62 and more miles per hour. Invar-strut pistons. Oil filter and air cleaner. Ventilated crankcase. Impulse neutralizer and rubber engine mountings. New cellular type radiator. 4-wheel hydraulic brakes. Road levelizers, front and rear.

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Couldn't Leave Mary Ann

The Mississippi flood brought some amusing as well as tragic situations. A pathetic instance was that of an old darky and his cow. Marie Mattingly Meloney tells the following story in the Philadelphia Record as reported by a young man who operated a motor boat for bringing refugees to safety:

"When we got up to the point," he explained, "we had gathered in everybody but the old man. 'Hop along, uncle,' I said, and he called back, 'Yo' all got enough room for Mary Ann?' 'Sure,' I said; 'where is she?' 'Here she is, boss,' he said, and began hauling an old cow to the boat. Well, I explained humans and cattle couldn't go in the same boats. It was orders, and I told him one of the cattle boats would be right along. But he argued, 'Boss, Mary Ann ain't no cattle. Mary Ann's a cow. She done fed all my children—she hepped to bring 'em up. I couldn't leave her in dis here mess.' "I argued with him," the youth continued, "but he would not leave his Mary Ann, and finally he said, 'Jes' breeze along, sonny, jes' breeze along; I'm agoin' to wait here for a boat that'll take Mary Ann.' So I had to leave him there; but the water is getting higher, and unless somebody can argue him out of it, that old darky is sure going to get all wet."

Within the hour, continues Miss Meloney, another life-saving boat came in with the same report about the old darky and his Mary Ann. Later a third boat brought the same news. At length a boat was dispatched on a special trip to that point of the levee, for the sole purpose of rescuing the old negro and his cow; but "long before it came back the Memphis radio station 'on the air every hour' reported, 'Water going over Milliken Bend.' Two lives had been lost," records Miss Meloney; "one was Mary Ann's."

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Elevator Man—Here's your station, son.

Student—How dare you call me son? You're not my father.

Elevator Man—Well, I brought you up, didn't I?

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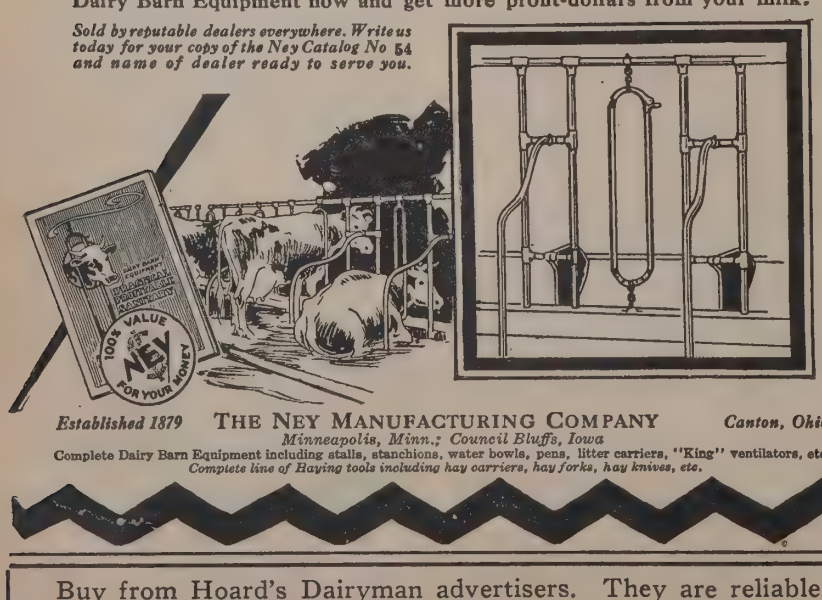
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COW TESTING ASSOCIATIONS



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	High Herd Breed	No. of cows	Ave. milk Lbs.	Ave. fat Lbs.	Owner
Ill.	Henry	Aug.	398	503	23.4	G.	8	1112	43.4	R. Palmer
"	Moultrie Co.	"	238	672	32.4	R. J.	4	848	42.5†	F. Lavery
"	Ogle Co.*	"	383	546	20.2	R. H.	9	945	31.7	J. Eastman
Ia.	Sac Co.	"	348	510	20.4	M.	13	800	31.3	Stolt & Son
Ore.	Cen. Oregon	"	532	572	26.7	H.	5	1321	45.9	E. Williams
"	Tillamook	"	1677	771	34.3	G. J.	14	1015	48.6	W. Hare
Neb.	Lancaster	"	486	683	26.4	H.	10	961	35.1	C. H. Borgman
Wash.	Cowlitz Co.	"	537	616	26.1	J.	5	719	44.1	C. S. Houpt
"	King Co.	"	698	714	28.1	J.	18	791	39.5	E. W. Trzise
Ind.	Randolph*	"	237	609	30.2		8	854	43.9	G. Abel
"	Spencer-Perry Co.*	"	305	516	24.6	J.	9	674	37.0	F. Winters
Va.	Aug.-Rockbridge	"	410	592	24.3	M.	13	928	37.1	Natural Bridge Hot
Mo.	Jackson 1	July	203	706	27.0	H.	20	1069	38.3	W. G. Carpenter
"	Jackson 2	"	965	781	28.2	H.	63	1039	33.2	E. Peterson & Sons
Md.	Carroll Co.	"	421	608	23.7	H.-G.	19	722	31.5	D. B. Smith
Ala.	Hale Co.*	Aug.	544	413	19.3	R. J.	16	649	29.6	V. Moore
Ida.	Canyon Co.	"	685	615	27.5	G. H.	9	1152	40.0	R. L. Morf
Tenn.	Knox Co.	"	509	537	23.8	R. J.	5	802	35.6	E. M. Atkinson
"	Hamilton Co.	"	661	553	24.8	G. J.	22	770	34.6	A. A. Little
Kans.	Harvey	"	142	619	21.1	H.-S.	11	869	37.4	H. O. Molzen
"	Reno	"	325	607	22.7	R. H.	10	584	31.6	R. L. Evans
Colo.	Pueblo Co.	"	533	617	24.5	H.	30	865	32.7	A. G. Stubblefield
"	Mesa Co.	"	369	516	24.0	R. H.	28	1165	38.5	F. C. Clymer
Minn.	Howard Lake*	"	404	404	18.5	R. J.	18	745	45.5	W. H. Eddy
"	Barnum*	"	338	625	27.0	R. G.	5	854	40.7	J. L. Doan
"	Clarissa	July	325	596	23.6	R. H.	7	900	34.8	I. Hanson & Sons
"	S. Houston	Aug.	311	466	19.8	G.	13	706	33.8	E. Roble
"	Freedhem*	"	331	518	20.0	G. H.	10	777	32.8	R. Kuhl
Penn.	Allegheny Co.	"	334	666	26.0	R. G.	7	973	44.3	Fairacres Farm
Ohio	Licking Co.	"	302	599	28.5					
N. D.	Burleigh Co.*	"	417	670	25.5	H.	21	884	35.6	C. Keidel
N. D. & Minn.	Gr. Grand Forks	"	472	549	21.1	R. H.	21	1020	34.6	C. A. Morwood
Mich.	Oscoda Co.*		200	503	22.6	G. G.	4	981	42.0	S. Rhodes
"	So. Wexford	"	240	521	21.0	R. H.		1090	34.9	G. Rock
"	So. Monroe Co.	"	264	633	21.9	H.	10	1069	33.4	F. L. Newcombe
"	Kalamazoo 2*	"	343	531	23.1	J.	18	636	33.0	L. J. Bradley
"	Alcoma 1*	"	262	777	28.8	H.	11	1091	38.7	L. Effrick
"	No. Berrien*	"	272	653	28.1	R. G.	6	853	44.0	O. O. Dunhim
"	Lans.-Ingham*	"	268	530	20.2	R. J.	8	643	37.1	J. R. Worthington
"	Macomb 2*	"	249	698	36.4	J.	12	682	38.6	F. True
"	So. Eaton*	"	380	593	22.5	R. H.	7	1452	43.1	E. P. Reynolds
"	Ionia-Belding*	"	378	663	25.6	G. J.	4	795	36.4	N. Wright
"	Hillsdale 2*	"	235	524	23.8	R. G.	4	843	44.2	D. Patrick
"	Otis.-Genesee*	"	260	684	28.2	G.	9	906	41.5	E. Munger
"	Livingston	"	377	728	27.0	R. J.	18	574	36.1	Smith & Parker
"	Cheboygan	"	232	620	26.0	G. H.	5	1249	41.8	A. J. Carlson
"	Ogemaw*	"	269	553	22.1	R. H.	7	1025	36.2	O. A. Carroll
"	Barry Co. 1*	"	223	577	21.8	H.	6	945	33.5	M. Pierce
"	Missaukee 2*	"	260	514	20.9	G.-D.	9	713	30.3	J. Keelean
"	Ott.-Allendale*	"	264	526	20.8	G. J.	17	744	35.0	H. Vredeveld
"	So. Newago*	"	202	546	23.1	R. H.	7	669	35.5	Hanson Bros.
"	So. Kent*	"	240	504	21.7	J.	11	683	34.4	C. Kenyon
"	Charlevoix*	"	255	771	29.2	J.-G.	6	899	39.0	G. Ver Snyder
"	Oceana East*	"	242	432	20.9	J.	4	726	30.7	F. Bengtsson
"	Chippewa*	"	315	785	28.4	G. H.	6	1134	36.3	J. C. Postma
"	So. Berrien	"	327	648	27.1		14	854	36.3	J. Parren
"	Genesee 2*	"	211	604	22.2	R. H.	5	1217	38.4	G. Van Wagoner
"	Miss.-McBain*	"	236	591	24.2				38.0	R. Moorhead
"	Elsie-Ovid*	"	246		22.6	R. H.	7	1182	40.4	R. C. Woodard &
"	Van Buren*	"	286	604	24.7	R. H.	6	1124	35.4	G. H. Spencer
"	Branch Co.	"	235	473	19.5	R. J.	2	780	36.5	C. H. Lords
"	N. Antrim*	"	229	615	27.6	G.	9	851	39.7	H. DeYoung
"	Leelanau Co.*	"	200	561	25.6	J.	7	818	47.4	J. E. Hilbert
Wis.	Milton	"	568	457	16.5	R. J.	10	548	27.7	F. A. North
"	Spring Valley*	"	398	555	21.9	G. H.	12	847	30.2	B. Helgeson
"	Westby*	"	428	439	23.7	R. J.	19	685	38.1	M. Staplien
"	Glenwood	"	529	574	23.0	J.	19	657	35.9	C. E. Bible
"	Ced.-Grafton	"	287	707	24.7	R. H.	13	1030	36.6	B. Kohlwey
"	Union-Wau. Co.*	"	343	611	23.7	G. G.	5	535	34.0	P. Kielpinski
"	York-Jackson*	July	219	722	28.2	G. H.	12	702	35.0	S. Rettinger
"	Cleghorn-Eleva	Aug.	433	533	23.0	G. H.	19	826	34.8	J. Wold
"	Merton-Lisbon	"	521	571	22.4	G. H.		1063	33.6	C. Savage
"	Denmark*	"	449	832	29.8	G. H.	7	1215	40.7	R. Christensen
"	Oak.-Tomah-War.*	"	495	445	18.9	G.-N.	15	707	29.7	E. E. Bolten
"	Dodgeville*	"	542	534	20.1	G. H.	19	856	30.0	H. Prideaux
"	Genesee-Eagle	"	502	500	20.3	G. H.	17	912	33.3	L. Andofer
"	Thiensville-Lake.	"	407	565	23.3	G. G.	22	684	34.5	E. A. Bartell

*Retest rules followed. †V. I. Winnings also had high herd with 8 R. J. producing 42.5 lbs. fat.

Beware the Milk House Thief

HOARD'S DAIRYMAN:—Last month a member of the Long Prairie Association of Minnesota was surprised to find that he had a milk house thief that was losing him dollars in a manner he didn't realize. The separator test read .12 of one per cent. Allowing .02 of one per cent, which is about the average test of separator milk, we still have a loss of one-tenth of one per cent. The milk sheet showed 8,000 lbs. milk separated for the month, making a loss of about 8 lbs. of fat. At 48c a pound this amounts to $3.84. If continued for twelve months, there would be a loss of $46.08, or more than enough for a year's testing dues.

Are you paying for a membership in a C. T. A. and not knowing it? Watch the cream separator. Toget with some boarder cows, it may m than eat up the profits of your g cows. Join a C. T. A.

B. J. ROSENQUIST, Teste

The "Critter" Philosophi

HOARD'S DAIRYMAN:—He was sta ing in a dark and filthy corner phi ophizing over life's strange myste His eyes were dull, his head down was in poor flesh, and covered v dirt and flies. Yet there was so thing about his appearance that m the interested observer feel that had royal blood in his veins and his early life had seen more ari cratic surroundings.

"What have I done," he said to h self. "Why do they keep me in a p like this? When I first came he was the pride of the place. I was

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	Reporting	No. of cows*	Ave. fat per cow* All cows	High ass'n.	High herd	High cow fat	No. of separators Tested	Over .05%	Co cre
					lbs.	lbs.	lbs.	lbs.			
Utah	July	5	5	2,491	28.1	29.8	49.2	75.4			
Vermont	"	25	24	11,547	23.3	27.1	49.3	89.3			
Michigan	"	106	71	18,573	27.2	32.1	†56.8	†91.0			1
Idaho	Aug.	10	10	4,580	24.9	27.5	47.1		178	31	
So. Dakota	"	8	8	2,550	19.7	†24.7	†37.6	†63.9	112	21	
Iowa	"	85	78	27,911		26.1	43.3				2
Wis.	"	165	145	62,201	22.5	†31.8	†49.0	†90.0	915	88	5

*Includes dry cows.
†Retest rules followed.



THE TESTER'S OUTFIT

ch cow becomes an individual and is and cared for as an individual when tester comes once a month to weigh test the milk of the cows. Dot and y are singled out, for one produces and the other drops below the dead despite improved feeding that the r recommends.

groomed and taken care of. ybody admired me for my har- ous lines, my sleek hair, my mas- e looks, and whole general irance.

ow they feed me enough only oc- ially, when an excessive amount y and ensilage are poked down ute. I have not had a bit of salt long time, but perhaps it is the for me, for water seems to be a e article around here. Just re- I heard my owner say that I no good any more and that he ed he would have to dispose of

recall the days when everybody of my fine pedigree and future opportunities. Now it is er with; they simply call me the er.' But how do they expect me p up my vitality and prepotency ay I'm taken care of?"

Saturday he was taken to the yards and sent to Buffalo. A passed. The daughters of the old er" grew up and began fresh- You could not help but notice rge, square, well formed udders ll carried. Their looks were not ing either, for they proved to be s in the local cow testing asso- n.

guess I made a mistake by let- Old Bill go," the farmer told me ay. No one could help but con- his somewhat late conclusion, and this is not a singular or unusual case.

Why is it that the most important animal on the dairy farm is also the most neglected? Why is it that so many bulls are tied up in the darkest corners of the barns, poorly fed, and exercised only when their services are needed for the maintenance of the herd?

Much has been said and written lately about the value and importance of good proven sires. However, in order to keep up the usefulness of our good bulls, we must keep up their vitality and potency by practicing the fundamentals of any successful dairy farm, good feeding and management.

Here is a problem well worth the keen attention of the cow tester.

Michigan. HANS KARDEL, Tester.

Selling on Merit

HOARD'S DAIRYMAN:—Should a C. T. A. member sell cows on strength of records made in such an association?

This is a question that is being much discussed at the present time. During the month of August, 30 carloads of dairy cattle were shipped out of Barron County, Wisconsin, and it is interesting to note the general feeling among breeders and buyers. The breeders invariably demand more for a cow that has produced 400 lbs. fat in the year than one that only produced 300 lbs. under similar conditions, and rightly so.

The sooner our out-of-state buyers realize this fact the better off they will be. The buyer would secure higher quality, and, incidentally, this would discourage selling unprofitable animals for dairy purposes.

The idea of a breeder enrolling in a C. T. A. for the express purpose of cashing in on some high records is entirely wrong, but when combined with other benefits such as "feeding for a profit," it is undoubtedly sound. The plain fact remains that if the buyer demands quality, he can always secure it. If not, chances are he will get the scrubs. H. L. GOULD, Tester.

Cause of Trouble

"Yes," said Mrs. Newrich to the automobile salesman, "I understand about the carburetor, and all those other parts. Now please show me the depreciation. I've been told that it costs more than anything else."



A CALIFORNIA TESTER'S OUTFIT

his is the convenient arrangement devised by Mr. A. L. Kelly, tester for the Arcata ociation of California. Prior to the use of the auto he had a one-horse democrat on equipped in a similar manner. The two long boxes at the rear, one of which s on the milking machine pail, are used to hold sample bottles. He needs more uple bottles than the average tester, for in June he tested 1,418 cows in 44 herds. we look at the photograph we are led to wonder if he can empty the divided chine unit so as to keep the milk for each cow separate for weighing and sampling. owing his graduation from the California College of Agriculture, Mr. Kelly served two rs as an A. R. tester and followed this with five years as tester for the Ferndale T. A. until he took his present position with the Arcata Association last March.



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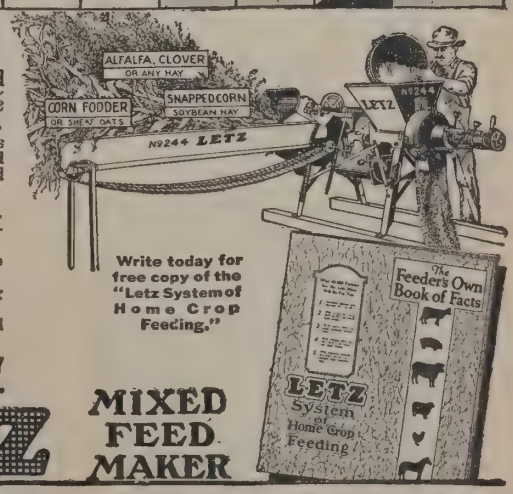


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A corn crop which, fed as shelled corn lasts 5 months, would last 5½ months if fed as corn and cob meal. But—*the same crop would last 7½ months* ground up with stalks, stems, leaves and all. 50,000 owners say that Letz Mixed Feed Makers will:

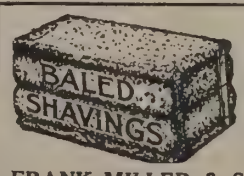
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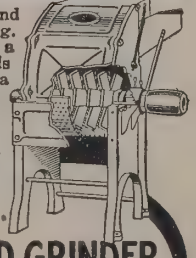
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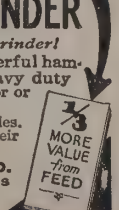
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DAIRY MARKET NEWS

Feed Market Situation

(Grain, Hay and Feed Market News Service, U. S. Bureau of Agricultural Economics.)

The production of wheat feeds has recently shown a material increase in the Northwest but in the Southwest and central and southern territory production has held about steady during the past month. The increased offering of this northwestern feed has been a weakening influence in the market and bran prices at Minneapolis and Buffalo have declined $2—$3 per ton since the middle of August. Middling prices have made even greater declines, standard spring middlings now being quoted about $9 per ton lower than a month ago. Up to the present time prices of heavy wheat feeds have been unusually high as a result of a limited supply and a more active demand than usual for middlings for pig feeding. Prices now are on about the usual basis compared with bran prices but quotations on both bran and middlings are still $3—$4 higher than a year ago and apparently reflect the smaller production as a result of the dull flour demand during the early part of the present season. With a spring wheat crop more than 100,000,000 bushels larger than last year it seems unlikely that the total production this season will be any smaller than last year.

The linseed meal market has been slightly weaker in the Northwest but eastern markets continue to hold fairly steady. New crop flax is now arriving in the markets in moderate quantities and some increase in crushings has been reported at Minneapolis which has resulted in slightly larger offerings from that market and declines of about $1 per ton since the middle of August. The flax crop this year is about 5,000,000 bushels larger than last year which will provide a larger supply of meal from domestic seed. While the production of meal will depend largely upon the demand for linseed oil, the larger domestic crop may cause some change in the relative amount of meal that will be available in the western and eastern markets.

Based upon the September 1 prospects for cotton, this year's production of cottonseed meal will probably be only about two-thirds of last year's production, which totaled 2,838,000 tons of cake and meal. There were on hand at crushers at the beginning of August nearly 65,000 tons of cottonseed meal compared with about 143,000 tons a year ago. Crushings during August, however, were more than twice as large as last year, amounting to 72,659 tons compared with only 35,113 tons last year. Shipments during August were much larger than last season and were reported at 92,480 tons, leaving about 45,116 tons on hand at crushers August 31 compared with 89,711 tons at that date last year.

Hominy feed prices have been influenced more by the price fluctuations in the corn market than gluten feed. At this writing (Sept. 23) white hominy feed is quoted in the central western markets at $4—5 cheaper than a month ago.

There has been but little change in the alfalfa meal market. The supply of high grade meal is limited, choice meal being quoted about $2 per ton above No. 1 at the principal markets. Mixed feed manufacturers in the Central and Southeastern States have been active buyers at Kansas City and other central western markets and local mills at Kansas City are reported in full operation.

Quoted Sept. 22

Standard spring wheat bran: $25 Minneapolis, $28.50 Buffalo, $32.50 Philadelphia, $28.25 Chicago. Hard winter wheat bran: $26 Omaha, $25.50 Kansas City. Soft winter wheat bran: $35 Philadelphia, $32.50 Cincinnati, $28 St. Louis.

Linseed meal (34%): $47.50 Buffalo, $51 Cincinnati, $48.25 Chicago, $45.25 Minneapolis, $50.60 Omaha.

Standard spring middlings: $30 Buffalo, $33.50 Philadelphia, $29.50 Chicago, $26.50 Minneapolis. Soft wheat middlings: $45.50 Philadelphia, $41.50 Cincinnati, $38 St. Louis. Gray shorts: $35 Omaha, $34 Kansas City.

Cottonseed meal (43%): $41.50 Cincinnati, $41 Kansas City, $36 Fort Worth.

Gluten feed: $39 Buffalo. White hominy feed: $42.50 Buffalo, $37.50 St. Louis. Alfalfa meal, $26.50 Chicago, $22.50 Omaha, $23 Kansas City, $25.50 St. Louis.

September Milk Prices

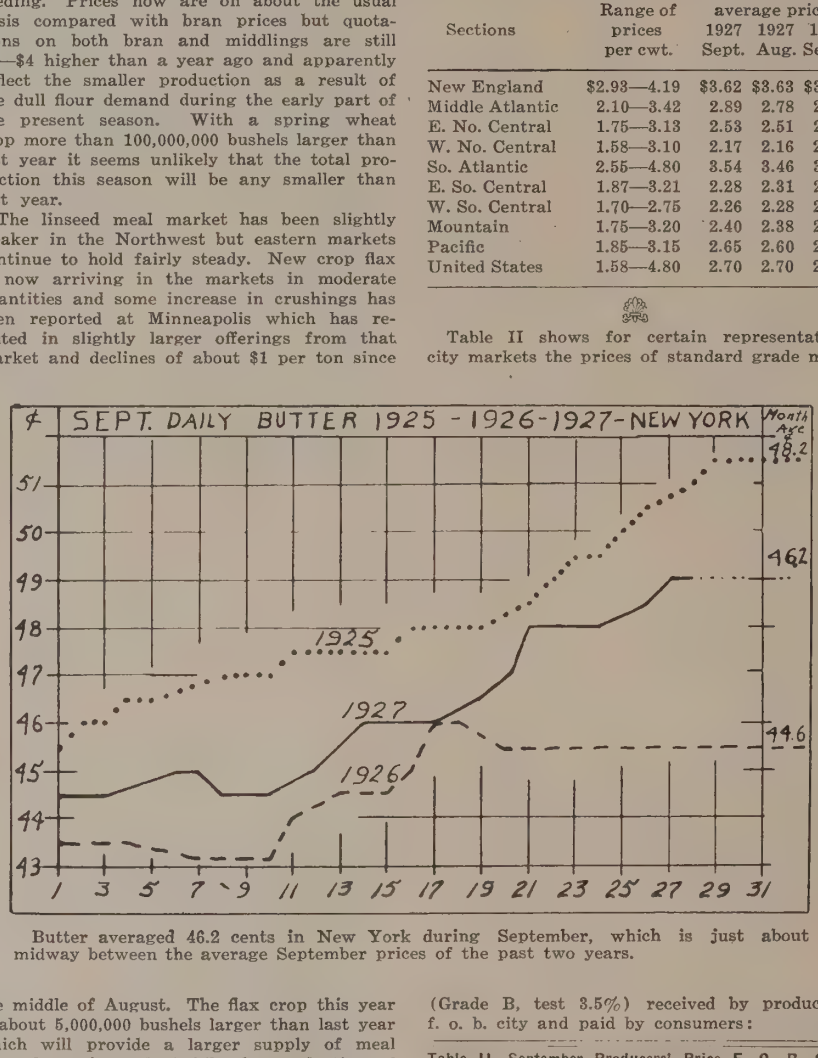
(From Report by U. S. Dept. of Agriculture)

Table I represents a comparison of the net prices received by producers in 99 local markets, for fluid milk (test 3.5%) f. o. b. local shipping point or distributors' country plant:

Table I—September Producers' Prices By Geographic Sections

Sections	Range of prices per cwt.	Comparison of average prices 1927 Sept.	1927 Aug.	1926 Sept.
New England	$2.93—4.19	$3.62	$3.63	$3.43
Middle Atlantic	2.10—3.42	2.89	2.78	2.70
E. No. Central	1.75—3.13	2.53	2.51	2.49
W. No. Central	1.58—3.10	2.17	2.16	2.20
So. Atlantic	2.55—4.80	3.54	3.46	3.75
E. So. Central	1.87—3.21	2.28	2.31	2.26
W. So. Central	1.70—2.75	2.26	2.28	2.54
Mountain	1.75—3.20	2.40	2.38	2.34
Pacific	1.85—3.15	2.65	2.60	2.72
United States	1.58—4.80	2.70	2.70	2.75

Table II shows for certain representative city markets the prices of standard grade milk (Grade B, test 3.5%) received by producers f. o. b. city and paid by consumers:



Butter averaged 46.2 cents in New York during September, which is just about midway between the average September prices of the past two years.

Table II—September Producers' Price F. O. B. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		Cts.
Birmingham, Ala.	$3.27—3.72	17
Phoenix, Ariz.		10—15
San Diego, Calif.	3.81*	15
San Francisco, Calif.	3.11—3.21	14
Denver, Colo.	1.92—2.10	12
Hartford, Conn.	4.22*	16
Washington, D. C.	3.49*	15
Jacksonville, Fla.	3.37*—4.18*	17—20
Chicago, Ill.		14
Indianapolis, Ind.	2.10	12
Des Moines, Ia.	2.65*	11—12
Topeka, Kans.	1.80—2.25	10—11
Louisville, Ky.	2.12	12
New Orleans, La.	2.81*	14
Baltimore, Md.	3.55*	14
Boston, Mass.	4.33*	15.5
Detroit, Mich.	2.90*	13—14
St. Paul, Minn.	2.60*	11
St. Louis, Mo.	2.50	13
Butte, Mont.	2.60	13
Lincoln, Nebr.	1.93	10
Trenton, N. J.	3.41*	13
New York, N. Y.		16
Cleveland, O.	3.30*—3.34*	14
Tulsa, Okla.	2.10—2.27	13—20
Portland, Ore.	2.15	12
Philadelphia, Pa.	3.49*—3.52*	13
Pittsburgh, Pa.	3.45*	14
Providence, R. I.	3.98*—4.09*	15.5
Sioux Falls, So. Dak.	2.50*	12
Memphis, Tenn.	2.58*—2.73*	15
Dallas, Tex.	2.60*	11—13
Salt Lake City, Utah	2 35	11
Richmond, Va.	3.93*—4.05*	14
Seattle, Wash.	2.75*	12
Spokane, Wash.	2.35*	10
Milwaukee, Wis.	3.00*	11

*Basic prices for fluid milk.

Prices paid per hundred pounds for standard grade milk (Grade B, 3.5%) at the dealers' country receiving stations or at the producers' railway shipping points, as also f. o. b. city, are given in Table III:

Table III—September Prices at Country St

Cities	At country stations	Freight zone which prices a
New Haven	$3.70*	28c rate
Wash., D. C.	2.91*	35c 10-gal. can
Chicago	2.50	All
Baltimore	2.97*	35c rate
Boston	3.51*	181—200-mile
St. Louis	2.00	34c rate
Trenton	2.85*	41—50-mile zo
Buffalo	2.62	28c rate
New York	3.37*—3.42*	201—210-mile
Cleveland	2.92*—2.99*	All
Philadelphia	2.91*—2.95*	51—60-mile zo
Pittsburgh	2.70*	All
Scranton	2.80—2.95	30c rate

*Basic prices for fluid milk. †53c rate.

The following net prices were reporte to members of producers' associations s ing the cities listed. Prices announced vance for such cities are usually of two "Basic" and "Surplus," the former ap to that portion of the milk which is u fluid form for city wholesale and retail and the latter applying to that portion as "Surplus," which is used for manufac purposes:

Table IV—Net Prices Paid Members of Pr Associations for 3.5% Milk

Cities	Paid*	Period	Previously ann price for same Basic	Surpl
Hartford	$3.73	July	$4.22	Butter m
Baltimore	3.32	July	3.55	Butter m
Boston	2.21‡	July	2.87	Butter m
Detroit	2.64	July	3.00	Butter m
St. Paul	2.31	July	2.60	All milk
New York	2.24†	July	2.95	$2.15—$
Akron	2.71	July	3.25	$2.00
Cleveland	2.80	Aug.	3.40	Butter m
Pittsburgh	2.84½	July	3.45	Butter m
Milwaukee	2.66	Aug.	2.90	Butter m
Duluth	2.10	Aug.		All milk

*f. o. b. city unless otherwise indicate ‡181—200-mile zone. †201—210-mile

Table V gives for a few cities the prices of special milk, certified milk, buttermilk, cottage cheese, and cream 18 to 25 per cent butterfat:

Table V—September Retail Prices to Consu

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.
	Cts.	Cts.	Cts.	Cts.
Akron	16—18	20	8	10
Albany	18		10	
Albuquerque				10
Allentown	18		13	
Altoona	15	22	8—10	
Baltimore		30	14	15*
Birmingham		25	7	22
Boston	19	26	10	
Buffalo	14	26	10	15
Chicago	17	25	20	15*
Cleveland	19—20	25	10—13	15—20
Colo. Springs	17		6	
Columbus			7	
Dallas	24		8	
Denver	14—15		8	10*
Des Moines	14		9	14
Detroit		25		
El Paso	16—17	25	10	20
Evansville	15		9½	
Harrisburg			12	
Hartford	20—25	25—35		
Indianapolis	16		10	15*
Jacksonville	25		11	30
Kansas City	15—25	25	10	20
Lincoln	14	15		15
Louisville	16	24	12—13	
Memphis		30		20
Miami	32	32	15	
Milwaukee	15—20	25	7	9—10
Minneapolis		22	13	12*
Nashville	18		10	20
New Orleans	18	31	14	
New York		28		
Omaha	15	15	10	15
Philadelphia	15—16	30	9—13	
Pittsburgh		25	10	
Portland	15		12	
Richmond	16—18		8	
Rockford		21	6	15
Salt Lake City	15		8	
San Diego	20	28—32	9	15
San Francisco		25	14	20
Scranton	18	25	8—10	
Sioux City		25	6	10*
Spokane				
St. Louis	18	25	10—18	15
Trenton	17	30	13	
Trinidad	20	25	10	25
Washington	18—20	30	15	15—20
Wilmington	20		10	12

*12-oz. package. †18 to 25% fat.

Iowa July Butter

The Iowa Creamery Secretaries' and ... gers' Association reports that for th... creameries reporting, patrons received ... cents a pound for fat in July as co... with 44.55 cents for the same month ... ago. The price paid per pound of fat ... from 42 cents to 50 cents, with the ... fat handled per creamery being 40,152 ...

Connecticut September Mi...

The Connecticut Milk Producers' Assoc... announces the following prices for Gr... milk delivered during September at ... milk centers:

All milk sold in fluid form, 9.5 cen... quart for 4 per cent milk, and 4 cen... point allowed for other tests; all milk ... into cream that is sold in fluid form, 22.... per pound fat above the average month... of 92-score butter on the Boston mark...

made into butter, at a price per pound qual to the month's average on 92 score r in Boston.

Cold Storage Holdings

(U. S. Department of Agriculture)

following is a report of the cold storage gs of dairy products on September 1, s being given in thousands of pounds omitted):

	Sept. 1 5 yr. ave.	Sept. 1 1926	Sept. 1 1927
	Lbs.	Lbs.	Lbs.
r, Creamery	127,553	138,151	163,037
e, American	70,360	81,297	69,901
e, Swiss	6,152	6,418	7,116
e, Brick	1,998	1,531	1,900
e, Limburger	1,383	1,803	2,220
e, All Other	7,446	7,424	9,309

se holdings include stocks in both cold e warehouses and packing house plants.

Twin City August Milk

Twin City Milk Producers' Association nnesota paid $2.38 a hundred for 3.5% delivered in St. Paul during August. The ation handled 21,161,511 lbs. milk, of 41% was surplus.

am patrons were paid 49 cents a pound tterfat in first grade cream during Au- This is 7.5 cents above the average price score butter on the New York market.

Wisconsin Milk Prices

Wisconsin Department of Agriculture s the following average price received isconsin farmers at their farm for milk d in its various forms:

	1927	1926	1925
ry	$2.25	$2.11	$1.84
ary	2.22	2.04	1.85
	2.11	1.96	1.88
	2.05	1.84	1.86
	1.98	1.80	1.83
	1.96	1.74	1.82
	1.98	1.79	1.87
t	2.04	1.82	1.88

Butter and Cheese in September

er averaged 46.2 cents in New York e first four weeks in September, an ad- of five cents over August. Prices ad- rather steadily throughout the month, ng an average nearly midway between ptember averages of the past two years. storage holdings are some two million s in excess of last year, withdrawals omewhat heavier than in September last nd production declines were also larger u year ago.

se prices continue in strong position, ing 25.2 cents on the Wisconsin Board ptember. This is an advance of one cent August, three cents over September a ago, and 2.3 cents over September of The market ruled firm at the advanced with declines being shown both in ction and in storage stocks.

ews From Washington, D. C.

(Continued from page 936)

ensilage corn was a good crop, l eared and just the proper ma- y. Some new work was being d in nutrition studies, and a lot ntinuing work was in progress. really evident results in a long of inbreeding experiments were d out.

forcement of the Milk and n Import Act which was put in- ect a few weeks ago is now en- dependent on the courtesy of overnments of importing coun- and the state authorities han- the milk and cream after it en- the United States. The bill l too late in the last session of ress to provide for any appropri- It is understood that the De- ent has asked for, and the t Bureau approved of, an item ,000 a year for the enforcement is act. There is a possibility his will be carried in the first ncy bill, as it is to be needed rt at least before July 1, when eneral bill takes effect.

failure this year of the New d price control scheme,—which ted in the main of two major points: first, the fixing of prices by the control board, and second the limitation of sales to approximately a uniform amount per month,— is contrasted with the apparent success of the Australian plan which consisted of fixing domestic prices and out of this income paying an export bounty on all butter exported. A reliable report shows that by operating this scheme the producers received about two million pounds in excess of former years. The plan is voluntary and is to be continued another twelve months. Two incidents of the year's work noted are the bringing in of some imported butter to share the higher price in the Commonwealth, and the determination of the producers to secure an increase in their tariff on butter from two shillings up to six shillings per pound. It also should be said that the dry weather this past year in Australia probably was a large factor in the maintenance of the higher price, the domestic production having been reduced so that exports to Great Britain declined about 10,000 tons, or about 25 per cent from the previous year. Domestic consumption seemed to have remained at about normal levels.

Kane Syro Brand
Feeding Molasses
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The Genuine Sugar Cane Plantation Molasses, imported by us direct from the West Indies. Shipped in barrels from our large tank station at St. Louis, Mo.

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Write us for our present low price for Fall and Winter Shipment, giving name of dealer.

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You Can Have Electric Lights In Your Barn



Four years ago the NEW **Sanitary** Surge Milker was introduced to the dairy world. Its "NO Long TUBES — NO Claws" design INSTANTLY revolutionized the industry — it swept the whole country by storm — and TODAY it is everywhere recognized as "the greatest thing that has ever happened in the entire history of machinemilking."

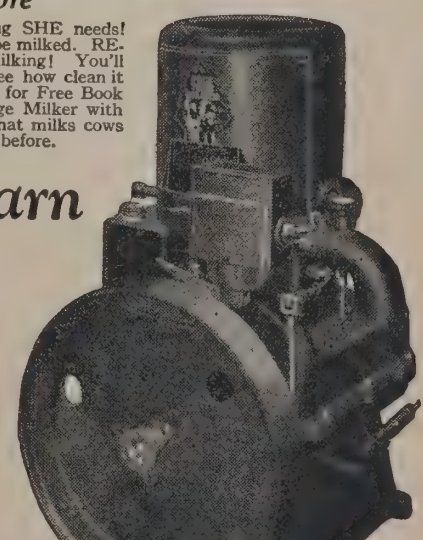
No more fussing over a mess of long, curling milk tubes and twisted milk claws—no more trying to clean them! No more worrying about dirty tubes and claws breeding bacteria that you can't get at—bacteria that ruin your milk! No, sir—NONE of this NOW!—with the NEW **Sanitary** Surge Milker that has NO Long Tubes and NO Claws!

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Wonderful NEW Milking Method!

Milks Cows Like No Other Machine Ever Milked Cows Before

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—with the same power that runs your Surge Milker

Here's A NEW Surge achievement! NOW! —with the same power that runs your Surge Milker—and for only $75.00 extra—you can have your cow barn, your horse barn, yes, and even your chicken house, fully electric lighted. The Pine Tree Vacuum Engine will run your Surge Milker and also run the wonderful NEW Pine Tree Barn Lighting Outfit that farmers everywhere are talking about. Think what this means! No more oil lanterns. No more milking or working in the dark. Light—plenty of light — at 4 A. M. or 11 P. M. — by the same power that runs your milker. Think of it—a dependable **guaranteed** barn lighting plant—a part of your milker outfit — at the unheard of low price of only $75.00 extra!

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Write us NOW — before our Free Demonstration and special low price offer closes! Even though you may have no idea of buying a milking machine, if you're milking cows you should send for this wonderful new FREE book. Learn all about the New Surge Milker and the wonderful NEW Pine Tree Barn Lighting outfit—

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(Please give me this information)

No. of cows milked..... *R. F. D.* ..... *Electricity?*.....

Name .....

Address .... *State*.....

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

WHEN PLANTS GET SICK

YOU realize, of course, that plants get sick sometimes, just the same as you boys and girls do. When you are sick you can call a doctor. If your calf or one of your father's cows is sick, you can probably get a veterinarian to help cure the trouble. But supposing your potatoes get *scab*, or there is *smut* in the oats, or *rust* in the wheat, or *fireburn* in the orchard or your cabbages get the *yellows*, shrivel up and die, can you call the doctor to cure the sickness? All these are plant diseases and the best way to cure them is to prevent them.



SMUT MADE THE DIFFERENCE

There are the same number of oat plants in each bundle. Smut has blackened the heads and lowered the yield in the bundle on the left. Treating the oat seed before planting would have insured healthy plants like those on the right.

Now, to prevent these diseases we must know what causes them and how they spread. How many of you know what a *fungus* is? Do you know what a *spore* is? A *fungus* is a low form of plant life and some kinds of *fungi* cause plant diseases.

Mushrooms, common bread mold, cheese mold, puff balls, yeasts, mildews, rusts and smuts of grains are all fungi. Since the fungus does not have any chlorophyl or green coloring matter it must get at least a part of its food from some other plant or animal. There are two classes of fungi-*parasites* that live on growing plants. The smuts of corn and other cereals are examples of this, and *saprophytes* feed on dead plants and animals. Common examples are those fungi which cause rotting and decay.

A *spore* is not a true seed but it might be likened to the seed in higher forms of plant life because it performs the same function for the fungus, namely reproduction. In other words *spores* are the means by which fungi are spread. Most spores are extremely tiny, 5,000 of them could stand side by side in the space of one inch. Many of these spores are surrounded by a protective covering which helps them live for a long time.

You have perhaps noticed the black dust which comes from smut on corn or some of the other cereals. That black dust is composed of millions of spores. When a spore commences to grow it swells up and sends out a small bunch which lengthens into a thread, branches and rebranches until in a short time a dense network is built. This is known as a *mycelium*. New spores are formed on special upright branches on the mycelium. All these threads feed on the plant where they are growing, taking nourishment from the plant and thus making it "sick."

How do plant diseases spread? Now that you understand what makes plants sick you can readily see that many plant diseases are "catching." The spores are distributed by the wind and rain. Smut spores get onto the grain at harvest time and are planted in the spring. When the seed sprouts so do the spores. The threads grow inside the plant and when the head fills out the threads fill the kernels and form spores again.

Since the spore is at the bottom of many plant diseases you can readily see that if we get rid of the spore we can largely get rid of the disease. And the time to attack the spore is when it is on the seed before the seed is planted. Perhaps you've seen your father treating oat seed with formaldehyde solution and wondered what in the world he was doing that for. Now you know, if you didn't before, that he is killing spores when he treats his oats.

The solution is made by mixing a 40% solution of formaldehyde, obtainable at the drug store, with water in the proportion of one pint to about 40 gallons. Stinking smut of wheat, covered smut of barley, and oat smut all have a similar life story and can be treated for a few cents an acre.

Treating wheat with copper carbonate dust is a recent method that has been used with considerable success. Two ounces of dust will treat a bushel of seed grain. The dust is best applied to the grain in a closed barrel mixer similar to a hand churn. Copper carbonate dust can be purchased from a drug store and the cost of treating a bushel of seed is about 2½ cents. This treatment is put on dry, can be done at almost any convenient time, and does not affect the germination of the seed.



CORN THAT SMUT HAS MADE SICK

Smut may attack the ears, leaves, stalks, or almost any part of the corn plant. The ear on the left has been almost completely destroyed. The black appearance is caused by the spores which spread the disease.

Corn smut may develop on any part of the plant. Large boil-like structures containing masses of powdery material, spores, may form on the leaves, ears, or tassels. The spores do not live over the winter on the seed, but in the manure pile or soil, so treating the seed does little good. Crop rotation and destruction of diseased plants are methods of prevention. By rotating crops there is opportunity for the smut spores to die out.

Potato blight is a serious disease sometimes causing millions of dollars damage. The disease lives through the winter either on the seed or the vines. Along about July the threads grow very rapidly in the leaves killing the tissues. The threads branch and produce spores which blow onto other plants. There they break up into more spores that swim about in drops of rain or mist, finally coming to rest sending out their life sucking threads. How can we fight this disease? By spraying with Bordeaux mixture. Spraying is a preventive not a cure.

You have seen scabby spots on some potatoes, haven't you? The way to fight *potato scab* is to treat the seed with a corrosive sublimate solution. A level tablespoonful of corrosive sublimate dissolved in a gallon of water and this added to 25 or 30 more gallons of water is the preparation in which the seed potatoes should be treated or soaked for about an hour and a half.

The cereal *rusts* are very old. They were known in the time of the Romans. Doubtless you have seen the stems of the wheat plant covered with red spots. That's rust. Those red spots are the summer spores. Blown about by the wind they cause rapid spread of the disease through the grain field. Wheat rust later in the season forms another kind of spore called the *winter* spore which lives over winter on the straw. In the spring these spores germinate and send out other spores which are blown by the wind onto the common barberry bush which then becomes the *host*.

If the spores do not light on a host plant they perish. Spores falling on the leaves of the barberry bush again germinate, forming another type of spore called the *spring* spore. From the barberry bush the spring spores are blown back to the wheat to begin life all over again. It is also possible that rust spores may live over the winter in the summer stage by making their home on certain wild grasses.

How can we fight stem rust? Get rid of the barberry. Yes, that's very good way and in many local the government is cleaning out barberry. Rotation of crops proper drainage are other way fighting stem rust. There is still other way of avoiding stem rust that is to grow disease resistant v ties. It is known that some vari of plants are not as likely to get as others and these are often the varieties to grow.

Let us summarize the diff ways we can prevent plant dise 1, rotate the crops; 2, have pr drainage; 3, grow disease resi varieties; 4, spray the plants; 5 the spores by seed treatment; 6 stroy host plants such as the cor barberry.

The Story of My Calf

HOARD'S DAIRYMAN JUNIORS:—I came a dairy calf club membe cause I am interested in raising breeding Holsteins. I have be dairy calf club member for five y The first two years I had a grade stein heifer, while the last three have been spent in completing a calf project with a pure-bred stein heifer. The grade heifer given to me by my father.

In these two years I made showing my grade calf and thr showing corn.

I decided to buy a pure-bred h in order to get a start in the bred business.

My father and I looked at a nu of calves around Northfield, bu cided that Mr. Ovestrud had the we wanted. I borrowed $58 a bank and bought the calf. She me $125.

My heifer freshened the 8t March. She dropped a nice li calf which we are now raising this time she got alfalfa hay, silage, and ground oats and b On two-time milking she made 5 of milk a day. She was put on ture this spring with the rest o herd.

The 20th of June I took her i blanketed her. I gave her 1 daily of the following ration: 3 a each of bran, ground corn, g oats, and one part linseed meal. last month I was unable to ge corn. I fed her ground feed tw day, morning and evening. Sh plenty of fresh water and clove three times a day. She was als bedded and the barn well disinf weekly.

Mr. Byram, former agricu teacher at Northfield, visite twice. Mr. Johnson, county and Mr. Montgomery of Agricu Department at Fairbault High S also visited me. Mr. Mortenso new agricultural teacher at N field, visited me often. He also h me clip my calf.

I find that in feeding dairy the profit is greater where grown feeds are fed. The dair should be selected with care sir is the most important animal in building up the herd, since a offspring of this bull contain on of his blood. Through weighin testing your milk you can ve out the poor cows and build up of high producers.

Minnesota. LINCOLN PAUL

Our Review Column

gular feature of the junior department, ng the contents of Hoard's Dairyman previous issue. Let's talk it over.]

September 25th issue features fair reports and you Juniors can something about breed types by ng the pictures in the reports. are other interesting articles in ssue.

s it make a difference whether children drink milk or coffee? In a survey of more than 80,000 school children in Pittsburgh and Alleghany County it was found that there were more "good" pupils among those who drank only milk than "fair" or "poor" pupils, while there were more "fair" than "good" or "poor" pupils among those who drank coffee. (See page 882.)

In ten years what have the Guildners accomplished? They have paid off the mortgage on the 72½-acre farm, bought 40 acres additional for $5,000 and paid $1,000 on this. They have built a silo, a chicken house, hay barn, windmill, a garage and a machine shed and have improved the house and barn. (See page 883.)

How was the Guildner income distributed in 1925? Their gross income was $4,589.65 coming from the following sources: butterfat, $1,841.96; hogs, $1,146.29; eggs $439.98; poultry, $197.54; wheat, $181.09; miscellaneous including potatoes, $375.83.

How do European farmers use liquid manure? To fertilize their fields. All the manure including the liquid is generally collected in large underground tanks. (See page 888.)

How is it applied to the land? Generally by the use of barrel wagons. These may be pulled by one horse outfits, two-horse teams, cow teams, oxen, or any combination. A pasture on one of the Swiss farms is sprayed with liquid manure from underground pipes.

How is electricity used on the Schneider farm? On this Swiss farm, electricity pumps the liquid manure, operates the wood saw, hay and straw cutter, and feed grinder; runs the straw presser, turns the cider mill, is used in the home for heating and lighting, ironing, operating the curling iron, and toasting bread.

How should new born calves be treated? Paint the navels with iodine and dust on some boracic acid powder. (See page 890.)

How should the young boars be fed? They should have about the same combination of feeds used for gilts—green feed and limited corn supplemented with skimmilk, or a mixture of tankage 70 parts, linseed meal 15 parts, and shorts 15 parts.

What were the chief sources of Wisconsin's farm income in 1926? The gross income of $415,459,000 exceeded the 1925 income by a little over 6 per cent. Wisconsin farmers realized 47 per cent from the sale of milk, 15 per cent from hogs, 11 per cent from cattle and calves, 10 per cent from eggs and poultry, 5.7 per cent from potatoes, and the rest miscellaneous.

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n't put off 'til tomorrow what an do TODAY." Join the Jun- It's easy. It doesn't cost you a Just as soon as you are com- enrolled we will send you the ns of our club which are: a fob, or a necklace for girls, a owing the head of your favorite of dairy cattle, and a hand- engraved creed.

ome member of your immediate is a regular subscriber to 's Dairyman and you are under irs of age, sign the application nd it in. DO IT TODAY!

ARD'S DAIRYMAN
Junior Editor
Atkinson, Wisconsin, U. S. A.
r Sir:—
hereby apply for membership in Hoard's Dairyman Juniors' Club. I e to read the Junior Department loard's Dairyman regularly and do can to make the Juniors' Club a ess. Will you please send me the h fob [ ] or necklace [ ] (mark after your choice), the pin, and Hoard's Dairyman Junior's Creed.
e .....
(Write distinctly, or print)
ress .....
(R. F. D.) (City)
..... I am ..... years old.
(State)
rd's Dairyman comes to my home essed to .....
favorite breed of dairy cattle is ..... My father's name is ..... Do you belong to a ' and Girls' 4-H Club? .....
, what kind? .....

Junior Letters

Likes Farm Life

Hoard's Dairyman Juniors:—I am a girl 14 years old and was a Sophomore in high school last year. I live on a farm. I like calves and horses best of farm animals. As yet I have not a calf but as soon as I get capital enough I want to get a good Ayrshire calf. We have 12 or 13 cows. Sometimes I help milk.

I like to help in haying. For quite a few years I have ridden a horse to pull up the hay. Sometimes after supper I help load hay. I like farm life and all outdoors. I would like to hear from other juniors. My address is R. F. D. 1, Eagleville, Conn. Edith Slate.

A 4-H Health Club

Hoard's Dairyman Juniors:—I am a member of the 4-H Health Club which was organized at our school four years ago. We have for president, Mary Petrow. Our chairman is Edith A. Grant and I am secretary. I think it is a great thing to have some part in the club.

Our school has made health posters for four years and each year at the Storrs Fair we won a prize on them. So from all four years we have $26.75 in our bank. We have decided to visit the capital of Connecticut.

I am 12 years old and in the 8th grade. My teacher's name is Miss Cullen. She has taught me for seven years. My birthday is October 31. I have one sister and a brother. My sister goes to high school.

I read Hoard's Dairyman and find it very helpful in studying agriculture at school. I am corresponding with ten Hoard's Dairyman Juniors.

My address is Mansfield Center, Conn.
Olga Wanda Sulkowski.

Joins Calf Club

Hoard's Dairyman Juniors:—Dad said I could join the calf club this year. I didn't know which calf to take, so when the tester, who is the leader of our club, came I asked him which calf would be best to take. My calf's name is Kenfleur Beda's Prince. He is a Guernsey. We got him from a man in Illinois. I take him out every sunny day and give him exercise and pasture. In the morning I feed him 9 pounds of milk and 1 quart of feed. I mix the feed, oil meal, oats, and corn, and with the feed I give him a handful of silage and a little while after that I give him some hay. At noon I give him a quart of water; at night the same as morning. I am 8 years old. I would be glad if some of the juniors would write to me. My address is R. No. 3, Barron, Wis. Caryl Matthys.

From a Canadian Junior

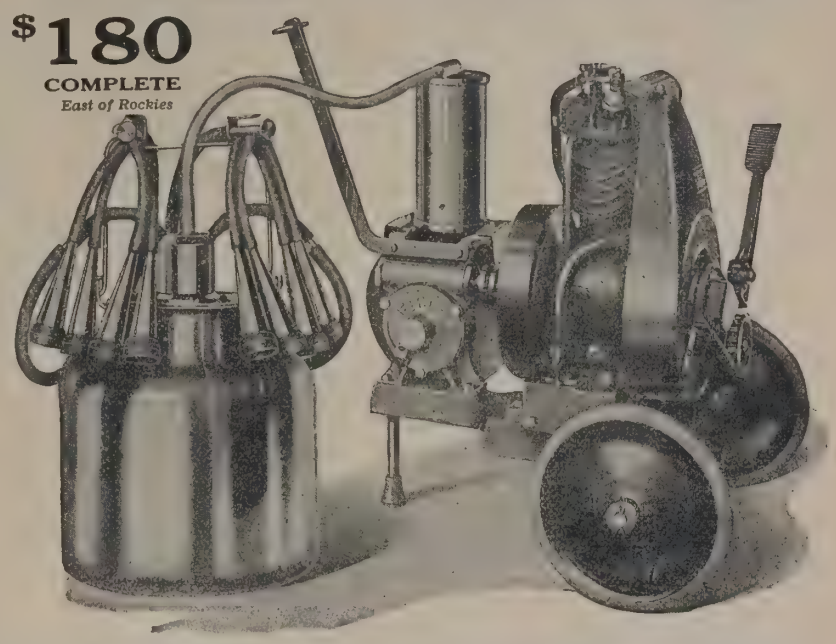
Hoard's Dairyman Juniors:—About eight or nine years ago my father started buying Ayrshire cattle. We liked them fine so we kept on selling our Durhams and buying Ayrshires. Now we have a herd of 17 cows, 2 heifers, and an Ayrshire bull. We also have a small heifer about one week old. We always weigh the milk that each cow gives.

We keep six horses, four working horses and two drivers.

My address is R. R. No. 4, Mitchell, Ontario, Canada. Edwin Muegge.

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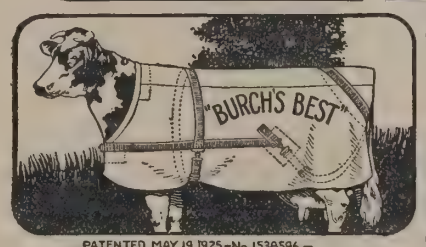
The great popularity of Fords Milkers makes possible new and greater values. This splendid new portable model mounted on rubber wheels carries a Full Power gasoline engine. Easily started with handy foot or hand starter.

Outfit is of famous Fords Milker Quality with double milking unit, hardened bronze bushings, and New Departure ball bearings. Easy and simple to operate. Thousands in successful use—completely guaranteed. Some territory open for distributers.

Does better work—Lasts longer and costs less. Write for Free Booklet No. 20

MYERS-SHERMAN CO., 123 N. Desplaines St., Chicago, Ill.

You can't beat **Burch's Best**



PATENTED MAY 19, 1925—No 1538596—

Cow Blankets

No Sir! There's not a cow blanket made that equals "Burch's Best." Hundreds of fine herd owners cover their winners with this patented blanket. Has ten exclusive features. Combines beauty, praticability and low price. Made to fit every animal perfectly. Every blanket covered with

Our Ironclad Guarantee

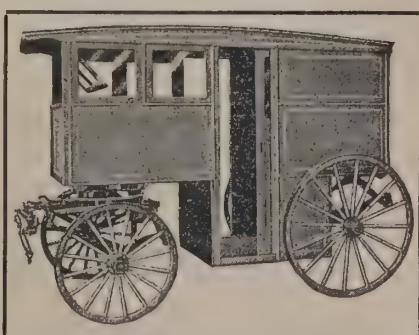
We guarantee them not to rip or tear for two years. You *must* get perfect service. No other blanket is so fully covered. None can be, for none are made so well. Well send a sample on request to convince you.

Where Burch Blankets Will Be Used This Year

These herds will use Burch Blankets this year: Carnation Farms and Pabst Holstein Farms, Oconomowoc, Wisc., Corium Farm, (F. J. Rueping, Pres.) Fond du Lac, Wisc., Fern-Dell Farm (A. W. Fox, Mgr.) Green Bay, Wisc., Elm Hill Farm, Brookfield, Mass., Rock County Herd, Janesville, Wisc., and many others.

Send your name and address today for free descriptive booklet, prices, etc.

F. S. BURCH COMPANY, 152-A **W. Huron St., Chicago, Ill.**



Strictly high grade milk wagons, built upon honor and fully guaranteed. Ask for free catalog showing styles for every requirement. Suitable terms and liberal cash discounts. We will have exhibit of our full line at the Dairy Industries Exposition at Cleveland, Oct. 23—Booth No. 409.

DEKALB WAGON COMPANY
P. O. Box E DEKALB, ILL.

COW BLANKETS



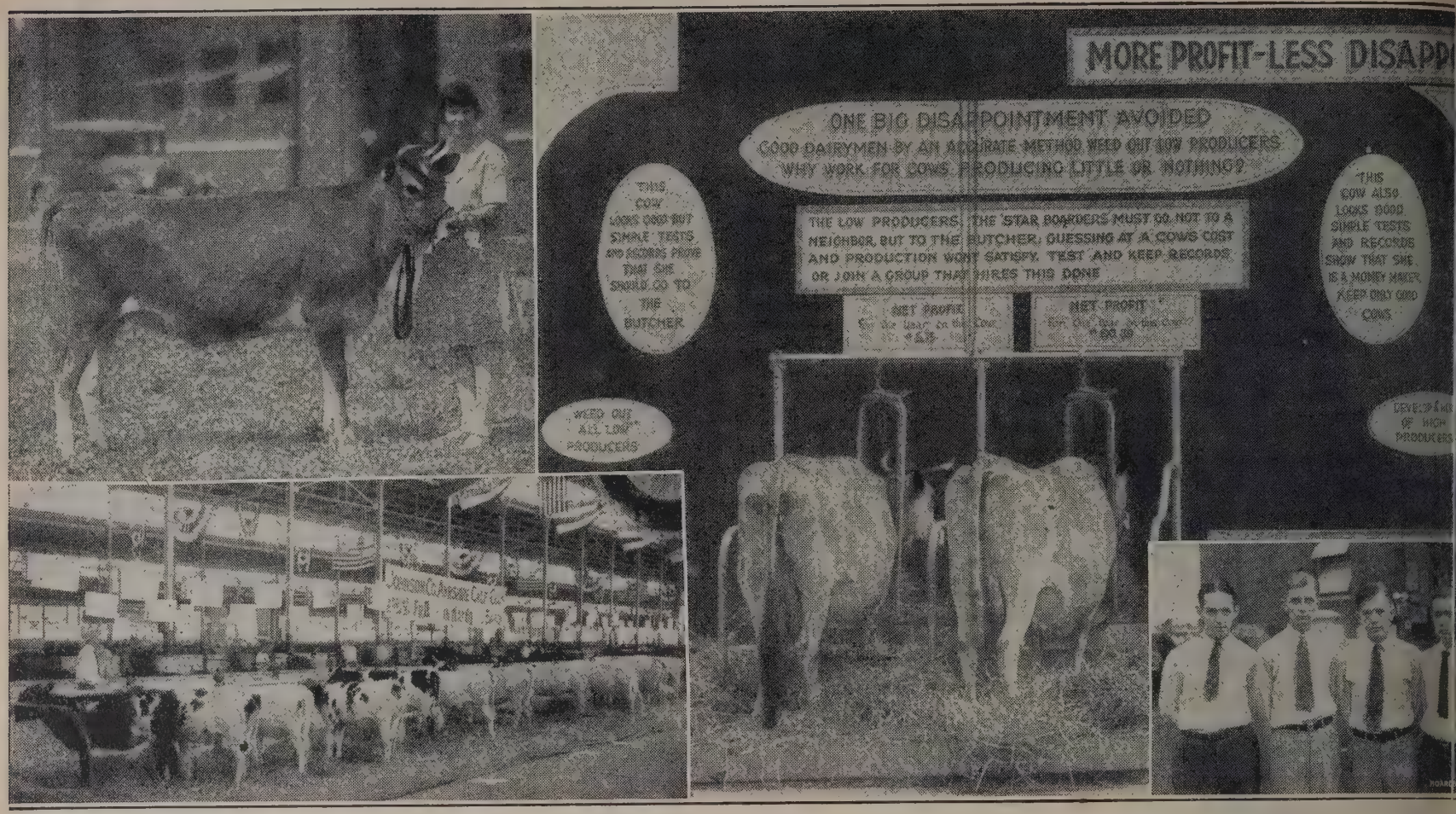
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Write for PRICES and SAMPLES

Over 50,000 in use in America. For testing, conditioning and protecting cattle.

R. LAACKE CO.
553 Third St., Milwaukee, Wis.

SEEN AT 1927 INDIANA STATE FAIR



Top, left: Velma Berkey of Indiana and her grand champion Jersey heifer, winner over all breeds in the dairy calf club class. She was awarded the $50 educational trip to Washi D. C., offered by the Pennsylvania R. R. and also the trip to the National Dairy Show at Memphis offered by the Blue Valley Creamery Co. Lower, left: Johnson County Calf Club exhi Ayrshires in the cattle barn. Center, right: Portion of the dairy exhibit, Purdue Building. Lower, right: Hancock County winning dairy judging team will represent Indiana in the judging contest held at the National Dairy Show. From left to right they are Dale W. Simmons, Louis Jacobi, Oakley Frost, Norman E. Wood.

Vermont Experimental Farm

HOARD'S DAIRYMAN:—As a result of a bill recently passed by the legislature, the Vermont Experiment Station is to receive an appropriation from the state for the purpose of operating the dairy farm. This is the first opportunity that the experiment station has had to operate the University Farm.

M. H. Campbell has been added to the staff of the Department of Animal and Dairy Husbandry as professor of dairy production. He will have direct charge of the dairy herd and farm as well as doing instructional work.

Professor Campbell was raised on a dairy farm in Illinois. He attended the University of Illinois, specializing in dairy production work. After graduation he spent one year in graduate study at the University of Wisconsin. He became a member of the Department of Dairy Husbandry at the University of Illinois in 1918 where he remained until coming to Vermont. While at Illinois he had direct supervision of the college herd and was superintendent of official testing. Vermont is fortunate in securing Professor Campbell.

H. B. ELLENBERGER.
Vermont Experiment Station.

Cows in Labrador

Even in far off Labrador, where Dr. Wilfred T. Grenfell has made himself famous for his medical care of the Eskimos, Dairy Council literature finds a valuable place in a health education program.

For many years the National Dairy Council has been supplying the International Grenfell Association with material which could be used among the children of Labrador. This year, however, an entirely different set of Council literature was prepared and sent up to meet the demands of the Yale School in Labrador, located at the North West River.

While it was the first year for this icebound school, and although the youngsters were housed in rather poor quarters with equipment of the rudest sort, yet the boys and girls of Labrador learned to love to go to school and were given a slight insight of the opportunities that education can offer.

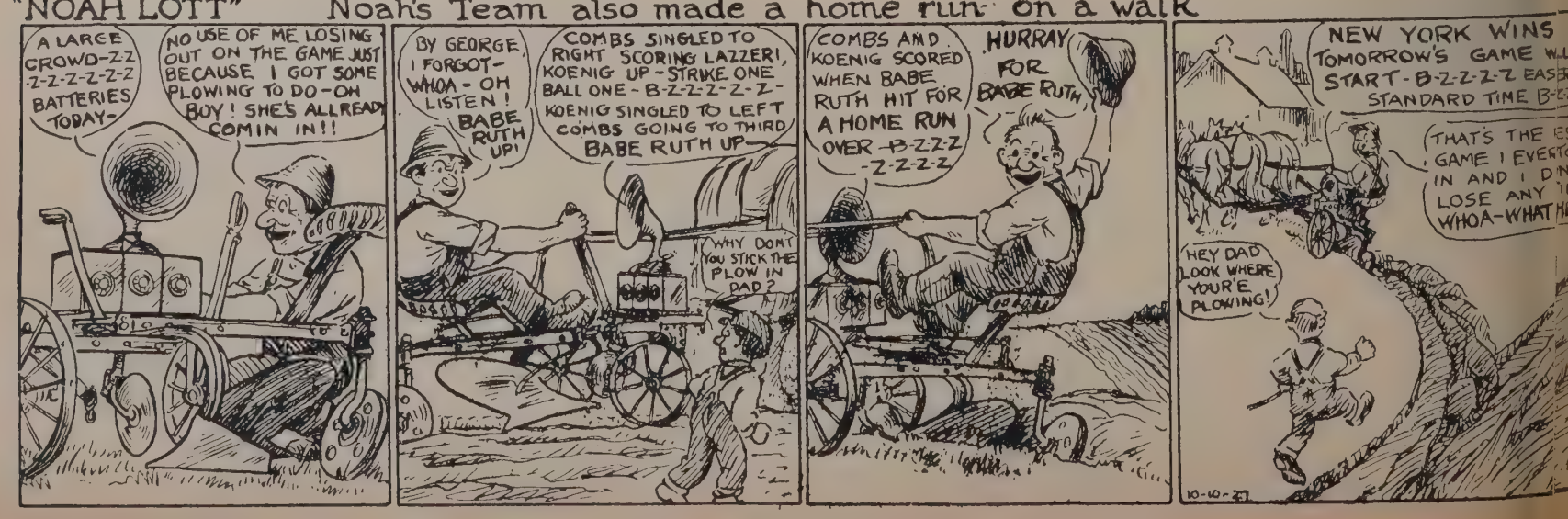
Miss Elizabeth Criswell, Child Welfare Director of the Yale school, brought two cows with her to provide fresh milk for the boarding house of 14 children taken in from outside settlements. Few of these children had ever tasted milk before, and none of them had ever had fresh milk.

"It was a delight," states Miss Criswell, "to see these youngsters gaining weekly from their daily ration of milk. One boy gained 16 lbs. during the year; everyone gained from 4 to 16 lbs. And not only have the boys and girls learned to like and to know the value of milk but they have learned to love, care for, and want cows.

"It is difficult for us to understand that these people have never known domestic animals, outside of the half-savage husky dogs that furnish transportation for them. Care of the dogs involves little work; but the boys in the school regard the tending of the cows seriously, carefully watering, feeding, and milking them. When the calves came this spring, each one was bespoken many times. Our greatest problem now is to secure c a reasonable rate which these can afford.'

Ran Out of Hay and Bo Alfalfa

It is interesting to talk with men about the influences tha up to their getting interested in alfalfa to give it a trial. Ralph Meyering of Missaukee (u Michigan, for example. Ralp first persuaded to put his her cow testing association. Abo time he found out there was thing to it and began turning f poorest producing cows, he ered that good cows must be wl He ran short of hay, such as two winters ago and bough shipped-in alfalfa at a price than he had ever paid for ar This hay was so much better th kind of hay he ran out of that next to the county agent a "wised up" on how to grow Now he is growing his own. that selling home grown alf his good cows is a mighty go to keep ahead of the sheriff.



Dairy Cattle Congress

e 1927 Dairy Cattle Congress
d September 26 with a larger
than they have ever had but
what would seem to be quite as
opening day weather as it is
le to get,—cold and rainy.
s Waterloo Show has had to
by its own efforts. New build-
have come from gate receipts
he growth it has made speaks
or Manager Estel and the show
s built. We have seen it grow
years from a single commer-
xhibit building and one barn
an open air judging arena, to
zable exhibit buildings, 10 good
and an excellent amphitheatre.
Belgian horse show has just
the same number of entries,
s it had last year but there are
exhibitors,—not so many large
strings as in 1926. The dairy
show, with about the same num-
entries as last year, includes
of the best ones from the mid-
est state fairs as well as some
winners from the eastern cir-
There are upwards of 650
cattle, besides calf club en-
representing 108 herds from
s, Minnesota, Wisconsin, Iowa,
s, New York, Missouri, and
gan.
s the best Waterloo show yet
the weather man will but give
help, it will undoubtedly have
tronage it deserves.
etailed account of the dairy cat-
dging, students' judging con-
etc., will appear in the next

consin Farm Congress

ough the courtesy of the Gover-
d the Commissioner of Agricul-
the farmers of Wisconsin are
called to meet as a Wisconsin
Congress at Madison, Thursday
riday, October 13—14, 1927.
tations have been extended by
o some five thousand persons
arm organizations throughout
ate. In addition, a general in-
n has been extended through
iblic press and will be supple-
d by posters announcing the
ess.
angements have been made for
trip tickets of a fare and a half
e round trip, good from all
in Wisconsin to Madison dur-
e Farm Congress. These round
ckets will be on sale from Oct.
inclusive, and are good for
eturn with no stopovers to Oct.
27. Persons attending the Con-
and wishing to secure the re-
fare must purchase their round
ckets at their stations.

A Community Cow

RD'S DAIRYMAN:—Spartan-
first "community cow," pur-
by the Spartanburg, South
na, Anti-tuberculosis Associa-
has begun its rounds. So far
known, this is the first "com-
y cow" on record, and its work
e interesting.
cow was purchased by the as-
on to be lent to poor families,
ers of which have tuberculosis
hich are unable to purchase the
ary milk required in its treat-
The local association will pay
e feed and care of the animal,
ill see that it is properly cared
And it will be lent to families
g the milk from month to
.
he experiment is successful,
e cows may be purchased and
it by the Anti-tuberculosis As-
on, so that Spartanburg's com-
y cow may form the nucleus of
mmunity herd" or start a move-
which may spread throughout the country and be of great help in fighting tuberculosis among the families of the poor.

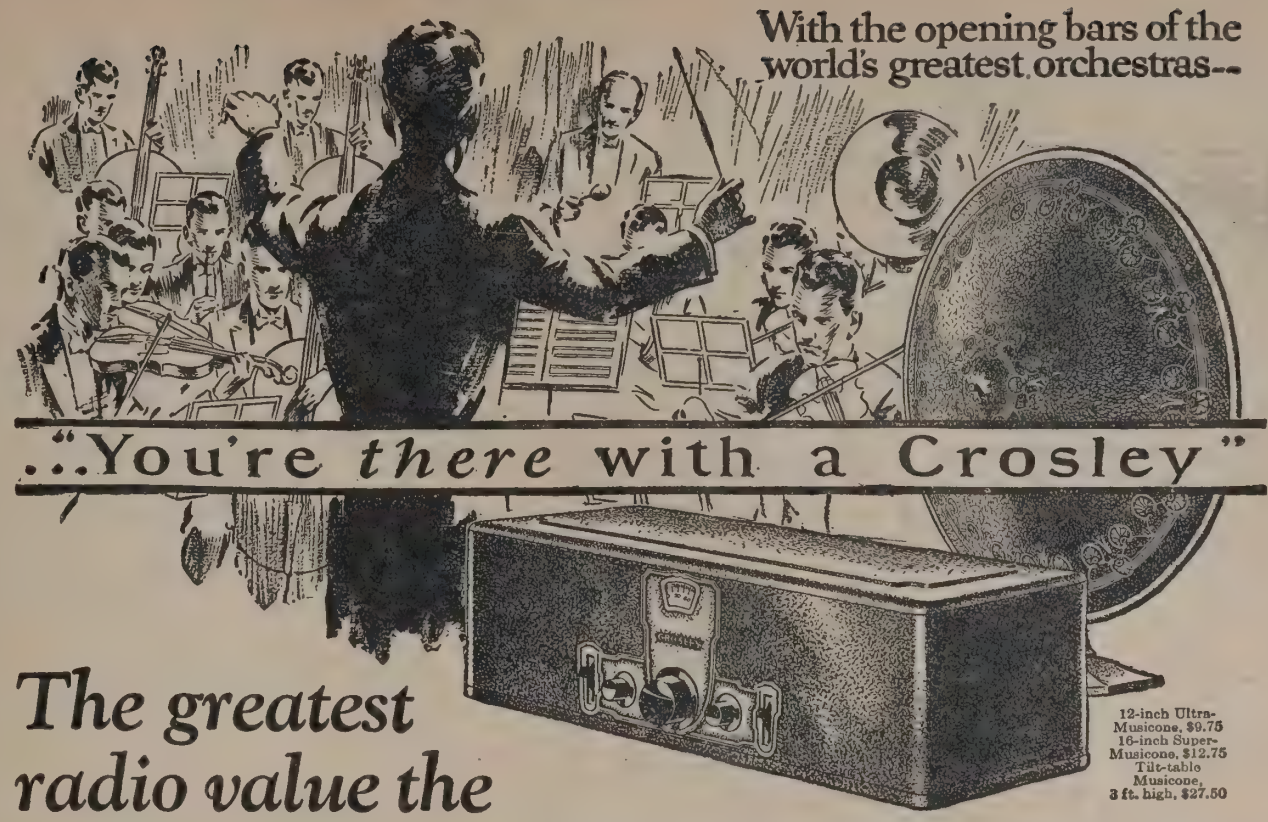
Georgia. J. H. REED.

New Book on Butter

The second edition of "The Butter Industry" is ready for distribution. The book has been completely rewritten and numerous chapters on many phases of butter manufacture have been added.

Professor O. F. Hunziker, the author of this book, is a thorough student of butter manufacture. He understands the science and the practice of buttermaking and his book is prepared for those who desire the best and latest information pertaining to the butter industry. "The Butter Industry" may be obtained from Hoard's Dairyman Book Department, for $6.50 in the United States and $7.00 in foreign countries.

At least twelve winners in dairy calf work in Minnesota will be sent to the National Dairy Exposition at Memphis, Tenn., October 15—22, by the Minneapolis Journal. Club winners from 28 states will participate in the contests.



The greatest radio value the world ever saw. Six-tube Bandbox $55

To Crosley resources, experience, leadership and mass manufacturing methods comes the big factor that leads to paramount achievement—license to use the best of radio patents—license to work with and to take full advantage of the research and study of the greatest of their kind—The Radio Corporation of America, The General Electric Co., The Westinghouse Co., The American Telephone & Telegraph Co., and The Hazeltine and Latour Corporations.

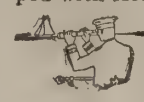
Wonder not then that this "Bandbox" is an amazing radio—and a phenomenal value.

Such resources at his command have resulted in the greatest Crosley triumph—a 6 tube receiver with all elements Completely Shielded—absolutely Balanced in its radio frequency stages and including features and refinements at a price of $55, which are the chief talking points of sets twice its price and more.



This Bandbox is totally shielded. Copper shields cover coils, cadmium-plated steel covers the condensers. Wiring is completely shielded from both. The Bandbox is completely balanced. It is a genuine neutrodyne.

The Bandbox is equipped with Acuminators—secondary adjustments to be used only on weak, distant signals and when cruising for far-a-way stations that ordinary one dial sets miss entirely.



The Bandbox possesses a volume control by which strong local dancing volume can be reduced to a whisper without distortion of detuning.



The Bandbox operates with a single tuning knob which turns an illuminated dial. This feature for shadowy corners is greatly appreciated.



The Bandbox is easily installed in console cabinets being so designed that a few screws removed from the escutcheon and the bottom releases chassis from the outside metal case. See it at Crosley dealers now!



Approved Consoles



Selected by Powel Crosley, Jr., as ideal, acoustically and mechanically for the installation of the Crosley "Bandbox." Genuine Musicone built in. Crosley dealers secure them from th ir jobbers through
H. T. ROBERTS CO. Chicago, Ill. 1340 S. Michigan Ave.
Sales Agents for Approved Console Factories
Showers Brothers Company
The Wolf Mfg. Industries

Write Dept. 44 for descriptive literature.

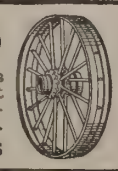
CROSLEY RADIO

The Crosley Radio Corporation Powel Crosley, Jr., Pres. Cincinnati, Ohio

Crosley Radio is licensed only for Radio Amateur, Experimental and Broadcast Reception

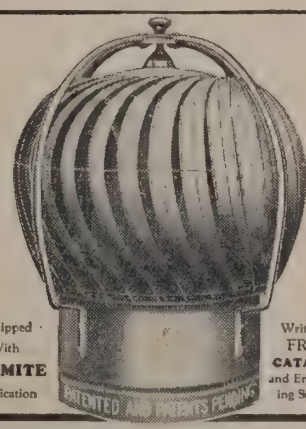
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Write for free book describing Farm Trucks, Wagons and Trailers. Also any size steel or wood wheel to fit **any** farm truck, wagon or trailer. Farm Tractors—Crawler Attachment for Ford or International Tractors.

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Equipped With **ALEMITE** Lubrication

Write for FREE **CATALOG** and Engineering Service

Maximum Ventilation at Minimum Cost
FOR ALL BUILDINGS—SILENT, DURABLE
Allen Air-Turbine Ventilator Co.
1034-14th St. Detroit, Michigan
ENGINEERS IN PRINCIPAL CITIES
Allen Multi-Vane Turbine Ventilator

Only $38.75 for Latest HAMMER TYPE FEED MILL

Run by 2 H.P. Electric Motor or 2½ H.P. Gasoline Engine. Grinds 35 bushel shelled corn per hour. Runs slow — grinds fast. No burrs to replace. Nails, bolts and wire can't damage it. Screens changed without stopping mill.



PRATER MILL

Does best grinding, is lowest in first cost and operating cost — is durable and simple. Endorsed by Electric Power Companies. Can be started fully loaded without causing line disturbance.

Made in Three Sizes
Capacities 35 to 85 bushel shelled corn per hour

2 H.P., price $38.75; 3 H.P., price $44.25; 5 H.P., price $65. Can be furnished equipped with Fan Blower and pipe for elevating feed up to 40 ft. Also complete with Electric Motor, mounted as unit with Mill.

Write for Catalog (2)

PRATER PULVERIZER CO.
1303 N. Kostner Ave., Chicago

Also makers of Blue Streak Mills, large capacity Hammer Type, moderate speed. Grinds roughage as well as grain—for Fordson or equal power.

Corn Borer War Continues

War on the European corn borer continues. The fall attack is under way.

The corn borer is advancing. This pest has been reported in 55 Ohio counties as compared to 42 counties last year. In Indiana 14 counties have reported the corn borer where only 8 counties had it last year.

"Cutting corn low is the first move against the borer in the fall," say authorities at Ohio State Agricultural College. The worms move down in the cornstalk as the season advances so that corn cut low and disposed of early in the season will get rid of most of the borers."

In all of the 55 infested Ohio counties low cutting demonstrations will be conducted this fall by extension officials of Ohio State University. A 4-page leaflet on harvesting methods to control the borer can be obtained by writing Ohio State University at Columbus.

Production and Uses of Milk 1925—1926

(Continued from page 927)

Cheese consumption in 1926 amounted to 4.36 lbs. per capita, a slight increase over 1925 and nearly a pound and a half increase over 1917. This is equivalent to a per capita increase of nearly 7 quarts of milk in the past nine years. There is opportunity to promote larger consumption of cheese in the future, for its economy and palatableness warrant a consumption double what now prevails.

Condensed milk consumption amounted to 14.32 lbs. per capi 1926, a decrease of half a p from the previous year but a crease of 3.83 lbs. over 1917. is equivalent to an increase of n 4½ quarts of milk in nine year

Ice cream consumption was gallons per capita in 1926, a decrease from 1925 but an inc of 2.8 quarts over 1917. Th equivalent to an increase of n 4½ quarts of milk in nine year

Table V—Per Capita Annual Consur of Dairy Products in United State

Year	Milk	Butter	Cheese	Condensed milk
	Gals.	Lbs.	Lbs.	Lbs.
1849		13.9	4.0	
1859		15.1	3.2	
1869		13.7	3.3	
1879		15.8	2.1	
1889		19.5	2.9	
1899		19.9	3.7	
1909		18.0	3.85*	
1914		17.0	4.60*	
1916		15.4	3.04	
1917	42.4	14.6	2.89	10.49
1918	43.0	14.0	3.00	12.50
1919	43.0	14.8	3.50	12.30
1920	43.0	14.7	3.50	10.17
1921	49.0	16.1	3.50	11.40
1922	50.0	16.5	3.70	12.69
1923	53.0	17.0	3.90	13.25
1924	54.75	17.38	4.20	14.00
1925	54.75	17.39	4.26	14.87
1926	55.30	17.82	4.36	14.32

*Including cottage cheese, not inclu other years.
†For the year 1910.

Monthly Uses of Milk

The following table shows t rying quantities of milk used month for the manufacture four principal dairy products in as also the monthly percentag the year's total for these four ucts:

Table VI—Milk Used in Manufactu 1926
(In millions of pounds)

	Butter	Cheese	Condensed milk*	Ice cream
	Lbs.	Lbs.	Lbs.	Lbs.
Jan.	2,060	251	311	110
Feb.	1,984	251	289	119
Mar.	2,367	317	362	157
April	2,555	369	410	204
May	3,292	488	518	342
June	3,763	576	582	383
July	3,357	495	468	504
Aug.	2,808	414	348	441
Sept.	2,460	363	298	280
Oct.	2,171	307	273	178
Nov.	1,865	227	222	127
Dec.	1,917	210	246	107
Total	30,604	4,274	4,333	2,959

*Includes evaporated milk.
†Per cent of total milk used mon all four products.

Starting with their lowest p production at the beginning year, each of these four m tured products reach their g volume in June, which mor counts for one-eighth of all mi for manufacturing purposes. August supplies 44.5% of the factured dairy products.

Balance of Trade

While we exported over fi lion pounds of butter in 1926, ported sufficient to make the ports total 2,546,075 lbs. manner we find net imports of amounting to 74,514,226 lbs. net export of 112,885,601 lbs. densed milk. Reduced to thei milk equivalent, the total o three products represents a port of over half a billion po milk, the largest import ever ed. There was a net export for the war and post-war y 1918 to 1922. Although the port for 1926 looks large, it a to less than one-half of one p of our total milk production.

(EDITOR'S NOTE: In prepari survey, we are largely inde the Bureau of Agricultural Fo ics, and especially to T. R. P that Bureau.)



H A V E A C A M E L

Smoke Camels for the one big reason . . . enjoyment!

WHY do people like good tobaccos? For just one reason — enjoyment. And Camel brings this world more tobacco pleasure every day than any other cigarette that ever was made. That's why the number of Camel smokers is the largest in the world. Why Camel gains in popularity every hour.

If you want the sheerest pleasure that wonderful tobaccos can give, just try Camels. So mellow and mild you'll wonder how you ever got along without them. So smooth and fragrant that they will reveal a smoking contentment that is full and complete.

We invite you to know Camels because they are so good. This famous cigarette will repay you in full measures of genuine enjoyment. Camel leads the world!

R. J. REYNOLDS TOBACCO COMPANY, WINSTON-SALEM, N. C.

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Seasonable Live Stock Notes

CTOBER is a glorious time of year. Following harvest and preceding Thanksgiving it s a measure of the season's labor of the use of land; it brings a -colored horizon among trees gratitude at the hearthstone. s, bins, stacks, and silos now the season's harvest. We turn the toil of the field to that of replenishing feed boxes; we to make feeds and begin to foods—the products of good tock husbandry.

Udder Trouble Treatment

sh cows, particularly well-fed producers, frequently have con- n or inflammation of the udder. r such cases could be prevented eatly modified in their severity oser attention to feeding for the week or so after cows calve. A practice is to cut down the nt of grain fed and substitute a laxative in nature and light in cter. Bran is especially good at a time. Some ground oats could lded with bran. Milk should be n several times daily followed time by rubbing or kneading the lammation induced by garget or mitis infection is of different cter than congestion. Grain ng should be reduced; a physic d be given; affected cows should e exposed to inclement weather. should be milked gently three ur times daily. Affected cows d be isolated to prevent unaffect- ws being exposed to the disease is somewhat transmissible.

Mangels

e feeding of freshly dug mangels ge quantities frequently induces s. To safeguard the possibility is, the beets should be stored for al weeks before feeding. In ng mangels there is less likeli- of imparting undesirable flavors ilk if they are fed immediately milking rather than before milk- Kale and rape are two succulent most likely to impart undesir- flavors to milk if fed within two before milking.

Fitting for Test

ws that are to be started on test this fall and during the winter d be dried off soon enough as to them about eight weeks of rest. that are just finishing year rec- should have the full time rest; that are in fair to good condi- may not need the full eight s to get them in proper condi- Cows to be put on short time should be fat at calving time. ssive fattening is not so essen- when cows are to be carried gh for the longer testing peri- The fitting ration should include culent feed and a grain mixture. oughage, silage and legume hay a very good combination. Beet pulp or stock beets may be used in place of part of the silage. Many herdsmen have their own special grain mixture for fitting. Following are two good grain mixtures to be fed with silage and legume hay: (1) 100 lbs. each of bran, ground oats, hominy feed or ground corn, linseed meal; (2) 100 lbs. each of bran, ground oats, linseed meal, 75 lbs. cottonseed meal, 50 lbs. ground corn.



llia has recently completed a record 6,434.3 pounds milk containing 981.7 ds fat. She thus becomes the tenth est cow for the Guernsey breed in A (mature). Mallia was bred and d by Howard B. Tuttle of Connecti- —American Guernsey Cattle Club.

Feeding Calves on Milk Substitutes

The problem of feeding calves in herds from which whole milk is sold is by no means an easy one to solve successfully. Experimental evidence indicates that calves must be fed whole milk at least 20 days if they are to survive changes to substitutes. Calves fed on substitutes usually do not look as well as whole milk fed calves for the first 6 to 9 months. Thereafter they recover from the deficiencies of their earlier feeding.

Some good calf meal mixtures are as follows: equal parts by weight of hominy feed, linseed meal, red dog flour, and dried blood mixed with water in the proportion of 1 of meal to 9 of water and fed warm, 100° F. Dry grain, ground corn and oats, and legume hay are to be fed in addition to the gruel.

The New York Station recommends a calf meal mixture as follows: 500 lbs. yellow corn meal, 440 lbs. red dog flour, 300 lbs. oat flour, 300 lbs. linseed meal, 200 lbs. malted barley, 200 lbs. soluble blood flour, 20 lbs. each of calcium carbonate, steamed bone meal, and salt. This mixture is fed as gruel at 100° F. mixing with water in the proportion of 1 of meal to 5 of water. Whole milk is fed the first 20 days and thereafter the gruel substituted gradually. At three weeks of age hay and grain should be placed before the calves. Legume hay and a grain mixture composed of 30 lbs. each of hominy feed, ground oats, and wheat bran, and 10 lbs. linseed meal are recommended.

Weaning Fall Pigs

Weaning pigs with the least disturbance to their continued growth is an art well worth learning. A very successful Indiana hog raiser provides a creep and suitable feeds for pigs while they are still nursing their dams. At eight weeks of age the sow's feed is gradually restricted which shuts down on milk production. When the time is right, the sows are taken away from the pigs and not the pigs from their dams. In this way by leaving the pigs in the quarters they are accustomed to they are weaned without knowing what has been done.

Preventing Egg Losses

The season is near at hand for converting feed crops into eggs. No one wants to put labor into the production of feeds and then lose their value. It is estimated that about 17 per cent of the eggs shipped to wholesale markets have no commercial value because of their being dirty, broken, or having chick development, or being shrunken, rotten, or moldy. The following conditions will almost entirely eliminate losses from these sources: eggs for market should weigh from one and one-half to two pounds per dozen; be uniform in size; be free from dirt, but not washed; be strong shelled, fresh, and infertile. They should be laid in clean nests, gathered often, never taken from an incubator nor from stolen nests; they should be kept in a cool, dry place until delivered at the market.

Make the most of Winter Milk prices

Here's your opportunity to cash in on winter milk prices. Make the most of this season's market by getting your production on a sound, economical basis. There's a Quaker Dairy Ration that just fits your farm, your herd! Pick your feed below:

Feed the Feed that Fits Your Farm, Your Herd!

Quaker Boss Dairy Ration is the ideal **24%** grain ration for cows receiving timothy hay, grass hays, straws, corn stover, or poorer grades of clover.

Quaker Big Q Dairy Ration exactly **20%** meets the need of those herds receiving poor alfalfa hay, fair clover hay, or real choice mixed clover and grass hay.

Quaker Dairy Ration has no superior **16%** when cows are receiving choice clover hay, good alfalfa hay, or an excellent grade of fine mixed grass-and-clover hay; a good ration for dry stock and for young growing stock.

Quaker Sugared Schumacher Feed, as the exclusive grain ration has a real place when the herd is receiving liberal quantities of the very best grade of alfalfa hay. For blending it combines beautifully with any Quaker high protein feed. For all stock—dry stock, horses, sheep, swine, and steers it is unexcelled.

All Quaker Dairy Feeds contain molasses in dried form and are rich in the minerals cows must have to make milk.

Send for the FREE book—"The Dairy Herd"—it tells you just how to meet the feed requirements of your farm, your herd.

The Quaker Oats Company

CHICAGO, U. S. A.

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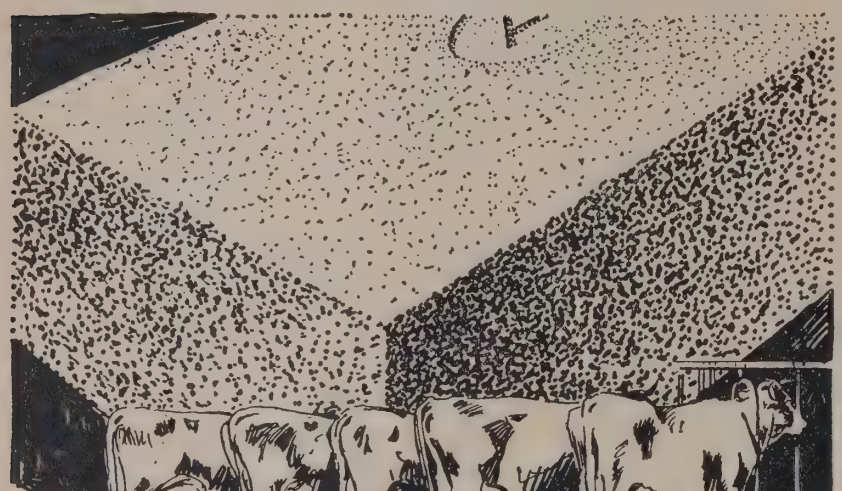
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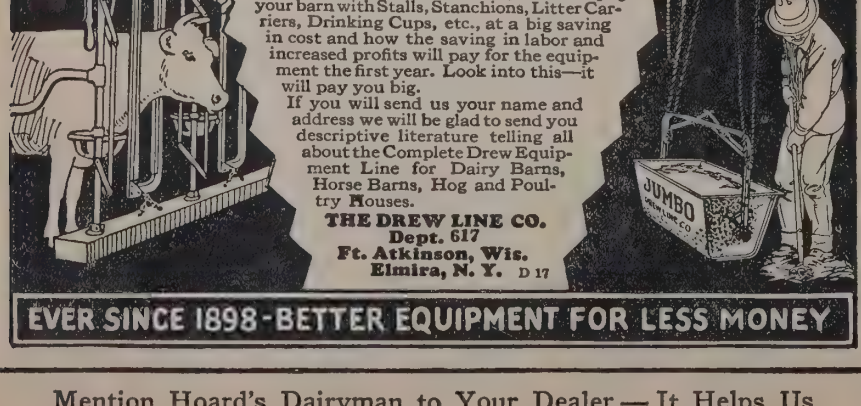
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Opinions, Brickbats, and Bouqu

These columns are open to the readers of Hoard's Dairyman for the expressio their opinion on any subject, whether radical or conservative, destructive or construc wise or foolish. It may be cows or crops, religion or politics, or what at the time r interests you. It may be critical or commendatory, but it should be your opinion. your own editorial page but your editorial must not exceed 250 words. Hoard's Dairy assumes no responsibility for opinions expressed.

Believes in Co-operative Marketing

HOARD'S DAIRYMAN:—I always enjoy your editorial page; however, the August 10 is better than usual. As I am primarily interested in co-operative farm marketing and its success I especially appreciate your article on that. I feel that our Missouri Farmers' Association has undertaken as large a task as any farm organization and has been exceptionally successful with poultry and eggs, and in a small way with cream. The high lights in success as I see them are not so much in price fixing as the increase of sales and the steadying of prices.

The Ozark country is an ideal poultry country. Before the organization of our M. F. A., egg prices fluctuated from 10 or 12 cents in summer to 60 or 65 cents in winter, with the low price during the heavy production time and the high price when very few eggs were being produced, and now by using our own cold storage the low price has been around 20 cents and the high price around 40 cents, with the profit to the producer almost doubled and yet leaving eggs at usable prices for the consumer. Probably their best work has been in grading eggs and in working for better grade of cream. We have also saved by purchasing feeds and seeds in a more economical way and there is much room for improvement yet. There has also been quite a nice little dividend to be pro-rated back to the producers. I still believe in co-operative marketing as the best bet for communities which specialize in any line but more for the purpose of stabilizing prices and quality and increasing consumption than to try to boost prices. I also believe in trade unions but think they should be used more to increase the quality of labor than they are at present. Any organization that starts in to rob the other fellow is going to get a black eye soon but organizations to deliver better goods at living prices or honest work at living wages are bound to succeed because they are right.

Thanks for your good paper.

Missouri. H. L. EDGERTON.

Arizona's Future

HOARD'S DAIRYMAN:—It is with keen interest that I have read your editorial on the subject of "Why More Land?" and the subsequent discussion of this topic. Naturally everyone should be in hearty accord with any move toward the elimination of unprofitableness from agricultural land.

Doubtless in many sections of this country there are to be found numerous farms which would be a greater asset to the nation for growing timber rather than serving to bankrupt, if not entirely starve out, some poor mortals who are trying to till such soil. However, here in Arizona a very different condition exists. Our leading industry is mining. As everyone should be aware, it is but a matter of time until the ores from these mines will be depleted. Then, unless we can turn to some other resource, the fate of Arizona will eventually be similar to that of Nevada—once wealthy, now poor.

Fortunately, however, we believe that reclamation of agricultural lands from the present desert will be our salvation. We are looking fo to the time when a gigantic s dam will be built at Glen Cany the Colorado river from which, led with proper diversion and veyance of water, 3,000,000 ac highly productive land can be i ed. Of course, several years required to complete this vas ject; its development being so al that no additional burden t sent overcrowded markets will fected.

In this section of the U. S. have little apprehension of ov duction. The rapidly growing cities already are on the po needing market milk from A while across the Pacific the cr and undernourished populace Orient will ever urge a conti of our efforts. In fact, a l world demands that, instead following that narrow idea of tailment of production, we rather work for the boarder po perfecting a plan whereby ou cultural surplus will be absorbe world market.

Arizona. J. IRVIN B

Where the Fault Li

HOARD'S DAIRYMAN:—I grow at times of reading about agric conditions and methods prope improve them. It would be a person, indeed, who did not app that there are large opportun increase the income of farme me this is not going to be plished by outside agencies or political party.

The destiny of agriculture is hands of the people who live land. They need to be betr ganized, and would be if a majority saw its value and leadership could be secured. O son why we do not have mor bers in our various farm ora tions and that our leadership more capable is due to the fa persons do not become enth over what is possible to acco The advocacy of things im strikes the imagination and c more enthusiasm than simple plans and practices which wou an industry upon a proper ba

People like to dwell in dre and paint fairy pictures. It that humanity has this trait. lead it away from the beaten t every day work and into new takings. Without this trait hu would stagnate. The thing I co about is that they carry it too forget that when dealing with cal problems of life and layin for the development of an indu is the commonplace things th be brought into coordination i ress is to be made.

If we could organize and de plan for securing accurate an marketing information concer farm crops and such other i tion as is essential to the pre for marketing, and could estab operative enterprises for pr and marketing farm product would be no need of any speci lation to solve the problem of ture. We are not going to mak progress with this splendid id of ours until we fully appreci we must utilize the princip practices that other industri followed and used.

Minnesota. J.

tern States Exposition

(Continued from page 945)

al in 1923 and at Detroit in eat the Alta Crest entry twice ar but this time the younger smoother, better finished show red up to his name. He was an ding senior and grand cham- It is worthy of mention that in that aged bull class was r Nancy's Mintmaster, grand on at the National nine years

y-three aged cows crowd even ring and here Judge Seitz had s on that many in a limited It was a particularly difficult ause in the group were several e winners from the 1925 and ows, showing in good form When they were finally lined p. Barr Flapper from Strath- as first. She isn't the smooth animal she was at the Sesqui- nial a year ago, but she is f a cow and she deserves her Next was Monstone Septem- rn, the winning 3-year-old of ars ago, and below her stood rest Spicy Girl, a good winner y fairs last year and a right w now.

Flapper was senior and grand on female with her strongest itor, Penshurst Bertha, the g 3-year-old daughter of Pens- Man O' War, shown by Old Farm. The heifer is a good well developed cow that needs v just a little better balanced o win in almost any company. petition for junior champion- as closest between Shawsheen Lass, a junior yearling owned American Woolen Company, senior yearling from Monstone The older heifer is best in right at the shoulders, and good but from her hips back she suit the judge so well and the r one won.

Crest Farms won the get of ass on four by Lessnessock ight as they have so often efore. This time the group in- the second prize senior year- ll, an aged cow, and the first ond prize heifer calves.

Brown Swiss

e: John C. McNutt, New hire.

was the first year that Brown have been shown at Spring- ice 1917 and a good show they f it. There were 75 head from dozen herds from New York, rsey, and Ohio with New York in number shown as well as ings.

aged bull class brought togeth- bulls that met several times ar, Ursula's Stasis owned by ros. and Maiden's Vronicka's grand champion son of a champion sire and dam owned Frank Zoller, New York. The ull has more quality and bet- y type but the judge found the a stronger bull, better filled the shoulders and put him up. st the same kind of choice fered in the 2-year-old class, this case the more refined bull by D. N. Boice beat the heav- from New Jersey.

Bros.' senior yearling, Pride's of Lake View, a straight good fronted bull with plenty ity, was junior champion.

aged cow class with its eleven was something of a disap- nt because there wasn't a tstanding show animal in the only a few good ones. The one me nearest filling the bill was tis owned by Warren Kinney. a good bodied cow with a fair ut she isn't too good behind the shoulders nor at the tail setting. There was nothing better shown in the succeeding classes and she won senior and grand championship handily.

Zoller entries were good winners in the next three classes: 3-year-olds, 2-year-olds, and senior yearlings, but the judge went on down the line for a junior champion and found her in Hull Bros.' winning calf, Carl's Valley Girl 10th of Lake View.

The get of sire class was an easy win for J. F. Zoller who showed four by Vronicka's College Boy. In the group were the grand champion bull, the fifth place cow, and the second and third prize senior yearling heifers.

The Holsteins

Judge: W. S. Moscrip, Minnesota

The Holstein show this year wasn't so good as it has been for the two years previous, nor was it so good as it should have been. It ought to have been larger and while the tops were very acceptable, there could well have been better ones on down the line in most of the classes.

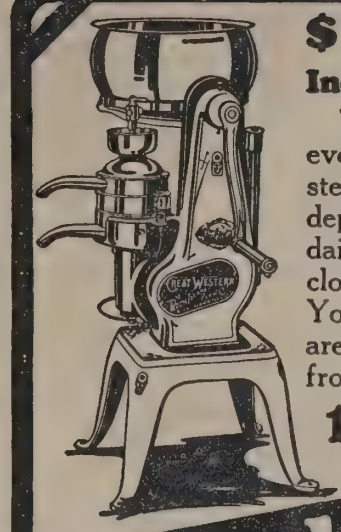
The 150 head shown represented 21 herds in New Hampshire, Connecticut, New York, Massachusetts, New Jersey, Ohio, Pennsylvania, and Illinois. Elmwood Farm of Illinois was the heaviest winner with ten blues and three of the four champions.

A good bull headed almost every class but there were just two really outstanding ones, Sir Fobes Ormsby Hengerveld shown by Elmwood Farm and Hurlwood Sir Segis Walker, a senior yearling owned by Hurlwood Farm and T. S. Gold. The older bull, grand champion everywhere and All-American last year, may perhaps not show quite in the bloom of a year ago, but he is certainly far and away the best aged entry out this season and was an easy senior and grand champion here.

The yearling, a junior champion here in 1926, has developed nicely since and quite deserved his junior champion ribbon this year. He is, we think, the best junior bull we have seen up so far this year.

Among the 15 aged cows was one that very well suited Judge Moscrip. Colantha Hark Delaphene is a big, straight topped, square rumped cow of typical Holland type that carries her 12 years easily. A few of the ring-

(Continued on page 973)



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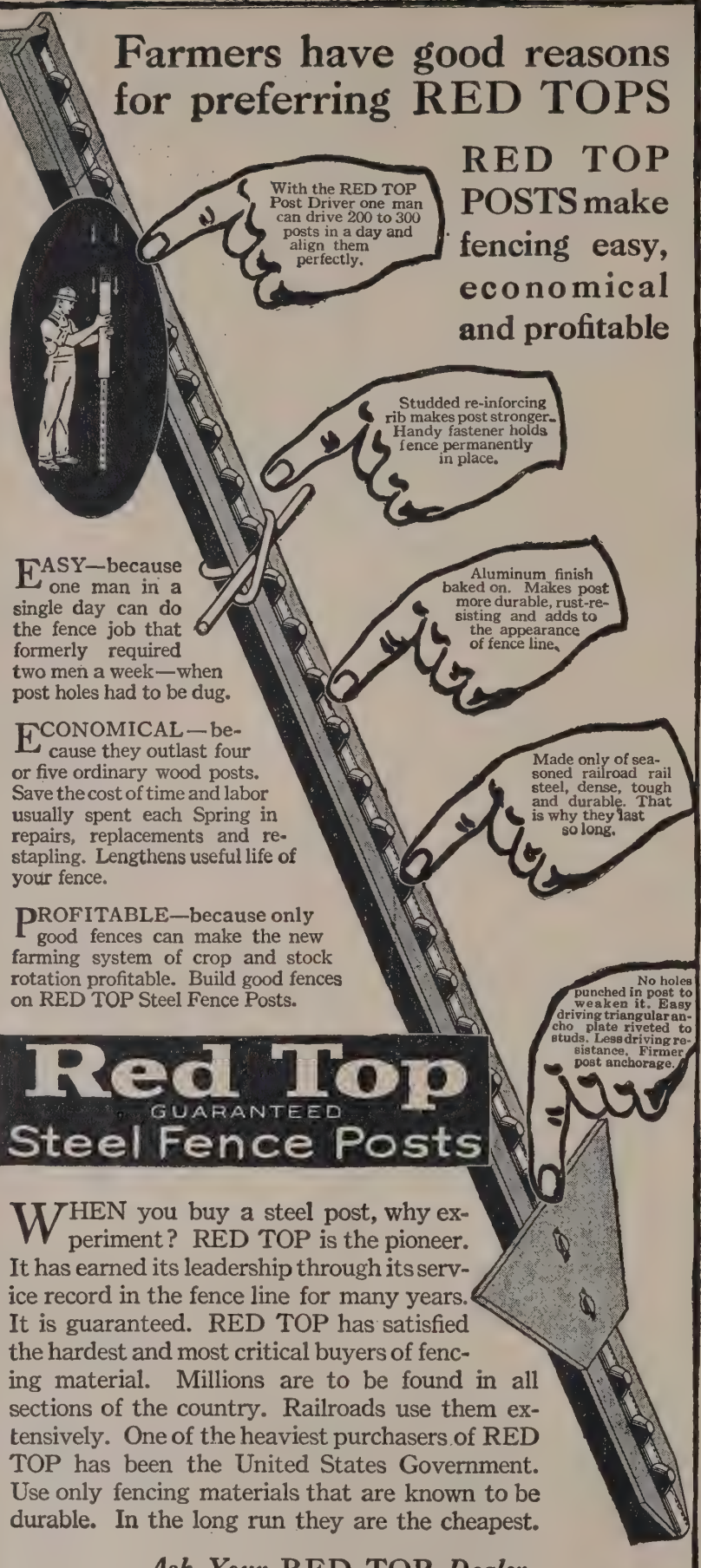
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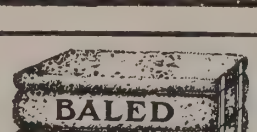
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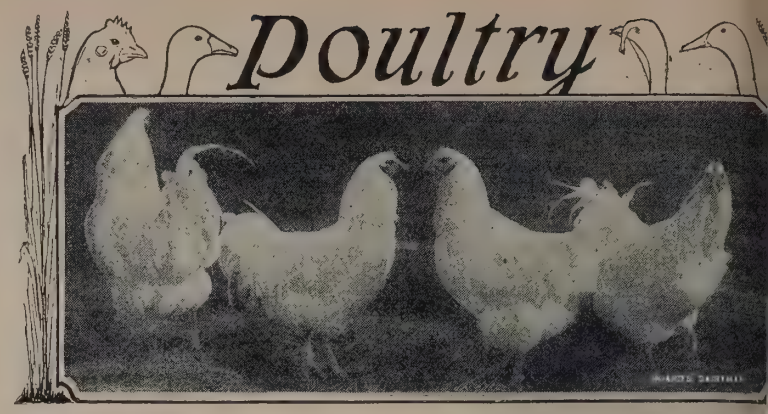
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Factors Affecting Profit

Two important factors enter into a discussion of poultry profits. One is the number of eggs a fowl produces and the second is when those eggs are produced. There is no questioning the fact that the number of eggs a hen produces will determine the cost of producing the eggs but the time of the year they are produced determines the profit of the year.

An interesting side light on this second factor was noted in the production of about 250 flocks during the month of January. In determining this feed cost only the cost of feed was considered. No consideration was given to mortality, depreciation, labor cost, interest, taxes, or the other items that should be considered in determining the cost of production. All that one can get from these costs is the comparative cost as determined by production.

All the flocks were divided into four classes as based on production. The production was based on average egg production per hen per month rather than per cent production. This method of determining production gives one a more concrete idea than just percentage:

Production per hen	Average for month	Feed cost per doz. eggs
eggs	eggs	cents
0—7	4.14	45
7—10	8.54	21
10—15	12.13	14
15—20	16.76	12.5

It is clearly evident that volume of production is required to enable one to produce efficiently. This is true because about the same amount of feed is required to maintain a fowl when producing or not producing. Only a slight excess is required to produce over what is demanded only for maintenance.

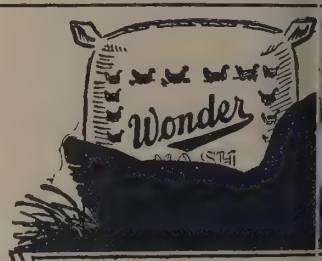
The second factor that enters into the consideration is that of distribution. An attempt must be made toward making egg production more nearly a year-round proposition. With the present arrangement we find that there is a high percentage of eggs produced during the spring resulting in low egg prices and a low percentage in the late summer and fall causing high prices. One should try to fill in the two dips that are found at either end of a production curve. It can be improved by proper management.

Data from a recent Maine publication shows the following interesting table of a comparison of monthly production and average price:

Month	Av. price eggs per doz. cents	Av. No. eggs produced Old hen flock	All flocks	Pullet flock
November	67	2	3	8
December	65	2	6	10
January	48	3	8	11
February	41	5	9	11
March	33	18	15	16
April	27	14	16	17
May	27	14	15	17
June	28	13	13	14
July	32	12	12	14
August	38	10	11	12
September	47	7	10	10
October	51	6	7	8

There is, of course, a high[er] production for the pullet flock th[an] was for the old hen flocks [in] with this fact in mind one [can] that there was a higher pr[ofit] from the pullet flocks dur[ing] months of September, Octo[ber], vember, December, and [January]. There is a greater tendency f[or] form production from prope[r] tured pullets during that per[iod] there is from hens. One wil[l] smaller fluctuation between [the] winter yield compared to spr[ing] summer than there will be wi[th] The same thing is true in co[m]bining a good flock with a poor flo[ck].

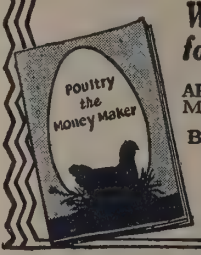
In another way one can s[ee] following difference between [the] flocks. The pullets showed [an] vantage per individual of the[se] ing amounts: September, 11 [cents]; tober, 8½c; November, 33½ [cents]; cember, 48¾c; January, 36 [cents]. meant a total income of $1[.]



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f the pullets for the period of
nths.
not meant that only pullets
be retained. It is rather a
having a flock that can pro-
ring the season of high prices
than one that produces poorly
times except when prices are

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pullets. With the well es-
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ducing quality, well bred
one can obtain reliable chicks
time of the year that he de-
em.
ling practices have been per-
o a point where the mortality
low and the cost of maturing
is consequently lessened. This
of poultry keeping is very
approaching a factory method
justified. This is not offered
suggestion but rather as a
to be given some considera-

same publication gives the fol-
table on the effect of number
ets on egg production and re-

n of ck	No. eggs per hen	Labor income per hen	per hour
%	98	$1.57	$.41
%	124	2.52	.58
)%	133	3.01	.71

n this one will note that as the
ion of pullets in the flock in-
, the average egg production
labor income increased. This
because the egg production
he pullets was higher and the
tion was obtained during the
of higher prices. These are
that must receive some consid-
at this time when a person
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e are a number of people at
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ny fertile eggs, which means
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all of the hens at the end of
son. They cull the flock reg-
during the season to maintain
rate of production and then
ll the hens at the time that
llets should go into winter
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ullets must be early hatched
ll matured to produce fall and
eggs. The question of quality
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rather a potential machine
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an take the best chick that was
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the attention that is demand-
certain times, but it is well
while. Even crawling out of
m bed on a cold night to coal
y mean a little bigger profit
lowing season.

aredness is a happy, often
rked term that still needs to
ived for many occasions. Every-
that we plan on doing for the
ear is going to be determined at this time. We can make or break the business for the year.

Only good pullets are worth keeping and to make good pullets one cannot afford to take any chances or make many slips during the growing season.—J. B. HAYES.

Part of Barn for Poultry House

Our dairy barn is too large for the number of cows we have. As we are going to remodel with new equipment, could we have a practical poultry house in this unusual space? Plenty of windows for light, good cleaning facilities, etc. A solid partition would separate both parts. The building is not of a basement type.

Spring Valley, Wis. H. E. R.

I believe this type of barn or one end of the barn which you now use, due to the fact that it is not of a basement type, can be arranged very satisfactorily as a poultry house since it has everything in the way of a building that we want.

It means you are undoubtedly carrying a hay mow above it with a heavy hay pack or straw pack, which is the thing that we are looking for in connection with a good building.

To emphasize the possibility of doing this I might refer to a man in Southern Wisconsin who has converted one end of the hay mow into a chicken coop or into a pen with the ends and one side and top covered over with hay and straw since he keeps all of his straw under cover, and has carried 180 birds in there during the past two years very satisfactorily. In fact, he had a constant production of somewhere between 70 and 72% during most of the winter. Those birds up to the first of August were still carried in absolute confinement without any outside run and will be taken out only in time to be replaced by the earliest hatched pullets which will again occupy those quarters. This is on a general dairy farm and is an indication of what might be possible under those conditions.

It, of course, would be necessary to give proper attention to window distribution, the admission of direct sunlight in there, and depends on your location, which I don't know, and the addition of cod liver oil to the ration for those birds during the winter period. The depth of this house should not be so excessive that it will be impossible to get light back into the building. Even though this may be so it will be possible to use artificial lights in there for the birds during part of the day for feeding purposes and the cod liver oil will take care of the other requisite.—J. B. HAYES.

Tuberculosis in Poultry

That hogs contract tuberculosis from poultry is one of the dangers of this dread disease in the flock pointed out by the Wisconsin Live Stock Sanitary Board. The measures suggested by this commission on how to control and eradicate fowl tuberculosis are as follows:

1. Prevent poultry from eating dead birds.
2. Clean and disinfect houses and runs frequently.
3. Send suspicious livers to laboratory or to your veterinarian for examination.
4. Dispose of flocks if tuberculous birds are found.
5. Purchase birds for restocking from healthy flocks.
6. Dispose of hens more than two years old.
7. Consult your state live stock officials or write the Chief, Bureau of Animal Industry, Washington, D. C., for further information.



24

3 to 4 Bushels per Acre

—are overlooked by huskers according to various authorities who have kept accurate records over a period of time.

Bernard Vogen, Rushford, Minn., writes us that "the average man gathering standing corn will leave several bushels per acre in the field. It costs from 4 to 6 cents per bushel to gather and store a crop of corn. Hogs will gather it for nothing and make it into pork."

How much does it cost you NOT to have hog-tight fence? Even only 3 bushels wasted per acre on 40 acres at 80 cents is $96.00.

RED BRAND FENCE
"Galvannealed"—Copper Bearing

will make enough extra grain and live stock profits to pay for itself in 1 to 3 years by making possible hogging-down, rotating crops, pasturing after harvest, etc., and the profits will pile up for many, many years.

C. W. Lynn, Norman, Neb., writes: "My hogs paid me $1.26 per bushel for my corn in a 20-acre field. Hog-tight fence saved me the labor of husking, shelling and hauling (all big items) to say nothing of the higher grade of market hogs and the premium on my corn crop."

Gotlieb Detke, Appleton, Minn., hauls no manure, his farm produces twice as much as it used to and is worth double what it was before he fenced stock-tight.

A. E. Longenecker, Leonida, Mich., says 20 sheep and one sow will pay the taxes on a 200-acre farm and build 100 rods of fence each year.

We have thousands of other comments from successful farmers telling about the extra profits that are the result of hog-tight fence.



Fence and cross fence this year for greater gains. Ask the Square Deal dealer to show you RED BRAND FENCE.

An extra heavy coating of zinc "Galvannealed" on the outside keeps rust out. Rust-resisting copper mixed in the steel keeps long life in. These things make RED BRAND last years longer. One piece stay wires, well crimped line wires and can't-slip knots keep it trim, hog-tight, bull-proof. Fence and cross fence this year with RED BRAND for bigger profits.

What has been your experience with or without good fence? We will pay $5.00 or more for each letter that we use. Write for details, catalog and 3 interesting booklets that tell how others have made more money with hog-tight fence.

KEYSTONE STEEL & WIRE COMPANY
1724 Industrial Street, Peoria, Illinois

Enjoy Powerful 6, 7 or 8 tube Radio: 30 Days FREE





The rate for advertising in this department is 12 CENTS per WORD, Count address. Remit in advance. Send references with order. Copy must reach us 12 days ahead of date of issue. Farm labor advertising 8c per word.

LIVE STOCK FOR SALE

High class grade Holsteins—Springing or fresh cows from an area tested county. Can also supply Guernseys of top quality. Clean cattle, priced right. 30 years experience in breeding dairy cattle. Write me, JOHN ERICKSON, Waupaca, Wis. 18-*

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Purebred Holsteins, good blood lines. 10 yearling heifers, 10 cows, 2 bulls. MEADOW BROOK FARM, Independence, Iowa. 19-2

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

Registered Holstein cows and young stock. FRIDAY DAIRY, R. 2, Madison, Wis. 18-2

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

For Sale—Fifty head of high grade Holstein and Guernsey cows due to freshen in thirty to sixty days. Priced to sell. JOHN KEENER, Amherst, Wis. 17-4

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

Young Bulls and Bull Calves, Dots Cherub breeding from dams with good A. R. records. QUINELLO FARMS, 607 Trust Company Building, Milwaukee, Wisconsin. 18-*

Guernsey herd for sale—22 young cows, heavy producers, registered bull, some calves. T. B. tested, free from disease. Priced reasonable. C. J. FRIES, Ogdensburg, Wis. 17-3

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have 34 Guernsey and Holstein cows all to freshen this fall. All large, good producers. J. McNULTY, Box 28, Mukwonago, Wis.

For Sale—50 high grade Holstein and Guernsey springers, reasonably priced. JOHN PETERSON & SON, Scandinavia, Wis. 19-*

Serviceable Guernsey bulls for sale. Records 500 to 675 lbs. New sale list. HOMER RUNDELL, Linwood Farm Guernseys, Livingston, Wis. 18-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Guernsey Bulls, serviceable age, exceptional breeding. See ad on page 978. DALE RUNDELL, Livingston, Wis.

Registered Guernseys for sale. Both sexes. A. R. breeding. ROY BURTON, Eagle, Wis. 17-*

Registered Guernsey Bulls. Serviceable. FRANK KLEMM, Baraboo, Wis. 19-5

15 Registered Jersey cows and heifers, freshening this fall. Bred for production. Accredited herd. THEO WEHRLE & SONS, Fennimore, Wis. 18-2

For Sale—Brown Swiss bulls. Registered stock. Born November, January, April. Also few cows. FRED A. RECTOR, Elkhorn, Wis.

Registered Brown Swiss bull 3 years old. Good type. Gentle. Seal brown. Well bred. Priced right. L. R. RICHARDS, R. 6, Webster City, Iowa.

Ayrshire Registered males 4 to 10 months. Sired by line bred Cavalier. OTTO WESTPHAL, Kendall, Wis.

For Sale—Two fine registered Ayrshire cows. H. D. STEWART, Monroe, N. C.

LIVE STOCK WANTED

Responsible party with plenty of feed wants to buy for cash or 3 yrs. time about a carload of Holstein milk cows, from 2½ to 7 yrs. old. Fresh or be fresh soon. Address NEBRASKA BOX 528, care Hoard's Dairyman, Ft. Atkinson, Wis.

Wanted—Registered Holstein bull calf, 6 months to one year old. Give all details in letter. LUKE B. B. SCHMIDT, Elizabethtown, Ky.

Wanted—Registered open yearling heifers, Holstein. Must be cheap. GUY A. LEE, Greenfield, Iowa.

STOCK BUYER

Choice dairy cows, selected for the careful buyers by the dairy cattle specialist. F. B. GREEN, Evansville, Wisconsin. 16-10

HORSES

For Sale—Running bred horses, colts all ages. Few have been racing. Fine under saddle. Sired by world's greatest thoroughbreds. Reasonable prices. CHAS. W. O'NEILL, Bridgeport, Wisconsin.

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 75 cents for one cow, $2.50 for five cows, postpaid. East of Rockies 8c per cow extra postage. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 17-*

POULTRY

Single Comb White Leghorn yearling hens. Priced low. Large or small lots. JOHN HASS, Bettendorf, Iowa. 18-5

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Welsh Shepherd pups. Mother imported. $10.00 each. MAPLE GROVE FARMS, Pope Mills, New York. 18-3

White Collie puppies for sale. Born July 2. From a registered pair. WERNER STOLL, Howard Lake, Minnesota.

Hundred Hunting Hounds cheap. Supply catalogue. KASKASKENNELS, AW87, Herrick, Ill. 17-4

Police Pups, 3 months, reddish brown male or female $12.50. VERN. HOWARD, Granton, Wis.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

MACHINERY

For Sale—Farm Light Plant, 1¼ KW, 32 volt, starts pressure button, stops automatically, costs dollar month to operate; oversize batteries, pulley on plant to operate churn, pump, etc. Like new. Cost $600; price $150. LEE, 227 S. Eagle, Naperville, Ill.

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For Sale—Empire Milker outfit, two double units, slightly used, complete with vacuum pump. First check for $125.00 gets them. Address BOX 513, care Hoard's Dairyman.

DeLaval Milk Clarifier No. 98, used one season, like new. $65.00. New Mellotte 740 lb. cream separator. 20% discount. F. JULIUS, Stockton, Ill. 18-2

Two-Unit Hinman milker with equipment for ten cows in one row. Good as new. $100. Address BOX 483, care Hoard's Dairyman. 18-*

For Sale—Double unit Empire milker, first class shape, $110.00 complete. Address BOX 527, care Hoard's Dairyman.

For Sale—2 unit extra pail No. 43 pump De Laval milker, complete pipe, accessories $135.00. Address BOX 525, care Hoard's Dairyman.

For Sale—3 unit Hinman, used six months, extra pail, 30 cow. $115, address BOX 526, care Hoard's Dairyman.

For Sale—New Pine Tree vacuum pump, tank, cocks. Never used. FESSLER FARM, Arlington Heights, Illinois.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 19-4

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Middletown Road, Muncie, Ind. 21-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. ALBERT MILLER & CO., 192 N. Clark St., Chicago, Illinois. 14-*

Alfalfa and Clover Hay for Sale—Ask for delivered prices. HARRY GATES COMPANY, Jackson, Michigan. 17-*

Shippers inspected graded hay; dairy alfalfa, clover, timothy, prairie and straw. CALLIARI BROTHERS, Green Bay, Wis.

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-tf

Alfalfa and Prairie, delivered prices. SUTTIE-PECKHAM CO., Omaha, Nebr. 19-6

Hay and straw for sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 19-4

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

SALESMEN WANTED

Fly Spray salesman December 1st in Michigan, Indiana, Illinois, Ohio and Wisconsin. A high grade proposition with a corresponding remuneration that should attract men desiring a permanent and profitable business connection. UNION MINERAL & SUPPLY CO., First National Bank Bldg., North East, Pa. 19-Spl

Sell Stock Feeding Molasses to feed dealers and farmers. Must have auto. Good proposition. Address FEDERAL FEED PRODUCTS CO., Box 1221, St. Louis, Mo. 19-2

Salesman Wanted to sell a quality mineral feed. FREED PERRY, 503 W. Elk, Freeport, Illinois.

AGENTS WANTED

Agents—We start you in business and help you succeed. No capital or experience needed. Spare or full time. You can earn $50-$100 weekly. Write MADISON CORPORATION, 564 Broadway, New York. 18-11

TOBACCO

Homespun Tobacco—Guaranteed good flavor. Chewing 5 lbs., $1.00; 10, $1.75., Smoking, 5 lbs., 75c; 10, $1.25. Pay when received. FARMERS' UNION, Mayfield, Kentucky. 18-2

Special Offer—Smoking 5 lbs. $1.00; ten $1.75; cigars 50 for $1.95. Pay when received. Money refunded if not satisfactory. FARMERS' ASSOCIATION, West Paducah, Ky. 19-2

MISCELLANEOUS

Farmer's Wool—Made into blankets, batting and yarns at fair prices. Send for circulars. MONTICELLO WOOLEN MILLS, (Estab. 1866) Monticello, Wisconsin. 17-4

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

FARMS FOR SALE

Strout's New Fall Bargains. Farms, harvested crops, stock and tools. New supplementary catalog, the pick of farm values in many states. Illustrated, interesting, vital information for farm seekers. It tells of farms with sleek contented cattle, towering timberlots, convenient cozy homes, of barns crammed with crops, of cellars filled with barrels of potatoes, fresh vegetables, apples, canned fruit and vegetables, a sumptuous winter's living. On page 9 there's a money-making dairy farm, 161 acres, buildings insured for $7000, personal property valued $3500 and price completely equipped only $6600 including 20 cows, horses, bull, hens, sow, pig, dog, full equipment, about 70 tons hay, 300 bus. oats, 100 bus. wheat, ensilage, potatoes, apples, vegetables, 25 cords wood, furniture, etc.; splendid home, 80 ft. basement barn, convenient everything; month's milk check $313; lifetime chance, only $2500 cash needed. Hundreds others, all prices and all bargains. Write today for free catalog. STROUT AGENCY, 255-DL, 4th Ave., New York City.

River Farm For Sale—Consisting of about 200 acres river flat, about 200 acres spring watered pasture. In high state cultivation. On state road. Route No. 51. Grade A creamery on farm. Within 4 miles of 3 Grade A plants. ⅛ mile from R. R. station, high school and churches. 15 room house, all improvements including hot water heat. Main barn 120 ft. long, concrete floor, water buckets and 80 stanchions. No. 2 barn, 22 stanchions. Calf barn concrete floor. Horse barn, shop, garage, ice-house, milk house, 2 story hen house, lumber shed and 2 hay barns on flat. Spring water in house, barn and horse barn. Buildings in A No. 1 condition. Worth $35,000, insured for over $25,600. Will sell on reasonable terms for $75 per acre. Possession given any time after Nov. 1. Farm considered best in Delaware County. H. S. HALL, (owner), Stamford, Del. Co., New York.

We Want More Factory Patrons. Mason County, Mich., admirably adapted to dairying, offers many inducements to new settlers. Low priced farms are still available. The largest cheese factory in the State is located in this county. Operating twelve months in the year, it provides an outlet for your milk at remunerative prices. Investigate the possibilities of this county before locating elsewhere. We have no land for sale but will be glad to assist prospective buyers in finding satisfactory locations. For further information, write to Dept. A, KRAFT CHEESE CO., Scottville, Mich. 18-4

West Louisiana and East Texas. Unusual attractions to parties seeking locations for general farming, stock raising, dairying, poultry raising, fruit and commercial truck growing, opportunities for business in manufacturing and mercantile lines are to be found along the Kansas City Southern Railway. Write for a free copy of Louisiana and Texas booklet to J. F. NEWSOM, Agricultural Development Agent, Room 414, Kansas City Southern Railway Building, Kansas City, Mo.

175 Acre Dairy Farm. $2000 down and 100 lbs. milk a day for 9 years pays balance, no interest. Almost 100 acres crop land, balance pasture and timber; on improved road, bordering lake, can sell camp sites. If taken soon, 20 tested cows, team, tools and part of crops included by owner who must soon devote all time to other business. Send for picture of splendid buildings. W. H. MAYNARD, Strout Agency, P. O. Bldg., Canastota, N. Y.

Dairying Opportunities—Bargain priced farms in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon suitable for intensive dairying from standpoint markets, climate and feed crops. Free literature and settlement service. Write mentioning state. H. W. BYERLY, 117 Northern Pacific Railway, St. Paul, Minn. 19-4

Dairy Ranch—One of the best in the famous Palo Verda Valley, 160 acres $125.00 acre. With or without equipment. Come to Southern California where there is green pasture the entire year and dairying is a pleasure. I am 68 and going to retire. JOSEPH BULLER, Ripley, Riverside County, Calif.

For Sale—Near a fast growing city in one of the best farm counties in the South—18 acres near city $4000; 46 acres, $10,000; 79 acres, $8000; 135 acres, $9000; 330 acres $20,000. Easy terms. Write for description. H. D. STEWART, Monroe, N. C.

Dairy Farm—Mild climate. School ½ mile. Inexpensive college two miles. Two houses, barn, silo, unfailing water, 140 acres, 40 acres woods, 100 fruit trees. No commercial dairy in village. $5000 down, $3000 in year, $3000 in two. DR. RAINE, Berea, Ky.

Jasper, Missouri, 135 acre dairy farm 1½ miles from milk condensery and Kansas City cement highway. Must sell, improvements exceed price $20,000. Terms. JOHN NEVITT, Carthage, Mo. 17-4

For Sale—To settle estate. Finest stock and dairy farm in Wisconsin. 198 acres rich corn land. Located in Grant County. CHAS. W. O'NEILL, Bridgeport, Wisconsin.

125 acres well improved and located. Prairie lime alfalfa, clover, corn, oats, cotton, live stock farm. Only $5,000.00, terms. Write H. H. HANSEN, Macon, Mississippi. 19-2

For Sale—Established wholesale dairy and farm. 70 head cattle. 50 milking. 150 acres excellent land. FRANK W. COLE, 1970 Higbee, Memphis, Tenn. 18-2

Genuine Bargains. Improved Wisconsin farms. Very easy terms. Only $25.00 per acre. Consider exchanges. HARDY-RYAN, Waukesha, Wisconsin.

For Sale by owner, choice 160 acre dairy farm in Ozarks. Greene County, $70 acre, terms. CLIFFORD FARMER, Pearl, Mo.

For Sale—43 acres extra for dairying. State accredited high school, and churches only three blocks. AUG. MAHNKEN, Smithton, Mo.

For Sale—280 acre fertile dairy farm in clover belt. A bargain. V. H. JOCKISCH, Greensboro, Ala.

FOR RENT

Wanted—Farmer and dairyman with some capital and with his own help to operate 360 acre dairy and grain farm. Farm completely equipped including milking machine, Delco lighting system and all necessary machinery. 50 head of registered Holstein-Friesian cattle, from which $10,000 worth of milk is sold, largely at wholesale, annually. One of the best advertised farms in the state. A liberal proposition to the right man. Write today to W. H. MOTT, Herington, Kansas. 19-2

Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. Go now and see the harvest. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

Wanted—To hear from a man who is capable of running a two hundred acre farm, on shares. All in good state of cultivation, have cut one hundred tons of hay this season, have twenty acres of corn, twenty-five acres of oats, also other crops. Tractor, horses and all machinery. Farm will handle sixty cows and is located near Scranton on State road. Man must be able to furnish some stock. F. E. PAYNE, Dalton, Lackawanna County, Pa. 18-3

Wanted—To get in touch with a dairyman of ability and financial means to operate high class dairy. Big demand for good milk at high prices. Pleasant, healthful all year climate. Wonderful opportunity right man. Write for details. TOMOKA FARMS, Inc., Daytona Beach, Fla.

For Rent—130 acre dairy farm, fifty-fifty basis, 50 miles N. W. Chicago. Possession March 1, 1928. Holsteins. Federal supervision. Milk $2.50 hundred. 3.5 test. Excellent improvements. Barn for 30 cows. References and experience. Address BOX 522, care Hoard's Dairyman.

For Rent—200 acre dairy farm, money maker. W. K. FREUDENBERGER, Columbia, Mo.

DAIRIES

For Sale—Dairy route 350 milk also cream and butter, 35 milk cows, dairy equipment consisting of milking machines 3 units, cooler, separator, bottler, washing vats, steamer, built in refrigerator, boiler, milk house complete with all plumbing, water system, electricity. In city limits of town of 5000, near Twin Cities. Address BOX 515, care Hoard's Dairyman. 19-2

For Sale—Controlling interest with manager's position in modernly equipped milk and ice cream plant in best dairy section in Florida. $8,000. Address BOX 499, care Hoard's Dairyman. 18-2

WANT TO RENT

Want to Rent—Good farm with 20 cow... Fully equipped, close to good town, no d... sidered, must be good money making farm... enced farmer, married, small family. Exc... erences. State full particulars in first lett... ANDERSON, Box 237, St. Louis Park, M...

Experienced dairyman with three boys, t... thirty Holsteins, desires long lease, cash or... modern dairy farm, Chicago milk district... Might sell and buy. Address BOX 517, ca... Dairyman.

Thoroughly experienced Agricultural Coll... ate, married, wants to rent or manage we... and stocked farm. PAUL THATCHER, Day...

EXCHANGE

Have several farms for exchange for Eas... Some for western. WALTER MILLER, ... Bldg., Milwaukee, Wis.

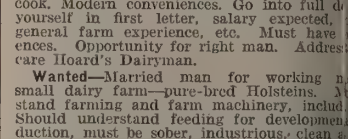
LUMBER

Guaranteed lumber and shingles sold d... saving! Ask for estimate. KENWAY ... COMPANY, Tacoma, Washington.

TESTERS WANTED

Iowa Cow Testing Associations need tes... ary $900 per year and up, plus board. ... courses offered. Give age, experience, refe... letter. DAIRY EXTENSION, IOWA ST... LEGE, Ames.

Testers Wanted for cow testing asso... North Dakota. Give experience and referen... CHALLEY, State College Station, Fargo, N...



Advertising in this department is 8c p... Remit in advance.

HELP WANTED

Herdsman—Reliable married couple, betw... 45, no children, man as working forema... barns and dairy, and take entire charg... herd, 40 to 60 head on farm in Michigan... thoroly experienced feeds and feeding, c... A. R. work, etc. Wife to keep from or... boarders, must be neat, orderly housek... cook. Modern conveniences. Go into full d... yourself in first letter, salary expected, ... general farm experience, etc. Must have ... ences. Opportunity for right man. Address ... care Hoard's Dairyman.

Wanted—Married man for working n... small dairy farm—pure-bred Holsteins. M... stand farming and farm machinery, includ... Should understand feeding for developmen... duction, must be sober, industrious, clean a... interest in the work. State experience and... pected in first letter. References required... 942 LOWRY BUILDING, St. Paul, Minn...

Wanted—Young married man by Decembe... reliable and able to do any part of the w... dairy farm producing and retailing 150 ga... A milk. Will also have job open on mil... the right man that can qualify and give ... Apply with references, salary expected to ... care Hoard's Dairyman.

Wanted—Herdsman to take complete c... grade Guernsey herd of 200 cows. Must ... production, be capable with men and reli... to have charge of boarding house for dair... sition open at once. MARA ALVA DAIR... Smithville, O.

Wanted—Boy from 15 to 20 years, to h... route. Must be able to read and write, ... with clean habits. $30, room and board, ... advancement to right boy. Work about ... day. STANDARD DAIRY, R. 1, Dixon, ...

Wanted by October 15, married man to ... dairy herd. Must be experienced in mach... one who can handle 35 cows. Wages $100 ... house and milk furnished. RIETZ DAI... Rietz, Harlowton, Mont.

Wanted—A reliable married man capab... ing a dairy farm, with 19 Guernsey cows, ... ing an extra man. Apply to A. C. ESC... 210 Mason Street, Milwaukee, Wisconsin.

Wanted—Three good dry hand milkers ... large modern dairy farm. One of the ... willing to care for dairy work. REYMAN ... IAL FARMS, Wardensville, W. Va.

Wanted—Able and competent cook f... house on dairy farm. Might use couple if ... milker. Forty per month. Modern ... MINIBORYA FARMS, Drewry's Bluff, Va...

Wanted—Single, dry hand milker to h... of certified cows, using milker. Good wag... man. IOWANA FARMS, Davenport, Iow...

Wanted—Milk wagon driver. State ex... give reference. Do not answer unless yo... duce results. FAIRWAY DAIRY, Hallandal...

POSITIONS WANTE...

Position as Dairyman wanted by our fo... ager, G. P. Johnson, Woodside, Pa., who ... of employment because of the destructio... our dairy. This efficient foreman has al... exceptional ability and judgment in carin... in handling men, and in cooperation with ... ers and the medical inspectors of a ce... which, largely because of his efficiency, ... produced the best-scoring milk in the s... advertisement is inserted without the k... Mr. Johnson, as a testimony of the rega... he is held by us. Further information wi... given upon request. EDGEWOOD DAIR... Heacock Co., Proprietors, Wyncote, Pa.

Situation Wanted—Married man, age 31... holding responsible position in large cit... break away and locate on large farm. ... work for small wages under pleasant con... tions. Have two small boys. Will make ... later if desired. A 1 reference furnishe... BOX 514, care Hoard's Dairyman.

Position Wanted by Hollander in a fi... No bad habits. Lifetime experience with ... perienced in milking test cows. Will furn... ences on request. State wages and particu... letter. DEWEY TER'STRA, care Geor... Schaaf, Sparta, Wisconsin, R. 4.

Wanted October 15—Position as herdsm... ager large dairy. Age 35, married, no c... teen years' experience in North and So... place stressing A. R. work. Address BO... Hoard's Dairyman.

Wanted—Position as tester for cow test... tion with monthly salary of $100.00. Has ... experience. Excellent references. Good ... dress BOX 519, care Hoard's Dairyman.

Married Man, small family, desires ... Pennsylvania as farm hand, milker or cal... perienced. G. LAWTHER, care D. A. ... 104, Summerhill, Pa.

Wanted—Position as manager of mode... farm. Married, lifetime experience with ... hogs and poultry. College training. Ad... 529, care Hoard's Dairyman.

Position Wanted—As herdsman. Expe... ducing high grade milk, handling pure-... testing, keeping accounts and records. Be... JOHN BOHRNANN, Saint Charles, Ill.

Capable Herdsman wants position. Life ex... first class milker, married, 28, have one ... wage. Good reference. Address BOX 51... Hoard's Dairyman.

POSITIONS WANTEL

November 1st—Position as herdsman or intendent. Prefer Kansas City or Lawrence Reference from present employer. W. H. Route 4, Independence, Kansas.

operator—Aggressive; scientifically abreast; ienced; qualified for profit farming or suc- ate management. College graduate. Address care Hoard's Dairyman.

superintendent with son 22. Wife board milkers. Competent. Mechanic. C. A. Box 16, Java Village, N. Y.

A farm manager desires large farm propo- lary, cash rental, or share. BOX 523, care airyman.

aged, competent, energetic herdsman and Single. Best of references. Address BOX Hoard's Dairyman.

Lady wants position as housekeeper. Can ference. Address BOX 520, care Hoard's 19-2

per position wanted by Danish lady. Wis- ddress BOX 521, care Hoard's Dairyman.

and girls! Why not join the Dairyman Juniors' Club? It's Write us for further information.

WANTED!
Livestock Man

each community to establish and vise advanced feeding methods mended by Agricultural Stations. know livestock; no other experi- necessary. We give dual instruction and ng gratis. Appoint- at good pay for or all time now be- made. Write, stating age, experi- present occupation and referenc- This may be a position of great rtance to you. Write TODAY.

GOOD PAY

URPHY PRODUCTS CO.
DEPT. 100
LINGTON WISCONSIN



MEN AND BRAKEMEN WANTED
oads nearest their homes—EVERYWHERE. unnecessary. Beginners $150, later $250 Permanent employment. Also Clerks want- position?). RAILWAY ASSOCIATION, ox 524, care Hoard's Dairyman.

Eastern States Exposition

(Continued from page 969)

side may have thought her lacking in extreme dairy type but her record of 995 lbs. butter in a year hardly supports such a criticism. She made a very acceptable senior and grand champion.

Elmwood took the 4-year-old class with Oakwood Piebe Ollie and headed the two-year-olds with a daughter of Forum Patriarch. In the 3-year-olds the Overbrook Holstein Dairy headed the line with a big daughter of King Sweet, not as smooth a heifer as she might be but a good one with a first class udder.

Elmwood's heifer calf, Black Pearl Ormsby Korndyke, was the outstanding junior. She is right in bloom and carries an unusually capacious body without spoiling her back line.

H. E. Robertson of Pennsylvania headed the get of sire line-up with a 2-year-old bull and three heifers by King Piebe of York, an undefeated group thus far this season.

[EDITOR'S NOTE—We regret the remaining photographs of the Eastern States Exposition did not reach us in time for publication in this issue.]

"Talking Cow" Proves Rare Phenomenon

"The Talking Cow" promises to be one of the sensations of the National Dairy Exposition at Memphis, October 15—22. "The Talking Cow" will be a true-to-type size Jersey and will tell her story in simple language. She will be a rare phenomenon, answering questions, explaining how she should be cared for, fed and milked for the best production. "The Talking Cow" will be a part of the "Dairying in Dixieland" exhibit. Eleven southern states will show here the progress and possibilities of dairying in the South. Dairy extension specialists of five southern states are preparing a central educational exhibit around which will be grouped the individual state exhibits. The change in conditions in the South since the coming of the dairy industry will be graphically pictured.

Killing Canada Thistles

HOARD'S DAIRYMAN:—I notice your comments on Canadian thistles in a recent issue.

If the Canadian thistle is cut three times a year for three years it is gone; in fact if cut three times one year there will be very few of them to cut the second year. If you can get a stand of alfalfa you will see very few plants in the hay after the first cutting.

Oregon. C. L. SMITH.

Judging Dates

National Dairy Exposition

Tuesday, October 18—Jersey cattle judging begins at 9:00 a. m.

Wednesday, October 19—Ayrshire and Brown Swiss judging begins at 9:00 a. m.

Thursday, October 20—Guernsey judging begins at 9:00 a. m. Holstein judging begins at 1:00 p. m.

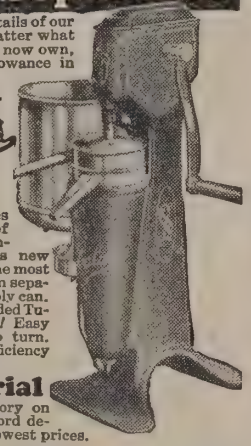
Friday, October 21—Holstein judging completed.

We know of instances where dads are working their sons' way through college.—Exc.

$20 For Your OLD Separator

Write today for full details of our startling offer. No matter what make of separator you now own, we'll give you $20 allowance in exchange for

The New Sharples



The greatest Sharples separator in 46 years of business! Wonderful improvements make this new Tubular model easily the most serviceable of all cream separators. Hip high supply can. Self-balancing, suspended Tubular bowl—*No Discs!* Easy to clean; so easy to turn. Highest skimming efficiency—larger cream checks.

30 Days Trial
Now direct from factory on 30 days' trial—your word decides. AND at new lowest prices.

Free Catalog *WRITE NOW!*

Stop losing cream with a worn out separator. Wonderful opportunity now to get the best of all separators on a liberal trial offer direct from factory. Find out about the amazing new Sharples. Catalog and full details sent free and without obligation. Write *now*.
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BULLS For Sale

We have young bulls of serviceable age and some yearling heifers of the famous

COUNT-PIEBE
breeding
Some outstanding individuals from
High Record Cows

These animals are priced to sell quickly. Write us for pedigrees. You cannot beat our price or quality.

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PRIVATE DISPERSAL SALE
20 MALES —OF— 40 FEMALES
SOPHIE TORMENTOR JERSEYS

The entire Whinn Farm herd and our one-half of females in the Whinnery and Heberding herd are for sale, without reserve. The progeny of Silver and Gold Medal bulls. Females with Silver; Silver and Gold; Silver, Gold and Medal of Merit Medals to their credit. Some State and National Champions for production, they and their progeny for sale. A sale list sent upon request. Tabulated pedigrees showing a wealth of production for each animal.

WHINN FARM, SALEM, OHIO

It Milks the Cows CLEAN



You *can't afford* To Milk by Hand

WOULD you go back to the hand scythe or cradle? No! And you can't afford to milk by hand any more than you can afford to mow your hay with a scythe or cut your grain with a cradle. And why should you be tied down to a never-ending grind—twice a day, seven days in a week, when thousands upon thousands of farmers have taken the drudgery out of dairying and increased their profits at the same time with a Burrell Milker. It will milk your herd so much quicker, better and more safely than hand milking. And, with the Burrell Milker, the work of hand stripping is also eliminated—*It Milks the Cows Clean.*



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Every cow owner needs it—whether he is now milking by hand or machine. It's not a mere catalog, but a 32-page profusely illustrated book which is a guide in both selecting and using a milking machine—backed by 67 years' experiment and experience. You owe this book to yourself. It's *free*. Send for it now.



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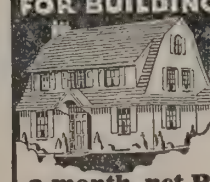
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With patented Rib Point and Double Bar Lock. They are superior to others. Cost no more. Attached in one operation. They are guaranteed.
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We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

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and MAKE $1000 to $1500 a month, net Profit, *and have a* permanent business of your own

READ THIS. Five years ago a man in Indian Orchard, Mass., had a sand hill but hardly any money. We showed him how to make concrete masonry in large quantities with our automatic machinery. Today he operates four big automatic machines, and makes from $40,000.00 to $50,000.00 a year. We have hundreds of similar cases, where our big-production, automatic masonry machines have made fortunes for their owners.

START NOW. Concrete masonry is crowding out lumber and clay brick for building. It is cheaper, stronger, more weatherproof and fireproof and lasts forever. Demand for machine-made concrete masonry now bigger than the supply. Now is the time to get into this fine and permanent business **right.** Our engineers make it easy for you. Don't let another beat you to it in your town.

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Write for our FREE book, "Opportunity" Today. Use this coupon. Print name and address plainly.

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Dispersal!--34 Registered Holsteins

TUESDAY, OCTOBER 11th, at 1 P. M.

aughters and Granddaughters of Sir Pietertje Pauline Pontiac, the -lb. son of Maplecrest Application Pontiac, whose dam gave 1344 s. of butter in a year, from highest record cows in former Senator aac Stephenson's herd; all cows and heifers bred to Pabst Prilly oner Segis, son of King Segis Alcartra Prilly from a good yearly cord daughter of Creator.

Federal Accredited, Clean Herd

. M. J. VEA STOUGHTON, WIS.
SALE AT FARM, ONE-HALF MILE SOUTH OF STOUGHTON

SALE ANNOUNCEMENTS

—Holsteins. M. M. J. Vea, Stoughton, Wis.
2—Ayrshires. Consignment Sale of Edgerstoune and Monstone Farms Ayrshires at Springfield, Mass. J. G. Watson, Sale Mgr.
2—Holsteins. A. M. Brush & Son Dispersal 60 head Registered Holsteins at Mankato, Minn. Melin—Petersen Co., Sale Mgr.
2—Guernseys. Beardsley Farm Dispersal, Wooster, Ohio. Ohio Guernsey Breeders' Ass'n., Sale Managers.
2—Holsteins and Guernseys. O. G. Clark & Co.'s Grade Sale, Fond du Lac, Wis.
2—Holsteins. Clark Co. Fall Sale, Neillsville, Wis. J. Wuethrich, Mgr., Greenwood, Wis.
0—Guernsey Dispersal. Spillers & Executrix, Versailles, Ohio.
0—Guernsey Dispersal. O. K. Spires, Burlington, N. D.
2—Holsteins. St. Martins, Wis. Milwaukee Holstein Breeders' Ass'n., J. C. Sargent, Secretary.
4—Holsteins. Iowa Holstein Breeders' Association sale at the Dairy Cattle Congress grounds, Waterloo, Iowa.
4—Jerseys. The Miller Jersey Farms, Eaton Rapids, Mich.
6—Holsteins. Sixth State Sale, Michigan State College.
6—Holstein. Dairy Center Sale at Owatonna, Minn. Melin—Peterson Co., Sale Mgrs.
7—Chippewa Falls, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
8—West Salem Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
9—Mauston, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
—Reedsburg, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
1-2—Holsteins. Dispersion of Loeb Farm Holsteins at Grand Rapids, Mich. Melin—Petersen Co., Minneapolis, Sale Mgrs.
—Madison, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
3—Guernseys. Wisconsin State Guernsey Sale at the Sale Pavilion at Waukesha, Wis. Gavin W. McKerrow, Sec'y., Pewaukee, Wis.
—Holsteins. J. H. Burr's herd at Aurora, Ill., Illinois Holstein-Friesian Ass'n., Mgr.
—Lake Mills, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
—Barneveld, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
3-9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H. Bird, Mgr.
15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.
16—Holsteins. O. G. Clark & Co. pure-bred Holstein sale, Fond du Lac, Wis.
17—Holsteins. O. G. Clark & Co. high grade Holstein sale, Fond du Lac, Wis.
30—Guernseys. La Crosse Co. Guernsey Breeders' Sale at West Salem, Wis. H. W. Griswold, Sale Mgr.
23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florham Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
4-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herrick —Merryman Sales Co., Mgrs.
26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hopewell Junction, New York.
7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.



Swine

Pennsylvania Moves to Prevent Hog Cholera

To prevent the spread of hog cholera in Pennsylvania the department of agriculture of that state has issued a new regulation effective September 1, setting forth how swine shall be transported into the state, how they shall be handled within the state, how sales may be made, and how dead swine shall be disposed of.

Space does not permit publishing the regulation in detail. The chief objectives are: (1) to prevent shipping the disease into the state; (2) to prevent shipping diseased swine within the state; (3) to guard against the possible transmission of the disease through the sale and movement of breeding animals; (4) to compel the proper and safe disposition of hogs that have died of hog cholera.

For years we have considered the promiscuous transportation of swine without regard to the possibilities of starting new centers of infection as a great menace to the proper control of the disease. Pennsylvania is working in the right direction by enforcing a good regulation.

How to Know and Treat Swine Mange

Two decades ago swine mange was not considered a serious parasitic disturbance. Today it has become so widespread that the damage is reaching the killing floors of meat packers. Not only this, but more feed is required to produce 100 lbs. of live pork in infested herds.

Swine producers will do their pocketbooks a favor by carefully inspecting their herds at this time of year for evidences of mange. The disease is more severe and the symptoms more pronounced during the winter season.

The symptoms are first seen in suckling pigs. They scratch and dig at their sides, fore flanks, and neck with their hind feet and do a lot of rubbing on convenient objects. The hair stands erect, the coat is rough, thick scabs form in the region of the withers, top of neck, and about the ears and face. As the disease advances the skin becomes wrinkled.

The cause of swine mange is a very small mite parasite which burrows in the outer layer of the skin. Superficial treatment does not effectively reach them. The young mites hatched from eggs go through the various stages of development in the outer layer of skin.

Swine mange is spread by direct contact with an infected animal or by contact with infected quarters. To treat the skin of infected animals and not clean up the sleeping quarters is but to play with the control of the parasite.

The treatment consists in the external application of substances that will reach and kill the parasite without injuring the animal together with the disinfection of sleeping quarters so the animals will not become reinfected. Good care and proper feeding also have a part in helping infected pigs grow in spite of the handicaps.

One of the most efficient and economical remedies, where it is necessary to treat quite a number of animals, is the lime and sulphur dip. A recommended formula calls for 8 lbs. of fresh lime, 24 lbs. of flowers of sulphur, and 100 gallons of water. The lime is slaked with sufficient water to form a thick paste. The sulphur is sifted in and mixed well with a hoe. This mixture is boiled with 25 to 30 gallons of water for one to two hours. When ready to use add enough water to make 100 gallons of dip. The dip should be used warm—100° to 110° F. (The boiling should be done out of doors to avoid disagreeable odors in the house.)

Simple Mineral Mixture for Fall Pigs

The veteran experimental feeder at the Iowa Experiment Station, John M. Evvard, has the following to say about a simple mineral mixture for fall pigs:

"It is surprising how well a simple mineral mixture will usually respond in the swine feeding lot. It is surprising that even common salt may give results that are greatly superior to those obtained where no salt is fed. A simple mixture of salt and wood ashes often yields wonderfully good results. Of course when we use salt and wood ashes we have a mixture that carries a number of essential nutritional elements, chief among which are calcium, potassium, sodium, phosphorus, and magnesium.

"A very good, simple 'backbone' mixture which carries the outstanding and main deficiency elements such as are needed to balance up our ordinary feeds may be made up per hundred pounds as follows: Hard wood ashes, 60 lbs.; spent bone black or bone charcoal, 25 lbs.; common salt, 15 lbs.; potassium iodide, 0.02 lb. (two one-hundreths or one-fiftieth of one pound.)

Comparing Spring and Fall Pigs

After completing some swine feeding experimental comparisons at the Minnesota Experiment Station, E. F. Ferrin made the following summary with respect to the comparison of spring pigs with fall pigs:

"Fall pigs are more difficult to raise than spring pigs, but when handled carefully they are at least equally profitable. A greater variety of feeds is necessary to grow fall pigs successfully because green crops are not available. Fall pigs make as rapid gains when well housed and handled as do spring pigs. The amount of feed required to produce gains was practically the same for pigs farrowed at the two seasons. Cheaper gains were made by fall pigs because feed costs were lower in winter than in summer. Fall pigs sell at higher prices than do spring pigs. If brood sows are kept for the production of more than one litter a year overhead feed costs are reduced."

Supplemental Mixture for Winter Feeding

Where skimmilk or buttermilk is not available for feeding in limited quantities along with tankage, the combination of tankage 2 parts, linseed meal 1 part, and alfalfa meal 1 part provides an effective supplement to corn or other grains for pigs in winter or dry-lot feeding. Pigs weighing from 50 to 100 lbs. should have about a half pound daily of the supplement together with corn self-fed.



Zinc Insulated

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Livestock is protected; crops are safe; when you use good fences. Years of experience have enabled us to make fences of exactly the *right* steel insulated with a heavy uniform coating of zinc for long service.

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With every roll of our fence your dealer will give you our written guarantee that it will outlast or equal in service any other fence now made, of equal size wires and used under the same conditions.

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Fine-flavor meats



sell well
keep well when you
Diamond Crys

FARMERS who are increa their incomes each fall marketing home-cured m have learned that the deman their products depends lar upon the flavor.

A sweet, fine-flavored r sells readily and at a profit price. But to be fine-flavored appealing to the palate, it be properly salted.

Diamond Crystal Salt does —and more. It protects ag spoilage. You can rest ass that the cure will be succe with Diamond Crystal. It p trates the meat to the very b bringing out the natural flav the fullest. And because it is and mild, it leaves no str salty taste to obscure the fl Use it this fall and see the ference it makes.

There is a Diamond Cr Salt for every farm use—for ing meat, for table and for c ing, for livestock, for canning butter and cheese-making. for Diamond Crystal at the where you trade.

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We should like to send you the esting booklet, "How to Butcher and Cure Pork." No cost or tion. Write today.

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ones explains how he is easing the membership certain smoking club

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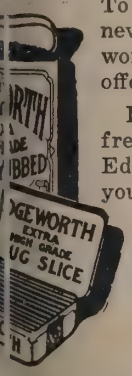
aternal spirit that exists be- pe smokers evidently spreads ne seven seas. And to help it dgeworth is on sale in almost untry in the world—quality or exactly as you find it in n home town.

what the gentleman in South a says:

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or Crafers P. O.
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South Australia
November 18, 1926

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ing been a smoker for the past -six years, I have never come any tobacco to compare with dgeworth. It is a pleasure to does not affect the health in ay whatsoever, and is most cool- d tasty to the palate.
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e more I say it is a tobacco fit yone to smoke.
Yours faithfully,
W. A. Jones

okers prefer Edgeworth for reasons. Some like it because ty never changes. Some like e of its flavor. Others smoke se they can buy it wherever never they like. Perhaps af- try Edgeworth you will dis- ll another reason for the pop- f this tobacco.



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Let us send you free samples of Edgeworth so that you may put it to the pipe test. If you like the samples, you'll like Edgeworth wherever and whenever you buy it, for it nev- es in quality.

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adio—tune in on WRVA, Richmond, Va.— orth Station. Wave length (254.1 meters,) 1180 kilocycles.]

VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Udder Tumors

We have been asked whether the udder of the cow ever is the seat of cancerous tumors such as form in the human breast. Fortunately we are able to answer in the negative; for we never have known of a malignant cancer affecting the bovine udder. It is not uncommon, however, to meet with sarcoma in cattle. Large tumors of that sort may form in the connective tissue of the shoulder or thigh and when cut out return and are accompanied by many other tumors, large and small, externally and internally, so that the animal succumbs or has to be destroyed. Such tumors, when advanced, cause lameness and emaciation and the milk of an affected cow cannot be considered fit for use. True cancer (carcinoma) may also be met with in cattle, chiefly in the form of cancer of the eye (fungus hematoids), which is malignant and generally incurable. It does not, so far as we are aware, ever affect the udder, but when emaciation has resulted the milk of an affected cow certainly should be discarded.

When a hard lump is felt in a cow's udder it is usually composed of fibroid, scar, or cicatricial tissue and is not malignant. Such tumors result from severe attacks of germ-caused mastitis (garget), the normal, milk-secreting tissue being replaced by scar tissue which cannot secrete milk. Presence of this tumor should be taken as an indication that the cow has had an attack of mastitis and that recurrence of the attack will be probable and eventually may destroy the function of the affected quarter for sound milk production. It is, therefore, wise to sit down and thoroughly feel or palpate the udder of a cow before purchase and to reject a cow that has a tumor indicative of mastitis. Small, wart-like tumors or papilloma commonly form on the lining membrane of the teats and interfere with milking. They may be felt by rolling each teat in turn, between the thumb and finger. Blood in milk often is traceable to these growths and they are also a common cause of hard milking or the spraying of milk. Their presence is sufficient reason for rejection of a dairy cow.

Other tumors occurring in the cow's udder may be tubercular, or due to actinomycosis or botryomycosis. Of these the tubercular one is, of course, highly dangerous, as the affected quarter may yield milk that teems with the bacilli of tuberculosis. Fortunately, the tubercular tumor is not very common and rigorous testing with tuberculin surely eliminates tuberculous cattle. It may be remembered, however, that tuberculosis of the udder almost invariably is indicated by enlargement and hardening of the large lymphatic gland, located high up at the rear of the udder, and that is easily noticed when making a physical examination of the cow. The actinomycotic tumor is caused by the "ray fungus" which is also the cause of lump jaw in cattle. It is not very common but some of the chronic or persistent sores which form between the halves of the udder occasionally are attributable to the fungus and are difficult to cure. Botryomycotic tumors are similar to those caused by the ray fungus and removal by dissection is the correct treatment for either of these tumors and also for chronic actinomycotic sores.



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More milk, better and cleaner milk. Increased income from your cows and increased net profit. How? Clipped cows is the answer. Hundreds of farmers have proved it to their own satisfaction. And I'll add to that my own iron-clad

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that this STEWART clipper will do everything we claim for it—that it will give you cleaner and healthier cows—more milk! Better milk! More profits! And there's but one small cost—no extras—no continuous expense.

You Can Afford It!

If you're milking four cows or more, you can get your money back in four weeks' time. Others have done it. Ask your dealer or

I'll Send You the Facts—Free

Doesn't obligate you for a penny to learn the experience of others, and the big money-making possibilities for yourself. Write me personally, make me prove it, NOW —A post card will do. *Andy Olson*

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For healthier, happier bulls
For safer, surer breeding!



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Dr. SPENCER'S BULL TAMER

Success in thousand dairies. No harsh feature; eat, drink, pasture and breed just the same. First all purpose control. 30 days' approval. Let us send you all facts.

SPENCER BROTHERS, Inc., Savona, N.Y.



Heaves, Coughs, Condition-er, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail. **The Newton Remedy Co. Toledo, Ohio.**

Blood in Milk

We have a grade Jersey heifer almost three years of age that is giving bloody milk. She was fresh last September and is due to freshen about Dec. 1, 1927. Her milk was all right until about the middle of April it began to be bloody, just enough to show in the cream separator. The milk is not stringy, neither is her udder apparently sore or injured. Do you think this condition can be cured?

Long Lane, Mo. H. D. H.

Set a sample of milk from each quarter of the udder in separate bottles which have been sterilized by boiling. Label each bottle that the source of the contents of each may be known. In that way you can determine which quarter is yielding bloody milk. It may be that a growth in a teat bleeds a little from irritation at milking time. A veterinarian can remove such a growth by operation when it is just inside the outer opening of the teat. If it is located high it would be better to let a calf nurse or to dry off the secretion in that quarter. As you have begun drying off the cow that process should be continued. It is possible that the milk may be normal when the cow calves.

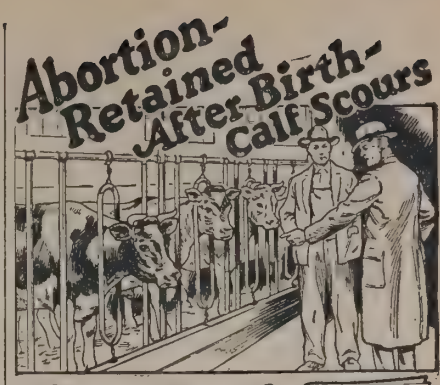
Fouls

There is, th year, a seemingly large number of cases of foul-in-the-foot among the dairy cows through here. Is this disease due to a specific germ or is it an infection due to filth? Can foul-in-the-foot be transmitted from one cow to another just through one cow stepping where pus from an infected cow had been, or is?

St. Charles, Ill. R. Dairy.

Inflammation of the skin between the toes is caused by wading or standing in mud or stagnant water; walking through coarse, wet grass; and

(Continued on next page)



Free Book tells what to do

How to turn losses Cows Calves Poultry Pigs into Profits

For 15 years we have been watching the use of B-K on the farm and checking up our observations with laboratory tests. Our book gives you the results of this vast experience without cost. The book covers:
Abortion is caused by germs of several kinds. What they are and what can be done in prevention and control is told in our book.
Retained Afterbirth—How to reduce adhesions, bring safe, natural removal without manual help, and heal the tissues.
Calf Scours—The cause, how to prevent and save your calves.

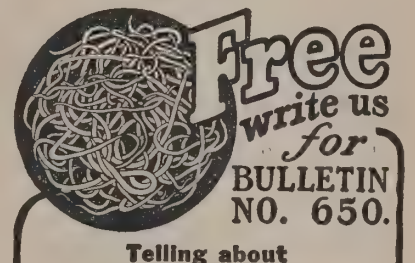
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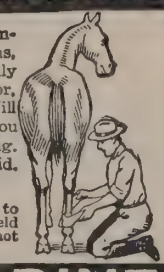
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getting foreign matters lodged between the toes. Lacerations or abrasions ensue and these are invaded by the filth germ *bacillus necrophorus* which causes death of the tissues it affects. Pus forms and burrows. The diseased parts give off a foul smell. Infection may occur in the way you suggest. Isolate affected cows and keep them in the stable while under treatment. Keep the other cows out of filth and wet. Treat by so restraining the cows that their feet may be handled. Perfectly cleanse the feet and cut away all loose or rotten horn of sole or wall and remove lodged foreign matters. Then immerse the hoof, for five minutes, in hot water containing two ounces of bluestone per pint and afterward wrap the foot with sterilized cotton bound in place with a narrow bandage criss-crossed between the toes and then tied around the pastern. Keep the cotton and bandage wet with a mixture of five parts of carbolic acid or coal tar disinfectant, three parts of formalin, and 100 parts of boiled water. When healing is about complete simply apply pine tar two or three times a week.

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RALEIGH'S JOLLY GOLDEN 210509, Tattoo M68. Dropped April 3, 1922, solid color, black tongue, black switch and dehorned. The dam of this bull is Raleigh's Maggie 389426 in R. of M. with 523.7 lbs. of butterfat (616 lbs. of 85% butter) from 10,835.5 lbs. milk. In May, 1922, this cow milked 1826.9 lbs. milk, an average of nearly 60 lbs. per day.

Herd Accredited and Free of Abortion
PRICE $350 F. O. B. Our Station
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RAVINE FARM, Lake Co., PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle
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No. 1—SYBIL'S COMET—A real Star. A Jan., 1927, solid colored bull calf. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Granddaughter (double)—Sybils Gamboge.
No. 2—RENOWN'S ROYAL OXFORD—A March, 1926, solid colored bull of quality and size. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Majesty bred with record of 492 lbs. butterfat.

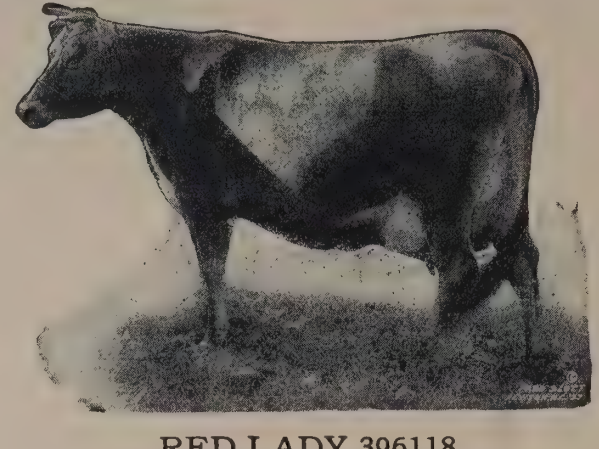
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Dropped Feb. 18, 1927, solid color, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

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We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

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Of Representative Jerseys

Golden Fern's Noble and Fauvic's Prince Breeding.

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Also bull calves and a few springing heifers strong in Vive La France blood lines. Priced to sell. Herd Federal accredited.

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Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

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The dams of our six herd bulls av... 13,797 lbs. milk, 729 lbs. fa...
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ITCHEN KING 49803 AR is the Sire of ... vocator, 126310, 1st prize and Junior Ch... at the N. Y. State Fair. Itchen King ... lb. and one 700 lb. daughters. His Dam... 800 lbs. fat and she has one daughter w... of over 900 lbs. fat. We offer for sale So... King out of AR Dams. Priced at $250. ...
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Stock sired by these bulls for sale. ... quiries to Media, Pennsylvania.

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Bargains in Bull C...

A TWO-CENT STAMP CAN SAV... From $100.00 to $500.0...

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Guernsey Breeders' Journal says ... issue—OUR NEW CLASS LEADE... Silverwood's Diana, 20,006 lbs. ... Sire:—BROOKMEAD'S BANNE...
Sold sight unseen as a your...
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are the reward of the efficient dairyman."

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Pictures {in colors}



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A pair of these reproductions of the Ideal Type paintings will be sent postpaid to any address.
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OUTSTANDING BULLS, all with dams' records over 0 lbs. All are selected as show individuals and here are o examples, of the real breeding:

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Sire, Prince Charming of Shuttlewick 88751 (son of Shuttlewick Levity, 804 lbs. fat Class G.)

Dam, Greta of Linwood A. R. 16776, 16,420.30 lbs. milk; 744.60 lbs. fat Class C.

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Sire, Shoreland Atamannsit Champion 68852 (2 daughters making good records.)

Dam, Guinan's Beauty A. R. 7975, 16,555 lbs. milk; 823 lbs. fat.

For further information, write

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All Farm Equipment

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Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

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PERSISTENT PRODUCTION and REAL ANIMALS

Build up your herd by using a bull calf whose sire and dam come from *persistent* producers and real individuals. Our prices will interest you if you want a REAL Sire.

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our senior herd sire, out of Imp. Elizabeth of St. Croix, 568 lbs. fat Class A. This calf was dropped Feb., 1927, is nicely marked, well grown and has pleasing conformation. Write for pedigree and detailed information. If you want TYPE PLUS PRODUCTION, BUY LADYSMITH'S CHERUB BLOOD.

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Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

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All Grand Championships — All Senior Championships
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Heifers three to eighteen months old. Also a number of cows and several registered bulls. All papers furnished and T. B. tested. Priced reasonable for quick sale. All good type, well bred, and nicely marked.

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OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

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Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

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Six months old show type, sired by the best son of the Famous World's Record Cow, Lone Pine Mollie Cowan A. R. No. 11278, who sold for $15,100 at Stout Dispersal Auction. Dams have A. R. records.

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Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

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Two AR cows 502 lb. and 553 lb. records, one untested cow, and two heifers nine months and one year of age. Good size and types. Cows with calf. Good producers. Herd Accredited and free of Abortion. Prices moderate.

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Linwood's Lucky Strike, age 12 mos. Dam 675 lbs. fat.
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Linwood's Charm, age 12 mos. Grandams 540 G and 740 lbs. fat.
Linwood's Best, age 11 mos. Dam 517 GG, Gr. D. 804 G.
Linwood's Regent, born April. Dam 707 lbs. fat.
Linwood's Actor, born Apr. Dam 744 C, grandam 804 G.
Linwood's Victor, born April. Dam 669 lbs. A.
Linwood's May King, born April. Dam 634 A, grandam 804 G. Write for New Sale List

LINWOOD GUERNSEY FARM,
Homer Rundell, Livingston, Wisconsin

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at this time **HAVE FOR SALE SEVERAL CAR LOADS OF GRADE GUERNSEYS**—cows, bred and open heifers. Pure bred females and choice young bulls of the best breeding.

CHAS. A. WILKINS, Sec., Platteville, Wis.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

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A High Class Bull

A. R. DAM—PRICED TO SELL

CHERUB'S SPLENDOR OF CHIPPEWA is for sale. Born Aug. 15, '26. Growthy, good type. Sire: Proud Prince of the Prairie is a prize winning son of Cherub's Prince. Dam, a Glenwood cow with 415 lbs. fat in F. F. Priced right. Write today.

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GUERNSEY BULLS

— 6 to 12 Months Old —

sired by Prince Charming of Shuttlewick. Dam, Shuttlewick Levity, 804.44 lbs. fat at 2 years or Linwood Leader whose two nearest dams average 826.83 lbs. fat. The last 21 A. R. records made on the farm average over 625 lbs. fat.

Accredited Herd

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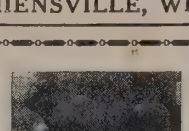
HOMESTEAD FARM GUERNSEYS

Will sell or trade one of our herd sires, his six nearest dams average 775 lbs. fat, May Rose breeding. Young bulls 2 to 13 months old. Can also spare a few females. Visit us or write.

JAMISON BROS. APPLETON, WISCONSIN

BUTTERGOLD GUERNSEYS

Federal Accredited
No Abortion



HERD SIRE

Offering **TWO CHOICE TYPY BULLS** sired by 1922 National Grand Champion and out of tested dams, born last August and November. Two choice senior heifer show calves out of tested dams and sired by son of National Grand Champion whose dam has just completed a record of over 700 lbs. fat, not yet verified. Boss' daughters on test are doing very well. One in A is going at 800-lb. clip, has made as high as 3.26 lbs. fat in one day and retest requirements her 4th, 5th, 6th mos.

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Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

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75 to 150 High Grade Guernseys and Holsteins

We have for sale at all times from 75 to 150 high grade Guernseys and Holstein springers of all ages. T. B. tested. Sound and heavy producers. We buy and ship on order. Visit us or write. Prices reasonable. Satisfaction guaranteed.

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Raymond Knutson, Mgr., West Salem, Wis.

"Luxerin"

We have three very typy, well grown young bulls about ready for service. Dams on test. One 13 months, May Rose sire, Glenwood dam. A real bull with a real pedigree.

B. F. SHERIDAN, Fond du Lac, Wis.

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION
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FOND DU LAC GUERNSEYS

Get our prices on **PUREBRED CALVES** suitable for clubs. Also **GRADE COWS** and **HEIFERS** at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
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BOURNEDALE GUERNSEYS

WE OFFER FOR SALE—An excellent son of Maxim of Linda V the only Guernsey sire to have 2 class leader daughters. Dam of is Foremost Lassie 506 lbs. fat in F. a daughter of Langwater Foren Bull was dropped Sept. 19, 1926.

OTHER GOOD BULLS FOR SALE—3 to 12 months old from A dams, priced at $250 to $750. A clean herd under federal supervi

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BOURNEDALE FARM, H. F. Andrus, Owner, MILLERTON, N

Foundation Guernseys

HOME OF
LANGWATER JUVIS 100894
By Langwater Warrior A. R.
Dam, Imp. Barlotteries Rose of Langwater A R.
Milk 14774.2 lbs. Fat 730.7 lbs. Class D.



LANGWATER JUVI

A Number of Good Bulls

From A. R. Dams to 719 lbs. fat. Reasonable!

May Rose-Glenwood Breeding

ELM FARM, Deerfield, Illinois

28 miles north of Chicago, 1 mile east of Everett on 42A

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

LE HILLIER FARM GUERNSEYS

Federal Accredited

We have for sale grandsons of Langwater Fisherman 21873 A. R.; also two grandsons of Merry May Day 43520 A. R., 9 to 16 months. From A. R. dams. **Priced $150 to $250**

PRATT & LAW, Box 304, Mankato, Minn.

MINNEWASHTA MAPLES

Purebred Guernsey Cattle

PRICED TO SELL, BULLS two months to serviceable age, sired by son of Maxim of Linda Vista and out of A. R. dams. Also a few **FEMALES.** Send for sales list.

PUREBRED GUERNSEY FARM,
L. A. Page, Excelsior, Minn.

Thorn Hill Farm Guern



Have several high cla sey bulls at reasonab May Rose and Glenwo ing. Dams have recot 700 lbs. of fat. Write list to

AUGUST ZIESING, Deerfield

GUERNSEY BUL

of **MAY ROSE GOLDEN SECRET** a **PLUS ULTRA** breeding. Write for c tions and prices. Dams are official Accredited herd.

MAHER & MAHER, Devils Lake, Ne

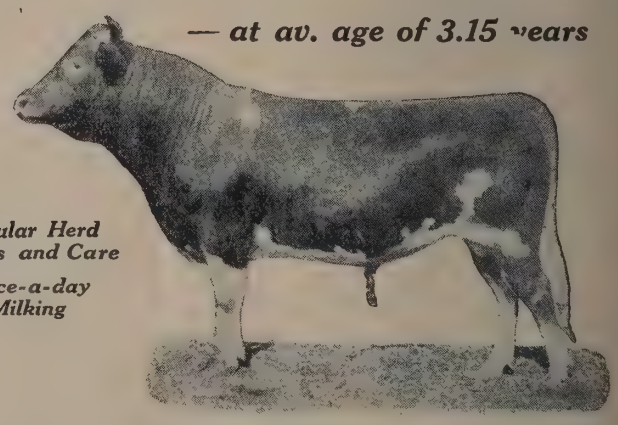
GUERNSEYS FOR SAL

High Grade and Pure-bred Springers, bot heifers in carload lots. Also a number females and pure-bred bulls of serviceabl quiries answered promptly. Visitors always **JEFFERSON CO. GUERNSEY BREEDE**
J. C. Ralston, Sec'y., Box 266A, Fort Atk

Tell the advertiser you s advertisement in Hoard's man.

His First 20 A. R. Daughte average—434.7 lbs. fat 8989.11 lbs. milk

— at av. age of 3.15 years



— Regular Herd Rations and Care

— Twice-a-day Milking

ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. **DAM**—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding from us very reasonably. Do not write us if you want a serviceable bull. males are always sold before they are old enough for service. Buy a y calf, raise it yourself, and save money. We have several nice ones on now — and they are priced to sell.

HERD ACCREDITED

Hoard's Dairyman Farm, Fort Atkinson, Wis

AYRSHIRES for Steady Production

It's that steady production everywhere, under all conditions that is making the Ayrshire the most popular dairy breed. Ayrshire breeders have long known that profits come from cattle that keep everlastingly producing milk that tests four per cent. Herd records prove that these breeders have developed cattle that lead in high average production.

Ayrshires are built for service. Their rugged bodies and perfect udders wear like iron and keep them working to a ripe old age.

Your profits may be increased by the use of an Ayrshire bull, or the selection of a few females.

Write for booklets or assistance in locating foundation stock

AYRSHIRE BREEDERS' ASSOCIATION

Center Street Brandon, Vermont

Will Explain Dairy Work

The part the Bureau of Dairy Industry plays in improving the product of dairies of the country has been made a special order of business for the meeting of the Southern Section of the American Dairy Science Association which will be held at Memphis Tuesday, October 18, in conjunction with the National Dairy Exposition. Two sessions will be held at the Hotel Gayoso, the first starting at 9:30 o'clock in the morning and the second at 2:00 o'clock in the afternoon. The exposition will be held with the Tri-State Fair October 15—22.

On the program are many of the government's leading dairy specialists and Dr. Bradford Knapp, now president of Oklahoma A. & M. College. Dr. C. W. Larson, Chief, Bureau of Dairy Industry, will explain the work of his bureau in full.

AUCTION!

500 GRADE HOLSTEINS —AND— GUERNSEYS

Opening Sale of O. G. Clark & Co.

OCTOBER 12
Fond du Lac, Wis.

230 HEAD HOLSTEIN COWS
—fresh and close springers

50 HEAD GUERNSEY COWS
—fresh and close springers

60 HEAD HOLSTEIN HEIFERS
—bred for fall freshening

60 HEAD GUERNSEY HEIFERS
—bred for fall and winter freshening

All cattle tuberculin tested and ready for interstate shipment.

Sale will be held in the Fond du Lac Live Stock Sales Pavilion. Sale will open at 9 A. M. and all cattle will be sold that day and evening.

HOLSTEINS

OHIO HOLSTEINS
Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.
OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

K. P. O. P. Bulls
If you will need a new sire during the next year get in touch with us. We can offer you just what you want.
HARGROVE & ARNOLD, Norwalk, Iowa

SERVICEABLE 30-LB. BULL and BULL CALVES
K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write
L. E. FERGUSON, LAURENS, IOWA.

MILWAUKEE HOLSTEIN BREEDERS ASSOCIATION
ST. MARTINS, WIS., OCT. 22
Fall Sale — 60 Purebreds
15 High-Record Serviceable Bulls
45 Springers and Bred Heifers
The greatest one-day sale of Purebred Holsteins ever offered in Wisconsin. The pedigrees contain more records of from 30 to 46 lbs. than any sixty page catalogue we can find. Our consignors have herds that are famed for type. Halbach, Milco, Rust, Koelsch, Carnation, Gray View, Gramling, Rockway, Ellis, Sar-Berth--consignors familiar to any Holstein buyer. Sale starts at 10 A. M. sharp. Catalogue on request.
J. C. SARGENT, Sec.
308-10 Wells Bldg., Milwaukee, Wis.
ST. MARTINS, WIS., OCT. 22
Electric out of Milwaukee, highway 100

You need a Vest Pocket Herd Book

OFITABLE — PRACTICAL RSHIRES
of Mistress Thistle of South Farm, World's Jr. 4 yr. old, and Boggie of Eastside, State and ex-World's Champion R. of H. Sr. Each of these famous cows has a son in our herd. If you want bull calves out of producing cows with long teats, at reasons, write us. Federal Accredited Herd.
E FARMS, Douglassville, Berks Co., Pa.

AYRSHIRE COWS
FULLY ACCREDITED
300 Head in the Herd
Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.
ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

HIRE BULLS-$35 and UP

VideAwake
Nicely marked, deep bodied, straight bull calves from dams with 10,000 lbs. milk or better. By such sires as Edgerstoune Wide Awake, Imp. Howie's Wait and See, Imp. Howie's Ringmaster and Imp. Favorite Beauty Champion, sires that have over 15,000 lbs. milk back of them for 5 generations. Bulls are priced se we need the room. $35.00 and up. Herd te and Federal supervision. Write.
OCK FARM, Roy F. Booth, Mgr., Northville, Mich.

GLEN FOERD FARMS
TORRESDALE, PENNSYLVANIA
AYRSHIRE BULL—Born: June 24, 1927. Color: White with red spots. Sire: Penshurst Rising Star, 20922. A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 441 lbs. fat, 4.04%; winners of 3 French Cups, 1 Gold Medal, 1 Association Cup and 6 Silver Medals. Dam: Good Jessie, 46271, a Silver Medal Winner with the following records: Class DD, 10,991 lbs. milk, 461 lbs. fat, 4.20%; Class B, 12,529 lbs. milk, 518 lbs. fat, 4.14%; Class A, 14,321 lbs. milk, 602 lbs. fat, 4.20%.
Six World's Records in Six Years

Purebred Ayrshire Cattle For Sale
Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.
WM. NISBET & SONS, Richland Center, Wis.

y from Hoard's Dairyman ad-ers and tell them you saw ad in Hoard's Dairyman.

AST CALL for the
Complete Dispersion

MIDDLESEX MEADOWS

70 Registered AYRSHIRES 70 Registered

10 Bulls—35 Cows—25 Heifers

CT. 28 — At the Fair Grounds — WESTPORT, N. Y.

A FULLY ACCREDITED HERD

at includes some splendid descendants of Nancy White-ll, Maple Leaf Jean and others of those great foundation ws that were owned at Middlesex.

AUCHENBRAIN TOREADOR, the record priced bull the breed, will be sold with 25 of his get. There will also many of the get of the sensational bull, South Craig perial, in the sale.

Practically every animal of milking age has an A. R. ord or is on test. The younger animals are from A. R. ms.

This herd is the result of 15 years of intelligent line eeding.

NOTICE THE PLACE AND RESERVE THE DATE.

For Catalogs, sent only on request, write

E. BRIGHAM, Sale Manager, HOPE, R. I.
E. M. GRANGER, JR., Auctioneer, Thompsonville, Conn.

WISCONSIN HOLSTEIN SALES ASS'N

Breeders from 15 Leading Counties Cooperating

400 REGISTERED HOLSTEINS
300 HIGH GRADE HOLSTEINS

To be Sold Oct. 27 — November 4

The series of sales held by this Association last spring were a success because they served the buyers and sellers of high class dairy cattle in the most efficient manner. Buyers at last spring's sales were well satisfied because of the fine assortment of practical producing cattle offered for sale.

The cattle listed for sale this fall are even better in quality because breeders throughout the state have more confidence to consign since this cooperative sales plan has been proven a success.

Order in which the sales will be held is as follows:

OCTOBER 27—CHIPPEWA FALLS
OCTOBER 28—WEST SALEM
OCTOBER 29—MAUSTON
NOVEMBER 1—REEDSBURG
NOVEMBER 2—MADISON
NOVEMBER 3—LAKE MILLS
NOVEMBER 4—BARNEVELD

Write for illustrated circular giving more complete information on this sales series to:

JAMES R. GARVER, 704 Beavers Insurance Bldg. Madison, Wis.
In charge of Publicity and Sales Correspondence.

Co-operation in American Agriculture

American agriculture has been transformed from a pioneer type of farming into commercial agriculture. In commercial agriculture the farmer is producing foodstuffs for other than his own consumption. With the development of commercial agriculture, farm marketing has grown from a simple process of exchange between neighbors into a complex marketing system. Farm marketing problems are different today and new marketing methods must be evolved to cope with new problems.

Some of the earliest co-operative organization efforts in the United States are found among the dairy farmers. As early as 1853 a few farmers in Campbell Hall, New York State, organized the Wallkill Creamery Association, and this is probably the first co-operative creamery in the United States. From this small co-operative creamery established 70 years ago, the movement has spread all over the country until today there are some 1,400 co-operative creameries with a membership of 200,000 dairy farmers doing a volume of business of approximately $220,000,000 annually.

Today there are about 600 co-operative cheese factories in the United States doing an annual volume of business of approximately $25,000,000.

There has been a most rapid and remarkable co-operative development in the fluid milk market business the last ten to fifteen years. Today there are about 140 co-operative milk associations engaged in the distribution of fluid milk. They do annual business of $160,000,000. Then in the fluid milk business we also have another type of co-operative enterprise known as the bargaining association. There are some 40 bargaining associations in the United States with 116,000 members doing an aggregate business of $140,000,000 annually.

The extent to which American farmers have recognized the need for organization in agriculture is indicated by the fact that there are now more than 12,000 farmers' co-operative associations through which farmers are developing group effort. The number of farmers' co-operatives has increased from less than 6,000 in 1915 to approximately 12,500 in 1926. During this same decade the volume of business done by farmers' co-operative associations has grown from $635,838,000 to about $2,400,000,000, and the number of farmers who are members of co-operatives has increased from 651,000 to nearly 2,000,000.

Co-operative organization among farmers is the application of better business methods to the production and marketing of farm products. Organization itself, of course, does not solve the marketing problem, but simply creates the machinery to do so. Improved marketing machinery may be likened to a piece of new farm machinery. Every farmer knows that improved farm machinery is of no use to him unless he puts it to work and guides it. Improved marketing machinery is likewise of no value unless it is intelligently directed. We again must rely on that important human equation—leadership.—CHRIS. L. CHRISTENSEN, U. S. Department of Agriculture.

To show his erring brothers how to make cow boarders pay, "Joe Guess" will run his boarding house at the National Dairy Exposition, October 15—22 at Memphis. "Joe Guess" is a three-act rural drama, different from the one at last year's Exposition.



Pleasure and Profit in HOLSTEINS

There is real pleasure in owning a herd of beautiful dairy cattle but real satisfaction comes in knowing that your herd is bringing you a profit. Holsteins are economical producers of milk and butterfat and return a consistent profit to their owners. Holsteins predominate in thirty states of the Union. In these thirty states 76 per cent of the Nation's milk is produced. The average annual milk production of all dairy cattle in these states is 3,806; in the remaining states where Holsteins do not predominate the average production is 2,562 pounds.

Write for our booklets on HOLSTEINS

Visit the Holstein Booth

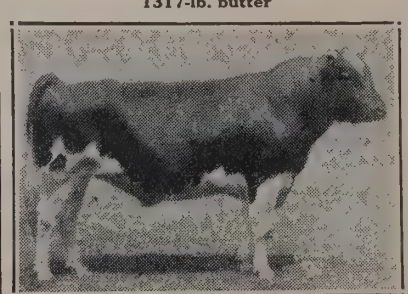
The Extension Service of the Holstein-Friesian Association will maintain a booth at the National Dairy Exposition where Holstein literature and facts about the breed will be available. Make this booth your headquarters, meet your friends there, use our guides and let us tell you about Holsteins.

The Extension Service
HOLSTEIN-FRIESIAN
ASSOCIATION of AMERICA
230 E. Ohio St. CHICAGO, ILL.

KING BESS BURKE ORMSBY
1164-lb. butter
MARATHON AAGGIE
1250-lb butter

With over 100 daughters and granddaughters of these great sires in our herd, all of milking age, on official test or herd improvement work.

These are being bred to our Jr. Herd Sire
SIR TRIUNE PANSY
1317-lb. butter



Over 30 of his calves in our herd and all dandies and over 50 more due this fall and early winter.

Breeding Stock for Sale at all times
MILFORD MEADOWS STOCK FARM
LAKE MILLS WIS.

A Vest Pocket Herd Book is a good investment

HOLSTEIN DISPERSAL SALE
NOV. 3rd, 1927 Aurora Fair Grounds Pavilion -- 10 A.M. **AURORA, IL**

Our entire herd including 15 heifers, 4 to 18 months old by 1,200-lb. herd sire, Prince Korndyke Ormsby Fayne, to be sold. Several exceptionally good foundation cows bred to this bull. Write for catalog to **Illinois Holstein-Friesian Association, 608 So. Dearborn St., Chicago.**

Herd Federally Accredited **BURR OAKS FARM, St. Charles, I**

Osborndale Farm Holstei
AN ACCREDITED HERD — Headed by
K. P. O. P. 54th, Sr. Sire. An outstanding 1,000-lb. son of K. P. O. P.
SIR BESS ORMSBY MAY, junior sire, a son of Sir Bess Ormsby Fobes and May Walker Ollie Homestead, former U. S. Champion butterfat producer.

Our herd of 100 head is largely made up of foundation Colantha females. To it occasionally added a choice one usually of Ormsby breeding. Fully two-thirds milking females have excellent official or semi-official records. We have for sa choice young bulls up to 10 months old from A. R. dams.

OSBORNDALE FARM, Waldo S. Kellogg, Owner DERBY,

LOEB FARMS DISPERSAL

One of the Greatest Yearly Record Herds in the Country



Main Cattle Barn, Charlevoix, Michigan

Clean Herd Under Federal supervision Selling with retest privilege

he Loeb Herd, long recognized as one of e greatest yearly record herds of Ameri-, has been built up on the most popular ood lines of the breed. Its dispersal, while grettable, offers breeders and dairymen a ost wonderful opportunity.



KOLRAIN MARION FINDERNE
Butter, 365 days — 1,278.56
Milk — 35,339.50
is sensational producer will be sold together with two sons and two daughters.

150 Registered Holsteins

—HIGHEST YEARLY MILK PRODUCER ever offered at auction, together with two of her sons and two of her daughters.

—SEVERAL 800- TO 1278-LB. COWS, many of them making their records in 2-year-old form.

—FIFTY DAUGHTERS OF SIR P. O. M. 40TH, one of the greatest sons of Sir P. O. M. and a three-fourths brother to "37th."

—THIRTY-FOUR DAUGHTERS of Sir Ormsby Karen, a son of "37th," from a 30-lb. 3-year-old daughter of a 35-lb. 4-year-old.

—ELEVEN DAUGHTERS of 1000-lb. cows and twenty-two from 800- to 990-lb. dams.

—FIVE BULLS from 1000- to 1278-lb. dams and many others from 800- and 900-lb. dams.

November 1st and 2nd
At WEST MICHIGAN FAIR GROUNDS
Grand Rapids, Michigan

The Belgian Stud
Also being dispersed



RUSSEL 7575
Senior stallion and a blue ribbon grandson of the famous Brin do'Or.

15 PURE-BRED BELGIANS
An exceptionally choice lot throughout. Included are several winners at the leading Michigan fairs. Nearly all sorrels. Several splendid brood mares and three richly bred stallions. The man interested in buying Belgians will do well to investigate this offering.

END FOR CATALOG

MELIN-PETERSEN CO. Sale Managers
306-B Gorham Bldg. Minneapolis, Minn.

DAIRY CENTER SALE

Southern Minnesota's Annual Quality Offering

The "Dairy Center" of Southern Minnesota boasts of many splendid Holstein herds. The majority of the breeders maintain herds that are too small to warrant extensive advertising. In spite of this fact, cattle have been shipped from this section to practically every state in the Union. In the annual DAIRY CENTER SALES they offer selections of their very best cattle, that other breeders and dairymen may become acquainted with the bloodlines of the community. This is distinctly an offering of quality cattle and not a "dumping" proposition.

mClean Herds **75 REGISTERED HOLSTEINS** *Retest Privilege*

MANY SHOW RING WINNERS, including Grand Champions at County Fairs.

A LARGE NUMBER OF young cows of excellent type and breeding; many with records.

A LARGE PERCENTAGE OF the females are due to calve soon after sale.

20 SHOW TYPE BULLS, mostly from record dams.

OWATONNA, MINN.
FAIR GROUNDS
OCTOBER 26
10 A. M.

Send for Catalog

MELIN-PETERSEN Co.
Sale Managers
306-B Gorham Bldg.
Minneapolis Minnesota

Increase Your Dairy Profits With Better Holsteins

The Kind We Are Offering in the

U.S. National Fall Sale

WAUKESHA, WIS., NOV. 15-16
WATERTOWN, WIS., NOV. 17-18

300 HEAD
AMERICA'S BEST HOLSTEINS

Including a large number of fresh cows and near springers —heavy milkers that are all ready to start paying interest on your investment in bigger milk checks. We believe we have the best lot of profitable, useful dairy cows that were ever offered in any sale as well as a wonderful lot of extra high class breeding stock.

FOR YOUR NEXT HERD SIRE—ATTEND THIS GREAT SALE EVENT

We have selected the best lot of bulls we have ever offered—all of choice type and high record breeding—the kind that will help you build a top-notch herd.

THIS SALE IS THE DAIRYMAN'S OPPORTUNITY
Get Your Name On Our List for Our Sale Circular And Plan Now to Be at the Sale. Address

U. S. NATIONAL SALE, Box 177, WAUKESHA, WIS.

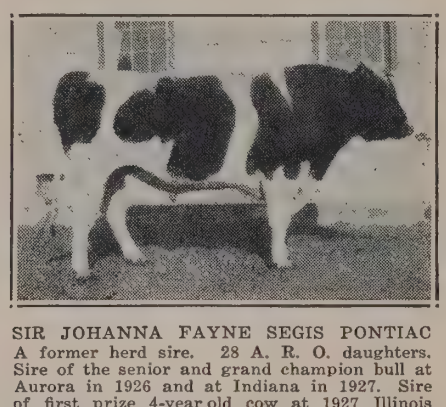
R. E. HAEGER, Algonquin, Ill. W. L. BAIRD, Waukesha, Wis. FRANCIS DARCEY, Watertown, Wis.

ROCK RIVER FARMS

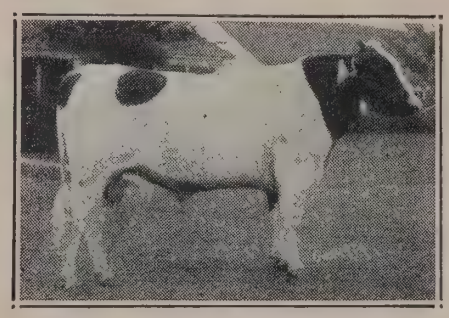
"Illinois Greatest Holstein Herd!"



NORTH STAR GELSCHECOLA CHAMPION
Our senior sire—13 years old and still active. 12 A. R. O. daughters and more on test. Sire of the Jr. champion female at Aurora in 1926. A 2-year old son has been second or third wherever shown this fall. Four head by him won two seconds, a third and a fourth in large classes at the 1927 Indiana State Fair.



SIR JOHANNA FAYNE SEGIS PONTIAC
A former herd sire. 28 A. R. O. daughters. Sire of the senior and grand champion bull at Aurora in 1926 and at Indiana in 1927. Sire of first prize 4-year old cow at 1927 Illinois State Fair. Sire of first prize get of sire at Ohio and Illinois State Fairs.



NORTH STAR PIETERTJE HOMESTEAD
At 2 years. Jr. herd sire. Sire of first prize senior yearling bull and of first prize yearling herd at 1927 Illinois State Fair. Sire of second prize get of sire at Indiana State Fair.

Type—Production—Health

Our 1927 Show Herd— every animal in it was bred at Rock River Farms—has been a consistent winner this year. In close competition and large classes, every animal we showed placed "in the money," at the Illinois and Indiana State Fairs, and but one animal was outside the money at Ohio.

We Won Premier Breeder Award At All Three of These Fairs

Rock River Holsteins are a commercial herd that make their records in stanchions. No box-stall pampered cows here. Our business is to produce certified milk at a profit. Every milking female in our herd of 214 registered Holsteins must be a profitable producer, else she is eliminated.

In 1923, 63 cows in C. T. A. averaged 11905 lbs. milk, 410 lbs. fat. In 1924, 75cows, only 18 of mature age, averaged 12,458 lbs. milk 425.5 lbs. fat.

15 Rock River cows have produced over 30 lbs. butter in 7 days. Seven have produced over 1000 lbs. butter in a year. 9 Rock River Holsteins are state record cows.

Rock River Farm Holsteins are healthy. They are under Federal Supervision for T. B. and have been regularly blood tested for contagious abortion.

BUY YOUR NEXT HERD BULL AT ROCK RIVER FARMS

WRITE FOR SALE LIST!

Rock River Farms Mrs. Medill McCormick, Owner H. W. Allyn, Superintendent **Byron, Ill.**

HEALTHY COWS

----------, Wis., ----------1927

TO WHOM IT MAY CONCERN:

This is to certify that the cow Ear Tag No. ———— was purchased for or by Reid Murray. Also certify that my herd is under federal and state supervision and that this cow was in my herd when herd was tested and that all my herd passed a clean T. B. test. Also certify my herd is free from contagious abortion.

Signed .....

Address .....

WE CAN FURNISH COWS IN CARLOTS WITH THIS RECORD BEHIND THEM.

Oshkosh, Wis. **REID MURRAY** Union Stock Yards, **Chicago**

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



Sir Walker Segis Homestead

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

Buy from Hoard's Dairyman advertisers and tell them you saw their ad in Hoard's Dairyman.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

AKONA HOLSTEIN FARM

BULL CALF born Aug. 31, 1927, dam 819 lbs. yearly record. Sire from a high record daughter of "37th" and a son of Sir P. O. M. from a 1,100-lb. dam. Price $125.

B. A. NORRIS, Anoka, Minn.

Last Calf Advertised Was Sold to Nevada, But We Have *Another Good One*

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.

ST. OLAF COLLEGE FARMS, Northfield, Minn.

STEELE COUNTY HOLSTEINS

Are noted for their size, type and production. Purebreds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres

OWATONNA, MINNESOTA

HOLSTEIN BULLS FOR SALE

SPRING BROOK BESS BURKE 2ND—ORMSBY breeding. All sold out of bulls over six months of age. Herd under Federal Supervision for tuberculosis, also blood tested for abortion.

WINTERTHUR FARMS, Winterthur, Del.

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

Healthy Holste

If you are in the market for grade or regis steins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN AS
608 S. Dearborn, St., CHIC

Ormsby-Homestead B

We have for sale 2 very good cal Nov. 1 and Dec. 27, sired by Rawleig Pietertje Posch, our 41-lb. Ormsby s are from 24- and 25-lb. 4-year-old H dams with good year records, one record cow. Priced to sell. The clean. Write

THE W. T. RAWLEIGH COMP
Owners Rawleigh's Ideal Farm, FREEP

Buffalo Creek Farm Ho

We are offering BULL CALVES Ormsby breeding from tested dam are from six to eleven months o priced as low as $100.00. Write for and further information. Herd unde supervision.

BINGHAM BROS., Arlington Hei

— We Can Offer —

A Few Choice Bull Ormsby Breedin

that will be ready for fall service. good individuals from good record d a few younger calves at bargain pric

ELLWOOD & NELSO
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Offers BULL CALVES

Sired by an outstanding 35-lb. son dor from Fully Accredited Regist dams with leading cow testing a records. $100.00 up for typy individ

JOHN A. CARROLL WILLIAM
Owner Hero

High Grade Holstein Sprin

If in the market for big proc these cows will please you. Tub tested. Address

RIVER MEADOW FARMS, Portlandvill
P. S. Come and make select

IN NO OTH HERD

Can There Be Found Five With Records Equal to Th Five Femco Cows

May Walker Ollie Homestead Milk	5
Grahamholm Co. Paul. Segis Milk	4
Grahamholm Col. Segis Maid Milk	3
Miss Mutual Rose De Kol Milk	2
Aurora Homestead Badger Milk	2

Eight other cows in the herd h ords from 1,000 to 1,194 lbs. Holsteins are producers.

A Few Choice Bulls For

FEMCO FARM
BOX 336-B
BRECKENRIDGE, -

Show Bull Ready for

From Man O' War—That Sor

Dam—Large, straight cow with sq royally bred. 796 lbs. in 305 d old. Calf—large, straight, ready Price $250. F. O. B. St. Peter, Mi wire for pictures and pedigree.

EMPIRE STOCK FARM
Wm. Schmidt's Sons, St.

A Serviceable

Born July 25, 1926. Dam's rec lbs. as Jr. 2-yr.-old. Sired by 35- son of Pietertje Maid Ormsby. and type. Price $200. Send for and photo.

JEAN DU LUTH FARM, I.
1010 Alworth Bldg. Dulut

You need a Vest Pocket H



SIR INKA MAY
One of Carnation's All-American Show Ring Champion Herd Sires

UNDEFEATED —

Showing at Iowa State Fair, Minnesota State Fair, Kansas Free Fair, Kansas State Fair and Oklahoma State Fair, the Carnation Milk Farms herd of Holsteins has covered over half its 1927 circuit—and have won an average of 6 firsts and 2 championships at each of these great shows.

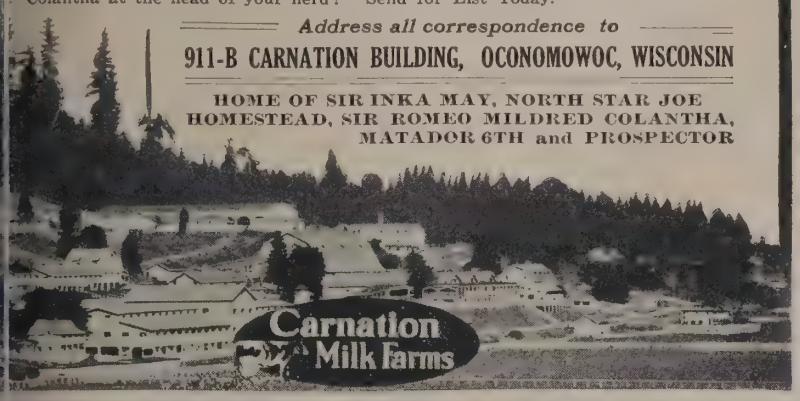
The get of Sir Inka May, Sir Romeo Mildred Colantha, Matador 6th and North Star Joe Homestead in each case have figured among the winners; in fact, a daughter of Inka May has been Jr. champion female at every show and a son of Romeo has been all but once a champion, and undefeated in his class.

You know when All-American prize winners sire prize winning get at the larger shows year after year what it means. Why not have a son of Sir Inka May, Matador 6th, North Star Joe Homestead or Sir Romeo Mildred Colantha at the head of your herd? Send for List Today.

Address all correspondence to

911-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



lark County Fall Sale of Purebred Holsteins
Neillsville, Wis., October 12, 1927

DAIRY FARMERS, ATTENTION. Come to Neillsville d buy your future Dairy herd of the finest springing ung cows and heifers. Everyone a good one with cow testg records to 500 lbs. fat. 15 young, serviceable bulls with icial record up to 26-lb. two-year-old.

WUETHRICH, Manager GREENWOOD, WIS.

Clover Lawn Ormsby Fobes



s back of him average 1120 lbs. of butter a year. Average test for his six arly record dams 3.92% fat. Young bulls sired by him and cows bred to le. 150 head in herd. Forty cows with yearly records. Federally Accredited.

LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

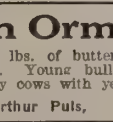
ORRIS FARM

Is Offering SEVERAL DESIRABLE BULLS, ready for service this fall. Also YOUNGER CALVES. Write for particulars.

VONAGO (Fully Accredited) WISCONSIN

REA TESTED COUNTY

The breeding of purebred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha



more Dollars invested in better bred cattle other county in the world. Summer buyers are consideration in helping to locate and as- r purchases, whether it be one or a carload. h you right now with

bred heifers bred to freshen this fall.
d of bred, richly bred, grade heifers.
ds of springing and fresh, highly bred grade ust and September freshening.
e a number of good pure-bred bulls from 3 1/2 years old.

bull list or write your wants. Example: Nov. 15, 1925. Excellent individual, mostly lor. Sire—King Pontiac Fayne Butter Boy, is a 30-lb. cow. Dam is Wisconsin Piebe l Watson, a show cow that has a record of butter in 7 days as a 3-yr.-old. Price $175. d. Art Bennett at your service. Write or wire.

A HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

GLAND FARM

— OFFERS —

A 1000-LB. BULL

Feb. '26. Well grown and good indi- Sired by a Son of the 37th. Dam has n 7 days and 1,000 lbs. in a year. glad to furnish detailed information.

J. SEDGWICK, Limeridge, Wis.

y that herd bull from a rd's Dairyman advertiser. be better satisfied.

YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production, type. The herd is accredited. Write

SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

BULL CALVES — HEIFERS

We have for sale some choice bull calves and registered heifers at farmers prices. Sired by a 990-lb. grandson of Iowana Sir Ollie and from daughters of a 1040-lb. Homestead bull. Accredited herd. Write

CHAS. HUGHES & SON, NEENAH, WIS.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holsteins

Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.

JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

Come to Sheboygan County for Holsteins

We have choice grades and purebreds to select from. Write your wants to:

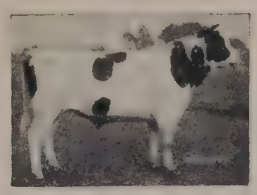
SHEBOYGAN COUNTY HOLSTEIN ASS'N.,
Frank Ubbelohde, Secy., Plymouth, Wis.

Michigan Cattle at the National

Ask the boys in charge about good Michigan pure bred Holsteins that you can buy

See them!

NOTE. The State Sale advertised in last issue of Hoard's has been united with the sale to be held October 20th at Howell, Michigan. Write F. J. Fishbeck, Howell, Michigan, for catalog.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

SERRADELLA FARM OFFERS — A 33-lb. Serviceable Colantha Bull

Sired by Sir Dutchland Colantha Denver whose dam is a 36-lb., 1300-lb. daughter of Colantha Johanna Lad. This young bull is from Serradella Kanaka Rosewood, 33.24-lb. 5-year-old that also has a good 305-day record made as a heifer. The bull is 2 years old, straight, and well grown. A bargain at $300.

SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan

OUR 1,000-LB. COWS

Michigan State Herds now own 13 cows with records above 1,000 lbs. butter. One of these is the famous Traverse Colantha Walker with 7 records above 1,000 lbs. and four of these are 305-day records. Her highest record for 365 days is 1267 lbs. butter and 26,158 lbs. milk. Four others have records from 1100 to 1153 lbs. and eight range from 1023 to 1099 lbs.

Michigan State Herds are bred for production. Insure production in your future herd by using a sire bred by Michigan State Herds.

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

Write us when you want a bull or better still come and make your own selection.

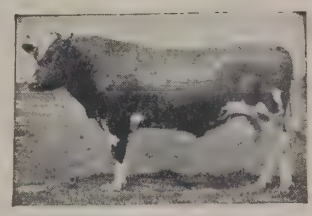
THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

MAPLECREST KORNDYKE HENGERVELD

THE ONLY LIVING CENTURY SIRE



We have *For Sale* BULL CALVES by him from high producing, well bred dams. They are offered at very reasonable prices.

Write us when you need a Bull

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

AN OPPORTUNITY!

A SPLENDID BULL READY FOR SERVICE. Born September 8, 1926. A grandson of the great North Star Joe Homestead and from a daughter of King Canary Homestead Segis No. 297548—a 1130-lb. bull. The dam of this calf has over 320 lbs. of butterfat for six months' actual milking in C. T. A. work. Here is real Homestead Breeding. Priced right if taken at once REMEMBER our herd is ABORTION FREE and FEDERALLY ACCREDITED. Write or wire.

MILWAUKEE COUNTY INSTITUTIONS FARM
E. C. Thompson, Farm Mgr., Wauwatosa, Wis.

TWO GOOD BULLS FOR SALE

Ollie-S, P. O. M, 37th Breeding

We have two typy young bulls for sale now. One is from a 26-lb. granddaughter of 37th and by a 968-lb. son of Iowana Sir Ollie. The other is from a 28-lb. granddaughter of 37th and by Sir Ollie Mooie Watson 7th. Show calves priced right. Write today or come to the farm.

DICMERE FARM
H. E. DICKINSON, Oconomowoc, Wis.

ORMSBYS and OLLIES

130 head of real cows and young stock—must sell 20 head to make room for winter. Cows milking up to 112 lbs. milk a day. Heifers with up to 33 lbs. butter 7 day. Pietertje Ormsby Mercedes Della the greatest producing son of 37th, sire of World's Champions, also the highest record Ollie bull in service—first prize National Dairy Show.

F. H. BOYLE, Owner, PEEBLES, WIS.
L. F. Murphy, Mgr.

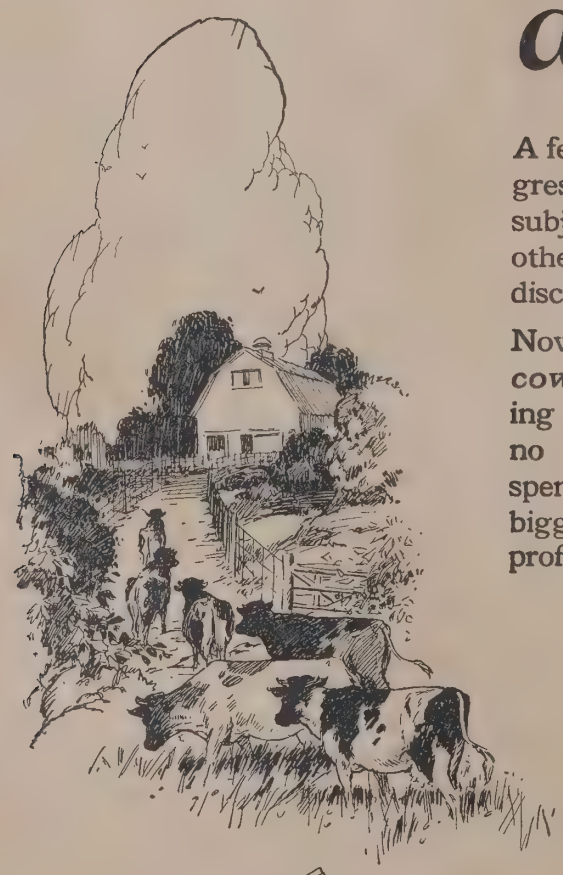
These Two Factors Go Hand-in-Hand

— *if you want bigger profits per head*





Better Stock — *and* Better Feeding



A few years ago all the talk among progressive dairymen drifted toward the subject of improved strains. Today another factor claims equal rank in every discussion — modern feeding methods.

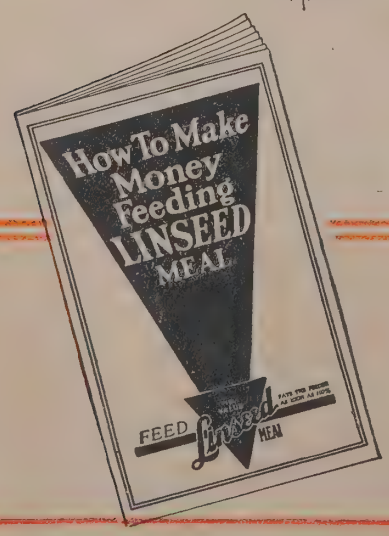
Now it is recognized that profit *per cow* is the thing that counts in making a success with dairy stock. And no matter how much money you spend for better blood, you can't make bigger profits per head until you feed profit-building rations.

This big free booklet contains that kind of rations — practical, tested, balanced by authorities. These rations have played a prominent part in the nation-wide movement for better feeding. Thousands of farmers have sent for this free book. It will also help you make more money with fewer animals, a smaller investment, less work and worry.

Send for your copy today.
Mail the coupon.

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THE UNIVERSAL PROTEIN FEED



L. M. E. C. 1927

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LINSEED MEAL EDUCATIONAL COMMITTEE
Fine Arts Building, Milwaukee, Wis.

Send free booklet No. T-10, "How to Make Money Feeding Linseed Meal."

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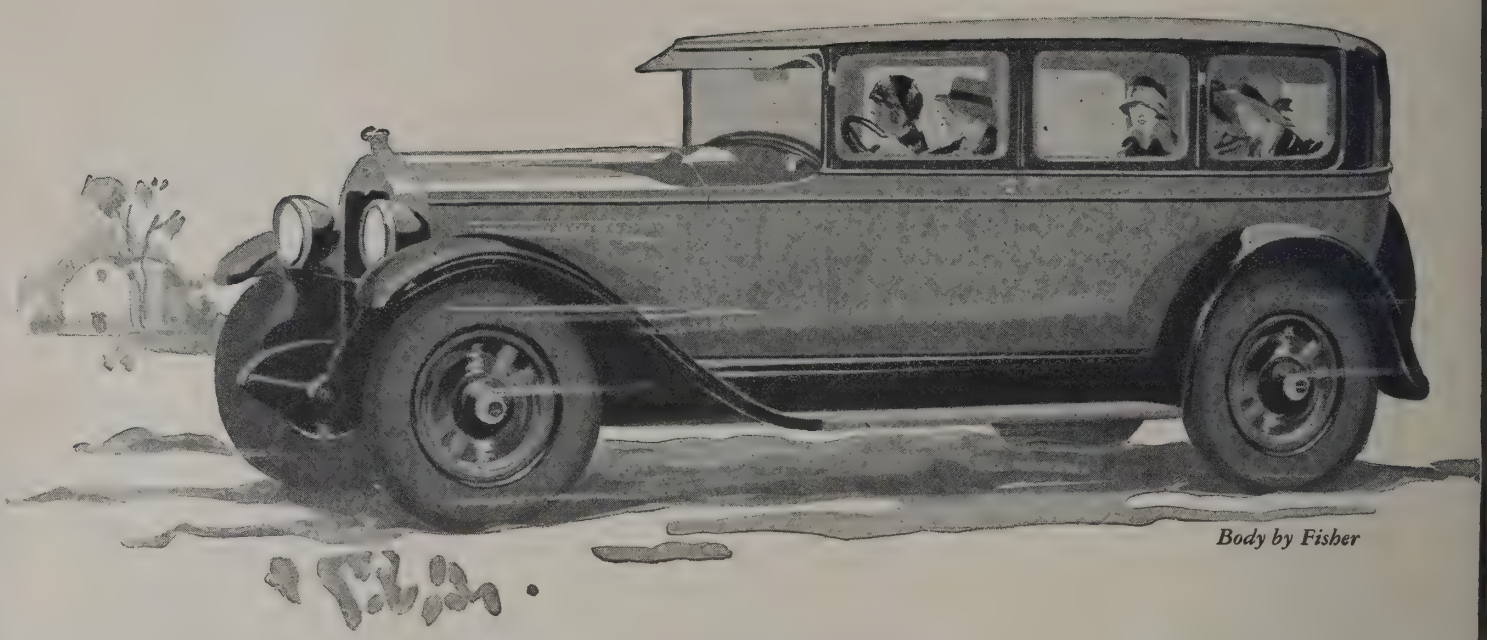
HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 20 Fort Atkinson, Wisconsin October 25, 1927

BUICK *for* 1928



Buick makes *every* road a boulevar

Bumpy, rutty, uneven highways ride like boulevards in a Buick for 1928. Important improvements impart a matchless riding ease—a smoothness over any road in any weather—which assure you a comfortable trip, no matter how far you may drive in a day.

Hydraulic Shock Absorbers

In addition to Buick's famous cantilever springs, Buick for 1928 has hydraulic shock absorbers, front and rear. These have been made an integral part of the Buick chassis, and are *standard equipment* on all models.

The Low-Swung Body

Bodies swung smartly low by means of the exclusive Buick double-drop frame provide greatly increased roadability due to their lowered center of gravity.

—and Matchless Beauty, too

Long, low, flowing lines—surpassingly beautiful color harmonies, inside and out—and restful form-fitting tailored seat cushions—all combine to make every ride in a Buick for 1928 the most pleasing you have ever known.

BUICK MOTOR COMPANY, FLINT, MICHIGAN
Division of General Motors Corporation
Canadian Factories: McLAUGHLIN-BUICK, *Oshawa, Ont.*

WHEN BETTER AUTOMOBILES ARE BUILT, BUICK WILL BUILD TH

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ed at Fort Atkinson, as second class matter.

Semi-monthly

Three Years $1.00

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olume 72 FORT ATKINSON, WIS., OCTOBER 25, 1927 Number 20

PROBLEMS IN HERD IMPROVEMENT

G. A. WILLIAMS, INDIANA

REPORT published recently by the Bureau of Dairy Industry, U. S. Dept. of Agriculture, es that there are now approxi-ely 900 active cow testing associa-s in operation in this country. n an influence for the promotion etter dairying is hard to estimate. t there is plenty of opportunity improvement, however, is shown the wide variations in returns n different herds.

o doubt there are a variety of fac- entering into problems of im-vement. Some of them not within the power of dairyman to change; ers could be remedied by ing attention to the ad- of the tester. The test-annot always pass free n blame in all cases.

ifferent associations e different problems. ne general types seem to e more frequently than ers. Four problems have n selected as typical, one of which would it all the space avail-e so each problem will qualified and hence lim-! in nature by combining h it a word beginning h the letter "I."

f blindness can be inter-ted as concealment or ure to function, then the ociation possessing one more of its problems in oncealed, non-function-state is in an enviable ition. These are "I"n-erent members, "I"n-or animals, "I"nade-te rations, and last not least "I"nefficient ers.

ster Must Know How

here is no greater mis-tune which can befall an ociation than that of en-ing an "I"nefficient test-

Whether the organiza-n proves a success or a ure depends very largely his resourcefulness and lity to study and manage different personalities he association. He must e an intimate knowledge the difficulties encoun-ed by his members, he st maintain a fund ready information with which to wer their questions sincerely and lligently and lastly he must pos-s a knowledge of human nature iciently broad to enable him to fit the home atmosphere which he ounters. A combination of all se qualities in a single individual ot always secured easily for the ry offered.

he new tester usually receives earty welcome among the mem-s. As a rule, the young man re-nds to this hospitality and recipro-cates in such ways as lawning the door yard, repairing some piece of farm machinery, or even offering to wipe the dishes for the busy housewife after the evening meal is over. Lending a helping hand in some such way costs the tester little and does much to win the confidence of his members.

It often happens that the tester has never assumed any great amount of responsibility. While living under the parental roof his duties were of a routine nature. Amid all the strange surroundings he fails to realize the scope and multitudinous nature of his work. If these shortcomings were pointed out in a friendly way by one of the members or better some director, a great deal of dissatisfaction could be avoided.

Members Must Make Information Effective

"I"ndifferent members may be listed as the second party of this blind quartet. In not a few cases this condition comes about because the benefits of membership were oversold to the dairyman when he signed the contract. The plan appeals to some men only as a means of discovering the butterfat test of various individuals in the herd. The competitive side appeals to some.

Perhaps the greatest reason for indifferent members is because they fail to study their records. One of the qualifications of a successful tester is devising different ways to arouse interest on this point among his members. It certainly is discouraging for the tester to work out a set of rations when he leaves and come back next month and find the herd book covered deeply with papers and the ration unchanged.

There are many reasons advanced by members for not putting the recommendations of the tester in practice. Lack of time is perhaps the most common excuse. Quite frequently we encounter a circumstance which we have never been able to explain. For years a herd of cattle had been fed an equal daily grain allowance. The first month these cows were on test they showed an income over feed cost of $24.77. No change was made in the roughage during the next 30 days; the same grain mixture was fed but the amount each cow received was based on production. The income at the end of the second month was $63.28. Before another month had passed each cow was again receiving an equal allowance of concentrates.

Scrub Cows Must Go

The third factor which may retard the progress of an association is the herds themselves. Inferior animals may prove a great disappointment to the owner, especially if the herd be a registered one. Retaining a cow in the barn which does not pay her way certainly does not swell the bank account. The idea of selling her to some other breeder can rarely be justified, although there are cases on record which prove that a cow may be a boarder in one herd and yet make a profit when transferred to other management.

It is impossible to set a standard of production which should be adhered to in different herds. It is generally accepted, however, that the cost of feed is about equal to the other items involved in the production of milk. The cow that does not give an income over feed cost equal to the cost of her feed bill for the year does not pay her way.

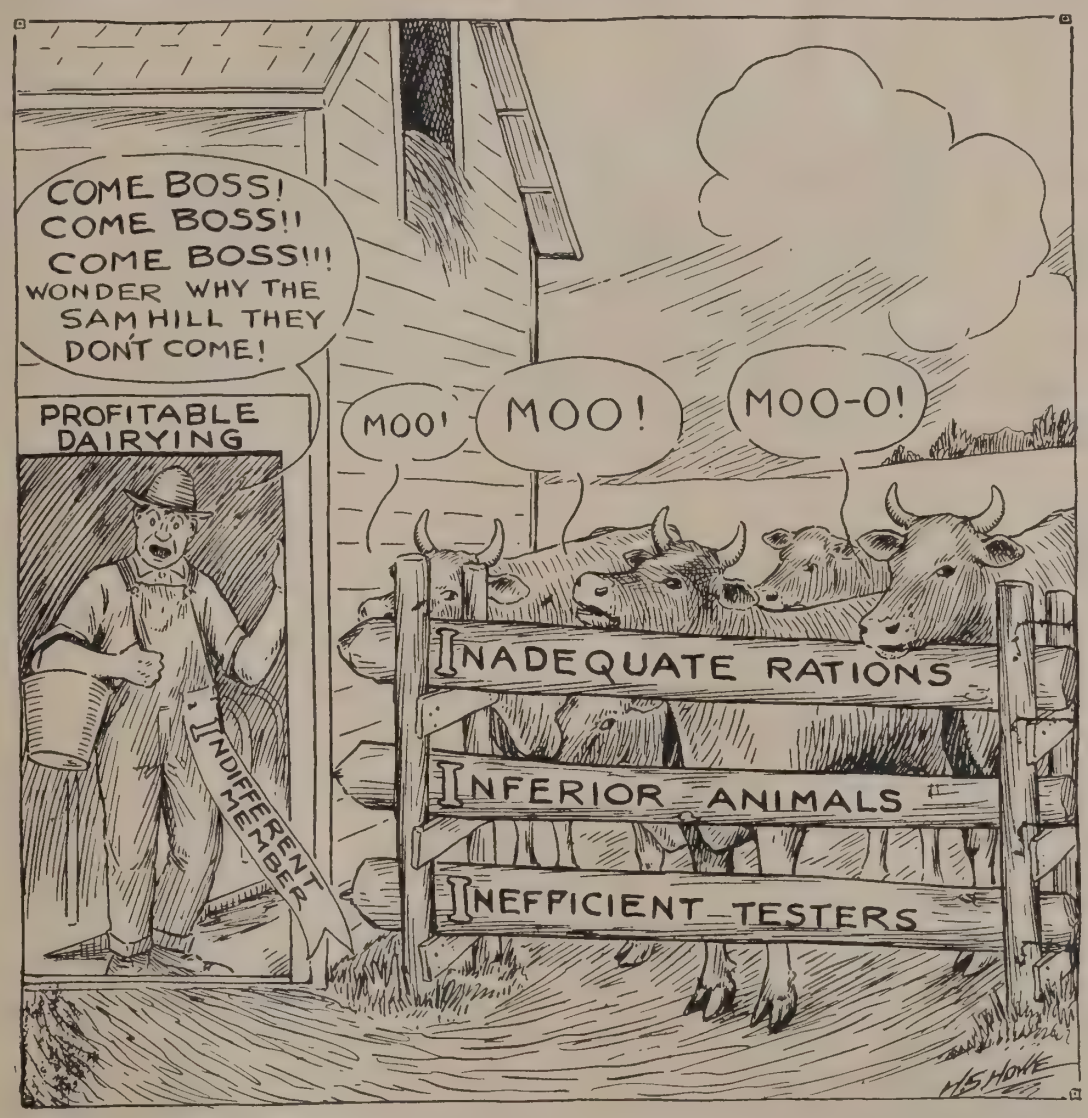
A five-year summary of more than 14,000 yearly Indiana C. T. A. records shows that all records between 201 and 300 pounds of butterfat were produced by cows whose average feed cost for the year was $67.37 and that the income over feed cost for the group was $69.97. There were 1,435, or approximately 10%, cows included in the summary listed in this group. So far as the average conditions apply in Indiana it would seem that animals producing less than 200 lbs. fat during the lactation should be classed as unprofitable.

Better Feeding—Less Cows—More Profit

The last member of this "blind family" is "I"nadequate rations. No matter how much ability to produce a cow may have inherited from her an-

(Continued on page 1016)

EVER PUT DOWN THE BARS, MR.?



Minnesota's Oldest Cow Testing Association

GUY A. PETERSON, WISCONSIN

MINNESOTA'S oldest cow testing association, the Pioneer in Freeborn County in the vicinity of Albert Lea, is a remarkable example of the value of cow testing work for the dairy farmer. Organized by Theodore Sexauer of the agricultural department of the Albert Lea high school in the spring of 1910 and started by Tester H. C. McMurray on December first of that year, it has been an inspiration for the development of better dairy herds and has left its imprint in the form of more beautiful and happy homes. Usually when one finds a member of long standing he will find him living in a well-kept, tree-shaded home equipped with most of the modern conveniences.



F. S. Ruble & Sons have bred Holsteins since 1908. From left to right: Albert, Fred, Clifford.

The association is one of the half dozen oldest in the United States. Mr. McMurray has been its tester nearly all the time, so there is probably no cow tester in America who has tested so many samples of milk as has he. At one time when the farmers took their own samples he tested 1,200 cows a month and kept the books on them in spite of the fact that he has but one arm. There is probably no better loved man in Freeborn County today than "Mack," as he is affectionately called by those who know him.

A friend of the children, he usually has one or two of them with him, and many are the sons and daughters of these dairymen farmers who have ridden with him in his old buggy. He still drives a horse but the old faithful that he drove so many thousands of miles on his business of eliminating the unprofitable dairy cow is no more, though the memory of this grand old horse is still vivid in the hearts of many.

Mr. McMurray makes a practice of taking a picture of all the babies on his route and weighing them each month, after he finishes the testing. As soon as a boy is born he enters the addendum "and son" to the firm name, so that is why so many of the members of the association have partnership names. Save for a period of three months when he was doing official testing out of St. Paul and one year when he worked in an Albert Lea bank, Mr. McMurray has had charge of the testing in that community ever since it was started. Even while he was working in the bank, he tested samples for a number of his original members. When he started work in the bank a number of regulation 26 member associations were organized with many of his herds in them. The testers selected for the work did not prove satisfactory, however, so the associations disbanded and Mack got most of his old members back again when he left the bank.

Last year the figures for his association were not given official recognition because some of the farmers were taking their own samples. This resulted in some unpleasant feelings and Mr. McMurray had to rule his own books because he could not get them from the government. The members of the association all wanted him to do the testing because they had faith in his work and his figures, so he hired an assistant and the two of them now are testing about sixty herds. The records are again accepted as each herd is visited once a month and the samples are taken by either McMurray himself or his helper.

Many Old Members

There are probably few communities in the United States where so many dairymen have been members of a cow testing association for so many years. According to Mr. McMurray, six herds have been in the Pioneer association since the beginning. These are E. A. Nelson and Sons, F. S. Ruble and Sons, Victor Stiehl and Sons, M. L. Head and Sons, Ott Brothers, and Alfred Berglund and Son. Three herds have been tested about 14 years. Nineteen herds have been tested for 10 to 12 years. Four herds are now averaging over 400 pounds fat a year, of which two have averaged it twice and one three times.

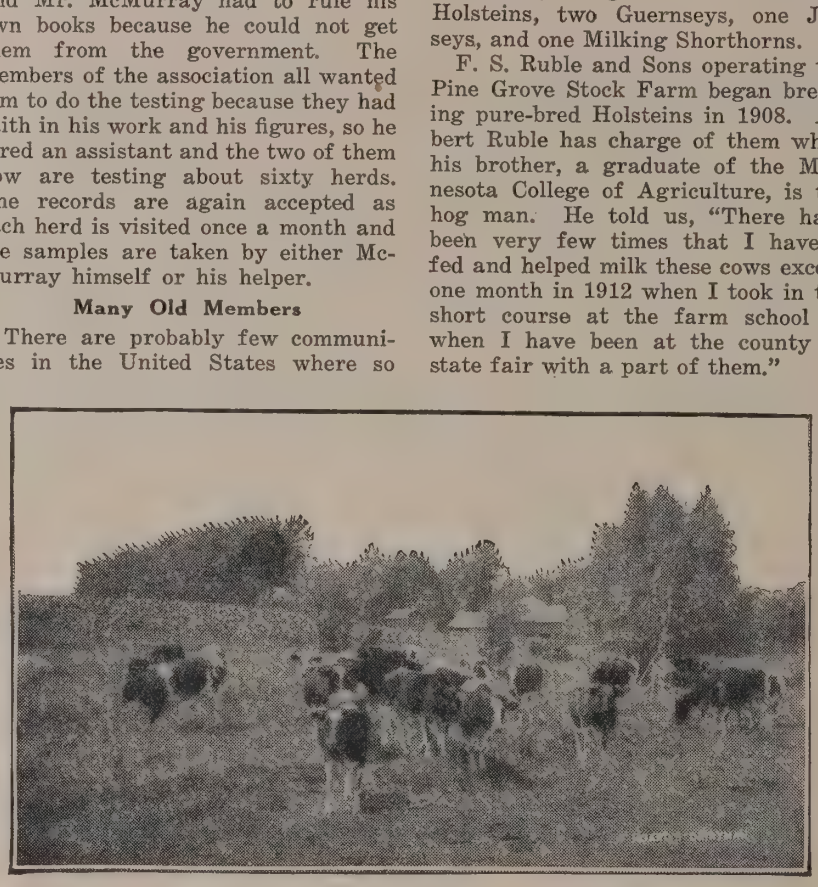
It takes a good man to hold so many farmers together in this kind of work for so long a period of time. His work is appreciated, however, for he says of these people, "As for being hospitable, these homes are just like home to me. When I was in the hospital last winter they were more than brothers to me with flowers, visits, and letters while there."

Farms are Named

Not long ago we visited the six farms that have been testing since 1911 and found that every one of them were operated by owners who lived in beautiful homes and who took time to enjoy life as they farmed, while the other was tilled by a prosperous tenant. Whether Mr. McMurray had been instrumental in instigating the commendable custom of naming the farms we did not learn, but it was a great pleasure to us to find them proud enough of their homes and vocation to give their farmsteads a name.

The fact that it doesn't make much difference what breed of dairy cows one has if he loves those he cares for was forcibly emphasized here because even the most skeptical would have to admit that all of these farmers are successful, though two of them breed Holsteins, two Guernseys, one Jerseys, and one Milking Shorthorns.

F. S. Ruble and Sons operating the Pine Grove Stock Farm began breeding pure-bred Holsteins in 1908. Albert Ruble has charge of them while his brother, a graduate of the Minnesota College of Agriculture, is the hog man. He told us, "There have been very few times that I haven't fed and helped milk these cows except one month in 1912 when I took in the short course at the farm school or when I have been at the county or state fair with a part of them."



A PART OF ALFRED BERGLUND'S HERD OF CONTENTED HOLSTEINS

The herd average for all the cows in the barn has varied from 314 pounds fat to 435.3 pounds per cow. The record of 435.3 pounds per cow was made in 1919 with every one of the 26 cows in the herd on test. This record has never been equalled in the county and there are probably few herds of this size in the state that have equalled it. The cows were milked three and four times a day part of the time, however.

The best cow they have ever owned is Josephine Pietertje De Kol Galis. She won first prize at the Minnesota State Fair in 1918. She produced 750.5 pounds fat from 20,305 pounds milk in her best year and has a six-year average starting as a two-year-old of 591.3 pounds fat. She has two daughters that the boys think will beat her production record, however.

The entire herd has been milked with a machine for more than 10 years and Albert says they have never spoiled an udder with it yet. The ration for the herd in 1910 was made up of silage, timothy, stover, corn, and a little bran and oil meal, but the 1926 ration is more suitable for high producing cows. Their winter ration is silage 40 pounds, alfalfa hay 8, ground oat 6, ground corn 2, bran 2, oil meal corn gluten meal 5, and molasses

Berglund Succeeds on Homestead Farm

Alfred Berglund, the other Holstei breeder of the six pioneer members



VICTOR STIEHL'S BEAUTIFUL FARM HOME

has made a success with the black an white breed on his "Homestea Farm." He gives most of the credi for the improvement of his herd t Nockdair King Superba Segis, th third pure-bred sire that he owned Before he started in with Holstein he had been breeding Shorthorns, bu he could rarely get the daughters o his high producing cows to better o even equal their mother's records The lowest production his herd ha ever had since he started testing wa an average of 309 pounds fat per co made the first year in the association but that was second highest at tha time. The fact that the lowest her that year averaged but 90 pounds fa 1,976 pounds milk, is evidence enoug of the improvement that has resulte since the testing association wa started.

The best record was 397.5 pound per cow with every cow tested an none of them milked more than twic a day. While Mr. Berglund has bee busy improving his herd he has als given much of his time to the bette ment of his community. The unpai office of president of the Farm Burea calls for much of his time and energ but he is glad to give it because he ha faith in the future of agricultur when it is pushed along the lines ad vocated by that organization. He ha been a member of the town board fo many years, is an ex-president of th county Holstein-Friesian associatio and is one of the directors in the co operative egg and poultry associatio at Albert Lea.

The cow testing fees for the fiftee years have amounted to about $50 but he says it is the best investmen he ever made. His cows have made i possible for him to give his childre college educations, for though he di not have the privilege of going t school much when he was young, h wants to see his children have the bet ter opportunities that an educatio will give them.

Though Berglund harvested 5,00 bushels of small grain from his far last year, every acre of which gets

(Continued on page 1012)



CYRUS OTT HOLDING CROWN PRINCE OF ECHO BAY FARM, GRAND CHAMPION AT THE FREMONT COUNTY FAIR LAST YEAR



E. A. NELSON'S PURE-BRED TAMWORTHS FILLING UP ON SOUR BUTTERMILK



The Hunter of Kewaunee

Tales of My Grandfathers

RANSOM A. MOORE, WISCONSIN



Y grandfather, Seth Moore, Sr., was born in 1800 near where Amherst, Mass., is now located. me from a long line of ancestry migrated to America from Eng- in 1632 more because they loved the great outdoor life than to gain religious freedom.



SOM A. MOORE

Seth Moore's father, Joseph Moore, enlisted as a messenger boy under General Washington and served throughout the war.

After his re- home, he married and his entire y was born in Massachusetts. after the Revolutionary War ountry began to settle up rapid- he and his family moved west, ng near Burlington, Vermont. nly lived a few years at this , and in 1810 crossed Lake plain and located a mile or two of the village of Plattsburg, York.

lived here during the war of and my grandfather, who lived us when I was a boy, related incidents of that time. Great- lfather had a little farm and a n on the main highway leading Plattsburg. He was a woodsman helped get out the timber to the American fleet. Four of his were in the American army and old gentleman himself enlisted ought during the siege of Platts-

summer of 1813 was a very ex- one. Rumors were afloat that a ful British fleet was being built nada that would come into Lake plain through the Sorrel River llowing spring and, supported land army on the west side of ke, would cut off the New Eng- States from those west.

American fleet was rapidly be- uilt and manned at Plattsburg tch the British. The spring of found the English Army in Can- nder General Prevost and their under the direct command of in Downey, a veteran who had t under the great Commodore n. The American land forces under the command of General Macomb and the fleet under Commodore Thos. Macdonough.

Early in September there were signs of British scouting parties, and many of them would occasionally stop at my great-grandfather's tavern. My grandfather and his younger brother were home alone with their mother. The evening of Saturday, September 10, all seemed warlike. The army of General Prevost numbering fourteen thousand was upon the scene. Camps were set up in little clearings, and there was a hustle and bustle of cavalry. My grandfather said that officers and others were polite, honest, and orderly.



GENERAL MACOMB

From remarks heard by my grandfather he was sure that the battle would be on Sunday morning, September 11. He resolved to get up real early in the morning and make his way through the darkness and the British outposts to the lake to see the fight.



BATTLE OF PLATTSBURG, IN WHICH MR. MOORE'S GREAT-GRANDFATHER FOUGHT WITH THE AMERICAN FORCES

He was 14 years old and knew all the paths and byways leading to the lake. He proceeded to a point of land known as Cumberland Head. There was a slight breeze from the Northeast. As soon as the day began to break he could see the forms of the enemy ships sailing down from the North, a sight long to be remembered. It was after nine o'clock before they rounded Cumberland Head to sail into the bay.

The British flagship, the Confiance, was followed by the other warships, Linnet and Chub. Cumberland Head cut off the wind and interfered with their progress.

The Confiance made direct for Macdonough's flagship, the Saratoga, expecting to place herself in a position so that she could rake the Saratoga from stem to stern. However, a gun sighted by Commodore Macdonough's fleet crashed through the sides of the Confiance, partially destroying her rudder and rendering her helpless.



COMMODORE MACDONOUGH

She was sufficiently near so that the shells coming from her double shotted guns nearly cleared the decks of the American flagship, Saratoga. The crew that was left rallied and sent such a broadside into the Confiance that they could not man the guns. A cannon ball from the Saratoga hit a spar so that a large sliver killed Captain Downie, the British commander, at almost the opening of the action.

Two of the other British ships were pouring their broadsides into the Saratoga and the battle for a time seemed to be going against the brave Macdonough, but by a quick manner of swinging his ship by cables, he brought the double shotted guns of the entire side of the Saratoga to bear on the Confiance. This so shattered her that she soon struck her colors. The Ticonderoga, Eagle, and Preble were fighting pretty evenly when the Saratoga came to their rescue, finishing a battle which had raged for two and one-half hours. The land forces, learning of this defeat, became panic-stricken and struck out for Canada.

Grandfather said that hundreds of young men who had enlisted in the British army largely for adventure, when they found themselves deserted by their officers, threw away their guns and sought jobs with the farmers and others. Thus the population of Plattsburg and nearby settlements was materially increased.

Joan Moore Burned at Stake

My grandfather often thrilled me with the exploits of his grandfather, Joan Moore, hunter, trapper, and Indian fighter.

Some time previous to the beginning of the last great French and Indian War, 1754—1763, the French claimed the lands bordering the Great Lakes and west of the Alleghanies. They made rapid strides to so thickly populate the country from the Detroit River through the Ohio Valley that the English would find it advisable to keep hands off. The English colonies did not like to see the French settle the country directly west of them and remonstrated to the Mother Country. Consequently Joan Moore was given a commission from the Crown to raise colonial troops and proceed to the disputed territory.

After a few skirmishes he drove the French and Indians across the Detroit river near where the city of Detroit now stands. He then built a stockade and prepared to hold the country he had captured.

A messenger was sent back to the colonists bearing the glad tidings of the success of the campaign. When the information reached the king, he was so delighted that he immediately gave Joan a higher commission and a land grant of several square miles, embodying all the lands occupied by the present city of Detroit and many more.

The messenger returned with the commission from the Crown and the land grant and an order for Joan to return to the colonies to raise a more substantial army and hold the captured country against the French and Indians. Leaving his little band on the shores of the Detroit, Joan proceeded to carry out the king's orders. Returning a few months later he found the stockade burned to the ground and his men massacred. He rebuilt the place, renewed warfare on the French and Indians, and soon had them running pell-mell across the Detroit river.

He made the mistake of his life by following them and setting up camps on the east side of the river. All seemed quiet, but an Indian in the service of the colonists, reported that hostile Indians were skulking around.

(Continued on page 1017)



CUMBERLAND HEAD, FROM WHICH MR. MOORE'S GRANDFATHER AS A BOY OF FOURTEEN WATCHED THE BATTLE BETWEEN THE ENGLISH AND AMERICAN FORCES



WHERE NAVAL BATTLE ON LAKE CHAMPLAIN TOOK PLACE IN 1814

DAIRY CATTLE CONGRESS

Students' Judging Contest

THE team from Ames took just about all the high honors in the college students' judging contest at Waterloo this year. Not only were they first, all breeds considered, by a margin of 68 points, but they were first on Guernseys, Ayrshires, Holsteins, and Brown Swiss. The Kansas boys did the best judging on Jerseys. The nine college teams placed as follows: Iowa, Kansas, Wisconsin, Missouri, Minnesota, Nebraska, South Dakota, Purdue, and Illinois.

Clarence H. Thompson of Ames was the best judge, Ted S. Besh also of Iowa was second, and Howard Vernon of Kansas third.

Howard Vernon of Kansas ranked first on Guernseys; Lloyd Turk, Missouri, was the best Jersey judge; C. H. Thompson of the Ames team finished first with Ayrshires and Holsteins; Ted Besh, also of Iowa, did the best work with Brown Swiss.

Dairy Cattle Exhibits

The Guernseys

Judge: W. W. Yapp, Illinois.

The Guernsey show at Waterloo this year was the best they have had there for several years and in some classes was the best show so far this season. There were upwards of 170 head there with right good tops for every one of the classes and no one or two herds had any monopoly on the top placings as the awards show.

The two best ones in the aged bull class, Border King of Roberts owned by the Larsen Canning Co. and May Rose Cherub from Mrs. McCormick's herd, looked closer than they did at Milwaukee a month earlier, the Cherub bull having improved in the meantime, but Judge Yapp found the Wisconsin entry enough better at the shoulders and over the rump to keep him at the top.

Top place in the three-year-old class was easier, the blue going to Shorewood Farm on Cherub's Golden Secret of Shorewood but the two-year-olds brought out more of a contest. The two best ones here were Cherub's Yank of the Prairie owned by W. W. Marsh and Leader's Bellbuoy of Shorewood owned by D. D. Tenney. The former has an advantage in depth of body and a better rump but he is not so good at the shoulders and it was for that very reason that the judge put him second to the Minnesota bull.

There were three good junior bulls out for championship with Jos. Golinvaux's junior yearling, son of Majesty of the Prairie, the best of the three but neither he nor the other senior bulls were good enough to press Border King of Roberts hard for grand championship.

The best class of the Guernsey show was the ring of three-year-old heifers and it was incidentally the best ring of three-year-olds we have seen for several years. When they finally lined up, Florence of Waldwic, owned by Mrs. McCormick, a very milky looking heifer that needs just a bit more substance, held her place at the top largely because of her unusually good udder. Right below her was a daughter of the grand champion bull owned by Charles Hovey, Iowa. She was by long odds the best bodied thing in the ring with a top to match, but she showed dry without enough udder to beat the top place heifer. Another good McCormick entry, whose udder didn't quite suit the judge, was third, and the grand champion from the Minnesota State Fair, Miss Myrtle of Maple Hill owned by Boulder Bridge Farm, was fourth.

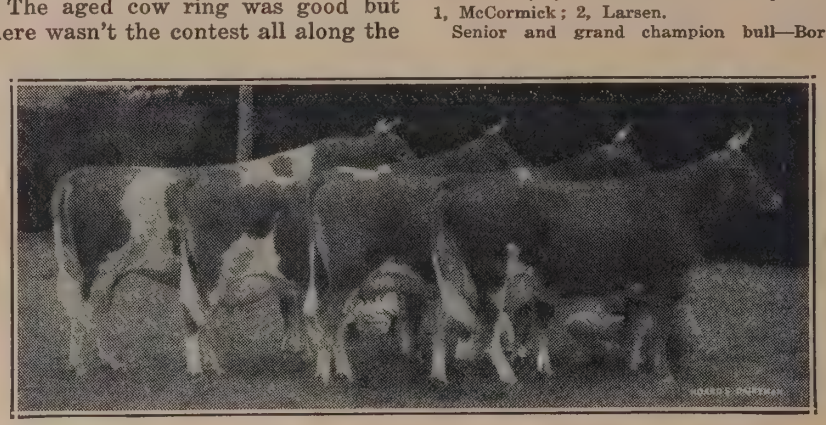
The aged cow ring was good but there wasn't the contest all along the line that the three-year-olds brought out. Imp. County Flower of Langwater, owned by the Larsen Canning Co., was an outstanding top, and second place was just as easy for Mrs. McCormick's Imperial Kitchener's Irene, a mighty well put together cow just short-legged enough to seem smaller than she really is.

County Flower was senior and grand champion and a year-old daughter of Meadow Brook's Danny Duff from the same herd was junior champion.

The Cherubs came into their own in the get of sire class when four by Ladysmith's Cherub headed the line. In the group was the first prize three-year-old bull, the sixth prize aged cow, the second prize four-year-old, and the winning two-year-old heifer.



WINNERS IN COLLEGE STUDENTS' JUDGING CONTEST FROM AMES, IOWA
Left to right: R. Manahan, C. H. Thompson, T. S. Besh, H. Mathews, and F. Ely, coach.



FIRST PRIZE GUERNSEY GET OF SIRE BY LADYSMITH'S CHERUB
Owned by Shorewood Farm, Minnesota

The awards follow:

Bull 4 years or over—1, Wm. Larsen Canning Co. on Border King of Roberts; 2, Mrs. C. McCormick on May Rose Cherub; 3, Radisson Farm on Radisson Bonny Royal. Bull 3 years, under 4—1, Shorewood Farm on Cherub's Golden Secret of Shorewood; 2, H. T. Smith on Faith's Cherub; 3, McCormick on Cantingny's Cavalier. Bull 2 years, under 3—1, Shorewood on Leader's Bellbuoy of Shorewood; 2, W. W. Marsh on Cherub's Yank of the Prairie; 3, Larsen on Queechy's Danny of Fern Dell.

Cow 5 years or over—1, Larsen on Imp. County Flower of Langwater; 2, McCormick on Imperial Kitchener's Irene; 3, Smith on Faith of Chesney Farms. Cow 4 years, under 5—1, Smith on Faith's Wonder of Smithdale; 2, Shorewood on Cherub's Procris of Shorewood; 3, Radisson on Royalist's Beauty of Radisson. Cow 3 years, under 4—1 and 3, McCormick on Florence of Waldwic and Chief's Lady Laura of Guernsey Farm; 2, Hovey on Raider's Golden Lily of Roberts. Heifer 2 years, under 3—1, Shorewood on Cherub's Royal Gem of Shorewood; 2, Larsen on Danny's Farewell Morn of Fern Dell; 3, Ft. Dodge Cry. Co. on Itasca Cherub's Vera.

Young Herd—1, Larsen; 2, Radisson; 3, Golinvaux. Get of sire—1 and 5, Shorewood on get of Ladysmith's Cherub and Cherub's Royal Leader of Shorewood; 2, Larsen on get of Meadow Brook's Danny Duff; 3, Golinvaux on get of Majesty of the Prairie; 4, Radisson on get of Radisson's Golden Royalist. Produce of Dam—1, Smith; 2, Hovey; 3 and 4, Shorewood; 5, Uni. of Illinois. Dairy Herd—1, McCormick; 2, Larsen.

Senior and grand champion bull—Border King of Roberts. Junior champion bull—Majesty's Jasper of Highland Place.

Senior and grand champion cow—Imp. County Flower of Langwater. Junior champion cow—Myrtilla of Fern Dell.

The Jerseys

Judge: C. H. Staples, Louisiana.

There was a better Jersey show this year than in 1926—over 100 from five states, but it wasn't so interesting to watch as were some of the other breeds because it was noticeably harder to follow the judging.

In the aged bull class it looked as though Glory's Interest Lad owned by W. S. Dixon of Wisconsin was quite an easy first but the judge ruled otherwise and put him second to Fashionable Fern Lad, owned by Meredith Jersey Farm. The Wisconsin bull is a better topped, much better middled, and better finished bull that needs only a little more stretch and a better head to make him a strong contender in most shows.

The Oaklands had the only three-year-old and Oxford Noble, the two-year-old owned by H. J. Trost, Wisconsin, but bred and shown by the Oaklands, was a good top to five two-year-olds.

W. S. Dixon showed all three ning juniors and made sure of ju champion but it didn't look lik won it on the right bull. His se yearling, Bessie's Fontaine Duke we think, one of the very best y lings out this year and looked t just about the best Jersey bull at show. A good many had him pi for junior and grand champion the judge awarded junior champ ship to the winning calf and se and grand to Fashionable Fern

In the aged cow class Knight's lie Dear, owned by the Oaklan consistent winner this fall, and cessful Golden Cowslip, grand c pion at Minnesota three weeks lier, were the tops, each cow wi ringside following. The M dith entry, fresh at Minnesota showing at her best, went up ove Michigan cow.

Junior championship was bet the Oaklands' senior yearling, a springer, and Knight's junior y ling, with the Meredith Farm win calf a third choice. The oldest he showing with almost enough u for a milking 2-year-old, won.

Oaklands' winning get of sire Oxford Sultan of Oaklands, incl the winning three-year-old and year-old bulls, the junior cham heifer, and the third prize ju yearling heifer. The awards fo

Bull 4 years or over—1 and 3, Meredith sey Farm on Fashionable Fern Lad Xenia's Sultan of Lehigh; 2, W. S. Dix Glory's Interest Lad. Bull 3 years, und 1, The Oaklands on Oxford Sleeper's Bull 2 years, under 3—1, H. J. Trost o ford Noble; 2, W. M. Knight on Modesty ford Majesty 5th; 3, Meredith on X White Knight.

Cow 5 years or over—1, Meredith on cessful Golden Cowslip; 2 and 3, The lands on Knight's Nellie Dear and Fo Benedictine. Cow 4 years, under 5—1, lands on Lady of Broadfields, Imp.; 2, on Harbinger's Beauty Ann; 3, W. Tho on Financial Fashionable Lady. Cow 3 under 4—1, Meredith on Xenia's Pea Dixon on Jap's Majesty May; 3, Knig Oxford's Rosetta's Queen 3rd. Heifer 2 under 3—1, The Oaklands on Bramptor cessful Lass; 2, Knight on Modesty's Belle; 3, Meredith on Butter Boy's Carn

Young Herd—1, Oaklands; 2, Knigh Dixon. Get of Sire—1, Oaklands on Oxford Sultan of Oaklands; 2 and 4, Hi on get of Modesty's Oxford Majest Meredith on get of Xenia's Sultan of L 5, Dixon on get of Jap's Fontaine's Produce of Dam—1, Meredith; 2, Knig Dixon. Dairy Herd—1, Oaklands; 2, dith; 3, Dixon.

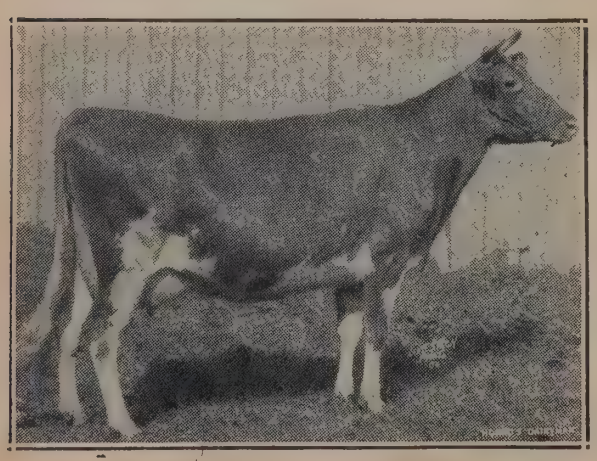
Senior and grand champion bull—Fa able Fern Lad. Junior champion bull—a Oxford Majesty.

Senior and grand champion cow—Sue ful Golden Cowslip. Junior champion Oxford's Bowlina Pet.

Holsteins

Judge: H. H. Kildee, Iowa.

The Dairy Cattle Congress n always brings out a very good stein show and it did so this There were over 200 head fro



COUNTY FLOWER OF LANGWATER, SENIOR AND GRAND CHAMPION GUERNSEY COW
Owned by Wm. Larsen Canning Co., Wisconsin



FASHIONABLE FERN LAD, SENIOR AND GRAN CHAMPION JERSEY BULL
Owned by Meredith Jersey Farm, Iowa

s, not so large a showing as in ; but large enough and good igh to have right good tops in y class and some very good lown the line in most cases. It the best black and white show ar in 1927 and probably will not ettered later.

here were, it seemed to us, three tanding bulls—two senior and junior. Sir Fobes Ormsby Hen-eld, all-American in 1926 and feated this year, was unques-ably not only the best in the aged but the best of the show. His est competitor among the seniors the two-year-old, King Home-l Piebe Lad, owned by J. D. Mc-ald, Wisconsin. He is an up-ling, straight-topped fellow with d deal of style, but right now he so much Holstein bull as is his ar-old rival. Maturity with its equent development may bring ecessary improvement, but that's thing for the future to decide. he best junior bull, DeCreamCo mity Posch, a junior yearling, from Michigan. He is a smooth with a good top and rump and y of length but he would per-be improved with a bit more le and better handling quality. vas an outstanding junior cham-

he aged cow class with its 20 en-brought out some very good none of them better Elmwood Farm's atha Hark Dela-e, the 12-year-old and type cow that been winning con-ntly. Right below a more refined cow d by the Michigan rmatory. She is ididly veined and a good udder, albeit hat is not perfectly iced, but she does have the substance quite the top line of Illinois winner. olger Larsen's 4-old, undefeated in this year, was an top to the 4-year-but she, too, is of more refined type, couldn't beat the old cow for r championship.

rofessor Kildee didn't adhere to rugged, big framed type so close-ith his juniors. He headed the r yearlings with Hargrove & Ar-'s Triune Papoose Piebe, last 's all-American calf, and later ded her junior championship the rather heavy framed, thick-unior yearling and calf. The heifer was unfortunately bred early and because she has milked does not have the flash and m she undoubtedly would other-have had.

. O. Larsen, whose herd has been a consistent winner all fall, is showing an unusually good "get" by Forum Patriarch, the third prize aged bull. In the group are the second prize junior yearling bull, the fourth prize two-year-old heifer, and two good yearling heifers, a uniformly good foursome that deserved its place at the top.

The state herd class with entries from Illinois, Wisconsin, Iowa, and Michigan was excellent and so close that there was but little difference between first and fourth. They placed as named.

The awards follow:

Bull 4 years or over—1, Elmwood Farm on Sir Fobes Ormsby Hengerveld; 2, P. P. Stewart on Tritomia Ormsby Pietertje; 3, H. O. Larsen on Forum Patriarch. Bull 3 years, under 4—1, Femco Farms on Blue Earth Duke Ormsby; 2, C. E. Rudolph on Tower Hill King; 3, J. D. McDonald on Oldenburg Ormsby Pontiac Walker. Bull 2 years, under 3—1, McDonald on King Homestead Piebe Lad; 2, Chapman Farms on Triune Ormsby Piebe 59th; 3, R. E. Maxwell on Ormsby Pietertje Piebe of Merrymax.

Cow 5 years or over—1, Elmwood on Colantha Hark Delaphene; 2, Mich. Reformatory on Tulip Beauty; 3, Detroit Cry. Co. on Bell Farm Hattie. Cow 4 years, under 5—1, Larsen on Long Hollow Mercedes Butter Boy; 2, Elmwood on Oakwood Piebe Ollie; 3, McDonald on Canary Bess Fayne Ormsby. Cow 3 years, under 4—1, Jefferson Co. Asy. Farm on Johanna Pietertje Artis Creamelle; 2, Chapman on Winnemaug Pauline Korndyke; 3, Stewart on Miss Pontiac Aaggie Ormsby. Heifer 2 years, under 3—1, McDonald on Aaggie Segis Pontiac Piebe; 2, Larsen on Forum Diana Masterpiece; 3, Jeff. Co. Asy. Farm on Madam Creamelle Colantha.

Young Herd—1, Jeff. Co. Asy. Farm; 2, Larsen; 3, Elmwood. Get of Sire—1, Larsen on get of Forum Patriarch; 2, Stewart on get of Tritomia Pietertje Ormsby; 3, McDonald on get of King Homestead Piebe De Kol; 4, Hargrove and Arnold on get of Triune Ormsby Piebe; 5, Jeff. Co. Asy. on get of Dutchland Creamelle Denver Prince. Produce of Dam—1, McDonald; 2, Larsen; 3, Christ and Braman. A. R. Cow—1 and 2, Larsen on Long Hollow Mercedes Butter Boy and Forum Pontiac Queen; 3, Chapman on Korndyke Alcartra Albino Dairy Herd—1, Larsen; 2, Elmwood; 3, McDonald. A. R. Get of Sire—1, Tritomia Pietertje Ormsby; 2, Sir Johanna Fayne Segis Pontiac.

Senior and grand champion bull—Sir Fobes Ormsby Hengerveld. Junior champion bull—DeCreamCo Calamity Posch.

Senior and grand champion cow—Colantha Hark Delaphene. Junior champion cow—Triune Papoose Piebe.



MARQUIS DE FARCEUR, FIRST PRIZE 2-YEAR-OLD AND RESERVE JUNIOR CHAMPION BELGIAN STALLION
OWNED BY BOULDER BRIDGE FARM, MINNESOTA

out the best bull of the show, Maiden's Vronicka's College Boy, a remarkably well turned four-year-old owned by J. F. Zoller of New York. He has been undefeated so far this year and was by far the best bull of his breed at Waterloo, although there were a number of other right good bulls shown. He was, of course, senior and grand champion. A twelve-month-old calf, also owned by Zoller, was junior champion.

The aged cow class this year should have interested any dairy cattle man whatever his breed affiliations, because it brought out just about the best of the breed from both a type and production standpoint. At the head of the line was June's College Girl, a big, well topped, strong bodied cow with a good udder. She leads her breed with 1,062.5 lbs. butterfat for a year's production. Next to her stood Silver Bell that produced 772 lbs. fat in the 10 months' division. Immediately below her was Goldie Merrillan that produced 873 lbs. butterfat as a 4-year-old and in fourth place stood Swiss Girl that is now on test and has produced 550 lbs. fat in 6 months. In fifth place was Betty of Lake View, a prize winner for years that has a 2-year-old record of 514 lbs. butterfat. It is seldom indeed that the top cows in any dairy cattle ring combine type with production as did this group.

The younger females, too, showed the marked improvement this breed has been making the past few years. There were good ones to head every class and the judge didn't always find it easy to pick his top.

June's College Girl was senior and grand champion and J. F. Zoller's senior yearling daughter of Vronicka's College Boy was junior champion.

First on get of sire was quite easy for the Zoller herd, their group by Vronicka's College Boy including the grand champion bull and the junior champion heifer with two other good ones.

The awards follow:

Bull 4 years or over—1, J. F. Zoller on Maiden's Vronicka's College Boy; 2, Mooney & Larrabee on Believe of Lake View; 3, N. C. Schmid on Meadow Green John. Bull 3 years, under 4—1, Iowa Brown Swiss Co. on Vogel Boy 2d of Valley Grove; 2, Schultz Bros. on Vogel's Girl's Lad. Bull 2 years, under 3—1, H. A. Mabon on Betsy Bravura Prince; 2, Iowa B. S. Co. on June's College Boy; 3, Mooney & Larrabee on Pride Schoney.

Cow 5 years or over—1, 2, 3, Iowa B. S. Co. on June's College Girl, Silver Bell, and Goldie Merrillan. Cow 4 years, under 5—1 and 2, Iowa B. S. Co. on College Ethel W. and Belle Silver; 3, Zoller on May of Meadow Green. Cow 3 years, under 4—1, Zoller on Carl's Valley Girl 9th of Lake View; 2, A. E. Bower & Son on Beautiful Belle of Bowerhome; 3, Mooney & Larrabee on Pride Ursula. Heifer 2 years, under 3—1 and 2, Bower on Duedda of Bowerhome and Septa of Bowerhome; 3, Zoller on Ester Meg of Wahalla.

Young Herd—1, Bower; 2, Iowa B. S. Co.; 3, Schmid. Get of sire—1, Zoller on get of Vronicka's College Boy; 2 and 4, Bower on get of Edgard C; 3, Iowa B. S. Co. on get of Valley Grove Weiss Boy; 5, Schmid on get of Vronicka's College Boy. Produce of Dam—1 and 2, Zoller; 3, Bower. A. R. Cow—1, June's College Girl; 2, Silver Belle; 3, Betty of Lake View. Herd to consist of 4 cows over 2 years old that shall have calved, all owned by exhibitor—1 and 2, Iowa Brown Swiss Co.; 3, Zoller.

Senior and grand champion bull—Maiden's

(Continued on page 1026)



DECREAMCO CALAMITY POSCH, JUNIOR CHAMPION HOLSTEIN BULL
OWNED BY DETROIT CREAMERY CO., MICHIGAN



SIR FOBES ORMSBY HENGERVELD, SENIOR AND GRAND CHAMPION HOLSTEIN BULL
OWNED BY ELMWOOD FARM, ILLINOIS



IDEN'S VRONICKA'S COLLEGE BOY, SENIOR AND GRAND CHAMPION BROWN SWISS BULL
OWNED BY FRANK ZOLLER, NEW YORK

The Brown Swiss

Judge: C. S. Rhode, Illinois.

The Dairy Cattle Congress always has a strong Brown Swiss show and the one this year was no exception. If one wanted to see good Swiss in the ring, Waterloo was the place to be Sept. 27 and 28. There were well over 100 head there from 16 herds and Judge Rhode lined them up in good shape.

The first class of four aged bulls brought



BROWN SWISS COWS WITH HIGH FAT RECORDS EXHIBITED BY DR. C. F. OSBORNE, IOWA. THEY WERE FIRST PRIZE DAIRY HERD

Left to right: June's College Girl, senior and grand champion, with a record of 1,062 lbs. fat in a year; College Ethel W, that in 230 days produced 502.9 lbs. fat as a 3-year-old; Goldie Merrillan, with a record of 873 lbs. fat as a four-year-old; and Silver Bell, that produced 772 lbs. fat in 10 months.

SEATTLE MILK SHIPPERS' ASSOCIATION

PETER GUYSON, IOWA

THE Seattle Milk Shippers' Association entered upon its seventh year of operation on the first of June, 1927, with brighter prospects for future service than it has enjoyed for some time. Shortly before that, this organization consolidated with all the other co-operative dairy associations on the western slope by affiliating with the Consolidated Dairy Products Company which has for seven years sold all the products of the United Dairy Association and of the various county dairy associations of Western Washington. It is therefore now fairly difficult for any distributing dairy wishing a milk supply outside of the association to go and get any considerable amount. An arrangement has been made with these other counties whereby they will hold their milk out of the Seattle market until it is needed.

In telling about the change, Chas. E. Smith, secretary of the Shippers' Association, said: "The business is handled just as formerly except that the checks from our customers are made to this Consolidated Dairy Products Company and we are paid in a lump sum by them. We have now secured contracts from practically all the dairies in the city whereby they agree to take their entire supply from the Milk Shippers' Association except such milk as is under contract. This means that we handle between 65 to 70 per cent of the total milk supply of Seattle. The remaining 30 per cent to 35 per cent is provided by a few raw milk dealers who will sell their own milk and by one of the other co-operatives whose supply was contracted for three years ago. This latter supply will continue to come in under our contract with the consolidated."

Secure Better Surplus Price

The Seattle milk price is based on condensery prices. During some periods of the year there is a considerable surplus above what can be used in the city, so the problem has been to dispose of this surplus at higher than condensery prices. Due to the better bargaining position after the consolidation, this has recently been accomplished so at present the shippers get a net income of at least 15 cents per cwt. over any former rates for all surplus milk. One arrangement is with a condensery for the surplus that originates nearby.

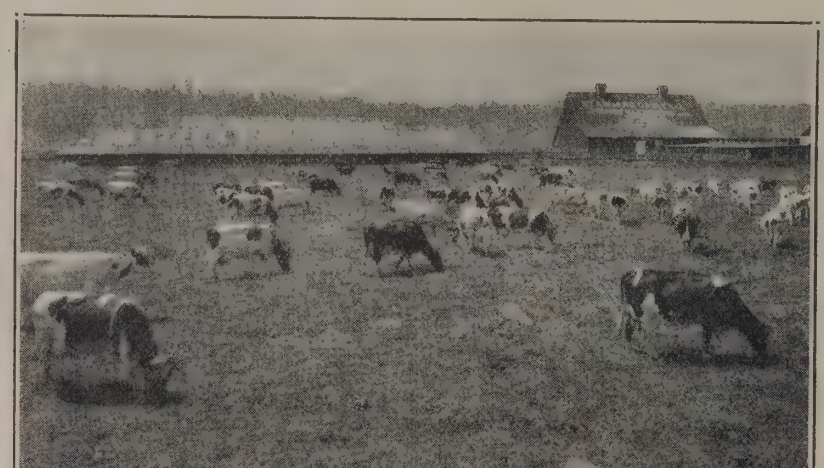
The condensers through competition have been giving a free haul for some time. Smith said: "This made it rather difficult to get very much extra, but we did secure an arrangement whereby in consideration of our consolidating the supply in one place, we receive 30 cents over what was the condenser price delivered at the plants. This nets the farmer 15 cents at his place after delivery charges have been deducted. For any other surplus originating in territory adjacent to this particular condensery, we have a contract with an ice cream company that nets us from 40 to 45 cents more than condensery prices delivered in Seattle. If we consider the haul at about 25 cents per cwt., this gives a net at the farm of 15 cents or better over condensery prices. It assists very materially in maintaining a good spread for our city supply which is now fixed at 80 cents over condenser."



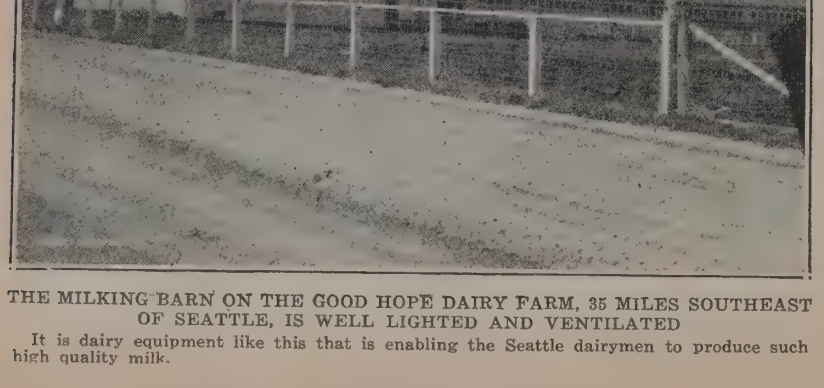
CHAS. E. SMITH, SECRETARY AND MANAGER OF THE SEATTLE MILK SHIPPERS' ASSOCIATION

Seattle's milk supply is produced largely in a territory extending north to Stanwood, east to Snohomish, and south to Tacoma. One shipper lives on Bainbridge Island but he markets most of his supply at a country club. The 365 members of the association are mostly Scandinavians, Swiss, and Hollanders. Some of the shippers send in from 10 to 15 gallons a day, many of them send from 200 to 300 and the largest shipper markets from 60 to a hundred cans daily from his 375 cows. Practically all of the milk is brought into the city by trucks over the fine network of roads that forward looking highway departments have built. Only 15 or 20 cans are shipped in by train and Smith says these have been shipped that way for 20 years.

In the shipping association territory surrounding Seattle there are seven different communities and it is in the organization of these communities for airing of opinions that much of the cause for the present harmony lies. Charles E. Smith, ably assisted by the present board of directors, H. M. Shaffer, Herman Nelson, August Anghern, and E. T. Short, with a few others, perfected the work of organization. Each community elects its own chairman. The affairs that pertain particularly to that community are taken up by this group and brought to the attention of the office of the association. If any matter is of general importance to the association, Secretary Smith has the situation so well in hand that he can see the seven community chairmen by driving one day. Then with the telephone these chairmen can get in touch with a large number of their neighbors and in a short time the matter is well understood by the whole community. As a result, the chances are that the vote is right when a vote comes, because the members have had an opportunity to discuss the problem before it is put to a vote.



HENRY KLEINBERG'S HERD OF HOLSTEINS WHERE AN AVERAGE OF 700 GALLONS OF MILK A DAY ORIGINATES FOR THE SEATTLE MARKET



THE MILKING BARN ON THE GOOD HOPE DAIRY FARM, 35 MILES SOUTHEAST OF SEATTLE, IS WELL LIGHTED AND VENTILATED

It is dairy equipment like this that is enabling the Seattle dairymen to produce such high quality milk.

Progress Supplants Chaos

The editor suggests that Hoard's Dairyman readers might be interested in the methods that have been employed to bring about the strong position the shippers' association now enjoys on the Seattle market compared with the chaos that exis three years ago, so we asked Smith to relate them. He says: 1925 the association was just em ing from a bitter fight which was tered into after a very short-sigh policy had been established; nam that of trying to maintain the no that the Seattle market belongs clusively to members of the Sea Milk Shippers' Association. Th was an entire lack of any co-op tive spirit between this associa and other farm co-operatives an was largely due to this fact that other farm co-operative, located Snohomish County, agreed to tract a certain portion of its milk a certain very large distributor had been a customer of the Sea Milk Shippers' Association.

"This fight brought about downfall of the Board which been governing the association several years and placed in charge entirely new board and managem While there had previously been tracts with the various dairies to s ply them their milk, due to the that we were really a pooling orga zation and that we had by this fi about 8,000 gallons of surplus struggle with, the new managem had to adopt a new policy enti and sell milk to anybody who wo buy it. If they would buy part their supply of us, we sold it. E during this time some were loyal bought their entire supply, altho to be fair, we did not compel th to do this.

"The building of the new orga zation came through a constant tempt on the part of the managem and the board to give the best serv possible to our customers and gradually win back their favor win back their trade. At the pres time this has been accomplished t very large extent and our volum now as large, if not larger, tha was before the disastrous fight. of the strong features in gaining market has been in the developm of quality. The dairies have co peted with each other to secure best shippers available. With membership situated nearby the c it has been largely within our m bership that these best shippers h been found. We have aligned o selves with the Health Departm and with the distributor in such manner that the best milk secures best market.

"Whenever the milk of any certi member is complained of by the ph receiving it, we have gone to the sh per and have warned him that un he keeps the milk absolutely up t high standard, the chances are v strong he will lose his market someone who can produce better m can take it. If his milk is not g enough to obtain and hold the market, the Health Department t him from the city trade and we him from the pool. He therefo simply gets a surplus price, which very much lower than the city pr he has been enjoying. A week or of this kind of treatment usu makes a good shipper out of h This three-cornered arrangem thoroughly co-operative, namely, w the Health Department, the distr utor, and the producers' organizatio is rapidly building a better and bet quality in the milk supply and leading the distributor to the po where he prefers to get milk which being controlled and improved in manner."

It may be of interest to note h

ne of the regulations that Seattle's alth Department is enforcing to p her milk supply at the high level a 96-score even during the summer nths. Milk samples are taken at ular intervals from every herd ducing milk for Seattle trade. ch dairyman is then scored and the ults are given to the milk distribu- s who in turn try to get their sup- from the better shippers.

Milking barns must be sealed if re is hay or any room overhead. is single ruling helps to account the many low milking barns that sees here. No manure may be pped nearer than 50 feet from the king barn. The gutters must be ht. The stable must be washed or ayed with whitewash. Cobwebs st be broomed down. Udders uld be cleaned with washing cloth. vered milk pails must be used. A rugated cooler large enough to ac- nmodate all the milk must be in- lled. Many dairymen have steam rilizers that use coal or wood, ile others have installed electric ters to meet the various sanitary ings that apply to the care of nsils. It takes time and money to nply with all these requirements, they have all helped to boost the rage city milk consumption so it paid in dollars as well as in the owledge that a clean, wholesome duct is being made.

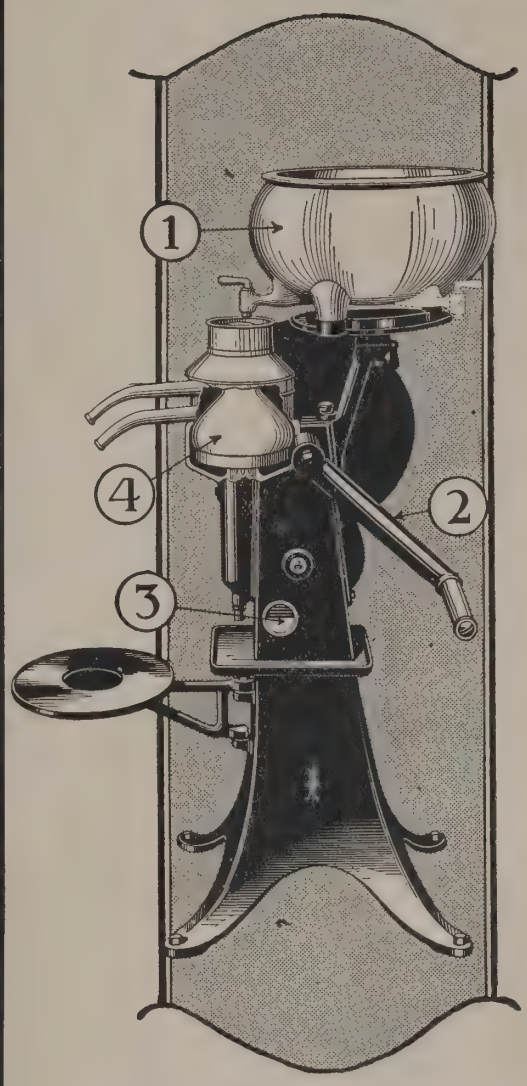
Cement Friendship With County Co-operatives

Smith believes that one of the more asant features of the recent work the Seattle Shippers' Association been in the cementing of friend- p relations with other co-operative stern slope associations. He said: he Snohomish County, Skagit unty, and Whatcomb County Dai- nen's Associations were formerly mbers of the United Dairymen's sociation, which included practical- all of the Western Washington ry activities. The United Dairy- n's Association, I believe, has ken up in a way in various county ts. We are now co-operating roughly with these three associa- ns by the purchase of stock in the nsolidated Dairy Products Com- ny, which for seven years has been ir selling organization. We have refore at the present time elim- ted the fights which formerly were expensive. By paying a small de- tion on the milk to the Consoli- ed Dairy Products Company, reby helping to carry its over- d, we have secured resolutions m these other counties not to mar- their milk in Seattle until it is ded, thereby rather guaranteeing t the market will be kept stable. I ght say in this connection that the ributors who are our customers e welcomed this co-operative move our part and feel that it protects m no less than us, because any it or disturbance in the milk in- try is bound to affect them ad- sely.

Improvements in Association

"In our reorganization," continued ith, "there was a complete change olicy from the one which obtained the first years of the association, en a few leading lights seemed to elop its laws and manage all its rations and who managed its poli- through a strong proxy vote, ich they usually had with them on occasions. Voting by proxy was minated in 1925. Since then any nge in policy, except in minor de- s, has been worked over by the ard, secured its support, and then taken time to get out over the ritory to the Community Chairman l thence to their community clubs a complete and exhaustive dis- sion before being brought to a final vote. In this way, entire confidence has been secured and it is almost a foregone conclusion that if a matter has real merit and will work out for the good of the association, it can be put over by this method, notwithstanding the fact that if it were sprung at a big meeting when there was little time for discussion and when some enemies to progress might do some "spellbinding," it would be lost. I do not mean to say that we do not have our difficulties. We do, but we believe that this method of dealing with the co-operative institutions will gradually overcome them with the least possible danger to the organization. The politics of the association have now come to be handled through these community clubs in the same way and we could not well help it if we tried. In this also, I believe, is its strength, because any matter if properly argued out will usually develop the sensible side and the vote will be right."

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Idaho Dairy Course

A five months' short course in commercial dairying is announced for this winter by the Idaho College of Agriculture at Moscow. The course, which extends from October 26 to March 28, will be the most complete of its kind offered by any institution in the West.

No tuition is charged and anyone over 17 years of age is eligible, although it is urged that the student should have at least an eighth grade education.

Students are assisted in getting positions after they have earned their certificates. Of 51 graduates in recent years 45 have taken up dairy manufacturing work, four entered the dairy production field, two continued in the four-year course in dairy husbandry. Three are already owners or part-owners of their plants and 11 are managers or superintendents.

Bulletins of Interest

Outdoor Flowers for the Home, by James G. Moore. Circular 212, Extension Service of the Wisconsin College of Agriculture, Madison, Wis.

What the Illinois Farmer Can Do to Learn About His Soils, by E. E. DeTurk. Circular 302, Illinois Experiment Station, Urbana, Ill.

Tax Burdens Compared, by B. H. Hibbard and B. W. Allin. Bulletin 393, Wisconsin Experiment Station, Madison, Wis.

Judging Dairy Cattle, by A. B. Nystrom and C. H. Schopmeyer. Circular 99, U. S. Dept. of Agr., Washington, D. C.

Pasture for Pigs, by F. B. Morrison, J. M. Fargo, and H. J. Brant. Circular 213, Extension Service Wisconsin College of Agriculture, Madison, Wis.

Diseases and Parasites of Poultry in California, by J. R. Beach and S. B. Freeborn. Circular 8, California Extension Service, Berkeley, Calif.

Rabbit Raising, by H. M. Butterfield and W. E. Lloyd. Circular 9, California Extension Service, Berkeley, Calif.

Phosphorus Deficiency and a Dairy Cattle Disease, by E. B. Hart, B. A. Beach, E. J. Delwiche, and E. G. Bailey. Bulletin 389, Wisconsin Experiment Station, Madison, Wis.

Agriculture's Triple Seal, by K. L. Hatch. Circular 193, Wisconsin College of Agriculture, Madison, Wis.

A Correction

In our September 25th issue in the report of the Minnesota State Fair, the Meredith Jersey Farm was wrongly credited with but one blue ribbon won. Their herd won three firsts and premier exhibitor banner.

EDITORIAL COMMENT



EXPERIENCE PAVES WAY FOR CAPITAL

Experience in dairying is a mighty valuable thing to have had before one starts into doing things for himself. Some folks have the notion that all that is necessary for success in dairying is to have unlimited capital or credit with which to buy good cattle and build fine barns. Capital or credit is a fine thing in dairying if coupled with intelligent direction, but without sound experience it is a dangerous undertaking and explains why some men fail with cows.

Nowhere have we seen the value of experience coupled with limited capital so forcefully demonstrated as on the E. E. Price farm in Newaygo County, Michigan.

As we were walking across a field to a pasture to look at some cows, Mr. Price said, "When wife and I started we didn't have much capital so we had to make experience take its place."

Mr. Price got his experience first by testing cows and working on good dairy farms. Thus when he dared risk the thousand dollars he had saved on his own farm and herd, he had confidence in his ability to do the right thing at the right time.

Experience begets confidence which leads to unabused credit. After that, capital is not only more easily obtained but it also is used with greater efficiency.

FEEDING VS. BREEDING

A great many farmers seem to be unable to keep these two great dairy principles apart and adjust their minds so as to measure each for just what it is worth. One man will say everything is in feeding; another, everything is in breeding. The old law in logic, "never compare things that differ,'" comes in here.

Breeding cannot take the place of feeding nor can feeding take the place of breeding. A wagon is composed of wood and iron. The man who is judging a wagon and looks only to the wood will get fooled. So, also, if he looks only to the iron. In caring for it he must oil the iron gearing and paint the wooden parts. It won't do to reverse this practice.

Now a dairy cow is made up of breed and feed. We cannot measure what we shall do in one by the other. We breed to produce a certain type of a cow, with certain inherent dairy characteristics in her.

Then we feed her according to those dairy characteristics to support the action of a specific dairy function that we have bred to produce. We must keep these two principles always separate in our judgment and practice.

CONFERENCE ON FERTILIZERS

Representatives of experiment stations, the United States Department of Agriculture, the farm press, and the manufacturers of commercial fertilizers met recently in Louisville, Kentucky, at the call of Dr. Tait Butler, editor Progressive Farmer, for a conference on commercial fertilizers. Advancement in knowledge and a desire for greater efficiency created a demand for certain changes in the commercial fertilizer industry. Men interested in this industry and in growing better crops devoted two days to discussing fertilizer problems and made a number of recommendations which, if followed, will simplify the manufacture of fertilizers and give more information to the farmers who use them.

Fewer grades, simplified labeling, and higher quality were urged and approved at this conference. It was recommended that the term acid phosphate be changed to superphosphate, because of the misunderstanding of the word acid. Increased appropriations were favored for soil research, soil demonstrations, and soil extension work. It was strongly urged that experiment stations unify and co-ordinate their work in fertilizer research and to publish popular reports of soil investigations.

The whole trend of the conference was to effect changes in the fertilizer industry that will assist farmers to understand its products better and to provide ways and means to obtain the most profitable returns from their use.

CHICAGO MILK PRODUCERS

We believe the work of the Pure Milk Association deserves a larger membership of milk producers to assist in making this association a still more serviceable institution.

To increase the membership of the Pure Milk Association, a series of meetings will be held from Monday, October 24, to Saturday, October 29, in the Chicago milk district. Speakers at these several meetings will be H. D. Allebach, president and manager of the Inter-State Milk Producers' Association, Philadelphia; I. W. Heaps, secretary and treasurer, Maryland State Dairymen's Association, Baltimore; and B. F. Beach, assistant secretary, Michigan Milk Producers' Association, Detroit.

These men have had large experience in organizing, developing, and directing successful co-operative enterprises. The meetings should be well attended for the speakers are able to give useful information to those looking for co-operative knowledge and desire to join an organization formed upon a basis that will permit it to succeed. Further, milk producers in the Chicago territory need a strong, well organized co-operative marketing association. The Chicago milk territory has been in a turmoil for the past 25 years and it is time for the milk producers to get together and quit penalizing themselves.

TREBLING INCOME

"Cows that produce twice as much as the average cows of the United States require only 40 per cent more feed."

This statement by the United States Department of Agriculture is based on the examination of 100,000 yearly records made by cows in cow testing associations. Comparisons were made not only on the cost of feed, but also on the amount of digestible nutrients consumed. In both cases cows producing 9,000 pounds milk consumed approximately 40 per cent more digestible nutrients and had a 40 per cent higher feed cost than cows producing 4,500 pounds milk.

But the story does not end simply with the cost of feed. What we are all interested in is profits. While feed costs increased 40%, the income over cost of feed was nearly trebled. When the cows were divided into groups according to production, it was found in the group averaging 155 pounds fat that the cost of feed was $50 and the income over cost of feed was $34. In the group averaging 299 pounds fat, not quite double that of the previous group, the cost of feed was $68 and the income over cost of feed was $96. The second group exceeded the first by 93 per cent in the production of fat, by 36 per cent in cost of feed, and by 182 per cent in income over cost of feed.

Trebling profits by doubling production is pretty good evidence that high production pays. We have always known this in a general way, but it is comforting to get evidence of such a character that it cannot be successfully controverted. It pays to feed the cow properly and keep records so that one may select the better ones for breeding, all of which is concisely stated in the slogan—"Feed, Weed, Breed."

PRICE AND SUPPLY

The price of milk in districts supplying New York City is being contracted for at the rate of $3.00 per 100 pounds 3% milk, and for a period of three months. Dairy farmers with good cows and who otherwise manage their business will find this price remunerative. They will not flow in riches, to be sure, but the price of $3.00 per 100 pounds 3% milk places these milk producers upon a proper relationship with other industries. The secret of prosperity for all industries is one of proper relationship. Under our present economic condition high prices are a good thing but what we are all concerned about is the purchasing power of a d work.

A lesson should be drawn from the present of milk in New York City, namely, that a price can be secured for a product when it is produced in excess of market demands.

In working out a plan to stabilize prices a l erroneous opinions have been expressed. S have gone so far as to declare that if farmers properly organized they could set the price on t products and would not be forced to sell their modities at unreasonably low prices. This is sound advice. We do not know of any indu which is sufficiently organized to hold price profitable levels when there is constant over duction. The chief cause of low prices for n agricultural products is not due to disorgar agriculture so much as to overproduction. producers in the New York milk shed are be ing organized and without question they have able to sell their milk at a better price through ganized effort, but the factor that has had largest influence on raising the price is the sc ty of milk. This should be kept in mind for fundamental to a proper solution of our agr tural problems.

FARMING INTELLIGENTLY

"They surely farm with intelligence in Wis sin. They don't plant one crop and then sit and wait for it to come true. They are busy al time with their small grains, their dairies, t peas, tobacco, hogs, poultry, and eggs. They contrivers and experimenters. They are true t the proverbs of thrift and caution, always ha more than one string to their bow and never ting all their eggs in one basket."

It shouldn't be gathered from this quot from James O'Donnel Bennett, veteran corresp ent of the Chicago Tribune, that the farme Wisconsin have so perfected their method farming and marketing their products as to i them maximum returns. There are still larg portunities for improving the methods of agr ture in that state and to increase the profits o farmer.

It has been fortunate for Wisconsin that she had good leadership and, in the early years o agriculture, men who saw that diversificatio farming and the dairy cow were what was nee to bring the best returns to agriculture. These believed in organization and urged it on ever casion. While Wisconsin is not as well organ as it should be, yet it leads in cow testing ass tions; it leads in a number of local breed ass tions and it has strong state breed organizat There is a state creamery association, a large federation of cheese factories, a buttermakers' a cheesemakers' association, and a dairymen's ciation. Around many of the larger cities there milk producers' associations well managed rendering their patrons good service.

To hold, as some do, that Wisconsin has little in the way of organization is to fly in the face of facts. The results of her farm opera indicate that there has been well organized fo and nothing is to be gained in minimizing purposes and efforts. It would be equally unwi hold that all farm operations are so well pla and executed and the farmers so well organ that no further effort need be made.

We believe it is well to recognize what has accomplished and then lay plans to secure better results.

Feeding for Profit

In the annual report of the Rockfield Cow ing Association, Alvin Druss gives the follo testimonial as to what testing has done for hi

"There are still a large number of farmers persist in feeding cows with scoop shovels, big dy pails, bushel baskets, and what not. They what they think is right before each cow and even feed all cows alike, fresh ones, old strip

and small ones, poor and fat ones, everything same. The farmers that dairy in that manner as old fashioned and far behind as an ox team a modern farm.

A dairyman knows each cow individually and ls her according to her condition and butterfat duction. How far would any business get if followed the footsteps of some farmers who end to be dairymen?

Henry Ford offered a prize of $10,000 if any- could lower the cost 10 cents in the price pro- tion of a car and still have the same quality. en will farmers be able to say that, especially y farmers in production of butterfat?

After a few calls by the tester, a member, and county agent, I joined the testing association, e realizing what the work could do to build up rofitable dairy herd. Results began to show af- a few tests and I became more interested in work and more careful in purchasing new cows eplace the boarders that were sold. My herd in- sed its production from an average of 234 lbs. to 358 lbs. fat, and the profit over cost of feed eased $88 per cow. Testing is responsible for increase in our production.

Three cows were culled the first year and two ght in their places. Two cows were culled the nd year and two replaced them.

The testing fees are no expense to any dairy- n. Very few investments pay larger dividends."

Is He Right?

"I have just come back," writes one of our lers, "from a visit to the old home farm in a. I took in a few Minnesota dairy farms on way back. I wish that these middle western mers could see the care that is used in the West to produce a high quality of milk, for I eve that we would use far more if we could vince the consuming public that it is cleanly duced. California families in same circum- nces as Wisconsin families order just as many rts of 15 cent milk as these families order of cent milk."

Estimating Hay in Mow

measuring timothy hay in a mow is it custom- to figure 512 cubic feet per ton? I have a about 28x32 feet and 20 feet deep. I mowed ry forkful as it was put in and tramped it well. ng 512 as the number of cubic feet per ton it es me almost double the yield per acre that we ect in this locality.

Palouse, Wash. G. W. H.

It is usually customary to figure 512 cubic feet ay per ton when hay has stood in the mow for ty days or more. After standing for six ths, it is usual to estimate about 422 cubic t to the ton, and where standing in the mow s than 30 days, hay will frequently run up to cubic feet to the ton.

From the fact that the mow is 20 feet deep, we ld be inclined to think that if this hay has od for a month or longer, it should be well pacted and should measure out even less than cubic feet per ton rather than more.

Broom Corn for Silage

am sending you samples of heads of sorghum ch our entire locality planted for silage. We ght the seed for honey sorghum, but it appears be about three-fourths broom corn. The stalks a quite tall, fairly sweet in flavor, but more pithy n real honey sorghum. What do you think of s for silage for dairy cows? Can the company ing the seed be held in any way responsible?

Riverdale, Calif. E. A. P.

We have seen no analyses of the broom corn nt that enable us to make any definite compari- s as to the probable value of silage made from om corn. We anticipate, however, that it would somewhat less valuable than that made from ney sorghum. Analyses of the broom corn seed icate that the seed itself is somewhat inferior feeding value to either barley or corn. This dif- ence, however, will probably not be more than m 10 to 15 per cent. If ensiled when contain- a sufficient amount of moisture, we anticipate broom corn will make a reasonably palatable ge.

Some years ago it was suggested that broom n might be crossed with sweet sorghum so as to duce a plant that would not only be valuable as standard cash crop, but would also make a more irable feed crop. We do not know whether any velopment has been taken along this line, but we know that broom corn and the various sorghums n be easily crossed on one another. It is quite possible the seed secured may be the result of such crossing, which would produce a plant intermediate between regular broom corn and sorghum.

Whether the seller of this seed can be held responsible for its trueness to name will depend upon the seed laws of the state. For information on this subject we suggest writing the State Department of Agriculture at Sacramento, or possibly the State College of Agriculture at Davis. If it is decided to take legal action against the seller of the seed, it might be possible to prove the amount of damages by having the State College of Agriculture analyze representative samples of the silage secured from this broom corn. Indeed, this might be a good thing to do before becoming involved in any expense for legal proceedings.

Abortion Cures and Control

Is there any way to cure abortion in cows? I see many ads for medicine to cure it, but the papers all say there is no cure. I had a dispute with a veterinarian on the subject.

Milford, Mass. W. P. R.

Hoard's Dairyman refuses to accept advertisements of so-called abortion "cures." Careful examination of many cases where these remedies were used, shows that either no good results had been secured or that the owner of the herd was probably ascribing the stoppage of the disease to the wrong cause. Scientific investigators at our colleges of agriculture and the U. S. Department of Agriculture are a unit in advising against the use of these remedies and they tell us that no cure for abortion has yet been discovered.

Our action in refusing this type of advertising has cost us thousands of dollars annually, but we cannot be a party to putting our readers in touch with advertisers who hold out promises that can not be fulfilled and that may keep the purchaser from following the better methods of control. We have sought the country over for the best information available on the control of abortion and have published this for the benefit of our subscribers at no inconsiderable cost to ourselves. We have even gone further than this, for we were privileged to gain the attention and approval of Congress for a specific appropriation for the scientific investigation of this menace to the live stock industry and to ascertain if possible how it may best be controlled.

From our observation of the abortion disease as it manifests itself in the herd, we believe we have ascertained the reason why some men honestly believe a certain remedy has cured their cows. Abortion disease in a herd starts gradually and at first is not given much attention. First one cow aborts, and then some weeks or months later another cow aborts. These abortions are either not noticed because it may be the pasture season and the cow is thought to be a shy breeder, or the abortion will be ascribed to some accident because of fear of the disease and the desire to deceive ourselves and our neighbors. As more cows abort and fewer living calves are produced, the farmer becomes more and more concerned. It is possible when the disease reaches its height that the farmer becomes desperate and finally orders some remedy. After using it for a time, he observes fewer abortions and finally the disease apparently dies out. He is then convinced that the remedy has produced these results and is enthusiastic for it. If the disease strikes his herd again, he recognizes it at once and starts using his "cure" before it reaches its height. It is very likely that abortions will continue and he then comes to the regretful conclusion that the remedy is no good.

The experience reported in the previous paragraph seems to be the same whether one uses a so-called abortion remedy or not. The disease starts gradually, reaches a high crest, and then drops off gradually. We have observed this to be true in many herds. We have seen herds where no-abortion cures were used in which first one cow aborts, then another, and finally a considerable number of calves are lost. It may be that at the twelfth month, or later, more than half the herd will abort and some cows become sterile. After that the number of aborters decreases and, possibly, within two years after the first abortion the disease has apparently left the herd.

We believe the largest hope of success in controlling abortion (there is no cure) comes from an observation of one of the first principles in dairy cattle management—*cleanliness*. This means that aborting cows should be separated from other members of the herd and kept separate until they show no further discharges from the vagina. The barns, pens, and cows should be kept clean and disinfected. In particular, bury the afterbirth from all cows and the aborted fetus and discharges from the aborting cows so other cows will not become infected. Do not breed the cow until the second heat period after she has cleaned properly and shows no further discharges.

The next control measure is to feed the cows a good and sufficient ration. If the herd is not receiving alfalfa or clover hay in good quantities and grown on acid-free soils, it would be well to supply them with bone meal or a good mineral mixture. Indeed, it may be good insurance to supply a mineral mixture as a regular portion of the dairy feed.

The following brief statements give a summary of simple methods of control that any farmer can follow when abortion strikes his herd:

1. Keep the cows from eating material or drinking water that in any way may have become infected with discharges from diseased cattle. It is through eating infected material that the disease spreads from cow to cow.

2. Isolate the bull so drainage or infected material from his pen may not come in contact with or be carried on the feet of cattle or otherwise to the feed of healthy cows.

3. Quarantine served cows until there is no danger of leakage from their vaginas infecting the feed.

4. Have an isolated maternity stable to which cows can be moved shortly before calving and kept two weeks or until all discharges from the vagina cease.

5. Bury the afterbirth, aborted fetus, and discharges from all births or abortions, thoroughly cleaning and disinfecting the calving pens.

6. Keep clean and sanitary the stable, the yards, and the cows.

7. Build up the resistance powers of the cow by feeding a proper ration that is equal to her needs and that supplies a sufficient amount of minerals as well as feed nutrients.

8. If desired to build up an abortion-free herd, use the test for abortion and dispose of all reactors. It will require consistent and constant attention to reach and maintain an abortion-free herd, just as is required in maintaining a tuberculosis-free herd.

Filling Silo Without Tramping

Please advise me concerning filling silo without tramping and if it really is a success. What percentage can you get in as compared with tramped silage?

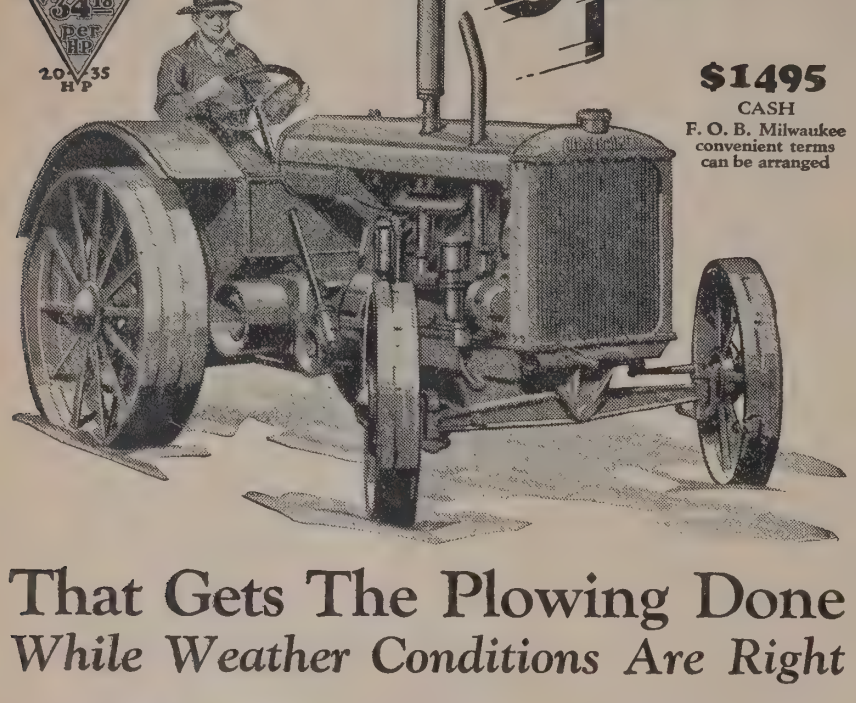
Shattuc, Ill. F. B. S.

Each year we are in receipt of an increasing number of reports where farmers have been successful in filling their silos without tramping. In some cases a distributor is used in the silo, but the recommendations of those who have had the largest experience is that the cut corn be delivered into the center from the top of the silo so that it will drop down and form a cone as it piles up. This cone is not leveled off until the top of the silo is reached and it is desired to put in more corn. At the final close of filling the top is merely leveled off. It is claimed that by this method the ear corn, leaves, and stalks are well mixed throughout the silage and that there is even less danger of uneven settling than where only partial tramping is given to the silage. There is no information as to the relative amounts a given silo would hold under the two methods of filling. The general opinion is that under normal conditions the tramping would insure a greater capacity, but this is only a matter of opinion.

We have had no reports of unfavorable experience with this method, but as we have not tried it ourselves, we are not willing to unreservedly recommend it. It would be our opinion that this method would work very well when the cut corn was reasonably moist but that it would not prove out so well with frozen corn or corn that had been permitted to reach more than the usual maturity. It would also be our opinion that silos filled in this manner would settle more after filling than where a reasonable amount of tramping was employed during the filling process. A part of this latter objection is, of course, overcome in the case of refilling a silo as in that case the refilling may be tramped as it is put in. It is also probable that the newer system of filling without tramping will work better in a relatively high silo than in one that is only 20 to 25 feet deep. It is rather reasonable to suppose that the additional weight secured with high silos would be quite as effective if not more so in settling the silage than what tramping might be done during the filling process.

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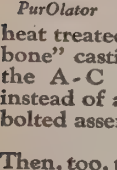
DEEP plowing — *fast* plowing! That's what keeps the moisture in the ground—gives the most complete turn-under of weeds — brings you big yield from your land.

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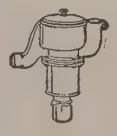
Note these features that are *standard* equipment on the Allis-Chalmers 20-35. Note the low price for the A-C *complete*. No wonder the word has gone around that Allis-Chalmers is the world's best buy. Send for catalog. *See why!*

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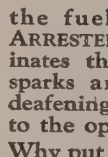
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Spark Arrester and Muffler

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20-35 TRACTORS

COW TESTING ASSOCIATIONS



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk Lbs.	Ass'n. Report Ave. fat Lbs.	High Herd Breed	High Herd No. of cows	High Herd Ave. milk Lbs.	High Herd Ave. fat Lbs.	Owner
Tex.	Wise Co.	Aug.	394	549	25.7	G. J.	15	855	41.6	C. J. Young
"	Wise Co.	Sept.	365	551	27.0	G. J.	13	817	37.8	J. W. Taylor
Ida.	Pioneer	Aug.	466	663	26.0	H.	5	1446	45.2	J. S. Wiseman
Vt.	Lamoille Valley	Sept.	459	324	15.5	R. J.	4	819	40.9	W. C. Hadley
Conn.	Middlesex Co.	Aug.	500			H.-J.	8	853	32.2	W. J. Ewall
Mass.	Essex Co.	"	611	623	22.8	G. H.	9	915	32.0	Hardcourt Inc.
Utah	Wells.-Col. Ward*	Sept.	528	675	24.4	G. H.	7	987	38.6	C. Andersen
Ind.	Spencer-Perry Co.*	"	286	492	24.6	R. J.	10	807	39.7	R. Laird
Minn.	St. Louis Co. 1*	"	309	645	26.2	G.	6	859	37.0	F. Hutchinson
"	Lyon Co.	"	439	337	13.0	J.	37	410	23.9	White Acres
"	Erskine-McIntosh*	"	355	389	15.8	R. G.	13	505	26.6	F. A. Uggen
"	Cannon Valley*	"	369	424	16.3	G. H.	27	813	27.1	State Tr. School
Mich.	N. Newaygo*	Aug.	195	424	20.0	J.-D.	3	834	36.6	O. Westbrook
"	Alpena-Leer	"	262	540	23.5	H.	4	1171	39.8	G. Manning
"	Oscoda Co.*	Sept.	197	411	19.1	G. G.	4	611	32.3	S. Rhoads
"	Ionia-Belding*	"	381	566	22.9	H.	56	997	32.3	Mich. Reformato
"	Branch Co.*	"	245	412	17.6	R. J.	20	695	35.5	J. H. Walsh
"	Osc.-Reed City	Aug.	237	452	20.1	G. H.	10	851	35.8	A. E. Madole
Nebr.	Lancaster	Sept.	518	533	21.4	R. H.	82	935	29.6	Woodlawn Dairy
Colo.	Johnstown	"	222	569	21.5		17	988	33.4	H. F. Sherman
Wis.	Lake.-Thiensville*	"	409	511	20.8	G.	14	648	33.2	Wilde Bros.
"	Oak.-Tomah-War.*	"	486	345	15.2	J.	10	638	29.1	H. Jansen
"	Cedar.-Grafton	"	289	570	20.4	R. H.	8	805	32.7	E. Sporer
"	Westby*	"	428	394	19.2	H.	14	762	28.0	Nerrison & Lund
"	Cleghorn-Eleva	"	413	409	19.0	G. G.	9	604	30.8	P. H. Pederson
"	Denmark*	"	447	644	23.7	G. H.	7	1096	38.9	R. Christensen
"	Algonia*	"	473	581	26 8	R. G.	15	772	35.9	J. Bondnik
"	Spring Valley*	"	404	443	17.9	M.	14	693	27.5	H. Sorenson
"	Union-Wap. Co.*	"	339	447	17.4	M.	16	682	23.8	A. Ferg
"	Dodgeville*	"	520	503	19.2	G. H.	19	759	26.1	R. Martin
"	Milton	"	598	388	15.2	G. H.	49	760	26.5	H. C. Yale
Minn.	Becker 1	Aug.	402	558	22.7	R. G.	12	626	34.2	J. T. Shannon
"	Lyon Co.*	Sept.	439	337	13.1	J.	37	410	23.9	White Acres
"	Watonwan Co.*	"	417	373	14.1	R. H.	9	899	35.6	F. Rentz
"	S. Houston	"	305	364	15.8	G.	12	576	29.7	O. A. Myhre
"	Howard Lake*	"	325	408	17.7	R. J.	18	688	41.8	W. H. Eddy
"	No. Pine Co.*	"	328	393	19.1	G. G.	10	701	34.0	Street Bros.
Ill.	Ogle Co.*	"	389	520	18.6	R. H.	10	1032	32.3	J. Eastman
"	Moultrie*	Aug.	240	700	32.6	R. J.	8	831	42.5	V. I. Winings
"	Henry Co.	Sept.	390	517	16.2	G.	8	749	36.1	R. A. Palmer
Wash.	Cowlitz Co.	"	536	562	24.5	J.	5	704	43.1	C. S. Houpt

*Retest rules followed.

How Shall Cows Be Compared

HOARD'S DAIRYMAN:—In our cow testing association work we usually find that poorly fed cows (which are thin cows) have a lower feed cost per pound of fat than do cows kept in good condition. In face of the fact that all feeding authorities are saying "feed the cow well," this leads the layman to think that some one is "out of tune." To me it seems misleading and unfair to compare the desirability of dairy cows only by the feed cost per pound fat or hundredweight of milk, or by the returns for a dollar expended for feed.

To explain let me illustrate by a couple of problems, perhaps slightly exaggerated, to bring out the point. First, let us take a thin cow pastured on wildland for seven months of the year at a charge of seven dollars. In the other five months she consumed a ton of timothy hay at ten dollars. Assume she has a feed cost of seventeen dollars and her production o pounds fat is valued at $63. would then have produced this f a cost of 12.1 cents per pound, would give a return of $3.70 for dollar expended for feed.

Now let us take a cow which duced 500 pounds of fat value $225. This cow consumed pounds of grain at $52.50, pounds alfalfa at $12.50, 5,000 po silage at $12.50, and she is cha with $12.50 for legume pasture, ing a total feed cost of $90. This in good condition would have duced 500 pounds of fat at a co 18 cents per pound as compared t cents for the thin cow. She w have returned $2.50 for each d expended for feed as compare $3.70 for the thin cow. Yet the p it above feed cost with the thin was $46 as compared with $135 the cow in good condition.

It can readily be seen which o of the two cows can butter his b the thickest. The small amount



STUDYING THE RECORD

The herd record book doesn't help greatly if tucked away on the clock shelf as soon as the tester leaves. Members who do this do not get full value for the money they have paid, and they are most often those who do not stay in the work for more than a year.

orly fed cow could produce would course be all profit if nothing was nt in so far as feed cost is con- ned, but the volume of her busi- s would be so small she might be ebted to her owner if overhead and or were to be considered.

The feed cost per pound of butter- or the returns per dollar expend- for feed at which a cow performs f great value in comparing individ- cows within a herd. But it is of real value in comparing cows on farm with those on another; ecially is this true when widely arated, due to local markets on ds and products.

To know the value of a cow's abili- as a producer it is necessary to sider along with the costs of pro- tion the volume of business she do and the profit above feed cost.

W. A. SANSON, Tester.

Fit the Program to the Member

HOARD'S DAIRYMAN:—Last spring ut the time farmers were plan- g for this year's crop rotation one the members of the South Kent, higan, association who is not in d financial condition was undecid- whether he should buy grain for cows on pasture with butterfat at cents and feed prices high, or save t money and buy seed to sow the at crop that will help him in feed- his cows the coming winter.

Alfalfa was purchased on the und, also some harvested on shares, some soy beans sown. He also nted some silo corn and is now ting to build a silo. This winter wants to draw marl and next ing seed alfalfa and sweet clover. d prices are the highest during the ter and the better the grade of ghage fed, the cheaper the grain on needs to be. Therefore to get best out of cows they must first the right feed, then those extras be fed.

It is the duty of a tester to study se feed bills best suited to the mer's means, and members should nk of a C. T. A. as being an invest- nt instead of an expense.

FORREST BENDER, Tester.

Loss of Fat in Separator

HOARD'S DAIRYMAN:—During my t fifteen days' work as tester in n County, Minnesota, over half separators which I tested were ving too much butterfat in the nmilk. The amount of loss varied m $8 to $25 a month when figured he present price of butterfat.

You may say the skimmilk is fed the pigs and that they get what terfat is left in the milk. That is well and good, but why pay forty ts a pound for something you can for less than two cents which is grain costs. The oil and starches nd in the grains are as good a rce of these substances as is but- fat.—O. BRUCE GOCHNAUER, Tester.

Co-operation

HOARD'S DAIRYMAN:—I would give following as some of the reasons y members in a cow testing associ- n fail to see the value of C. T. A. rk:

1. Members don't like the tester.
2. Member thinks he knows more ut feeds and feeding than the ter.
3. Lack of co-operation with test- or other good cow men.
4. Irregularity in feeding, milking, l caring for cows.
5. Handling cows roughly, leaving vs out in the cold, drinking ice cold ter, and having a cold barn in win- .
6. In the association only to make ords.
7. Just wants to be a member.
8. Doesn't like to pay the $3 a day and supply board and lodging to the tester.
9. Believes their fellow neighbors to be dishonest and tries to make dishonest records himself.
10. The use of poor dairy sires.

I believe much good would be accomplished if tester and members would become associate members of the 4-H club and live up to the 4-H club pledge: "I pledge my head to reason, my heart to loyalty, my hands to service, and my health to efficiency for the good of my country, my community, and my home." And we might add to this pledge, "make the best better." We then would surely accomplish what the cow testing association is working for, namely to increase the average production of dairy cows, and to feed for the most profitable production.

PETER NELSON, Tester.

High Cost of Separators

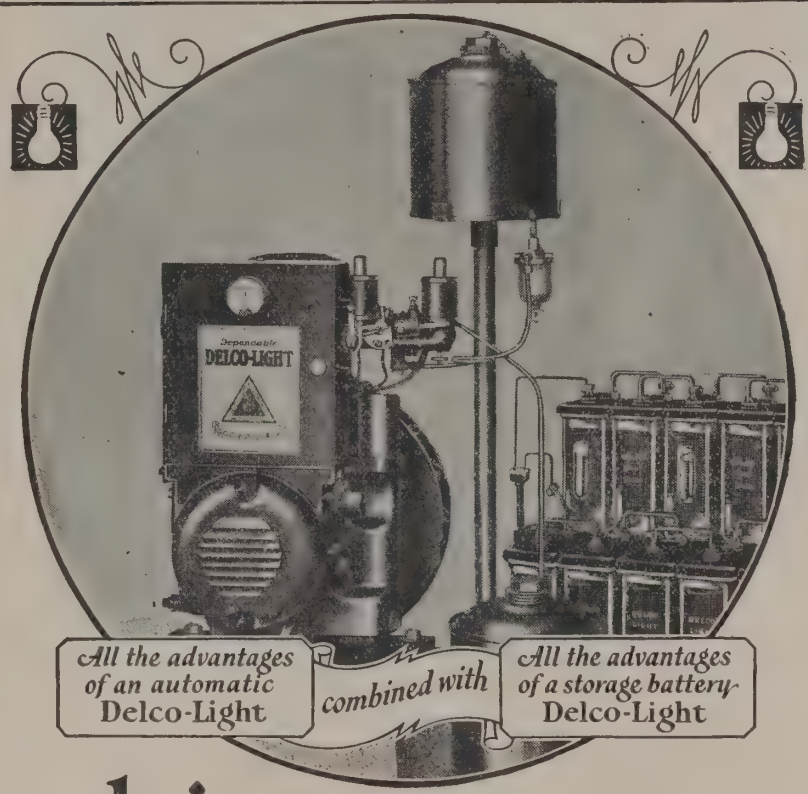
HOARD'S DAIRYMAN:—The regular testing of skimmilk by the C. T. A. tester goes far toward paying the annual fees of a cow testing association. During the past year, by daily testing the skimmilk, I found some robber separators. Out of the 26 separators tested during the year three were replaced by new ones. One of the separators that was replaced stole 35 cents in butterfat daily, which would pay for a good new separator in a year.

Another separator has been in continuous use for over seventeen years and doesn't sound or look very good. If this separator had been judged by age, sound, or looks it probably would have been replaced. I tested this separator 12 times; once it tested .03 of one per cent. The other eleven times the skimmilk from this separator tested .02 of one per cent or less. This C. T. A. member, by having his skimmilk tested regularly, is saving by using his old separator and he knows he isn't being robbed.

During the month of September I tested skimmilk samples from ten separators in the Milton, Wisconsin, Association. Two were losing money; one was only doing fair work and seven were doing good work.

ALFRED STEEN, Tester.

Uncle Ab says that about the worst thing that can happen to a man is to be deprived of the chance to work.



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New Type Delco-Light Plant Does Everything but Think!

IF you think all farm electric plants are much alike, see this new achievement of Delco-Light and General Motors. Here is a Plant that wins alike the enthusiastic acclaim of scientists, engineers, electrical experts and laymen.

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Science Marvels

Even engineers who are in daily contact with the newest trends of electrical science marvel at this Delco-Light achievement. For it's almost human in its action. An automatic throttle speeds or slows the engine to synchronize with load demands. An automatic choke makes starting quick and certain—even in cold weather.

Automatic pilot balls—another patented feature—show at a glance the condition of your battery. Easy to tell about. But fifteen years were devoted to intensive research before this scientific marvel was perfected. Even then is was not approved by General Motors until seven years of grueling field tests proved it worthy.

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Yet, you pay no premium for all these new and revolutionary features. The entire plant—complete with 16-cell battery—is offered at a price so low that it's well within the means of all who want it.

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In the meantime, read an interesting illustrated book now offered free—"A Day and a Night with Delco-Light." To those who answer promptly, we'll include "The Miracle of More Eggs"—a valuable book for poultry raisers, large or small. Don't wait. Read the facts and weigh the evidence.

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

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Ravine Farm Jersey Sale - - - 1025
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Cow Testing Testimony - - - 1028

Coming Events

Oct. 25-Nov. 5—Pacific International Live Stock Exposition, Portland, Ore.

Oct. 29-Nov. 5—Western Dairy Products Show, Portland, Ore.

Nov. 14-19—Pacific Slope Dairy Show, Oakland, Calif.

Nov. 29-30—National Creamery Buttermakers' Association, Nicollet Hotel, Minneapolis, Minn.

Why He Was Nervous

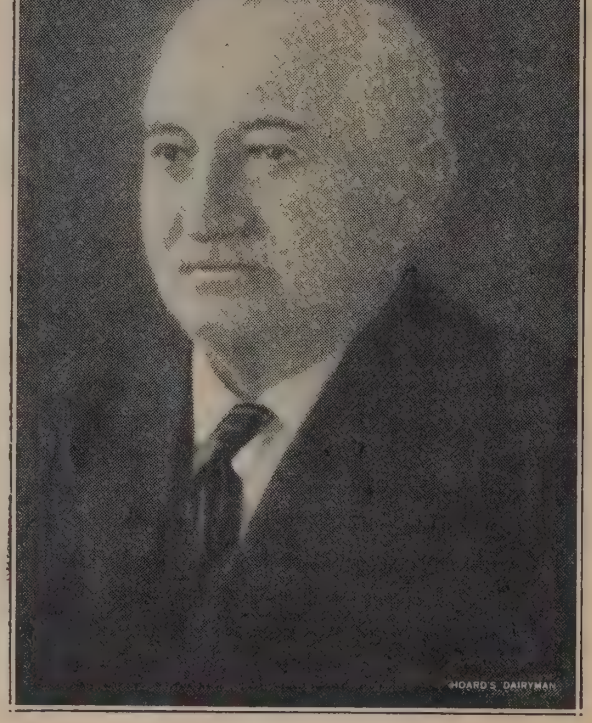
"Why do you jump at the sound of a motor car?"

"Well, some time ago my chauffeur eloped with my wife, and every time I hear a horn I think he's bringing her back!"

Henry Krumrey, Pioneer Co-operator

HENRY Krumrey began where other men stop. A successful farmer, he was not content to retire when that time arrived in his life but sought new worlds to conquer. A great fighter, that man. In the end he fought his heart out for his fellow farmers.

Henry Krumrey has been gone five years. But his work lives on and grows. Would that he were here to see the fruits of his labors. Thousands of farmers are his debtors.



HENRY KRUMREY

The great Wisconsin Cheese Producers' Federation of which he was the founder and first president, now doing an annual co-operative marketing business of eight million dollars, stands as a monument to the name and spirit of Henry Krumrey.

Within the last fortnight two tablets were unveiled to the memory of this farmer benefactor—one on the Agricultural College campus at Madison, Oct. 13 and the other on the Federation ground at Plymouth, Oct. 16, the cheese "capitol." Men of national prominence paid tribute to the memory of Henry Krumrey, the man who gave unstintingly of his time and best efforts that the producers might market their own cheese.

"Think for a moment of Krumrey as he pioneered in the co-operative movement of this state," said Professor Macklin of the Agricultural Economics Department at the University, in his address at the Madison program. "Was it easy for him? Did farmers and cheese factory organizations fall over themselves to join in the Federation? Far from it. Those who labored in this state wide undertaking know what indifference, prejudice, and opposition Mr. Krumrey had to cut through. His cutting tools were men and facts.

"What caused him to rise to prominence while around him thousands first farmed and then retired into obscurity? There is but one answer. He loved his fellow farmers. He wanted better things and thoughts, more means and higher ideals for his neighbor and his neighbor's neighbor.

"In the sixteen years since Krumrey started active work along co-operative organization lines no less than 48,000 farmers have retired from Wisconsin farms. Think of the will power and physical energy of this army of mature, experienced men had they been imbued with Krumrey's ambition! Henry Krumrey has paved the way for awakening this storehouse of human energy that annually goes too largely to waste. Through the years to come let us hope that his example may become a perpetual power to list men for leadership."

Said J. H. A. Lacher at the ceremonies, in telling of Krumre life, "Henry Krumrey was born F ruary 3, 1852, on a pioneer farm cated near Plymouth. His forebe were for generations either mas craftsmen or grape growers in sur Rhenish—Bavaria. He owed his usual qualities to his father, K Krumrey, who came to Sheboyg County from Germany in 1849. Her Krumrey received a common sch education in Plymouth and shortly ter the death of his parents and marriage of his eldest brother, sumed the entire management of old homestead.

"From early manhood he took active interest in politics serving town treasurer, member of the cou board, and for 14 years he was a rector or president of the Plymo Board of Education. In 1900 he w elected to the State Assembly and the fall of 1908 was chosen to State Senate.

"A dairy farmer, he was satisf with fair returns from his prod until one day in 1911, the Plymo Cheese Board cut the price below cost of production and then he beg his long fight for the co-operat marketing of cheese. It required usual ability, courage, and stayi qualities to carry this fight to a s cessful conclusion. He was abused a threatened, called a crook and a lu tic. There was no rest for him, a for 3½ years he worked without to the neglect of his own affairs."

W. H. Hutter, vice-president of Cheese Producers' Federation, H. Russell, Dean of the College of Ag culture, and United States Sena John J. Blaine were others on Madison program with Henry Kru rey, grandson of the founder, unv ing the tablet. At Plymouth, G Brickbauer, president of the Fede tion; C. E. Broughton, editor of Sheboygan Press; H. C. Taylor, P fessor of Economics, Northwest University; and Ex-congressman I ward Voigt paid tribute to the me ory of Henry Krumrey, and the veiling was performed by Her Krumrey Saeman and Paul Albrec grandchildren.

Butter Improvement in the Northwest

Oregon butter has become a great factor in the prize winning class at all butter scoring contests on the Pacific Coast during recent years.

There is, of course, a reason for this, which becomes apparent when consideration is given to the creameries which have won these prizes. Three years ago an association was organized, including seven creameries in western Oregon and two in southwestern Washington. This association is known as the North Pacific Co-operative Creameries. Mr. Chris Johnsen was employed as fieldman to work among all members to improve the cream supply and standardize the butter output. The effectiveness of the work of this association is indicated by the fact that all prizes at all contests held so far this year have been won by North Pacific Co-operative Creameries members.

Competition has become very keen and the outcome of butter scorings to be held in connection with the Oregon Buttermakers' convention, November 2, 3, and 4, and at the Western Dairy Products Show, October 29 to November 5, will be awaited with keen interest. Further information concerning the program and prize competitions may be secured by writing V. D. Chappell, 211 Northwestern Bank Building, Portland, Oregon.

A Correction

In an editorial entitled, "Tuberculin Test Now," we made the following statement which is inaccurate: "The New York Legislature enacted a law which authorizes competent veterinarians to tuberculin test dairy cows whose milk is marketed in liquid form or manufactured into butter, cheese, condensed milk, etc."

The law says, "The commissioner may cause a physical examination to be made by competent veterinarians of dairy cows whose milk is marketed in liquid form or manufactured into butter, cheese, or other food for human consumption."

The law further states, "An examination made by any qualified and approved examiner may be accepted by the commissioner. If, from such examination, an animal be deemed by the commissioner to be infected with tuberculosis or any infectious or communicable disease or its condition be such as to render it undesirable for the production of milk or a menace to the health of other animals or p sons, such animal shall be immedia ly removed from the herd, slaug tered, or disposed of as the comm sioner may prescribe."

It should also be stated that af July first, 1928, farmers selling m in villages will be required to eit pasteurize their milk or have th herds tuberculin tested.

We are much in favor of a bet milk supply, but it is unreasonable expect high quality milk to sell the same price as low quality mi The consumer must be taught t good milk costs more to produce a consequently the producer must ceive more for it.

It is an injustice to the farmer demand more labor and larger pense in production and then properly compensate him for t service.

A small boy went to the chem and asked for some powder for sister.

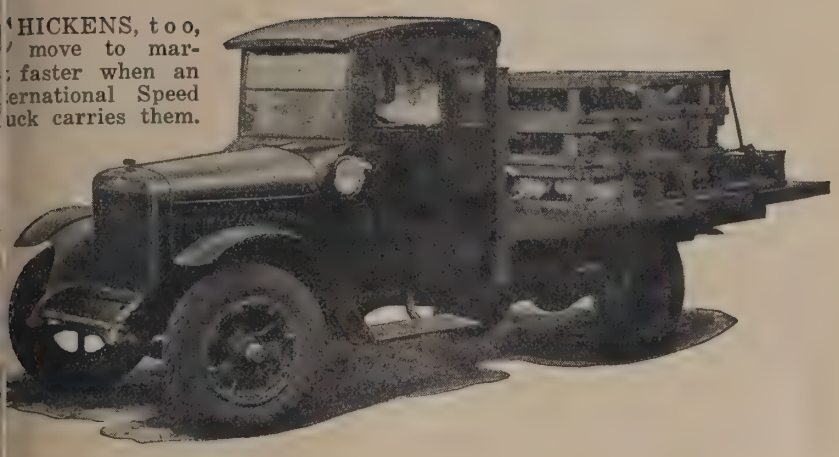
"What kind does she want?" ask the chemist; "that which goes with a bang?"

"No!" answered the boy; "s wants the sort that goes on with puff!"

armers Own More Motor
Trucks Than Any Other Group

— National Automobile Chamber of Commerce.

HICKENS, too, move to mar- faster when an ternational Speed uck carries them.



Speed Truck
or
Heavy-Duty
—the Farmer Sticks to
INTERNATIONAL

IT is no accident that farmers are relying on International Trucks in the process of bringing farm hauling up on the plane with tractor farming and automobiling.

International Harvester equipment has served them in every farming operation for so many years. International Harvester tractors have given them the standard farm power. And they have benefited by the intimate contact with International Harvester service, close by, everywhere in the land.

Most important, they have preferred International Trucks for what they are — fine, sturdy trucks to be proud of, trucks sure to render many years of faithful farm hauling, ready for field and road, for heaviest going. They know that Internationals have been serving tens of thousands of owners in city and town and country, for nearly a quarter-century. And they know of the quality of International service rendered by 136 Company-owned branches.

Speed up your hauling in speed, quality, and efficiency. Own an International — the sizes run all the way from the ¾ ton Special Delivery to the 5-ton Heavy-Duty truck. Let a good-looking International save your time for profitable work. We will mail you an International truck folder on request.

136 Company-Owned Branches in the United States

INTERNATIONAL HARVESTER COMPANY
of America
(*Incorporated*)

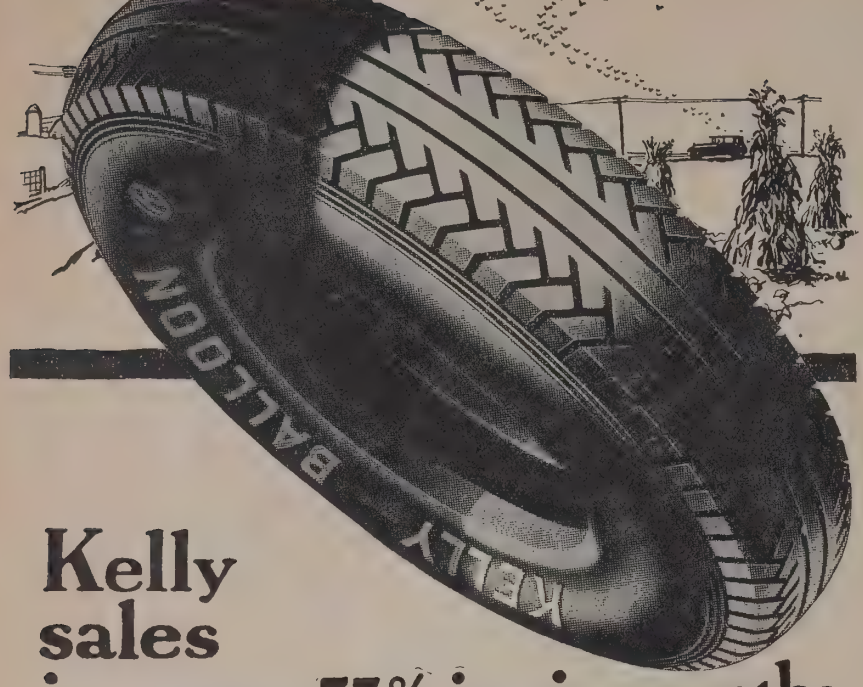
606 So. Michigan Ave. **Chicago, Illinois**



An International Speed Truck in Livestock Hauling Service



A Heavy-Duty International with a Day's Dairy Harvest



Kelly sales increase 57% in six months

FOR the first six months of this year the sales of Kelly-Springfield tires were 57% ahead of the figures for the corresponding months of last year.

There can be only one explanation for this astonishing showing. That explanation lies in the quality and the value that are being built into the Kelly product.

Car-owners have grown tire-wise. No tire company could show such a tremendous increase in business unless it had been able to demonstrate to tire buyers that it had something out of the ordinary to offer.

Kellys cost *no more* than a great many other makes of tires.

"Kelly dealers everywhere—
there must be one in your town"

KELLY-SPRINGFIELD TIRE CO.
GENERAL MOTORS BLDG. NEW YORK, N. Y.

KELLY SPRINGFIELD BALLOON TIRES

4 TIMES Around the World with ONE OILING

100,000 Miles Without Stopping for Oil



An inventor who could develop an airplane which would perform such a feat would be considered a wonder. But such is the record of regular accomplishment by the Auto-oiled Aermotor in pumping water.

Did you ever stop to think how many revolutions the wheel of a windmill makes? If the wheel of an Aermotor should roll along the surface of the ground at the same speed that it makes when pumping water it would encircle the world in 90 days, or would go four times around in a year. It would travel on an average 275 miles per day or about 30 miles per hour for 9 hours each day. An automobile which keeps up that pace day after day needs a thorough oiling at least once a week. Isn't it marvelous, then, that a windmill has been made which will go 50 times as long as the best automobile with one oiling and keep it up for 25 or 30 years?

The **Auto-oiled Aermotor** after many years of service in every part of the world has proven its ability to run and give the most reliable service with one oiling a year. The double gears, and all moving parts, are entirely enclosed and flooded with oil. **Aermotors and Aermotor Towers withstand the storms.**

For full information write **AERMOTOR CO.** Chicago Kansas City Dallas Minneapolis Des Moines Oakland

Save $15.00 to $25.00 per Ton Grinding Your Own Feed With

"JAYBEE" Humdinger CRUSHER-GRINDER-PULVERIZER

The Old Reliable "Jay Bee" feed mill is the greatest money-maker you can buy. Mills have paid for selves in a single year. 3 sizes: 7 H. P. to 30 H. P. Fordson will operate successfully.

It Has Never Failed Me—Not a Dime for Repairs

Mr. S. Shipman, Guide Rock, Neb., says: "My Humdinger has never failed me. I have ground more than 15,000 bushels of corn and at least 400 tons of hay and fodder, and haven't spent a dime for repairs yet."

Over 7500 "Jay Bee" Mills in use.

Easy Payment Plan Feeding booklet, descriptive literature, FREE. Stock in principal cities.

Cool Grinding—Makes Better Feed. The "Jay Bee" does not heat the feed. Grinds any grain or roughage UNIFORMLY, finer, faster, at less cost per ton than any other mill.

Saved $150 a Month

Emil Westergard, Omaha, Neb., milking 47 cows, saved $150 a month on his feed mill. This saving paid for Humdinger, tractor, belt, pulley in one season.

J. B. SEDBERRY, INC. 268 Hickory St., Utica, N. Y.

Opinions, Brickbats, and Bouquet

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish. It may be cows or crops, religion or politics, or what at the time most interests you. It may be critical or commendatory, but it should be your opinion. It is your own editorial page but your editorial must not exceed 250 words. Hoard's Dairyman assumes no responsibility for opinions expressed.

Farmers Must Have Self-reliance

HOARD'S DAIRYMAN:—Having just finished reading your issue of September 25, I feel the urge to talk with our friend, Robert D. Kellogg of California on the subject of "Teaching Agricultural Self-reliance." I regret that I did not see the July issue to which he referred for possibly I may be saying the same things and making the same points as stated therein, but I am going to take that chance and set out a fact or two as I see them.

Education is of utmost importance in every man's life. I think that is a statement which no one may deny. There are various ways in which a man may be educated, but educated he must be if he is to entertain any hope of success. His education may be of a varied nature. He may get it all through experience, through reading, or in just his own natural ability to absorb conditions. We have many such men. He may secure it through a college course plus a few years of actual experience, but the degree of any man's success must depend upon his ability to be taught, or to secure for himself facts and the means whereby these facts may be made to produce a profit.

All this may appear theoretical, but I believe that it will stand the test. We are talking of agricultural self-reliance, and so let me ask, how are we farmers going to attain success unless we can rely upon ourselves to secure a way and a means to protect ourselves and our business from the unbalanced situation of today? It has always been a warning to me, I mean that I have often noticed what a failure any salesman was, any football player, any merchant, or farmer, who is always and forever finding fault with the other fellow and complaining of his unfairness.

If one is to succeed, it is necessary for him to study the case, learn why it is so and to discover the remedy. If he can successfully do this, he is educated on this phase, no matter through what channel he may secure his information. We farmers are so apt to put all our energy into hating Wall Street, railroads, industry, labor, and even our own sweet neighbor, that our real ability for success is lost. We are the laughing stock of the world, and our own government finds that it can do nothing for us, simply because we are so over-anxious to hurt the other fellow that we have no thought left to help ourselves. In such a condition, what help is there for us, as farmers?

Our nation, our states, our farm papers, all but our politicians, are trying to teach us "self-reliance" and until we are so educated what hope can there be? Let us stop berating the other fellow, look after our own affairs for ourselves, and then it will be impossible for anyone to deny us success.

Iowa. PAUL V. MATHER.

Children and Fords

HOARD'S DAIRYMAN:—I have a question to ask of the persons putting in these two kinds of ads. One class "No children." The object of marriage is home and children, not necessarily the baker's dozen, though the families having the most grown-up children have their family picture taken. I recently saw three groups of 18 children, or rather young men a women—a truly beautiful sight a fitted to adorn the front page of a paper or magazine.

The second class, "Must have he enough of his own." The first cla doesn't want any children; the seco wants them ready for work. Fro the time they are born until they a "help." What and where shall store these undesirables until th shall become desirable?

Is it the amount of milk these ch dren drink, as most cases allow on one quart and the average chi should drink that a day? If there a four or five more the milk must bought for them. The average wa of common farmer help does not low this. So it's a case of have children or own your own farm.

No wonder young couples put the babes on doorsteps and buy the For

I saw one ad in a farm paper as ing for married couple, no childr and no car allowed. Now what sh we do? But he did not say no Fo allowed.

Wisconsin. (MRS.) G. W. C.

Poor Old Iowa

HOARD'S DAIRYMAN:—For sev years now I have listened to the pol ical claptrap of farm relief from rious sources. In popular slang, I "fed up" on it. The mechanical mou pieces of would-be saviors from pea antry have been chanting "poor Iowa" so long that their owners ha failed to discover that Iowa farme already have made a new record.

Our neighbors are finding us o No less a person than Charles Goo rich, former governor of Indiana, h been visiting about lately in my st and while here he assembled a f figures from which he writes follows:

"Isn't it time that some loyal son Iowa was calling attention to the f that the per capita wealth of Io in 1926 was $3,539, nearly dou the average of the United Stat That the farm cash income l year was $718,000,000, an average $2,821 for each family. That only 8 per cent of this was from corn. Th her poultry products amounted double and her dairy products to ne ly four times the value of her co sold. That her farmers marketed 1926, 10,702,000 hogs, 1,899,000 cat 862,000 sheep, 289,000 calves a 32,000,000 poultry, to produce wh she fed 400,000,000 bushels of co at a net return of much over $1a bushel. That the value of the poul and dairy products alone for last y was $204,477,000. That her lo from federal banks have decrea from $98,636,000 on December 1920, to $6,794,000 on February 1927. That her loans from war nance corporation had decreased fr $24,000,000 on May 1, 1922, to o $22,000 on January 1, 1927. That deposit in her 1,427 banks and tr companies on December 31 last v $881,065,915.76, as against $442,1 916.96 on December 31, 1914."

Knoxville, Ia. W. S. I

Rufe Johnson's pet hound dis peared. Rufe put the following ad the paper:

Lost or run away, one liv colored bird dog called Jim. V show signs of hydrofobby in ab three days."

The dog came home the follow day.

Fifty Years of Plowing Matches

More than 15,000 peaple coming
om several states and every walk of
e attended the Golden Anniversary
heatland Plowing Match, held Sep-
nber 17 on the W. Hanley Thomas
m in Will County, Illinois. An
glish farmer from South Africa,
,000 miles away, was a visitor.
James Patterson, secretary of the
heatland Plowing Match Associa-
n, has supplied the following notes
the contest this year:
"The weather was hot and perfect.
nts erected in the timber were cool
d shady. Plowing conditions were
favorable for good work as the soil
s very hard and dry. There were
enty contestants of which three
re ladies. In the classic plowing
ent Arthur Stark, a champion son
a champion father, and Walter
ickson displayed great skill in
awing back furrows on ridge and
rning and setting that hard, dry,
npy soil into nice, clean, even,
aight furrows of roundish comfor-
tion. A perfect back furrow would
t show any ridge and it required
se examination to tell which were
e back furrows.
"Fine exhibits of well matured
rn, good grain and vegetables fea-
red the grain show. All classes
re well filled. In the 4-H club
rk, six baby beeves and a strong
ss of gilts were judged by E. I.
chard, state club leader.
"A weed exhibit was put on by the
ate Department of Agriculture,
vision of Plant Industry, assisted
the State College of Agriculture.
e state was represented by Albert
ilson, seed analyst, and the college
Professor Peiper, botanist. Speci-
ens of snakeroot and other weeds
re exhibited and bulletins dis-
buted.
"In the pageant, plows of fifty
ars ago were contrasted with the
odern plow and the difference in
yles of dress were shown. One of
e floats carried the Boys of '77, or
en who participated in the match
years ago. The one hoss shay with
e whole family, Paw, Maw, Sue,
hn, Mary, Annie, Tim, and the little
ds, and a one lung auto and the
odern six-cylinder, and a 4-H club
at were also included in the
geant.
"About an acre was devoted to the
hibits of the auto show and farm
uipment. A chicken dinner was
rved free to the plowmen and
dges and at 50c a plate to others.
ost of the foodstuff was donated as
is chicken dinner is the main source
revenue to carry on the match.
ver 1,000 were served.
"In an eleven inning ball game
heatland defeated Seward 7—5.
vo aeroplanes were kept busy all
y, and many farmers viewed their
rms from a new angle.
"The Aurora Chamber of Com-
erce attended en masse and present-
the association with a souvenir
ogram and history of its organiza-
on. A fine spirit of fellowship pre-
iled."
The first Wheatland Plowing Match
as held September 22, 1877, with an
tendance of 250. Contestants were
nited to residents of the township
d much rivalry existed. The wis-
m of the founders was evident in
e rule that boys might compete for
premiums. These boys now are
e most successful farmers of the
ction. The committee reported re-
rding this first match, "We learned
nong other things that a furrow can
plowed straight; that there are
en who are masters of the plow;
at while we live we progress; that
lky plowing is a great step in ad-
nce of all hand plowing."
Twelve men attended the school
use meeting July 15, 1877, and
rmed the association which has so successfully conducted plowing matches for the last half century. Three of those most active in the movement were the elder James Patterson, Henry Mussey, and A. S. Thomas. Wheatland township, from which the match is named, was settled by many Scotchmen and Englishmen, whose hardy pioneer natures were well adapted to the building of fertile farms and establishing homes.

Only three times in 50 years have there been no annual matches—in 1884 when James Patterson, the president, was on an extended trip abroad; in 1893 during the Columbian Exposition at Chicago; and in 1918 during the World War. No match has been called off on account of weather conditions.

Everyone who attended the first match came in horse-drawn vehicles or on foot; never had heard of a telephone, an electric light, a radio, an aeroplane, a gasoline engine, a paved country road; had no delivery of mail to his home, no modern conveniences in his home, and knew little of what the rest of the world was doing. What marvelous changes have taken place in the half century!

Cyrus Stark was many times champion. His son was a champion at this year's match. Will Fairweather was six times declared champion plowman. Winners this year were Walter Erickson, driver for Buchholz Bros. in the manufacturers' and dealers' class; Arthur Stark in the local tractor class; Mrs. Henry Diehl in the ladies' plowing match; George Susemiehl in the boys under 21 class; and Irving Schrader plowing with horses won the class for boys under 17 years, horses or tractor. The contests were open to anyone in the United States.

The score card upon which the contestants were judged included: opening furrows, possible points 30; conformation of furrows, 25 points; straightness of furrows, 20 points; evenness of furrows, 15 points; neatness, 10 points.

NASH

Leads the World in Motor Car Value

New Price
Advanced Six
4-door Sedan
$1545
F.O.B. FACTORY



All Nash cars *now have*
Special Springs
of secret process alloy steel

The
Easiest Riding
you have ever enjoyed

This new riding EASE—a notable feature of the Advanced Six 4-Door Sedan—is exclusive to Nash by reason of springs built of special secret process alloy-steel.

These springs are engineered exactly to the weight and size of each Nash model. And shock-absorbers are provided, too.

So the road comfort of this car is absolutely amazing. *DRIVE* it and experience it yourself.

This is the *SPEEDIEST* car in the whole Nash line and the *FASTEST* car of its field in getaway. And its great, newly-perfected 7-bearing motor has *EXTRA POWER* for every emergency.

Another superiority is its steering for it's the easiest steering motor car on the market.

And silver-finished fittings, vanity case, smoking set, tufted genuine mohair upholstery, walnut steering wheel, walnut-finished door panelings, and window moldings; all evidence greater quality despite the *LOWER* price.

SPECIAL TERMS are now available on the car you own. Be sure to examine this Advanced Six 4-Door Sedan—the *leader* of the whole Nash line.

ENCLOSED MODELS
Advanced Six Series
Extra Long Wheelbase

7-pass. Sedan	$1990
5-pass. Ambassador	1925
4-pass. Coupe (*Rumble Seat*)	1775
4-pass. Victoria	1595

Regular Wheelbase

5-pass. Sedan (4-door)	$1545
5-pass. Sedan (2-door)	1425

f. o. b. Kenosha

Special Six Series

5-pass. Coupe (4-door)	$1445
5-pass. Sedan (4-door)	1335
5-pass. Sedan (2-door)	1215
4-pass. Cabriolet	1290
4-pass. Victoria	1295
2-pass. Coupe	1165

f. o. b. Milwaukee

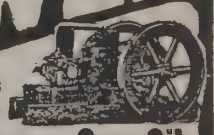
Standard Six Series

5-pass. Landau Sedan	$1085
5-pass. 4-door Sedan	995
5-pass. 2-door Sedan	895
4-pass. Cabriolet	995
2-pass. Coupe	875

f. o. b. Racine

[THE NEW NASH IS A GREAT AUTOMOBILE] (6593)

CHEAPER POWER



Sizes
2 to 30 H-P.

Burns Kerosene, Gas-Oil
Gasoline, Distillate or Gas

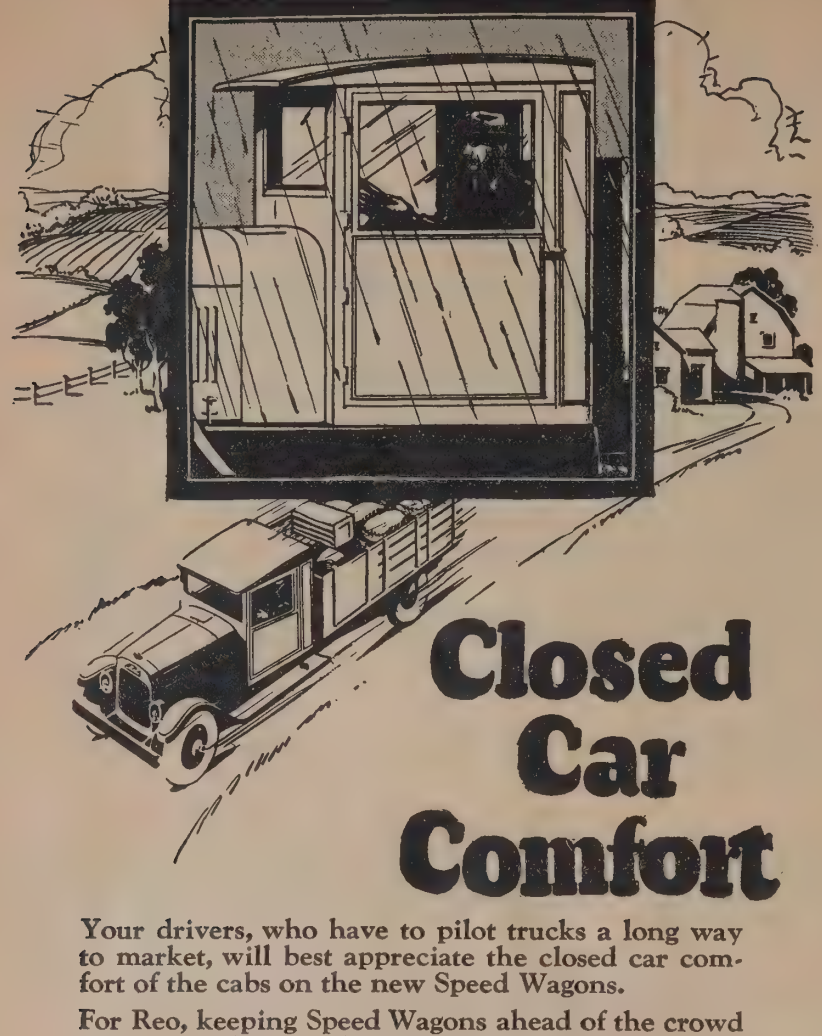
Delivers power far in excess of rating on cheapest fuels. All parts interchangeable. Equipped with WICO Magneto, die cast bearings, speed and power regulator and throttling governor. Scrap your old engine—pay a little of it down on a New WITTE on my EASY PAYMENT PLAN.

WRITE TODAY FOR MY
FREE ENGINE BOOK!

No obligation. And, if interested, ask about Log and Tree Saws, 3-in-1 Saw Rigs or Pump Outfits.—*ED. H. WITTE, Pres.*

WITTE ENGINE WORKS
5647 Witte Bldg., KANSAS CITY, MO.
5647 Empire Bldg., PITTSBURGH, PA.

WRITE TODAY FOR NEW ENGINE BOOK FREE



Closed Car Comfort

Your drivers, who have to pilot trucks a long way to market, will best appreciate the closed car comfort of the cabs on the new Speed Wagons.

For Reo, keeping Speed Wagons ahead of the crowd now as in the past, have not only improved Speed Wagons mechanically in many ways, have not been alone content to give the added safety of four-wheel brakes, but have also made Speed Wagon cabs as comfortable as most of the closed cars on the road today.

Drivers won't quit because of disagreeable driving weather when they handle these new models.

See the New Speed Wagons at your dealer today.

REO MOTOR CAR COMPANY - *Lansing, Mich.*

The JUNIOR — For loads up to one-half ton — $895 Chassis at Lansing — 6 Cylinders, 4-Wheel Brakes, Coupe Comfort

The STANDARD — For the world's average load — up to a ton and a half. — $1345 Chassis at Lansing — 6 Cylinders, 4-Wheel Brakes, Coupe Cab

The MASTER — A little huskier than the Standard — for hauling loads up to two tons. — $1645 Chassis at Lansing — 6 Cylinders, 4-Wheel Brakes, Coupe Cab

The HEAVY DUTY — For hauling heavy loads — up to three tons — $2185 Chassis at Lansing — 6 Cylinders, Dual Internal Brakes, Coupe Cab

SPEED WAGON

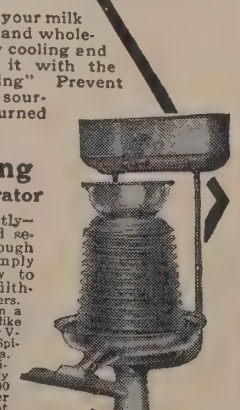
for faster, surer, easier, cheaper hauling

Better Milk Bigger Profits

Keep your milk sweet and wholesome by cooling and aerating it with the "Chilly King" Prevent losses from souring and returned shipments

Chilly King
Cooler and Aerator

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Seasonable Live Stock Notes

THE husbandry of farm live stock, if properly conducted, is a profitable business; it conserves the fertility of land and makes a home market for the products thereof. The amount of money received for feed crops depends quite as much on one's skill with animals as on one's knowledge and practice in fields. Feedbox and field afford an all-year distribution of labor. Hoofs of animals may tread in wet and waste places where plows cannot go. Coarse, rough feeds are converted to the usefulness of man. Usually where good live stock is kept one finds progressive-minded people living in comfortable homes. Some things may need to be done in early November concerning the welfare of flocks and herds. Let us think about their doing now.

Kindness in the Cow Barn

It is a time of year when cows are made accustomed to their winter quarters; teaching them their proper places often requires patience and perseverance. Sometimes, too, we are not in a mood to be helpful to the seemingly slow understanding of cows that persist in poking their heads in the wrong stanchions. It always seems that the very evening we are in a hurry and perhaps have been put out about something during the afternoon the cows will walk all over the barn pretending to be looking for their proper stalls but in no hurry to find them. At such times we are persuaded to the use of harsh language and whatever happens to come handy for cracking cows' ribs. We can't tell one just exactly how to avoid or overcome such situations but we can highly recommend more patience and some kindness. Repetition creates habit. The habit of being kind in the cow barn is a good way to sell feed to cows for more money.

Keep Heifers Growing

When the heifers are brought into the barn this fall, before snow flies, they should be put on a good growing ration for the winter. A part of the secret of having a good cow at maturity is to start her growing the day she is dropped and never allow her to stop until she is a full aged cow. Continue feeding good quality legume hay; if silage is available 10 to 15 pounds per head may be fed daily. In addition to all the good roughage a growing heifer will clean up, she needs some grain. A good mixture may be made from 100 pounds each of ground corn, ground oats, or barley, and bran and 25 pounds of a high protein feed or mixed feed. Growing heifers will need from 2 to 4 quarts daily of such a mixture.

Winter Rations for Fall Pigs

Mixtures of home grown grains or those supplemented with cereal by-products are unsatisfactory as winter rations for fall pigs because they are deficient in essential vitamins, in high quality protein combinations, and in minerals. The result of feeding such rations through the winter will be restricted growth and lack of sufficient bone formation commonly termed rickets. Throughout the summer abundant sunshine and green feed, grass and legumes, supply the deficiencies of cereal grains. To correct these deficiencies in winter feeding skimmilk, alfalfa meal, and tankage are recommended. A good supplemental mixture may be made of 60 parts tankage, 15 parts linseed meal, 15 parts wheat middlings, and parts alfalfa meal. Skimmilk in li ited quantities of 3 to 5 pounds head daily makes a valuable addit to this supplemental mixture. Wh corn in the absence of these supp ments is inferior to yellow corn. N is the time to plan winter rations fall pigs.

Rations for the Milking Herd

In making winter rations for co in milk one should first consider wh roughages are to be fed. Silage a legume hay require a grain mixtu containing from 11 to 14 per cent gestible protein. We find that a m ture made of 6 parts of home gro grains, 1 part bran, and 1 part hi protein feed yields about 12 per c of digestible protein. We recomme two home grown grains and two hi protein feeds along with the br Thus 300 pounds ground corn, pounds ground oats, 100 pounds br and 50 pounds each of linseed a cottonseed meals make a mixture c taining 12 per cent of digestible p tein.

For good quality mixed hay and lage the mixture may be made of parts home grown grains, 1 p bran, and 2 parts high protein fe Thus 300 pounds ground oats, pounds ground barley (5 parts home grains), 100 pounds bran, a 100 pounds each linseed and cott seed meals (2 parts of high prot feeds) make a mixture yielding tween 15 and 16 per cent digesti protein.

For silage and timothy hay a gra mixture made of 4 parts home gro grains, 1 part bran, and 3 parts hi protein feeds yields between 18 a 19 per cent of digestible protein.

Legume hay without silage requi about 10 per cent digestible prot grain mixture; mixed hay requi the same as for silage and mixed h timothy hay alone requires about t same as for silage and timothy ha

It makes little difference what t home grown grains or what two hi protein feeds are used.

In the absence of home gro grains one should use mixed fe yielding the digestible protein in t percentages given for mixtures i the different roughages or combi tions. Mixed feeds of high prot content may be used where high p tein feeds are indicated.

Litter in the Poultry House

As the season advances we f quently fail to observe how dir worn, and compacted the litter b become in the poultry house. We st out with good intentions and with nice lot of clean straw but by t time snow flies we have a conditi in the poultry house unsuited to t best interest of the flock therein. L ter is placed in a poultry house which to hide scratch grain. The p pose of hiding is to make hens ex cise enough to keep in fit conditi A second purpose of litter is to c tribute to cleanliness. When litter worn out, dirty, and compacted it longer serves the purposes for whi it was intended. Little things count success with hens; clean litter a enough of it is one of the import little things to be looked after.

No Competition

Mandy—"Mose, is yo' sho' didn't marry me fo' mah job?

Mose—"Co'se ah didn't, gal! La sy, no! Yo' jes go ahaid an 'keep ol' job!"

Specializes on Dairy Cows and Hogs

HOARD'S DAIRYMAN:—Keeping rec-ls on your farming operations ys, according to R. C. Johnson of unders County, Nebraska. There is en no guesswork and a perusal of e records enables one to discover e leaks in the business and profit by y mistakes. Enrolled in a cow test-g association and in a pig produc-n contest, both sponsored by the te college extension service, has al-made Mr. Johnson more interested dairying and in hog raising.

Last year the Johnson herd of 10 olsteins made an average production 400 lbs. fat. About half of the rd are pure-breds and the rest are ades. The butterfat test on the rd runs about 3.6 and 3.7%. Lo-ted close to the town of Mead, Mr. hnson finds a good market for his



A ROW OF A-SHAPED INDIVIDUAL HOG HOUSES ON THE R. C. JOHNSON FARM

oduct to steady customers. About lf of the milk is separated and eet cream is sold. The rest of the lk is delivered in bottles to the wn trade.

Speaking of the value of a cow test-g association, Mr. Johnson says: uch an association enables a per-n to get yearly production records each cow in the most economical ay. I find in my own case that the cords are becoming more and more luable. My calves are in better de-and now than they were before. ne also learns of better methods of ndling and feeding cows through longing to an association. Being a ember of a cow testing association simply a business proposition."

The cows of the Johnson herd are a grain ration all the time. A lot oats are fed, mostly unground. orts are in the ration and some cot-nseed meal. The ration averages out 15% protein. One of the pure-ed Holsteins produced 615 lbs. fat, r milk testing 4%.

When the extension animal hus-ndry specialist, M. B. Posson, an-unced Nebraska's first pig produc-n contest, Mr. Johnson joined. In is contest, records are kept of the eight of all litters at the age of six onths. It means more than a ton ter contest, for the reason that all the litters are considered. When r. Johnson's records were all tabu-ted it was found that he produced 437 pounds pork per litter at the av-age age of six months. When sold ey made a very satisfactory profit ver the cost of production.

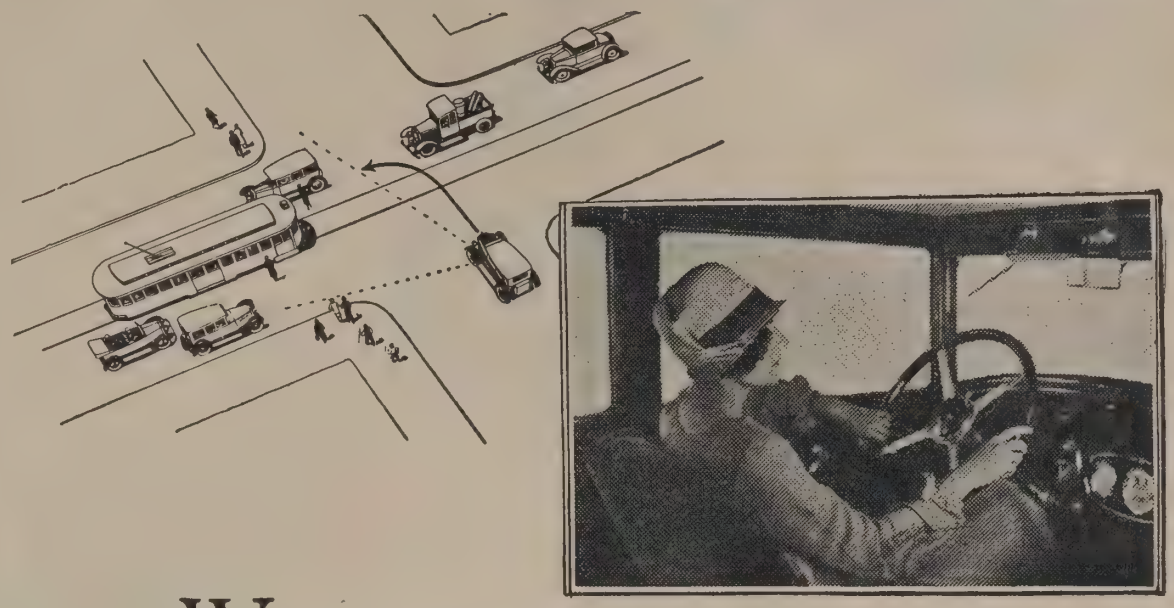
The ration for the pigs consisted of rn, tankage, oats, some skimmilk, d oatmeal. Two tons of oatmeal ere used in all and it was fed once a y as a thick mash. This oatmeal pt the pigs in excellent condition. very year for the past ten years Mr. hnson has hogged down corn. Rye especially well liked as a pasture op. It furnishes an excellent fall sture and in the first pasture crop ady in the spring. The rye is owed under about the first of May d the ground put into sweet corn r hogging down purposes.

Of course the McClean County sys-m of hog lot sanitation is carried ut on this farm and a battery of movable houses is a feature of the equipment.

Nebraska. H. H. BIGGAR.

Clear Vision in *Every* BODY *by* FISHER

CADILLAC • LASALLE • BUICK • OAKLAND • OLDSMOBILE • PONTIAC • CHEVROLET



WHEN you sit behind the steering wheel of a car with Body by Fisher, note how unobstructed is the view in front and to both sides.—Two features combined to create this greater safety and greater enjoyment in motoring.—One is the Fisher Vision and Ventilating Windshield, which affords vision through a single pane of plate glass, without metal or rubber strips to interfere with the clear view.—The other feature which makes Fisher-equipped cars safer and more pleasant to drive is the use of narrow front pillars of unusual strength, which eliminate the "blind spot" in driving.

The VV Windshield—This remarkable contribution of Fisher to greater motor car satisfaction not only assures perfect ventilation and complete weather protection—it is also safer and more convenient because it may be raised or lowered vertically with one hand while the car is in motion.

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BODY by FISHER

Cheap Milk Transportation

The Atlantic & Pacific Tea Company has thousands of stores scattered through the country and they have gone into the condensed milk business to supply these stores. They have a big plant at West Bend, Wisconsin, but found that there was not enough milk locally to supply the demand. They plan to have condensing stations at other points where milk can be run through a condensing pan and reduced so that there will be only one-third the original volume. This milk is then put through in tank cars and moves under a very low rate. The tank car rates make it possible to move this milk three hundred miles at the rate of 11 cents per hundred for the original milk or about 33 cents per hundred for the concentrated.

Over fifty companies are now using tank cars, some of them renting as many as fifteen such cars. These are rented on a basis of $7.00 per day and hold sixty thousand pounds of condensed milk.

Tank cars and tank trucks have completely changed the transportation situation in regard to milk. It is easier to get milk in a hundred miles now than it was twenty-five miles a few years ago and it is nothing unusual to ship milk three or four hundred miles to market. We have had several letters from Chicago milk dealers asking us if we had any surplus and stating that it would be very easy to send milk from here to Chicago.

The eastern railroads are trying to avoid hauling milk in tank cars which compete with their much higher can price. These railroads have not given the low rate which now prevails on the western roads and hence very little milk or cream is going east in tank cars. It is almost certain that they will be unable to hold to this policy as some road is sure to give shippers the advantage of a fair rate and when this is done all other roads will be forced to follow. This will mean that the eastern market will be moved a thousand miles nearer to Minnesota. —Twin City Milk Producers' Bulletin.

The HINMAN Electric

A smoother, sweeter-running little machine you never saw!

Just a handful. Move it anywhere. Plug in, attach teat cups. How it milks! Listen closely or you can't tell it's working. One or two cows at a time. Just *watch* the hard work being done for you—time and money being saved.

Easiest to clean. Only 1/6 H.P. required. Low in first cost. Because it uses the *Simple Hinman System*—proved right by *19 years* of success in America, and in Belgium, France, England, Australia, South America and other foreign lands.

If you have electric power, choose a Hinman Electric and the future will confirm your judgment.

HINMAN MILKING MACHINE CO.
2nd St. Oneida, N.Y.

Write for Catalog, containing milker information you should have.



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PORTABLE GAS ENGINE • STANDARD • PORTABLE ELECTRIC
MILKERS



Preserve your home as our forefathers safely preserved the stately beauty of their Colonial mansions — by painting with lead. Your painter will tell you it pays to paint with lead paint, made with Dutch Boy white-lead.

CAN you answer the many questions that rise up when you decide to renew the paint covering which protects and beautifies your farm house? Our booklets, "Handbook on Painting" and "Decorating the Home" (printed in colors) will help you answer a great many of them. These booklets give valuable information about the use and application of paint and the selection of distinctive color treatments for the interior and exterior. Send to our nearest branch for these helps and a decorator's data form for use if you desire the help of our Department of Decoration on any special decorative problem about the farm.

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New Finger Pull *milk bottle cap*



A dandy new low cost bottle cap that is sanitary. Easily removed with fingers. Protects both milk and bottle. Makes new friends; holds the old ones. Adds to the popularity of your product. Try them on your trade and note the quick response. Write us for **free samples** and prices. We also make the superior "Midwest" Standard Disc Caps.

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Complete
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The new
Fords Milker
"JUNIOR" ENGINE PORTABLE

A new value in the great line of Fords milkers. This splendid double unit outfit, complete with Full Power Gasoline Engine, is mounted on rubber wheels. Easily portable, and has handy foot or hand starter. Famous Fords Milker quality throughout. Thousands of our outfits in successful use, many on prize herds.

Fords Milkers will save you 20% to 60% over any other similar milker. Why pay more?

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Some attractive territory open for agents.

MYERS-SHERMAN CO., 213 N. Desplaines St. CHICAGO, ILL.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

JERSEYS IN SUGAR CANE

J. L. FLETCHER, LOUISIANA

WHEN South Louisiana is mentioned, it is natural to think of fields of sugar cane, with great refineries turning out countless tons of sugar. Years of cane cropping, however, have about worn out a naturally fertile soil, and today with insect pests and diseases that crop is uncertain to say the least. There, as in all fertile sections when other crops have played out, the people have begun to turn to the dairy cow. Years ago a young farmer by the name of Louis Pesson found that the dairy business was more profitable in that country than the six months' task of growing sugar cane.

As time passed, Pesson's farm became a place of interest to the people of his section. They began going there to find why in hard times and seasons of crop failure, Pesson prospered while his neighbors went deeper and deeper in debt. There in pastures bordering on Vermillion Bay, an arm of the Gulf, they found purebred Jerseys turning a crop of Bermuda grass and white clover into milk and butter; fields in which a rotation of corn and soy beans, with the addition of many tons of manure, gave a larger tonnage of cane on half the acreage than did their own fields devoted exclusively to that crop. Today other dairy farms are appearing on the road to the Pesson place, and good cattle are replacing the ticky scrub of other days.

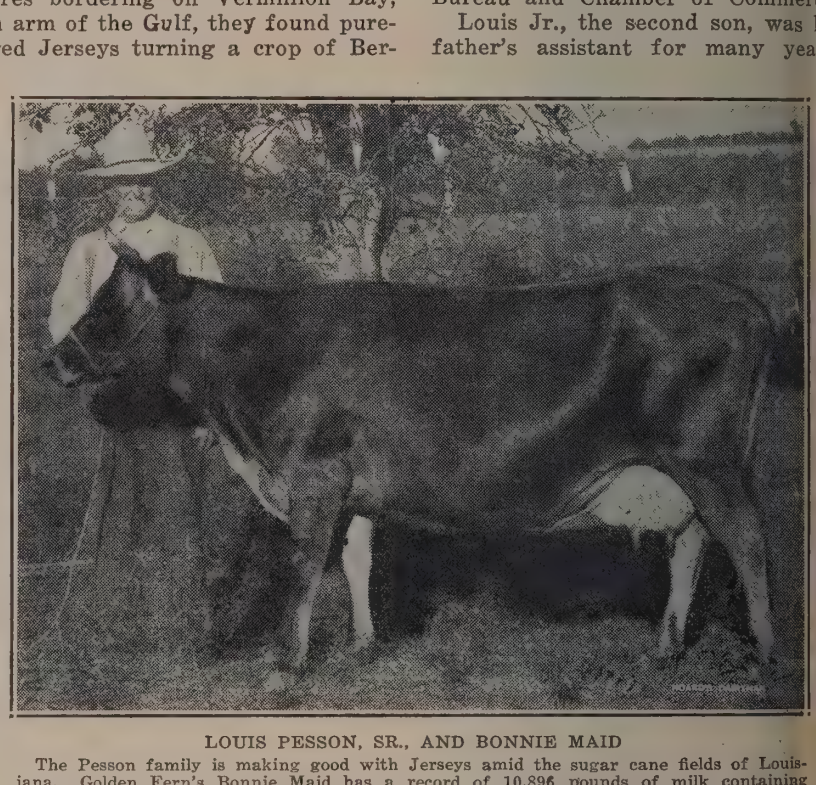
The sons of Louis Pesson, like their father, have followed the dairy business. The eldest, Robert, married when very young and went to work for his father at a monthly wage of thirty dollars. After five years he had saved sufficient to make a payment on a run-down farm in the neighborhood and to buy a few cows. He was a hard worker and believed that the only way to make a success of any business was to study it from every angle. He read all the material that he could find on dairying and began attending the Farmers' Short Course at the State University. There he learned the value of good bulls in building up a herd and the importance of keeping records. He found that a large part of his cows were not paying their way and these he replaced with good heifers that he raised. As his fields increased in fertility, he put in truck crops which he sold at good prices on the local market. Lately the extension depar ment of the state has been pushir the growing of Irish potatoes ar cabbage in this section for shipme to the northern market, and Pesso has made an outstanding success that line.

A few years ago Robert dispos of his original farm at a good pro and bought another at the edge of t neighboring city of New Iberia. his new location he is only a fe blocks from a good high school a it is his chief ambition to give h four children the advantages of education which he had to dig out f himself. Like his father, he has ways taken an interest in his co munity, and though yet a young m is counted one of the agricultur leaders of his state. This fact is tested to by his place as a direct in both the Louisiana Jersey Catt Club and the State Dairy Associatio as well as his active work in the Far Bureau and Chamber of Commer

Louis Jr., the second son, was h father's assistant for many yea giving especial attention to test a show cattle. In both these lines was very successful, as a state b terfat record and many prizes sh

Last year the Pessons decided t the time was ripe for them to expa into a community affair the butt making that they had long carried at their farm. They formed a co pany in which the father and t sons were stockholders, and began erating a creamery with Louis Jr. manager. Their business has creased constantly, until their pres output is something over 3,000 l of butter per week. They had pected trouble in securing suffici cream with which to operate, but seems that their dairy gospel l taken deeper root than they thoug It is now necessary for them to large their capacity in order to t care of the supply.

The Pessons are meeting m problems in this section that is n to dairying, but they are giving ca ful study to each one and indicati are that they will continue to be s cessful. Just now a large part their territory has been hard hit the flood, but they believe that best way for them to help th stricken neighbors is with a cre check. On this account they pushing the dairy business har than ever.



LOUIS PESSON, SR., AND BONNIE MAID

The Pesson family is making good with Jerseys amid the sugar cane fields of Louisiana. Golden Fern's Bonnie Maid has a record of 10,896 pounds of milk containing 676 pounds fat, which is a state record for her class.

Balanced Farming

The term "balanced farming" has en used promiscuously of late years those who would persuade the sin- cropper that there is less danger financial embarrassment in diver- ication. Few, however, have said ich about what is implied in the m.

Some time ago we were on a 96- e farm in Indiana where the best of "good farming" is being done t we have seen in many miles ough several states. This farmer a diversified program of produc- n but that is not the whole secret his success. The answer to his lity to live well, to provide labor ing equipment for his farm and ne, to pay $1,000 a year on his rtgage is found in "good farm- ."

He has found out how to find the profitable cows in his herd through mbership in a cow testing associa- n. That is a part of his diversifi- ion.

He has found out that breeding the t to the best is sound practice in mating of his breeding stock. The n of his herd sire produced 409 fat as a two-year-old, 646 lbs. fat a three-year-old, and 787 lbs. fat a four-year-old. That's a part of diversification.

He has found out how to get eight ers of pigs a year from four regis- ed sows and how to grow these s good enough for junior club mbers and other swine producers o will pay good prices for superior eding stock. That's a part of his ersification.

He has found out that filling the basket with 400 hustling White horn hens is a good way to sell d. That is a part of his diversi- tion.

He has found out what part of his m is best suited for growing pota- s and what fertilizer can be used fitably. Each year he grows five es of potatoes. He knows what to as spray, and when and how to it. He grows nearly as many po- oes on five acres as many do on acres. That is a part of his diver- ation.

He has found out that by tuning up land with lime, legumes, acid sphate, and manure, winter wheat igs a profitable cash return. Last r his wheat yielded 37 bushels acre. That is a part of his di- sification.

He has found out that he can get plendid stand of alfalfa following rop of early peas for the cannery. ast but not least he has found out t it pays to share interests and nership with his 19-year-old son. s son has been encouraged to try skill in many club projects and owns 7 pure-bred Jerseys. If thinks it has not paid he should and buy one of these. That is e of his diversification.

n the future when we think of nced farming, of diversification, the cow-sow-hen trio, let us go to root of balanced farming and im- good farming.

ATWATER KENT RADIO

A STRAIGHT answer to a farmer's straight question

"EVERY RADIO salesman," a farmer writes us, "claims his set is the best. I want the best, but cannot afford to make a mistake. I am inclined to buy an Atwater Kent on its reputation. Can you give me any facts to prove it is the best?"

To this friend and the many other rural families who are ready to invest in radio, let us say just this:

A test of any radio instrument, as of any farm or household implement, is *the way it works and the way it stands up under continued use.* So the method of manufacture is vitally important. Atwater Kent Receivers and Radio Speakers are constructed on the theory that the parts you can't see must be as good as the parts you can see. Every receiver has to pass 159 gauge and electrical tests before it leaves our factory. To this extreme care is due the comment you so often hear: "Atwater Kent Radio works—and keeps on working."

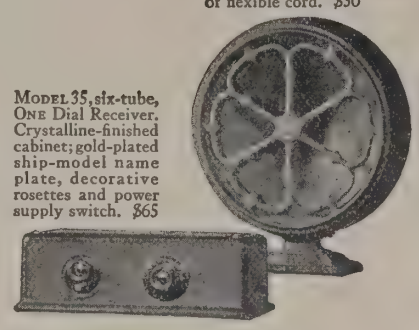
Tone is another test. Upon clear, natural tone depends the *reality* of the programs which radio brings into your homes. In the making of Atwater Kent instruments perfect tone quality is never sacrificed.

A third test is *simplicity.* Can you bring in the broadcasting stations without bother and delay? Atwater Kent ONE Dial operation lets you turn from station to station at will, selecting instantly the kind of program you like.

A fourth test is *beauty.* You are proud to show Atwater Kent Radio to your guests, as well as have them listen to it.

If you live far from broadcasting stations, *distance* is also a test. All Atwater Kent Receivers have a wide range—and there is one model specially designed for reaching distant stations.

Let the nearest Atwater Kent dealer show you that Atwater Kent Receivers and Radio Speakers meet *all* these requirements. Yet — because of large production — the price is low.



MODEL E RADIO SPEAKER. The result of nearly three years' laboratory work. With 9 feet of flexible cord. $30

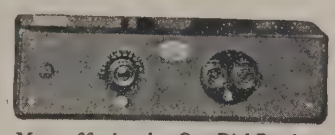
MODEL 35, six-tube, ONE Dial Receiver. Crystalline-finished cabinet; gold-plated ship-model name plate, decorative rosettes and power supply switch. $65



"B" Power Unit. Automatic control from switch on receiving set.

Type R, for 60-cycle 110 to 115 volt Alternating Current, $50.

Type S, for 25-cycle 110 to 115 volt Alternating Current, $55.



MODEL 33, six-tube, ONE Dial Receiver with antenna adjustment device. Unusual range and selectivity. Solid mahogany cabinet; gold-plated name-plate, power supply switch and vernier knob. $90



MODEL H RADIO SPEAKER. Entirely of metal. Crystalline finished in two shades of brown. With 9 feet of flexible cord. $21

MODEL 30, six-tube, ONE Dial Receiver. Solid mahogany cabinet; gold-plated name plate, power supply switch and vernier knob. $80

ONE Dial Receivers Licensed under U. S. Pat. 1,014,002

EVERY SUNDAY EVENING

The Atwater Kent Radio Hour brings you the stars of opera and concert, in Radio's finest program. Hear it at 9:15 Eastern Time, 8:15 Central Time, through:

WEAF	*New York*	KSD	*St. Louis*
WEEI	*Boston*	WWJ	*Detroit*
WCAE	*Pittsburgh*	WFI	*Philadelphia*
WSAI	*Cincinnati*	WCCO	*Mpls.-St. Paul*
WTAM	*Cleveland*	WGY	*Schenectady*
WGN	*Chicago*	WSB	*Atlanta*
WRC	*Washington*	WSM	*Nashville*
WGR	*Buffalo*	WMC	*Memphis*
WOC	*Davenport*	WDAF	*Kansas City*
WBT	*Charlotte*	KVOO	*Bristow*
WFAA	*Dallas*	WHO	*Des Moines*
		WOW	*Omaha*

Write for illustrated booklet of Atwater Kent Radio. *Prices slightly higher from the Rockies West, and in Canada*

ATWATER KENT MANUFACTURING CO. *A. Atwater Kent, President* 4769 Wissahickon Ave., Philadelphia, Pa.

A New Sweet Clover

A variety of sweet clover that will y green six weeks longer in the than varieties now in common , is reported by the United States partment of Agriculture. The va- y is one of several brought into country from Europe and East- Asia by scientists of the depart- nt.

An ideal clover, as far as useful- s is concerned, would be one that ld stay green late in the fall, then t growth early the next spring, remain green and in good feed- condition well into the following summer. The variety reported by the federal scientists approaches that ideal, they assert, more nearly than any now grown.

"All sweet clovers are variable in their habits of growth," the department's statement continues, "and many individual plants of distinct type and form may be found in nearly any sweet clover field. This offers an opportunity for the development of new strains of sweet clover for definite uses.

"There is considerable interest at present in the production of better hay varieties, since the common sweet clovers, especially the white-flowered species, are too coarse and heavy to make good hay from the second year's growth.

"Several good hay varieties have already been developed, notably the early flowering Grundy County, Crystal Dwarf, and Early Dwarf varieties of sweet clover, and the Albotrea and Switzer varieties of yellow sweet clover."

The talent of success is nothing more than doing well whatever you do without a thought of fame. If it comes at all it will come because it is deserved, not bcause it is sought after.—Longfellow.

Canada Ships Cream to London

The Canadian Pacific Railway's "Agricultural and Industrial Progress" notes the possible opening up of a new export trade for Quebec Province dairy producers in the reported successful trial shipment of three lots of ten 8-gallon cans of cream from Montreal to London, states Consul General Albert Halstead in a report made public by the Department of Commerce. This shipment is said to be the first one in which cream has been sent such a great distance for commercial purposes.



Nut-crack Night

"Wee Jenny to her granny says:
'Will ye go wi' me, granny?
I'll eat the apple at the glass
I got frae Uncle Johnny.'"

Jenny is a little Scotch maid celebrated in poetry by Robert Burns who longs to know who her future husband is to be. She believes the old story that if a girl stand and eats an apple before a mirror on Hallowe'en night her future husband will come and peep over her shoulder. But Jenny's superstitious little grandmother refuses to have anything to do with accompanying her because many a girl who has done this daring thing has got such a fright that she died from the experience.

This is only one of the many superstitions that center around Hallowe'en and practically all of them have to do with love-making and marriage. A quaint tale I read in an old book told of a happily married young English couple, parents of a baby girl. One night the mother went to bed with the child in her arms. In the night the baby awoke, first whimpering, then crying lustily. The mother lay as if in a deep sleep and resisted all efforts of her husband to arouse her. When she finally awoke after two hours she complained of feeling tired. "Alas," said her husband, "I see that I am not to live long and the man who is to be your second husband has been casting a spell over you." "Such, indeed, was the case as subsequent events showed but the lady lived long and happily with her second husband," concludes the old tale.

We smile now at such foolishness of superstition but there is no doubt that to many of our forefathers such events were very serious affairs. In the British Isles and probably other places it was believed until comparatively recent time that Hallowe'en night was the time when spirits of the dead could return to visit their homes and friends but it was believed that awful witches were abroad that night, too, so great fires were lighted on hilltops and men stood with lighted tufts of hay on pitchforks brandishing and swinging them about to ward off the witches.

Though we have long ago learned not to attach any importance to the old Hallowe'en superstitions, here are some of them that you can use as a basis for your Hallowe'en entertaining that will furnish fun for every one; the married ones will have as good a time watching the single ones take part as if they were in the games themselves.

Blindfold the people who are playing and take them to the garden where stalks of the summer crop are still in the ground. Let each pull up a stalk and return to the fireside. If the stalk is big or little, so will be the future husband or wife; the amount of dirt that clings indicates the amount of the dowery and the taste indicates the temper.

Another matrimonial game: Take three dishes, fill one with clean water, one with dirty water, and leave the third empty. Blindfold each contestant in turn and have him advance and put his finger into one of the dishes. If into the clean water, he is to marry a young girl; if into the dirty water, a widow; if into the empty dish, no one at all. This is a Scotch game called the Three Luggies and the famous "auld Uncle John," it is related, having dipped three times into the empty dish became so enraged that he seized the three luggies and with all his might "heaved them on the fire." In playing this game the positions of the dishes should be shifted after each trial.

Another Hallowe'en practice is to have each person peel an apple and throw the peeling, which has been kept unbroken, over the left shoulder. If fate is kind the peeling will form the initial of one's future wife or husband. Also it is believed that if unmarried persons walk downstairs backward looking into a mirror held in the hand, they will see the face of the future partner in life in the glass.

For good rollicking games that break the ice at a party there is nothing like bobbing for apples in a tub of water or trying to take out with the teeth a piece of money buried in a pan of flour, or trying to eat a doughnut suspended from a string without either breaking the doughnut or letting any of it fall.

One of the prettiest Hallowe'en sights I have ever seen was the children's lantern parade in a small village. They had taken pasteboard boxes of various shapes as large as a shoe box or larger and had cut out of them all sorts of fancy designs—faces, butterflies, buildings, animals, and so on—and had pasted over these holes tissue paper of various bright colors. On Hallowe'en night a procession of these little ones going along, each with a lighted lantern or candle in his box, makes a lovely sight and the lanterns make a pretty house decoration for a party afterward. It is necessary always to have someone watching for fire dangers, however, whenever hilarious fun gets mixed up with lighted candles.

I'll not even attempt to suggest Hallowe'en refreshments for it is one of the times of year when people defy Nature and put into their stomachs late at night all sorts of things that they should not—coffee, mince pie, pumpkin pie, doughnuts, cider and—I don't want to be a party to the indigestion that must follow.—LUCY THOMPSON.

Friendships in Good Repair

It was the famous Doctor Johnson, long experienced in the art of living, who gave this advice to a young man friend, "My son, keep your friendships in good repair." I know of few wiser commands, for friendship is one of the true and lasting consolations of life. Yet it is a thing easily lost and like any other precious possession we must give thought to keeping it.

Sooner or later we all learn that nothing in life is to be had for nothing. For the material things we usually give money; for the intangible things like friendship we give some personal quality—understanding, sympathy, loyalty, cheerfulness, or some other of the things for which people value their friends and we know that we cannot have the regard of people without earning it.

The story of the neighbors is old but it is worth keeping in mind. The Smiths moved into the neighborhood at the same time the Joneses did. After a few weeks Mrs. Smith was heard to say, "Oh, dear, we do have the poorest luck. No matter where we move we never get good neighbors. The last time we moved just on purpose to get rid of the neighbors we had but I was just afraid it would be as bad here, and sure enough it is."

But about that time brisk Mrs. Jones at Ladies' Aid was saying, "Oh, yes, we did hate to leave our other place, the neighbors were so good and kind; but as we said then, there are nice people everywhere and we're sure to find some wherever we go and already it has turned out that way here. Everyone is so nice to us and we already feel that our new neighbors are old friends." It probably was just a made-up story in the beginning, but isn't it true anyway? Some people seem never to have real friends any place they go, while others with no more money or position have friends everywhere.

One of the best ways to keep friendships in good repair, I believe, is to learn early to make allowances for people. Naturally no one is going to please us all the time any more than we ourselves are going to please them all the time, so on a day when Mary B. says sharply, "Well, I'd never let a child of mine do—" and then she names something that your child does regularly, just say to yourself, "Mary certainly has a sharp tongue but if I had to contend with all that she has and if I had the sort of inheritance she has, I'd probably be a good deal worse. Anyway, there isn't a better hearted soul alive nor a thing she wouldn't do for a friend and besides she really is bringing up her children as well as anyone I know." After that you'll feel in a considerably more charitable frame

(Continued on page 1011)

Embroidered Bedspread



"Oh, she has the loveliest home. Even the littlest things are just perfect—you should have seen her gorgeous embroidered bedspread.

How many times have you heard something like this? It is only the women who care that have nice things said about their homes, because all of the furnishings that elicit praise are the results of painstaking care.

Industrious and capable women can easily have such pretty things in their homes—furnished directions enable any woman to embroider the beautiful bedspread shown—a spread that "stands out" and adds a refined touch to the room it graces. Beautiful hand embroidery will quickly draw admiration. A complete combination is also available in this design at very attractive prices. Spread of heavy Krinkle Krepe, only $3.95. Curtains to match, $2.20. Scarf to match, 63 cents.

This complete outfit hand embroidered could not be bought in any store for less than forty dollars. In ordering give number, 812. Send to Embroidery Department, Hoard's Dairyman, Fort Atkinson, Wis.

Miscellaneous Fashions



No. 3163—Cleverly Designed. Pattern in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 3½ yards of 40-inch material with ½ yard of 36-inch contrasting.

No. 3159—Novel Belt Arrangement. Pattern in sizes 36, 38, 40, 42, 44, 46, and 48 inches bust measure. The 36-inch size requires 3⅝ yards of 40-inch material with ⅝ yard of 40-inch contrasting.

No. 3155—For Smart Afternoons. Pattern in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 2⅜ yards of 40-inch figured and 1⅞ yards of 40-inch plain material.

No. 3168—Advanced Model. Pattern in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 3⅝ yards of 40-inch material.

No. 2932—Reversible Fronts. Pattern may be had in sizes 16, 18 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 3¾ yards of 36-inch material with 7 yards of binding.

No. 3095—Practical—Dainty. Pattern in sizes ½, 1 and 2 years. The 1-year size requires 1 yard of 40-inch material.

No. 3093—Shirring Forms Yoke. Pattern in sizes ½, 1, and 2 years. The 1-year size requires 1⅜ yards of 40-inch material with ½ yards of ribbon.

How to Order Patterns

Enclose 10c in stamps or coins (wrap in carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

"My, but your little brother is growing."

"Yes, ma'am; he comes up to her hem of mama's skirt now."—Life

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The Sport Cabriolet .	$715
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*Produced by Harold Lloyd Corp. Released by Paramount



"U. S." Blue Ribbon boots are made either red or black—with sturdy gray soles—knee to hip lengths.

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SLIP on a pair—get them into action—see the stuff that's in them—and you'll understand why we say this "U.S." Blue Ribbon boot is a brute for wear!

Look at that thick, over-sized sole—made from a single piece of the toughest rubber.

Rubber so live and elastic it will stretch five times its length! That's what you get in the uppers. It resists cracking and breaking—stays pliable and waterproof.



Five times its length it stretches! That's what a strip of rubber cut from any "U. S." Blue Ribbon boot or overshoe will do. This rubber resists cracking and breaking—stays flexible and waterproof.

These boots have rugged strength—and lots of it. From 4 to 11 separate layers of rubber and fabric go into every pair!

When you get "U. S." Blue Ribbon boots or overshoes you'll find they've got long wear built all through them! And they are as flexible and as comfortable as you could wish.

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Buy a pair. *It will pay you.*

United States Rubber Company

The "U. S." Blue Ribbon Walrus—an all rubber arctic that slips right on over your shoes. Its smooth surface washes clean like a boot. Red with gray sole, all red, or black—4 or 6 buckles.

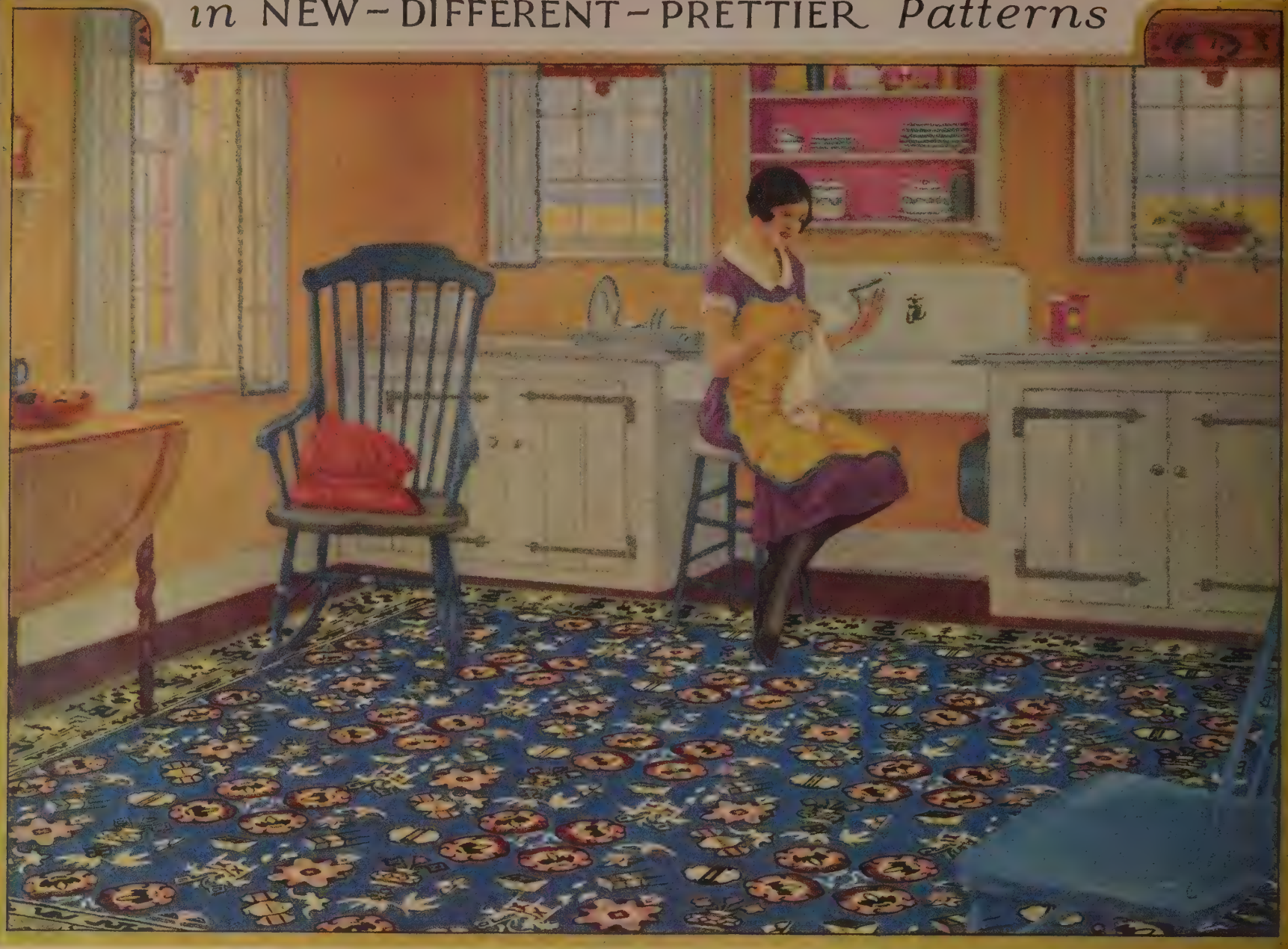


"U.S." BLUE RIBBON *Boots Walrus Arctics Rubbers*

UNITED STATES RUBBER COMPANY US RUBBER SYSTEM AND ASSOCIATED COMPANIES

Trade Mark

Genuine Cork Linoleum Rugs in NEW–DIFFERENT–PRETTIER Patterns



ITS pretty patterned surface is as smooth as varnished woodwork. Dirt just simply won't grind in. Grease spots come off as easily as from a smooth china dish. As a covering for that old kitchen floor, it means an end to scrubbing.

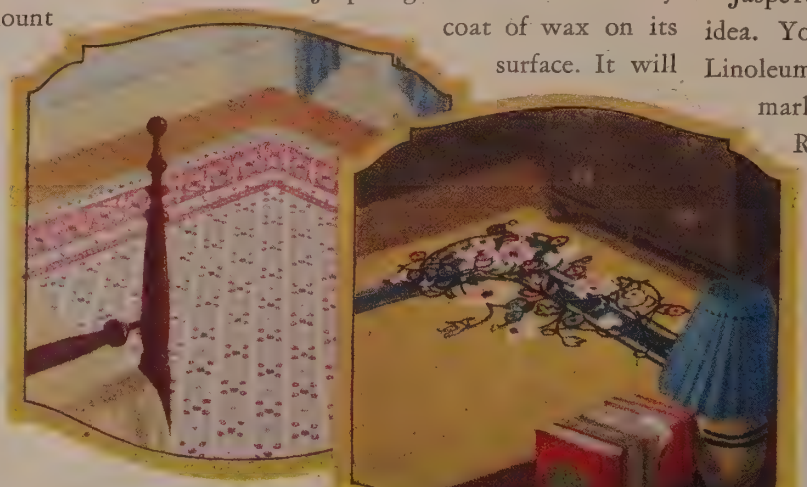
Think of having a rug for the kitchen so pretty and colorful, (the pattern illustrated is from an old Japanese design) yet so easy to clean and *keep clean*. It will stand an amazing amount of wear, too, because it is made of genuine linoleum. Given an occasional coat of clear varnish, it will last year after year even on the most "walked-on" floor in the house.

Just a light mopping makes this lovely rug gleam like new

New Jaspé Rugs

For the other rooms, there are the beautiful new Jaspé rugs with the wax finish. If you have not seen this new type of smooth-surface rug, by all means ask for them in the stores. These are made of the very same Jaspé linoleum that has become so popular in Armstrong's Linoleum Floors. The Jaspé graining is solid, right through to the burlap back—it can't wear off.

Each of these Jaspé rugs comes with a velvety coat of wax on its surface. It will keep its original lustre and freshness indefinitely, if waxed as needed, and polished from time to time with a soft cloth.



In the large illustration: *Pattern No. 816.* Above: *Inlaid Pattern No. 1031.* Right: *Jaspé Rug No. 707.*

Jaspé rugs are distinctly an original Armstrong idea. You will find each genuine Armstrong's Linoleum Rug identified by the Circle A trade-mark stamped on the gray burlap back. Remember to ask the store clerk for "Armstrong's" by name.

Book of Rug Patterns, Free

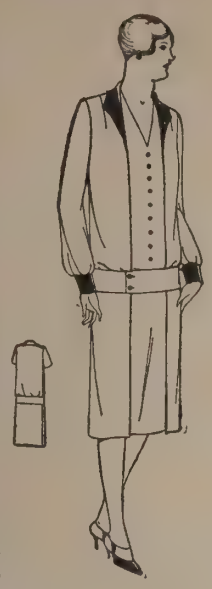
"Rugs of Practical Beauty" is a booklet illustrating the new Armstrong Rug patterns in their original colors. You may have a copy simply by writing to Armstrong Cork Company, Linoleum Division, 1020 Jackson Street, Lancaster, Pennsylvania.

Armstrong's Linoleum Rugs

they wear and (A) *wear and wear*

Look for the CIRCLE A *trade-mark on the burlap back*

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f so, you'll be erested in the ticle in our ll and Winter shion Maga- ne suggesting sible ways to luce and also the many les illustrated at help to ke the figure pear slender. Whereas the fect 36 may ar any style t comes along d appear at- active, the man who is longer slim ust guard ainst lines at accentuate umpness and lect, instead, signs that apparently reduce the size of the figure. e pages 2, 3, 9, 12 and 13 of our w book. To order, just send 10 nts in stamps or coin and your me and address, or send 25 cents a one-year subscription. Pattern pt., Hoard's Dairyman, Fort Atnson, Wis.

nind toward her and toward your- than you would had you made e sharp retort.

When you are tempted to say a ting thing, think ahead a little. pose you were smart enough to k up the very thing that would t most deeply. Would you feel better or would the other per- ? Would anything come of it but eeling of bitterness on both sides finally a permanent estrangert? Some people think it is a sign weakness and cowardice not to ke back, and with a few it is; but h the real people it is the strong, ve thing to do.

Friendship is a term that applies t as well inside the family as outi, for it is derived from a good old glo-Saxon word meaning love, to which our use has added respect and esteem. I think it is the Chinese, that nation known everywhere for its politeness to guests, that have the old proverb, "Always treat your wife as politely as you would your guest." The proverb could apply just as well to the rest of the family. The consideration we force from people by demanding it is worth nothing; what we earn by being worthy of it is priceless.—LUCY THOMPSON.

Time for Bulbs Again

It was a great blow last fall to go bulb buying and find that all the kinds I most wanted were just twice as high as they had been the year before. That was because some foreign blight prevented the importation into this country of many varieties, naturally raising the price.

I don't know how it is going to be this fall but I do know that even at a somewhat higher price it is worth while to have a few bulbs. To find on a gray winter day that the bulbs are budding is almost as exciting as to discover that the baby has a new tooth and the blossoms do add so much to a house on a gloomy day.

Bulbs may be grown in either soil or water. If you use soil, place some cinders or broken pieces of old pots beneath the soil to provide drainage; then fill in dirt, placing the bulbs well below the top of the pot and filling in around them. Water and set away in the cellar or other dark, cool place. Too much water causes the bulbs to rot so be careful to use it sparingly while the bulbs are in the dark.

Prof. J. G. Moore of the University of Wisconsin gives the following advice on bulb-raising:

"Hyacinth bulbs are usually grown with more than one bulb to a pot and may be planted just below the soil surface or one-half to one-third above it. Easter lilies require a rather rich soil which should just cover the bulb top. Tulip bulbs should be planted deep in the soil and the outer red covering should be removed before planting.

"The water method may be used to grow all bulbs except the Easter lily and the tulip. To prepare a dish to hold bulbs grown in water, gravel, charcoal, and pebbles are generally used. The bottom of the dish is filled with gravel mixed with powdered charcoal or with gravel and cinders. The remainder of the space in the bowl is filled with pebbles to hold the bulbs in place.

"Too much water on the bulbs will cause them to rot and until the roots have started to develop the base of the bulbs should just touch the water.

"Newly-planted bulbs, whether in soil or water, should be kept in a cool, dark place until a good root system has developed. Root systems of bulbs grown in soil may be investigated by inverting the pot on the hand and removing the contents. The length of time it takes for good roots to develop varies from six to ten weeks for soil bulbs but for bulbs grown in water the time is considerably less."
—LUCY THOMPSON.

Cheese Torte Without Crust

To 1½ lbs. of cottage cheese which has been put through a fine sieve, add yolks of 8 eggs, 3 tablespoons sifted flour, 1½ cups granulated sugar, 1½ cups rich cream, pinch salt, rinds and juice of one lemon and to the above stir 1½ large tablespoons butter, after it has been well creamed. Lastly add beaten whites. Bake in large baking pan which has been well buttered and dusted thoroughly with grated bread crumbs. Bake for ¾ hour.—Household Nutrition.

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The Coleman protects the eyesight of your loved ones. Gives *better* and more *economical* light. Cost to use less than 2 cents per night. Brighter than 20 old-style oil lamps. No wicks to trim; no chimneys to clean; no daily filling. Safe—can't spill fuel even if tipped over. Listed as standard by the Underwriters Laboratories. Price in U. S. $9.00.

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Permanent mahogany or plain finish.

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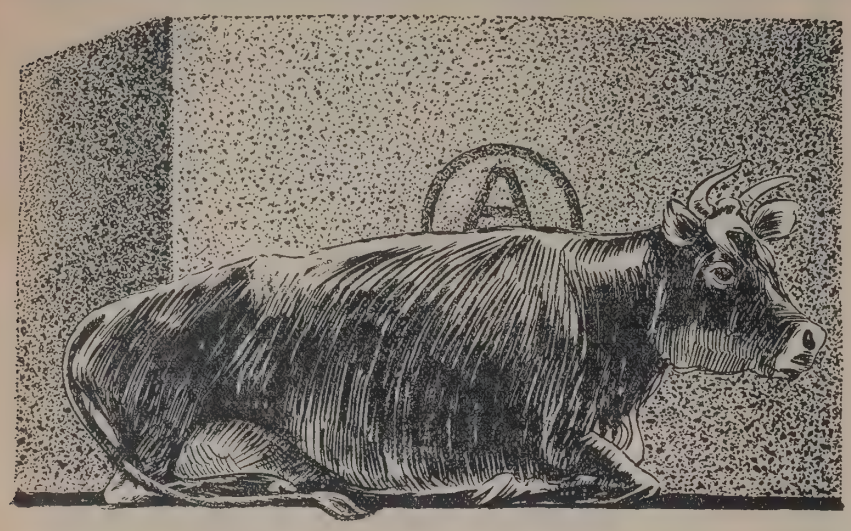
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Guard Against Garget!

Cold Stall floors are a common cause of garget and other costly, and sometimes fatal, diseases among cows in winter time.

Circle A Cork Brick will guard your herd against chill and dampness from the floor and prevent garget, rheumatism and other ailments that undermine health and decrease winter production. Circle A Cork Brick floors are warm in the coldest weather. They are dry, nonabsorbent and nonslippery. They are resilient and comfortable to stand or lie on, and are sanitary and easily cleaned.

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Increase Milk Profits This Winter!

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Cottonseed Meal is not only rich in protein but high in energy value.

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KEEP TAB ON YOUR COWS Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wisc.**

Minnesota's Oldest Cow Testing Association

(Continued from page 988)

coat of barnyard manure once in five years, he thinks the time is not far distant when he will have to use some fertilizers, especially phosphates, even on his well-improved farm where the small grain usually yields 60 bushels per acre. He now has 11 acres of alfalfa but expects to increase his acreage to 20 as soon as he can get the ground ready. The first crop from this patch this year was 24 good loads. The alfalfa idea, too, was one that came with the testing association program and the spread of this crop in the community is responsible for many of the good herd averages that one finds there.

Nelson Favors Shorthorns

E. A. Nelson has placed his faith in Milking Shorthorns to pay the rent on the Oak Park Farm that he operates on a cash lease basis. In the last 14 years his herd of around 20 cows has ranged in production from an average of 228 pounds per cow to 402 pounds but it has never dropped below 300 pounds since 1920. He is especially fortunate in having had Buttercup 2nd in his herd for she produced an average of 657.7 pounds fat on his farm and made a state record after he sold her. As a result he has been able to dispose of all the good bulls of his own raising and many others that are of his breeding that his neighbors have asked him to sell for them.

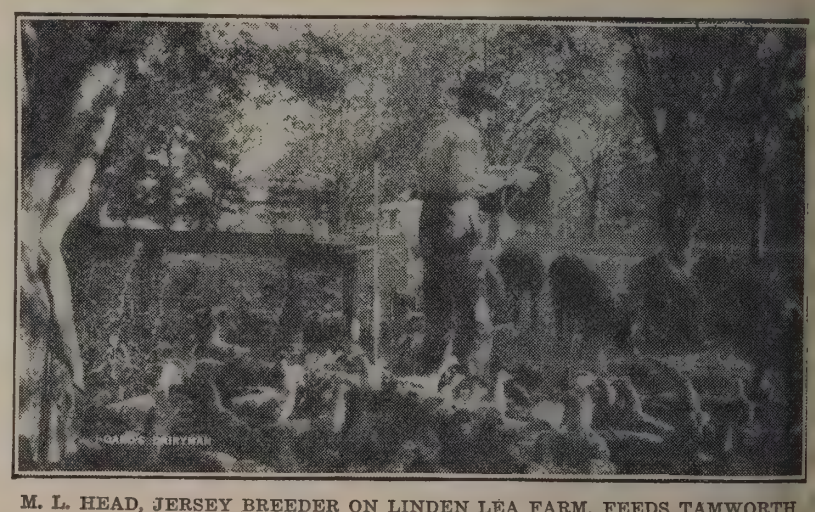
Mr. Nelson markets his whole milk at a premium of 50 cents a hundred above the butterfat price and takes home 400 pounds of buttermilk each day, for which he pays 13 cents a hundred. He feeds this to his 54 pure-bred Tamworth pigs that he is getting ready for an early market, and for which he will be paid a premium of 50 cents a hundred. He says the packers are paying 25 cents premium on first cross Tamworth and 50 cents on pure-breds. He has never had any trouble with the pigs as 6 sows raised him 54 this year. The pigs were all born the first week in March, but the largest of them already weighed 180 pounds on the 15th of July.

Retired Doctor Raises Jerseys

Linden Lea is the farm name that Dr. M. L. Head gave to his beautiful 135-acre farm when he gave up the work of a country doctor to specialize in raising a Sophie 19th of Hood Farm strain of Jerseys. For the past 11 years some one of his five sons and four daughters has been in attendance at the Minnesota College of Agriculture. The cream and milk checks from the Jerseys, together with the egg and poultry checks from the flock of 700 pure-bred Plymouth Rocks, have furnished the funds to make this possible. The boys have not left him, however, because four of them are still on the farm, so the Heads make quick w of the evening chores when the of them sit down to milk the thi cows.

Dr. Head is more interested in l time production records made un ordinary farm conditions than he in forced tests as often made in cial work, so he prefers to have herd in the cow testing associat to official testing. One year the h averaged 373 pounds fat when mos the cows were mature animals, last year when ten of them were t year-olds the average for all the c in the barn was 325 pounds. I May seven heifers ranging in from 20 to 28 months averaged pounds fat with the test on some them running as high as 6.8 per c

The owner of Linden Lea is shipping his cream to St. Paul t special market. He is trying ou new type of gasoline heater that g erates steam in less than two minu making it possible for him to steri his milk utensils with a minimum time and expense to insure a qua product. The boys wash the da equipment to lessen the housek tasks of their mother. The He have been working on daylight s ing time ever since the war, so



M. L. HEAD, JERSEY BREEDER ON LINDEN LEA FARM, FEEDS TAMWORTH PIGS AND PLYMOUTH ROCK CHICKENS, TOO

clock in the kitchen is an hour ah of time in the summer, but the b like it that way.

Stiehl Likes Guernseys

The beautiful home on Maple W farm was built and paid for in 1 with cream checks from Vic Stiehl's herd of grade and pure-b Guernseys. Stiehl was the pion Guernsey breeder in the district his first pure-bred was one of the f that came to Freeborn County. has always kept records on his c since he bought the 197-acre farm 1903. Until McMurray came to do work he did it himself with a fo bottle tester of his own, but he s that it is too much work for a far if he can get a tester to do it. started out with a scrub Shorth herd that averaged only 149 pou fat per cow. Through the use the grand old bull, Prince Oak La this average was raised to 394 pou in 1915. This bull was the best Stiehl has ever owned, as later b have not kept the production so hi although the yearly average has ne dropped below 300 pounds per c This bull was first sold to the Ma at Rochester but he was later p chased by the University of Minne to head the herd at Morris. Thi only one of the many good sires in association that was saved from block by Mr. McMurray's Babc tester.

The matriarch of Stiehl's herd an old cow named Imported Hutt

y of the Village Third. Though has never been milked more than e a day, she has an eleven-year age of 389.4 pounds fat per year, total production of 4,283 pounds er lifetime and she is still produc- well.

Feed Only Home Grown Feeds

t Brothers, graduates of the three- course at the farm school, have hed the herd records on the Wild- l Farm Guernseys each month as ck" has driven into their beauti- farmstead to make the tests. rt directs the farm work and s to the hogs, while Cyrus runs the ing machine and cares for the 24 . They have 108 Poland China this spring. The egg checks from laying flock of 350 White Leg- s averaged more than $100 a th last year, because each hen did best to bring the flock average to eggs per hen. They are satisfied the co-operative egg and poultry ciation is handling their product ie most efficient manner.

ie only purchased feed that comes their farm is salt, limestone, bone meal, but their herd always ages well over 300 pounds per cow they realized more than $100 prof- ove feed cost one year with an- r for every animal milked. They their cows all the alfalfa hay and e they will eat and a grain ration e up of two parts ground oats barley succotash and one part nd corn. Some field peas are fed ddition. Succotash sown at the of one bushel of barley to two els of oats has give them an aver- yield of 65 bushels per acre for y years and they think it makes a feed.

bout once in two years the Otts a surplus stock sale when they e the public to visit their farm. y have found the cow testing rec- invaluable not only in their feed- but in the making out of sales logs, because buyers prefer cows records to untested animals. ry cow in the barn is tested be- e the boys want the records for r own use and not for the publici- ey bring. Their herd bull, Crown ice of Echo Bay Farm, was rded grand championship honors he 1925 county fair, but Cyrus ks a son of his will defeat him year.

s is the case in Wisconsin, the bination of cows, hogs, and poul- is one that makes for profit. All of these pioneers have adopted triumvirate as the basis for their cultural activities. The cow is ishing by-products that make the and the hen more valuable. So H. V. McMurray's testing outfit cting the boarder cows, this com- nity prospers.

erhaps it would be well to close article with a tribute to the one- ed man from Ohio who has done his bit, in spite of ill-health, to make dairying pay. In the words of one who knows him best, "Mack has done more than any other living man for the dairy interests of Freeborn County."

American Students on an English Dairy Farm

HOARD'S DAIRYMAN:—It is a far cry from Wisconsin, one of the great agricultural states of the Middle West, to a Middlesex Farm. Nor does the usual touring party of Americans extend its interests beyond the great centres of historical interest in this country. But a party of twenty or so girl students from Wisconsin University, some of them intimately interested in farming in their own state, expressed a wish to their leader to see an English farm. Mr. Robert Fulton, of the Rectory Farm, Enfield, gave the party ample opportunity to inspect his farm, where they were entertained to tea by Mrs. Fulton and Mrs. Charles Sisson of University College, London.

The students were especially interested in dairy farming, and were the more interested therefore in this farm. They were particularly struck by the orderliness and neatness of the steading and the cleanliness of the herd, which their larger organizations can rarely rival, and found a parallel here with industry in general in America as compared with England, the latter aiming at perfection in a smaller output. They wondered whether agricultural science in England rendered the same practical service to the industry, either in methods of farming or on the business side of the industry. They remarked on the absence of silos, an essential part of the organization of an American farm. Finally, they expressed their love for the English countryside and their pleasure in seeing at first hand a highly organized modern English dairy farm in all its aspects.

England. R. FULTON.

City Milk Prices in Ontario

HOARD'S DAIRYMAN:—For the eight months, Sept. 1st, 1927, to May 1st, 1928, unless unforeseen conditions warrant a change, the price of milk, delivered at the dairies in Toronto and Hamilton, Ont., will be $2.20 per eight-gallon can or $2.66 per cwt. This is an advance of 25 cents a can or 30 cents a cwt. over prices ruling for the four summer months of 1927, beginning May 1st. The price of sweet or commercial cream for the winter months will be 58 cents per pound of butterfat.

Carrying charges for delivering milk in Toronto, which the producer has to pay, are 25 cents per eight gallon can or 30 cents per cwt. Where milk is shipped in by train, city distributors charge 10 cents per cwt. for cartage to the dairies and returning the empty cans. The bulk of the milk is, however, shipped in by truck at the transportation charges given above.

At the above price for winter milk city distributors sell milk retail at 15 pint tickets for $1.00 as compared with 16 pint tickets during the summer season. It should be explained here that the Imperial gallon is the standard of measurement in Canada, a gallon of milk weighing 10 lbs. and a quart 2½ lbs.

Canada. J. W. WHEATON.

"The certified milk industry," recently said President Pearson of the University of Maryland, "is of great use to the dairy industry because of the high standards and splendid example that it sets. No one will deny that the average quality of all milk has been greatly improved by reason of the work that has been and is being done by the producers of certified milk."



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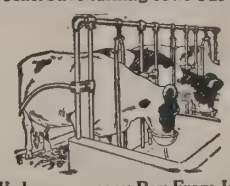
Used 365 days every year. John Rissler, Durand, Wis., says: "I wouldn't trade mine for a good grain binder if I couldn't get another. My 11-year-old boy easily cleans the barn every morning". P. Winkelman, Granville, N. D., says: "It makes the care of cows and horses a pleasure instead of drudgery". Hundreds of letters like these.

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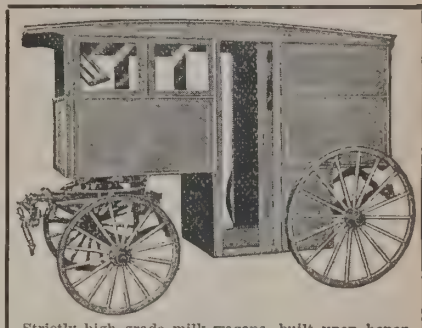
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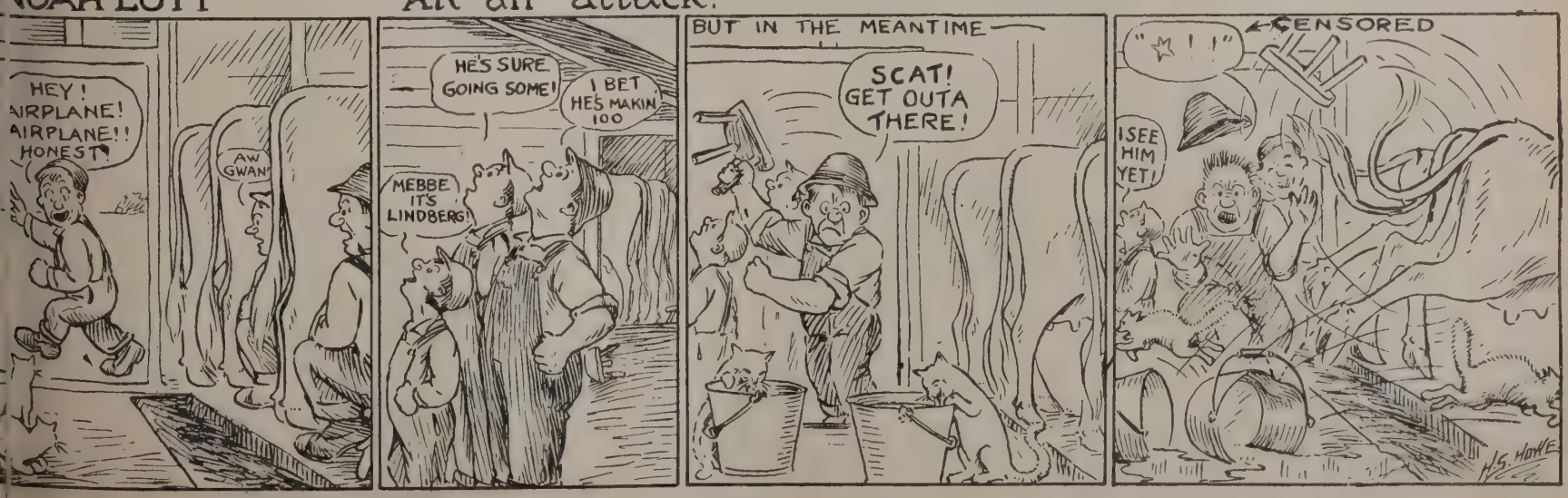
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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

Quality Club Show at Waterloo

QUALITY there was in the sixth annual junior department at the 1927 Dairy Cattle Congress at Waterloo, Iowa. There were quality club members—exhibitors, demonstrators, leaders, junior judges—quality club calves, and a quality program. When it rains every day for a week so that you have to slosh around in the mud and then maybe on the last day, to cap the climax, the judge puts you at the wrong end of the line and you can still wear a smile, that shows that you are made from quality stuff, and you are a champion even though you don't get the purple. That's the 4-H club spirit you see at Waterloo.

Monday, September 26th, was judging day. Some 37 teams made up of 109 boys and two girls competed for honors. Beautiful silver trophies were the awards for the championship club team and the winning vocational high school team. During most of the day, the contestants were busy placing classes of cows and giving reasons. It was a day to test the metal and ability of the best.

Iowa has established a reputation for dairy cattle judging teams. Teams from the Iowa State College at Ames have ranked near or at the top in college judging contests at Waterloo and at the National Dairy Show several times in recent years. It is notable that the Iowa State College judging team, which ranked first in the college judging contest at Waterloo this year, was made up of former 4-H club members.

Club teams from Iowa have won first at the National Dairy Show twice in the last four years and have each time creditably represented the United States at the International Junior Dairy Cattle Judging Contest held annually in England. Franklin County won the championship cup this year and with it the right to represent Iowa at the National Dairy Show at Memphis where teams from 26 states will compete on October 17. It was a team from Franklin County that won the national contest in 1924 and brought back the gold cup from England for the United States.

Both of these Franklin County teams have been coached by the county agent, V. B. Hamilton. Members of this year's team are Ralph Thompson, Robert Mallory, A. J. Marken, with J. S. Van Wert, alternate. Fayette County placed second and Webster County, third.

Erwin Oldfather of Fayette County was the high individual judge of all breeds. Ralph Thompson of Franklin County and Robert Ward of Webster County tied for second place. The medal for second place became the property of Robert Ward on the toss-up. Robert Mallory of Franklin County placed fourth and Rex Pieplow, Fayette County, fifth.

Medals for high individuals in the several breeds were given by the breed associations. Winners were as follows: Jerseys, Aaron Tiedon and John Simmons tied for first; Holsteins, Berniece Kaiser of Clayton County; Brown Swiss, Robert Ward, Webster County; Guernseys, Harley Hanson, Butler County; Ayrshires, Erwin Oldfather, Fayette County.

One out-of-state team competed in the interstate contest. Iowa placed first with Minnesota second. The high individuals in this contest were 1, Ralph Thompson, Iowa; 2, John Flynn, Minnesota; and 3, Robert Mallory, Iowa.

Twenty-two teams took part in the vocational judging contest which was won by Hudson with Dunkerton 2nd and Tipton 3rd. A. J. Evans coached the Hudson team which was composed of Marion Minish, Richard Pearson, and Myron Minish.

Some good dairy demonstrations were given by the seven teams who competed for the state championship the latter part of the week and the opportunity to represent Iowa at the National Dairy Show. Here again Iowa has excelled, having won the national championship the past two years. Clean milk production, control of lice and mange on dairy cattle, and dehorning young and old dairy cattle were the subjects demonstrated. John S. Quist, assistant state club leader, was in charge of the contest which was judged by Paul C. Taff, Iowa state club leader, and R. A. Turner of the U. S. Department of Agriculture.

Butler County, demonstrating dehorning, won the contest. Adair County was second, Humboldt third, Hancock fourth, and Black Hawk fifth. Vernon Scheuman and Claire Chapman were the members of the Butler team which was coached by County Agent John Mullins.

One of the big events of the week was the 4-H club banquet held Friday night in the beautiful dining hall of the Elks' Club at Waterloo. About 150 boys and girls enjoyed the music and entertainment, the meal, and the program. Fred Ferguson, formerly secretary of the Iowa State Dairy Association and now on the staff of Iowa State College, presided as toastmaster. In his remarks he commented on the splendid growth and development of the junior department at Waterloo since its inauguration in 1922, five years ago, when there were only 15 boys in the judging contest, 47 calves exhibited from two breeds, and no demonstration teams.

G. L. Noble, secretary of the National Committee on Boys' and Girls' Club Work, announced that Kermit Iverson was the winner of the Blue Valley Creamery trip to the National Dairy Show presented to the champion dairy calf club member of Iowa.

Earl J. Cooper, director of extension for the Holstein-Friesian Association of America, led singing and R. A. Turner, U. S. Department of Agriculture, C. B. Finley of the American Guernsey Cattle Club, "Gunboat" Smith of the Iowa Jersey Breeders' Association, and J. Allen Wallis, president of the Iowa State Dairy Association, were introduced to the juniors.

Floyd Johnston, secretary of the Iowa State Dairy Association, presented the awards for the junior dairy cattle judging contest. The breed associations of Iowa gave the banquet to the boys and girls.

While the calf club show has been larger, more counties were represented in the junior department at Waterloo this year than at any time in the past. Calf club entries came from 20 counties. You were impressed with the large classes of heifers in milk which shows you that club members are developing good cows from their calves.

There were 178 calves shown of which there were 93 Holsteins, 39 Guernseys, 29 Jerseys, 8 Brown Swiss, and 7 Ayrshires. H. R. Searles and O. G. Schaefer, both of the University of Minnesota, were the calf club judges. Earl J. Cooper assisted them in placing the Holsteins and Frank Asteroth, field representative of the American Jersey Cattle Club, placed the Jerseys. C. B. Finley placed the Guernseys.

Herbert Kaiser, who has been prominent in the dairy calf club department at Waterloo for several years, won the junior showmanship contest and with it the handsome silver trophy offered by the Iowa State Dairy Association. Herbert was also the champion Guernsey showman. Other champions were Donald Hamer, Holstein and reserve champion over all breeds; Fred Thompson, Jersey; Walter De Winter, Brown Swiss; and win Fratzky, Ayrshire.

Floyd Johnston of the Iowa S Dairy Association should get cr for the success of the dairy calf department at the Waterloo D Cattle Congress.

A club camp was maintained on grounds by the Waterloo Y. M. C

Individual placings in the calf department were as follows:



FRANKLIN COUNTY'S WINNING JUDGING TEAM
Left to right: A. J. Marken, Ralph Thompson, Robert Mallory, J. S. Van Wer (alternate), and V. B. Hamilton (coach.)



BUTLER COUNTY CHAMPION TEAM DEMONSTRATING DEHORNING

Holsteins

Heifer 2 years old or over, 9 show Mayowood Bess Lola Lass, Leona Maye Sunnyside Homestead Lyons, John Cun ham, Jr.; 3, Darlene Ormsby Piebe, Rex plow. Heifer one year, under 2, 32 show Tritomia Ninon Colantha, Paul Sauerbr Polkadot Veeman Snowdrop, Aaron A. Ti 3, Clover Blossom Mead, Burlin B. H. Heifer under 1 year, 52 shown—1, Cerro Frisky Homestead, Robert Findson; 2, J na Rag Apple Piebe, Raymond Stukenbur Genevieve Ormsby Piebe, Rex Pieplow. C pion, Mayowood Bess Lola Lass, Leona M County groups, 16 shown—1, Cerro Gord Mitchell; 3, Fayette; 4, Webster; 5, Cl saw.

Jerseys

Heifer 2 years old or over, 10 shown— nancial Fairy Rose, Fred Thompson; 2 leigh Rosille of E, Irma Darnell; 3, Unn Charley Fuller. Heifer 1 year, under shown—1, Estelbrook Raleigh's Letty, Darnell; 2, Lady's Oxford Sybil, John E son; 3, You'll Do's Daisy Irene, La Fuehrer. Heifer under 1 year, 7 show Successor's Dream Girl, Clare Wambol Julia Fern's Dora, Earl and Russell Lyc King's Golden Pansy, Earl and Russell Champion, Financial Fairy Rose, Fred Th son. County groups, 3 shown—1, Mario Tama; 3, Benton.

Brown Swiss

Heifer one year, under 2, 6 shown—1, Dick, Leonard Thelander; 2, Louisa Ma Thelma Heskje; 3, Rock Haven Fern, W De Winter. Heifer under one year, 2 sho 1, Betty's Bertha, Lila Schmid; 2, Carl's dy Daisy, Wallace Thelander. Champion heifer, Gloria Dick, Leonard Thelander. C pion, Betty's Bertha, Lila Schmid, Wisc

Guernseys

Heifers 2 years old or over, 4 show Columbia of Ore Hill, Walter Corrigar Homestead Rose Autocrat, Hoyt Galvi Celia of Willow Lane, Oliver Corrigan. 1 year under 2, 22 shown—1, Cora's Myr Hillsdale, Aimee Stroud; 2, Ajax's Bess, beth Core; 3, Cherub's Downs of Appa Lucile Sheppard. Heifer under 1 yea shown—1, Bob's Beauty of Bluff View, Owen; 2, Bob's Rose of Bluff View, Russ Pieper; 3, Guernsey Valley Maid, Kieron Champion, Bob's Beauty of Bluff View, Owen. County groups, 5 shown—1, Fa 2, Marion; 3, Clayton; 4, Mitchell; 5, Web

Ayrshires

Heifer 2 years old or over, 1 shown—H Star's Pet, Kurt Fratzke. Heifer 1 year, 2, 1 shown—Orchard's Snow Bird, Fratzke. Heifer under 1 year, 4 show Constance Aleda of Rising Star, Erwin ke; 2, Lady Rosetta of City View, Kurt ke. Champion, Constance Aleda of Star, Erwin Fratzke.

Most anybody can do a thing feels like doing, but it takes a man to do a thing when he do feel like doing it.

How to Preserve Your Winter Supply of Apples

OARD'S DAIRYMAN JUNIORS:—It is easy to keep good winter apples l May and June and even the lat- part of July if the fruit is handled perly, according to Daniel Maze- Indiana.

he method is simple but efficient. efully select your apples before ing them in barrels. After the els are filled, tack a burlap over top of each barrel. Turn the bar- on the side, end to end, on a ntly elevated spot to insure good nage in case of floods. Cover the



BARRELS OF APPLES BURIED THE MAZELIN WAY

els with a layer of straw and a r of dirt which should be taken g each side of the rick to facili- drainage. After the layer of dirt frozen to a depth of about three es, cover the whole with a thick of manure to protect the apples the severe cold during midwin-

so desired, it will be found easy emove part or all of the fruit either barrel end at any time ng the winter. In this way apples successfully be stored for spring ets demanding higher prices in the fall when apples are so iful.

liana. D. D. MAZELIN.

Our Review Column

regular feature of the junior department, ring the contents of Hoard's Dairyman e previous issue. Let's talk it over.]

r further discussion of the fol- g see the Oct. 10th issue.

w can idle acres be put to work? made idle by fence rows can be ned by fencing larger fields. Wet on the fields can be drained. roadside can add acres to every if it is used as pasture or grows y crop. (See page 925.)

w much milk was produced in J. S. in 1926? Over 60 million or 330 gallons at every tick of clock during the 24 hours of day in the year. (See page

w much milk is produced by the ge cow? Last year fewer cows ced more milk. The average ction per cow was 1,000 lbs. er than it was ten years ago.

at is happening to the consump- of dairy products? It is going The per capita consumption of milk in 1926 was 55.3 gallons very man, woman, and child in nited States.

which month is the most milk for dairy manufacture? More r, cheese, and condensed milk roduced in the month of June in any other month of the year. month accounts for one-eighth l milk used for manufacturing ses.

at is the cause, cure, and pre- on of depraved appetite? The toms of this peculiar disease are: show a desire to chew bones naw wood, chew leather and eat animals fall off in weight, milk tain the heat and controlled by an automatic thermostat seems to be best adapted to farm conditions. (See page 932.)

Which state turns the most milk into manufactured products? Wisconsin stands first with 19 per cent of the total milk going into manufactured products; Minnesota is second with 14 per cent, followed by Iowa with 9 per cent. Minnesota leads in the manufacture of creamery butter, Iowa second, Wisconsin third. Wisconsin leads in factory cheese, condensed and evaporated milk. Pennsylvania is first in the production of ice cream. (See page 946.)

How should mangels be fed? To safeguard against scours, the freshly dug mangels should be stored several weeks before feeding. Mangels should preferably be fed immediately after milking. (See page 967.)

How can a simple mineral mixture be made for hogs? Hard wood ashes, 60 lbs.; bone charcoal, 25 lbs.; common salt, 15 lbs.; potassium iodide, one-fiftieth of one pound. (See page 974.)

Junior Letters

Our Country

Hoard's Dairyman Juniors:—I have written a poem, "Our Country." I had a little help from my teacher. I am 11 years old.

Our country!—'tis a glorious land,
With broad arms stretched from shore to shore;
The proud Pacific chafes her strand,
She hears the dark Atlantic roar;
And nurtured on her ample breast
How many a goodly prospect lies,
In Nature's wildest grandeur dressed
Enameled with her loveliest dyes!

Great God, we thank Thee for this home,
This bounteous birthright of the free,
Where wanderer from afar may come
And breathe the air of liberty!
Still may her flowers untrampled spring,
Her harvests wave, her cities rise;
And yet, 'til time shall fold her wing,
Remain earth's loveliest paradise!
My address is Loyal, Wis. Julia Klug.

From Club Member to Leader

Hoard's Dairyman Juniors:—It has been a long time since you last heard from me, so I'll have to introduce myself.

My sister and I were members of the "We Can Can Club" last year. My sister and I had ten of the prize jars. I won only one distinction in canning club; that was "None of my canned products spoiled," which none of the other members could say, for if nothing else happened there was a tiny speck of mold or something on a jar which otherwise looked perfect.

My sister and I were also members of a second year sewing club. We won our share of prizes at the county fair and our demonstration team won first. "Approved Shoes for the School Girl" was their topic. At the state fair they placed second and so did our judging team. My sister ranked third; her teammate in demonstration, seventh; and I, the other member, thirteenth. That sounds bad for me, especially since at our county fair I won every blue ribbon offered in the sewing division. Our style show contestant won first at the state fair and twelfth at the National Club Congress. I thought that splendid for a girl 12 years old.

This year I have to be content with being an associate member for I, like everyone else, pass the age limits. I am assistant leader and associate member of our third year sewing club, associate member of our "Keep Fit" Club, and papa and I have the leadership of a pig club. He does most of the work but I have charge at the meetings and do the correspondence part, so he is the leader and I am his assistant. Most of our members are just beginners so that is the place we have the most chance for development.

I graduated from high school a year ago.
My address is R. 1, Trumbull, Nebraska.
Cathern Furry.

My Favorite

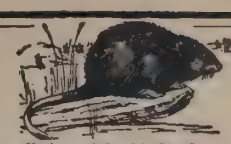
Hoard's Dairyman Juniors:—I am sending a poem. The cow which I have reference to is a well bred Ayrshire weighing about 900 lbs. and is giving an average of about 1,100 lbs. milk per month. She is a good cow and is very quiet in the stable.

My favorite cow is the Ayrshire,
So handsome and well bred,
She gives as much milk and cream
As any other cow, well fed.

You may talk of mechanical cows,
Or cows of another name,
Such as Guernsey, Jersey, and so forth,—
But me for Ayrshire fame.

And now you may talk of the Holstein
Whose milk profit isn't so lean,
But the Ayrshire's got 'er beat,
When you come to think of the cream.

My address is Route 1, Mechanicsburg, Pa. I would like to hear from other juniors.
Lester M. Shughart.



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—as a Hoard's Dairyman Junior



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Join our club now and help put over the next touchdown. It's easy to join—no money to spend, just fill in and send us the membership application.

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Get into the game with us before the whistle blows.

HOARD'S DAIRYMAN
JUNIOR EDITOR
FORT ATKINSON, WISCONSIN, U. S. A.
Dear Sir:—

I hereby apply for membership in the HOARD'S DAIRYMAN JUNIORS' CLUB. I agree to read the Junior Department of Hoard's Dairyman every week and do all I can to make the Juniors' Club a success. Please send me the badge { Watch Fob [ ] / Necklace [ ] } [mark (x) after your choice], the Button, and the Dairy Farm Boy's Creed.

My name is ..... [Write distinctly, or print]
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I am ..... years old. Hoard's Dairyman comes to my home addressed to .....
My favorite breed of dairy cattle is .....
My father's name is .....
Do you belong to a Boys' and Girls' 4-H Farm Club? .....
If so, what kind? .....

10-25-'27

Problems in Herd Improvement

(Continued from page 987)

cestors, these characteristics cannot be utilized to the fullest extent unless she is properly fed.

Many dairymen keep more cows than they can feed properly. They do not produce the required amount on the farm and they will not provide what is lacking from outside sources. They fail to adjust the size of their herd to the dimensions of their feed supply.

A comparison of two herds for one month is taken from the report of an Indiana cow tester. Herd A made an average production of 276 lbs. milk and 10.1 lbs. fat. The income over feed cost per cow for the period was $2.48, or a total receipt of $74.40 from the herd of 30 cows. From the time the herd was turned to grass early in the spring until early in December a poor piece of bluegrass pasture furnished all the feed.

Herd B comprising 14 cows received grain each month in the year and a little hay when pastures were short. They averaged 602 lbs. milk containing 26.1 lbs. fat and returned an income for the same month (May) amounting to $132.16, nearly double the income from a herd only 47 per cent as large. It is difficult to understand why men will continue to keep cows and give them such poor care.

An abundant supply of legume roughage is the first essential in providing a suitable and economical winter ration. Some one may take exception to this statement and place silage at the top. We cannot agree. When we consider that it requires 1,000 lbs. of silage to provide as much digestible protein as 100 lbs. of alfalfa hay and since protein is the most expensive part of the dairy ration, legume roughage must occupy the premier position among our winter roughages.

The grain mixture should be balanced according to the kind and amount of different roughages available. The digestible protein content should be about 20 per cent when all the roughage is of the non-legume group. If, on the other hand, as much as one pound of alfalfa, soybean, or clover hay is fed for each 100 lbs. of live weight daily in addition to silage, good results will be secured from a grain mixture car ing around 12 per cent digestible p tein. When the hay is a mixed riety the concentrates should be lected as to be intermediate in percentage protein they supply.

A ration may be well balanced exhibit all of the requirements a ciated therewith and yet not be nomical because it is not fed acc ing to the daily production of e cow. The illustration already refer to where the income increased f $24.77 to $63.28 in one month w the only change made was feed the grain according to the product of each member of the herd is pr of this.

If every member of the 900 testing associations would set out provide at least one acre of legu hay for each mature animal in herd and feed her a balanced gr ration based on the daily milk f the increase in income above f cost would pay for all the expens operation and leave a substantial come besides.

The value of the cow testing a ciation is generally recognized to in districts where dairying is car on as a major industry. Decrea cost of production accompanied larger yields is being accomplis by weeding out the lowest produ and feeding a ration that more ne meets the needs of the remainder.

From time to time difficulties arise regarding reorganization, ciency of the tester, and the like the principle of "feed, weed, breed" is a sound one and the a ciation which turns the searchl of persistent effort and fearless t on the "I"nefficient tester, the " different member, the "I"nferior mal, and the "I"nadequate ra long enough and strong enough continue to have an efficient med for increasing their dairy dollars



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We invite you to try Camels for just one reason—enjoyment. You will revel in the taste of these choice tobaccos. Always so mild and smooth, there never was a smoke that could compare with Camel in lasting satisfaction. Smoke as many as you will, your enjoyment will grow keener every smoking hour.

Regardless of how much you pay, there is no better than Camel. Camel leads the world!

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Mem'ries

There's lots o' things that's sacred-like
You treasure in yer heart;
They twine theirselves around you tigh
And somehow won't depart;
The love you give yer childhood home;
Yer pap and mammy there;
The mem'ries of 'em spring up sweet
And sanctified and rare.
The places where you romped and play
And learned to cuss and smoke;
The orchard where you gorged yerself
Until you liked 'a broke;
Yer fav'rite tree you used to climb
And play you was a bird,
A perched amongst the branches
Where the breezes kept 'em stirred;
O, there's lots o' just such things as the
A man'll hoard and keep
Refreshin' in his mem'ry
Fer they've come to mean a heap.

And high chairs! Ain't it funny
What the sight o' them 'ud do
All dusty in an attic
With the shadders streakin' through
The kids is little once agin
They need yer love and care;
You see a heap o' precious things
Around an old high chair!
Yer baby sets there now and then;
You see it plain as day;
Its curly head goes down—and down—
You hear its mother say,
"Poor precious lamb, sweet baby dear,
He's played and played and play—"
And there she stoops and picks him up
He nestles in her breast,
With you a gazin' on the pair
Uncommon rich and blest.

O mem'ries sweet and rare spring up
To link you with the past
The things you really cared about
Are stored away to last;
A spoken word, a sigh er song;
A step upon the floor
'Ll bring 'em back from where they've le
Fer thirty years er more.
They're flowers planted when you're yo
To blossom when you're old;
The flowers of yer bygone youth
The march o' years unfold.

(Copyright, 1925) —I. A. Kimp

Her friend—Why don't you as your husband's advice on the mat

Herself—I intend to, as soon s decide on what I'm going to do.

The Hunter of Kewaunee

(Continued from page 989)

n, accompanied by about thirty of best men, went forth to reconnoi- They divided into two bands and tly found their way through the p forests. Arriving at the place r which the Indian scout claimed had seen Indians, they were sur- ed to find fresh signs of Indians ywhere. While investigating the ndoned camp they were suddenly tled by the shrill war whoop of Indians in their rear. They were ctically surrounded by the enemy. hey were nearly all killed or cap- d after a furious fight, and Joan re was burned at the stake near tract of land that had been grant- im by the Crown. During my boy- d days, grandfather and his broth- and sisters laid claim to the prop- given by the land grant but be- se the land had been taken by con- st several times and no claim filed nearly a hundred years, the land nt was nullified.

Adventures with Panthers

y grandfather had some thrilling entures with the panthers in the rondacks.

hese vicious animals, which were n called painters, became so bold o attack people and either kill or ribly mangle them. The state be- e alarmed at their depredations placed a bounty of $60 a scalp. grandfather, being a skilled dsman and a deadly shot, under- the task of securing some of the nty money.

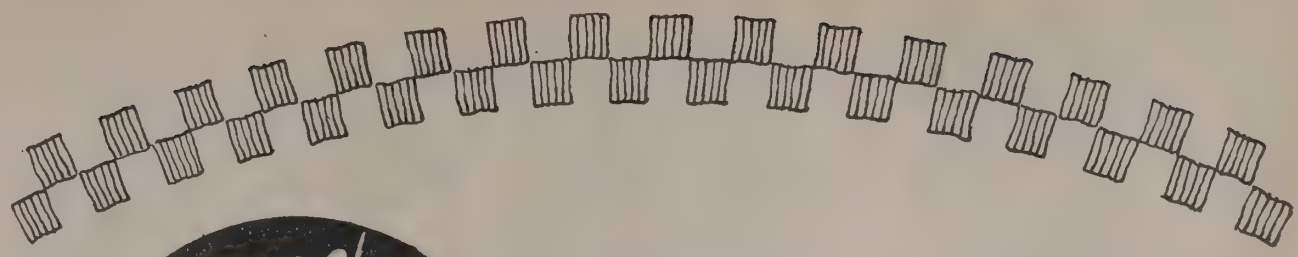
n one occasion he started out on a l tracking snow in quest of pan- 's. He traveled from early morn- until noon with no signs of the nal. Soon after eating lunch in the st, he came upon a fresh track followed it until night. He ped for the night and proceeded next day but did not come up to animal. Although the animal had nt the night less than a quarter of ile from my grandfather's camp- place, there was no evidence that uspected he was being trailed.

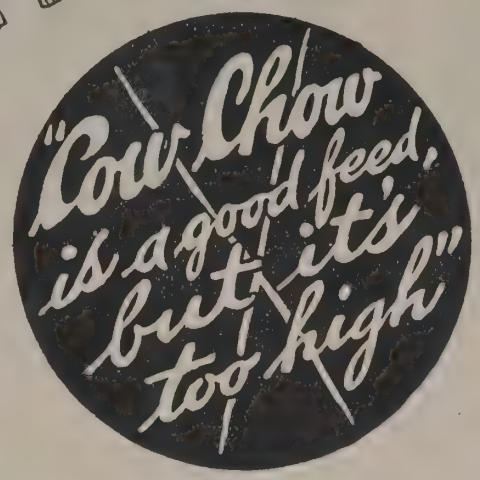
seemed he had a certain destina- to reach and he did not tarry on way. At one point the ravenous nal had pounced on a rabbit. In afternoon of the third day, the nal gave evidence of being hungry. went through the thickets in ch of partridge, mice, or rabbits. about three o'clock the panther killed a fine deer as easily as a would kill a mouse. Although the was a two-year-old buck and e were six inches of snow on the nd, the panther had carried the ass in his jaws without any part touching the snow.

s soon as this discovery was made, ndfather knew he was near the e and moved very cautiously. Be- e panthers dislike taking their ls on the ground, grandfather fully surveyed the logs and trees. deer was killed on a ridge border- a swamp. Expecting to see the her any second, or hear his heart ing warning shriek, grandfather eeded after his treacherous quar- A few rods within the borders of swamp, a dead tree had fallen in- he forks of a birch tree giving it ncline of about 45 degrees. The her had leaped up the slanting and taken his deer into the tree . Very seldom can man approach of these sly, vicious animals with- being discovered, but the panther so intent on finishing his meal he was unaware of immediate er.

ith unerring aim the old trust- hy rifle was sighted and the trig- pulled. A terrifying shriek, a ity leap, and the panther fell dead at the feet of my grandfather! This panther was rated as one of the largest and most beautiful specimens that had ever been killed in the state down to that period.

[EDITOR'S NOTE—This is the first installment of "The Hunter of Kewaunee." The author, Professor R. A. Moore, head of the Agronomy Department of the Wisconsin College of Agriculture, tells an intimate personal story of the progress of agriculture and civilization in America during more than a hundred years. The next article finds the Moore family trekking westward.]





Don't fool yourself! Purina is *not* too high. More than 50,000 dairymen in all parts of the country are making more net profit from their herds by feeding Cow Chow.

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Leaders of cow testing associations

Certified farms

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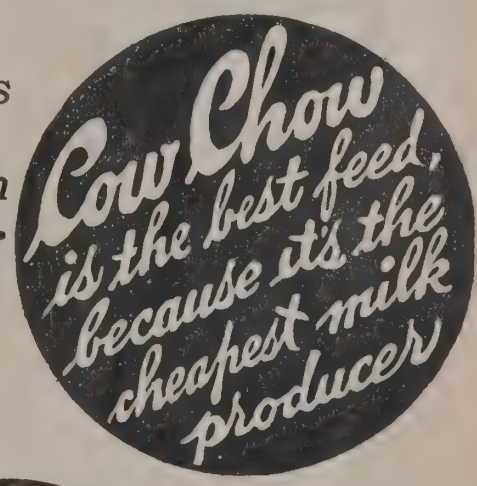
Grain farmers who sell cream

Family cow owners everywhere

Some of them are your own neighbors—just good average farmers, handling their places under ordinary farm conditions. These men are saying a feed which lowers their cost of production *cannot* be too high. They say the feed which pays them the most profit is the cheapest they can buy. All of them are feeding Purina today.

When men like these can make more money by feeding Cow Chow, *you* can too. Order Cow Chow from the feed store with the checkerboard sign.

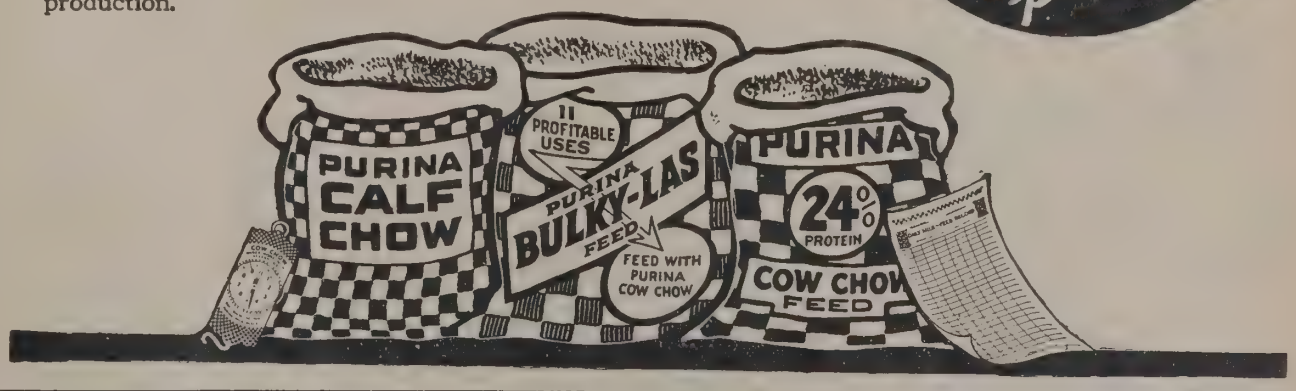
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Creamery Growth

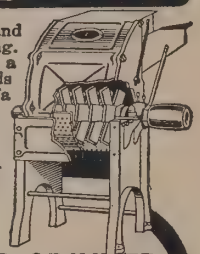
Steady growth has marked the 20 years since the Farmers' Co-operative Creamery of Milaca, Minn., was organized and the creamery is now one of the largest in Minnesota, and the largest unit of the Land O'Lakes Creameries, Inc. Its output in 1926 was 1,146,610 pounds butter, of which 90 per cent graded Land O'Lakes quality.

The creamery company was organized in January, 1907, with an authorized capital stock of $5,000. Seventy-four men bought stock, paying a total of $1,870 into the treasury. The number has now grown to more than 600. The building erected in 1907 was greatly enlarged and improved in 1920. At present the creamery is producing an average of 35,000 pounds of butter per week.

Several departments have been added during the years, and sales by the departments for 1926 were as follows: creamery, $484,143; merchandise department, $111,679; feed mill, $5,577; egg department, $49,445; poultry department, $14,649; making a total of $665,493.—Agricultural Co-operation.

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Capacities 35 to 85 bushel shelled corn per hour

2 H.P., price $38.75; 3 H.P., price $44.25; 5 H.P., price $65. Can be furnished equipped with Fan Blower and pipe for elevating feed up to 40 ft. Also complete with Electric Motor, mounted as unit with Mill.

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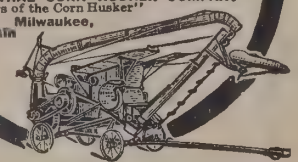
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Putting Sows in Condition for Breeding

Sows bred on November 7 will farrow on or about February 27 and this reminds us that the breeding season for swine is just around the corner.

We are immediately concerned with getting sows safely in pig as also promoting the conception of a large number of pigs per litter.

This is best accomplished by applying a method to swine commonly known among sheep breeders as "flushing." No one that we know of has definitely measured the comparative beneficial results of this practice as applied to swine but many practical producers testify to its helpful effect.

On the theory that the breeding function is greatly stimulated by a vigorous and rapidly gaining condition, the practice consists in liberal feeding for several weeks immediately previous to and at breeding time. Plenty of exercise is also known to have a beneficial effect.

It is known that the number of pigs in a litter is limited to not more than the number of female germ cells, commonly called ova, that are released at the heat period and time of conception. Assuming that the male sperm cells are normal in number and potent in function, anything that promotes the production and release of ova has an influence on the number of pigs per litter. It is thought that when thin sows are made to gain rapidly just before breeding, a larger number of ova are exposed to fertilization.

Mature sows that farrowed spring litters and have been carried along cheaply on pasture and a little grain and sows that have just weaned fall litters are now in ideal condition to respond to liberal feeding by which we mean they should be made to gain from three-quarters of a pound to one and one-quarter pounds per head daily.

The amount fed will, of course, depend on the character of the ration as also on the condition of the sows. Sows that are already in good condition will be benefited more by considerable exercise than by an increase in feed.

As a rule, gilts to be used for breeding purposes have been pushed rapidly to as much growth as possible. They should be continued on rations that promote growth. Their rations should contain slightly more protein than rations for older sows.

As long as weather conditions are open so that sows would take the run of a field if given opportunity, they should be given this range and what forage they can get.

Not forgetting the boar at breeding time let us say that he should be made physically fit by plenty of exercise and just enough feed to make him look well satisfied with his keep.

Many a young boar has been ruined by too much work while some old boars have had their potency impaired by being too fat.

In the foregoing discussion we bring you what we believe to be one of the most important immediate problems in swine management. To do the most important thing at the right time is the essence of good management.

Increasing Gain on Less Feed

Making 100 lbs. gain on pigs with the lowest feed cost is, at all times, an essential part of good swine management.

If, for any reason, the price of the basic grain normally fed is comparatively high, the problem of making cheaper gains is made more difficult of solution. It becomes a problem of either substituting cheaper feeds that will take the place of corn, for example, or of combining feeds in such a way as to reduce the amount of the basic grain needed.

Inasmuch as cereal grains and their by-products are deficient in essential minerals and vitamins, as also the best quality, growth-stimulating proteins, the reduction of basic grain by proper combinations of feeds offers a way out of the difficulty.

During the summer, pasture forage of one kind or another usually makes up the deficiencies of cereal grains and their by-products. But pasture forage is not available in winter in northern states with the result that altogether too large a proportion of grain is used in swine rations.

To show what a little thing will do in this respect we quote from some feeding work done at the Ohio Station.

One lot of pigs averaging 43 lbs. each was fed corn alone in dry lot; they gained 0.43 lb. per head daily and required 685 lbs. of corn for 100 lbs. gain.

The experiment was made at a time when feed and hog prices were comparatively high. Price values used were as follows: corn, $1.68 per bushel; tankage, $120 per ton; skimmilk, 60 cents per 100 lbs.; hogs, $16 per 100 lbs.

On the basis of the above figures 100 lbs. of gain cost the value of 685 lbs. of corn, or $20.55. The hogs sold for $16 a hundred.

A second lot of pigs averaging 43 lbs. each was fed corn and tankage in the proportion of 9 of corn to one of tankage. The pigs more than doubled the rate of gain when compared with the corn fed lot, gaining 0.89 lb. per head daily on a feed consumption of only 350 lbs. corn and 38.9 lbs. tankage per 100 lbs. gain. This 38.9 lbs. tankage reduced the corn requirement by 335 lbs. which at 3 cents a pound, $1.68 a bushel, amounts to $10.05 against which we charge the tankage at 6 cents a pound, $120 a ton, or $2.33, thus effecting not only a saving in corn but also bringing about a more rapid and cheaper gain. These pigs netted $3.16 per hundred pounds above f cost.

A third lot of pigs averaging lbs. each was fed corn and skimm in the proportion of 1 lb. corn 3 lbs. skimmilk. They required 25 lbs. corn and 770 lbs. skimmilk 100 lbs. gain. The feed cost $12.32 per hundred pounds gain; hogs sold for $16 per hundred.

This 780 lbs. skimmilk reduced requirement for corn by 428.3 for 100 lbs. gain when compared w feeding corn alone. No farm would object to selling 780 lbs. sk milk for $12.85, the value of the c it replaced.

Farmers should not be mislead believe that skimmilk will have high a feeding value under other c ditions. The experiment shows t no farmer can be so extravagant to feed corn alone.

For winter feeding the Ohio S tion finds that one of the most cient rations is one made of c tankage, skimmilk, and minerals c taining finely ground high calci limestone and salt. In the abse of skimmilk they suggest in addi to corn a supplemental mixture o parts tankage, 2 parts linseed mea parts alfalfa meal or hay, and part limestone.

Minerals for Swine

The mineral requirements of has been a subject of much exp mental work and some controve for several years. The Ohio Stat makes the following brief report some work done to test out the fectiveness of several substan commonly used in mineral mixtu

Feeding investigations with sw during the year included a test study the effect of adding var minerals to the simple mixture of 1 part, limestone 2 parts, and bone meal 2 parts. This mixture the various additional minerals w fed with a ration of corn and bean oil meal which is known to deficient in minerals.

Glauber's salts, which is a laxat was fed at the rate of 10 lbs. in e 100 lbs. of the mixture. The s did not increase the rapidity growth but brought about a sli saving in feed for each 100 lbs gain produced.

Wood charcoal, to the extent 15 per cent of the mineral mixt resulted in neither faster nor che gains.

Potassium iodide, in the lim amount of .05 pound to every lbs. of minerals, proved to be b ficial. It is used as a preventiv goiter, and under some conditi seems to have a place in mineral tures for growing pigs.

Copperas, or iron sulphate, was as a source of iron and fed at rate of 2 lbs. in each 100 lbs. of erals. The pigs receiving it mad lb. more gain daily a head, and sumed 52.5 lbs. less feed for each lbs. of gain than those on the s ration without the copperas.

Making a Hundred-pound Shote

A few years ago the Kansas tion started some weanling pigs o alfa pasture with a view to de mining the amount of corn and t age required to bring them up to lbs. weight.

The heavier pigs, weighing ab 52 lbs. at the beginning, require days to reach 105 lbs. weight; lighter pigs weighing 43 lbs. requ 120 days to reach 102 lbs. weigh.

Averaging all the groups it requ 153 lbs. corn and 14.4 lbs. tan per pig to reach the weights st The average daily gain was 0.5 l per pig.



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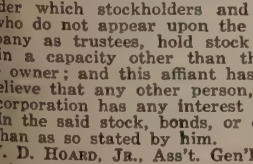
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e of Wisconsin, County of Jefferson, ss. re me, a Notary Public in and for the and county aforesaid, personally ap- W. D. Hoard, Jr., who, having been worn according to law, deposes and says he is the Ass't. General Manager of oard's Dairyman and that the following the best of his knowledge and belief, a atement of the ownership, management, f the aforesaid publication for the date in the above caption, required by the August 24, 1912, embodied in section ostal Laws and Regulations, printed on verse of this form to wit:

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ing Editor A. J. Glover Fort Atkinson, Wis.

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hat the owners are: W. D. Hoard & o., Fort Atkinson, Wis.; H. L. Hoard, Atkinson, Wis.; A. R. Hoard, Fort At- , Wis.; Frank W. Hoard, Fort Atkin- Vis.; W. D. Hoard, Jr., Fort Atkinson, A. J. Glover, Fort Atkinson, Wis.; G. ankin, Fort Atkinson, Wis. M. J. ensteiner, Fort Atkinson, Wis.

hat the known bondholders, mortgagees, her security holders owning or holding cent or more of total amount of bonds, ges, or other securities are: None.

hat the two paragraphs next above, giv- e names of the owners, stockholders, curity holders, if any, contain not only t of stockholders and security holders as ppear upon the books of the company o, in cases where the stockholder or se- holder appears upon the books of the ny as trustee or in any other fiduciary n, the name of the person or corpora- r whom such trustee is acting, is given; hat the said two paragraphs contain ents embracing affiant's full knowledge lief as to the circumstances and condi- under which stockholders and security who do not appear upon the books of mpany as trustees, hold stock and se- s in a capacity other than that of a ide owner; and this affiant has no rea- believe that any other person, associa- r corporation has any interest direct or t in the said stock, bonds, or other se- s than as so stated by him.

W. D. HOARD, JR., Ass't. Gen'l. Mgr.

n to and subscribed before me this of October, 1927.

S. R. JONES, Notary Public.
My commission expires Aug. 26, 1928.

Hollyhock Holsteins Average $835

THE dispersion of Gustave Pabst's Hollyhock Holstein herd Oct. 3—4 at Oconomowoc, Wis., marked the passing of one of the country's best Holstein breeding establishments. Mr. Pabst had built up an excellent herd but it grew to be a larger one than he wished to maintain and rather than hold a reduction sale, which is seldom satisfactory, every animal in the herd was included in the sale.



GUSTAVE PABST
Owner of Hollyhock Farms.

Everyone anticipated that this would be a banner sale and it was. The herd was one of the best, and back of it were men who have the confidence of Holstein breeders everywhere; the sale was well managed; and buyers from many sections who wanted the cattle and were willing to pay well for them were there.

One hundred and eight head sold for $90,225, an average of $835. Nineteen went for $1,000 or more, three went past $5,000, and one cow sold for $10,000. Sir Bess Ormsby Fobes was for years senior sire at Hollyhock and on sale day there were fifty of his daughters of all ages to be sold. They brought $41,025, an average well over $800.

Hollyhock Piebe Fobes, the 1926 grand champion at the National and all-American 4-year-old, was the outstanding animal in the herd. Freshening soon after her show ring triumph last year she made a 34.77-lb., 7-day record and will shortly finish her year with about 960 lbs. butterfat (1200 lbs. butter) which means a real combination of type and production. She came into the ring looking better than a year ago and her price quickly went above $5,000. From there two prospective purchasers, Winterthur Farms of Delaware and R. V. Rasmussen of Illinois, carried the bid on up until she was struck off to Mr. Rasmussen for $10,000. Her yearling daughter by Creation was purchased by Winterthur Farms for $2,925.

The second highest priced animal in the sale, May Pietertje Homestead Ormsby, an all-American daughter of S. P. O. M. 37th and of May Walker Ollie Homestead, was purchased for $6,000 by Femco Farms, Minnesota, who also owned her dam.

The only other animal to pass the $5,000 mark was likewise a daughter of 37th. Wisconsin Pride 2d, 10-year-old cow and U. S. champion 3-year-old producer, that Mr. Pabst purchased at the Erickson dispersion three years ago, sold to Femco Farms for $5,800. She should prove a valuable addition to the great group of breeding matrons which Mr. Murphy has assembled at his Minnesota farm.



J. SOUTHCOTT
Manager of Hollyhock Farms since their establishment.

Nine more of those animals selling for four figure prices were "Sir Bess" daughters and a tenth was the top-priced bull by Sir Bess and out of Wisconsin Pride 2d that went for $2,600.

Mack, Haeger, Thompson, and Hansen did the selling with Bob Melin in the box. The Melin—Petersen Co. managed the sale.

Following is a list of those animals selling for $850 or more and buyers:

John R. Armstead, Minnesota	
Creation	$1,400
Femco Farms, Minnesota	
May Pietertje Homestead Ormsby	$6,000
No. 1½	1,025
Wisconsin Pride 2d	5,800
Westmoreland Colantha 2d	1,000
Hollyhock Bess Sadie Alma	1,000
Hollyhock Bess Mechthilde Segis	1,000
Ouido Pontiac Trixie	1,300
Hollyhock Burke Rose Fobes	900
State Board of Control & H. F. Wittig, Wisconsin	
Princess Della 3d	$3,000
Shore Acres, Minnesota	
Hollyhock Della Fobes Ormsby	$1,075
E. A. Baker, New Hampshire	
Hollyhock Johan Pontiac Fobes	$1,050
Hollyhock Beauty Segis Fobes	1,700
Hollyhock Bess Sadie Rhoda	3,050
W. S. Kellogg, Connecticut	
Hollyhock Alma Coin Fobes	$1,050
Hollyhock Lady Bess Daw	2,000
Elmwood Farm, Illinois	
Hollyhock Piebe Fobes	$10,000
Dell Lyons Model Korndyke	875
Winterthur Farm, Delaware	
Hollyhock Piebe Creation	$2,925
John Carroll, Illinois	
Hollyhock Banostine Fobes	$1,200
C. H. Anderson, Maryland	
Pride De Kol Milk Maid	$1,350
Mission Farm, South Dakota	
Sir Bess Ormsby Fobes 69th	$2,600



HOLLYHOCK PIEBE FOBES, GRAND CHAMPION DAUGHTER OF SIR BESS ORMSBY FOBES
She was purchased at the Hollyhock dispersion for $10,000 by R. V. Rasmussen, Illinois.

YOUR BUILDINGS



the ASSETS everybody sees

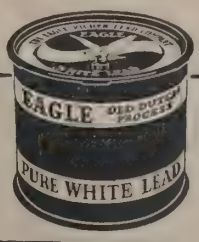
THE appearance of farm buildings is the visible standard by which a farmer's customers and neighbors judge his good management. Your buildings, painted white or light colors with Eagle Pure White Lead in Oil, indicate careful attention to economy. They provide cheerful surroundings that add to the health and happiness of everyone on the farm.

Farmers who have painted with Eagle know its economy in first cost. When repainting time comes, they realize another economy of pure lead paint. It wears away evenly, slowly. It is tough and elastic—does not crack or peel off—leaves a perfect, deep-anchored foundation for repainting.

Leading paint dealers sell Eagle. *The Eagle-Picher Lead Company, 134 North LaSalle Street—Chicago.*

[You will appreciate the many helpful suggestions for mixing white lead paint contained in our "Tinting and Mixing Chart." Write today for your free copy.]

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PURE WHITE LEAD
OLD DUTCH PROCESS



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You *can't afford* To Milk by Hand

WOULD you go back to the hand scythe or cradle? No! And you can't afford to milk by hand any more than you can afford to mow your hay with a scythe or cut your grain with a cradle. And why should you be tied down to a never-ending grind—twice a day, seven days in a week, when thousands upon thousands of farmers have taken the drudgery out of dairying and increased their profits at the same time with a Burrell Milker. It will milk your herd so much quicker, better and more safely than hand milking. And, with the Burrell Milker, the work of hand stripping is also eliminated—*It Milks the Cows Clean.*



Single Tube System

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You Need This Book

Every cow owner needs it—whether he is now milking by hand or machine. It's not a mere catalog, but a 32-page profusely illustrated book which is a guide in both selecting and using a milking machine—backed by 67 years' experience and experience. You owe this book to yourself. It's *free*. Send for it now.



BURRELL
MILKING MACHINES AND CREAM SEPARATORS



Runs directly off crank shaft. No side pull on bearings. Oil tight case; no rattle; clutch disconnects when driving. **Write for Special Offer!**

E-Z POWER

Powerful, economical—from wood saw to churn. Makes car easy to crank. Fits any model; no holes to drill; attach in few minutes; does not affect steering. **Will not overheat.**

FREE Send name today for free literature on this latest, guaranteed improved power. Try it 15 days on your Ford at our risk.

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SPROUTED OATS



No single invention in poultrydom has so largely increased egg production and the profits from a flock of hens as has the famous original

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VAPOR BATH
GRAIN SPROUTER

Our W. H. Monroe invented the first grain sprouter and we are its largest manufacturers and make five kinds to meet every need and climate, the DOUBLE QUICKS, EGGETTERS, SECTIONALS, MAMMOTH and ELECTRICS, and all sizes from 8 qt. to 15 bu. Ask for "SPROUTED OATS—MORE EGGS," the most valuable and complete catalog on sprouted oats and sprouters ever offered.

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Bigger Crops; Regular Profits; Agents Wanted.
RUHM PHOSPHATE & CHEMICAL CO.
Dept. V, Mt. Pleasant, Tenn.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

DAIRY MARKET NEWS

September Foreign Butter

The following table of foreign butter prices gives the average weekly quotations as published by the U. S. Department of Agriculture:

Market	Sept. 1927	Aug. 1927	Sept. 1926
	Cts.	Cts.	Cts.
New York	46.5	41.9	44.6
Chicago	45.0	41.5	43.1
Copenhagen	39.5	35.0	36.3
Berlin	40.5	37.1	36.7
London			
Danish	41.5	37.7	39.0
Dutch	40.5*	36.3*	36.3
New Zealand	38.9	36.8	35.3
Australian	38.0	36.3	34.4
Argentine	37.2	34.8*	35.0
Siberian		31.4	29.2

*Unsalted.

September Cheese

The wholesale price of cheese on the Wisconsin boards averaged 25.3 cents in September, an advance of 1.3 cents over August and nearly three cents over September of a year ago. This is the highest September price since 1920. During the first half of October prices advanced a half cent and the markets held firm.

Cheese production for the first eight months of the year totaled 290,253,000 lbs., a decrease of over 26 million pounds from last year. Net imports were 47,385,000 lbs., an increase of 10 million pounds over last year. Storage holdings of American cheese on September 1 declined 11 million pounds from last year and of other cheese types increased 3½ million pounds. This brings the total estimated trade output to 319,280,000 lbs., a decrease of 5.2 per cent in apparent consumption as compared with the same period last year. Judging purely on statistics, the advanced price of cheese has apparently curtailed consumption.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during September:

	Sept. 1927	Aug. 1927	Sept. 1926
	Cts.	Cts.	Cts.
Twins	24.7	23.3	21.5
Single Daisies	25.3	24.0	22.2
Longhorns	25.8	24.5	22.4
Square Prints	26.2	24.7	23.3
*Receipts since Jan. 1	161,065	140,668	147,291
*Receipts for month	20,396	20,489	17,140
*Storage end of month	14,170	14,679	22,642

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted.)

Sheffields in September

The cash price for September, 1927, paid Sheffield Producers for three per cent, Grade B milk in the 201—210-mile zone is $2.73 per hundred pounds with the usual freight and butterfat differentials. This is equivalent to $2.93 for 3.5 milk and is an increase of 19½ cents over the price for September, 1926, and an increase of 29 cents over August, 1927.—C. W. HALLIDAY, Secretary.

Wisconsin August Butter

Wisconsin co-operative creameries paid producers a net price of 46.6 cents a pound for butterfat in August according to reports from 72 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 41.9 cents a pound for butter, making spread of 4.7 cents between the price received for butter and the price paid for fat.

The range in prices paid for fat was from 41 to 51 cents, with the price received for butter ranging from 39 to 43 cents. The overrun ranged from 22 to 24 per cent. Receipts of butterfat averaged 31,876 lbs. per creamery.

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on October 1, figures being given in thousands of pounds (000 omitted):

	Oct. 1 5-yr. ave. Lbs.	Oct. 1 1926 Lbs.	Oct. 1 1927 Lbs.
Butter, Creamery	117,161	125,342	147,412
Cheese, American	68,248	77,646	65,434
Cheese, Swiss	6,993	7,286	7,744
Cheese, Brick	1,771	1,442	1,858
Cheese, Limburger	1,406	1,829	2,128
Cheese, All Other	6,814	7,182	7,944

These holdings include stocks in both cold storage warehouses and packing house plants.

August Dry Milk

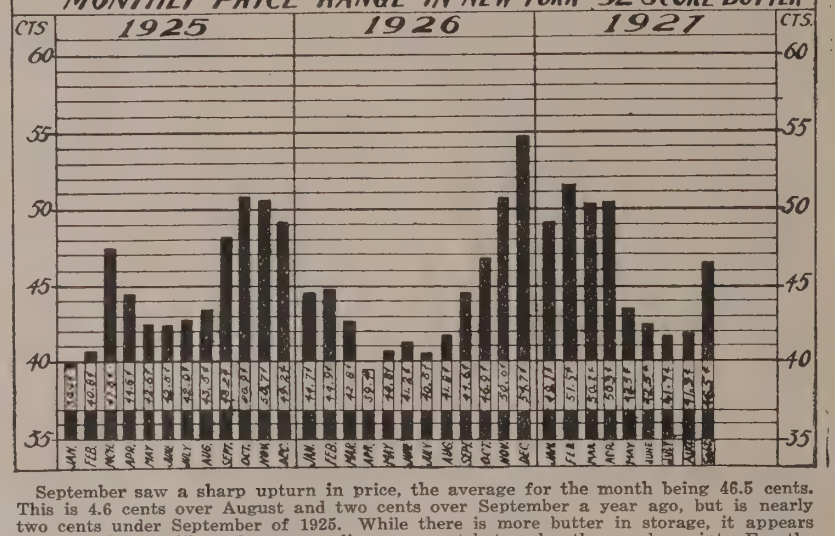
(From Report by U. S. Dept. of Agriculture)

The wholesale prices given below are based on reports from manufacturers governing actual sales f. o. b. factory during August:

Dry Skimmilk: Prices ranged from 7 cents to 11.5 cents for dry skimmilk in bulk, averaging 9.24 cents a pound for sales, totaling 6,615,292 lbs.

Dry Whole Milk: Prices ranged from 22 cents to 27.5 cents for dry whole milk, averaging 25.84 cents for sales totaling 299,685 lbs. When packed in one-pound cans the price reported was 46.9 cents a pound.

Dry Buttermilk: Prices ranged from 6.5 cents to 10.5 cents for dry buttermilk in bulk, averaging 8.24 cents a pound for sales totaling 2,159,638 lbs. When packed in one-pound cans the price reported was 10.03 cents a pound.



September saw a sharp upturn in price, the average for the month being 46.5 cents. This is 4.6 cents over August and two cents over September a year ago, but is nearly two cents under September of 1925. While there is more butter in storage, it appears to be moving readily and new supplies are somewhat under the usual receipt. For the first half of October prices at New York were maintained at 49 cents, only dropping near the close of the two weeks to 48 cents.

September Butter

Butter averaged 46.5 cents in September on the New York market. This is an increase of eleven per cent over August and four per cent over September of a year ago, but is a decrease of nearly four per cent under two years ago. The market held at 49 cents in New York for the first two weeks of October, with indications of some decline toward the close.

Storage holdings of butter have materially increased, but recent indications are that these will be materially reduced. Perhaps the outstanding feature of the month was the strength of the market on fancy grades, a condition that does not apply to the lower grades. The difference between 92-score and 88-score butter being as high as 7½ cents.

Creamery butter production for the first eight months of the year was 1,074,322,000 lbs., an increase of 22 million pounds over last year. Net imports were 4,137,000 lbs. as compared with 446,000 lbs. a year ago, indicating that the price advantage in our markets allowed foreign butter in considerable quantity to scale the 12-cent tariff wall. Storage holdings were 163,037,000 on September 1, some 7 million pounds greater than the previous record in 1924 and nearly 25 million pounds in excess of a year ago. This brings an estimated trade output of 1,379,070,000 pounds for the first eight months of the year, a decrease of nearly 30 million pounds in apparent consumption of butter as compared with the same period of last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices on 92-score butter (extras four of the principal markets, together receipts and storages:

	Sept. 1927 Cts.	Aug. 1927 Cts.	S
Chicago	45.0	41.5	
New York	46.5	41.9	
Boston	46.2	42.1	
Philadelphia	47.5	42.9	
*Receipts for month	41,277	53,302	4
*Receipts since Jan. 1	464,770	423,492	45
*Storage (end of mo.)	68,090	75,090	6

*In thousands of pounds at the four ma (i. e.—000 omitted.)

Ninety-score butter averaged 42.6 cent September in Chicago, with centralized b at this market selling for 42.1 cents. Job prices on extras sold to retailers averaged cents in Chicago, a spread of 2.5 cents wholesale.

September Condensed M

(Report by U. S. Department of Agricul

Prices paid producers for 3.5% milk f. factory were as follows for September, ing those factories manufacturing both and bulk goods:

Geographic section	Price per c Range
New England	$2.14
Middle Atlantic*	2.22—2.90
East North Central	1.91—2.40
West North Central	1.75—2.03
North Western	1.79—1.90
South Western	1.75—2.10
United States	1.75—2.90

*Fifty-nine additional factories re prices based in part on current month's sale butter quotations. Twenty-three fac reported prices not determined as yet a reported factories closed.

Manufacturers' wholesale selling pric sweetened condensed and unsweetened rated milk were as follows for August:

	Range
Condensed, per case	5.60— 6.65
Condensed, per cwt.	9.25—13.00
Evaporated, per case	3.44— 5.20
Evaporated, per cwt.	6.58— 9.30
Condensed skim, per cwt.	4.75— 7.00
Evaporated skim, per cwt.	2.88— 6.45

The Feed Market Situat

(By The Grain, Hay and Feed Market Service, Bureau of Agricultural Econ U. S. Department of Agriculture.)

The feed market situation has not ch materially during the past two weeks this writing (October 7) prices of the cipal feeds are practically the same a weeks ago with the exception of cott meal and gray shorts. Cottonseed meal have advanced $1—$1.50 per ton while shorts have declined 50 cents to $1 pe Demand continues of only moderate volu pasturage is still abundant in most sc and prospects for this season's crop co to improve.

Offerings of Bran and Middlings Lag

The production of wheat feeds cor fairly heavy although total output this at the principal milling centers based flour production is still below last year' duction for this period. The smaller tot duction is due principally to the smaller ings by the southwestern mills early th son. The demand has been sufficient to the offerings practically as rapidly a have come on the market.

Canadian wheat feeds are being offe eastern markets below quotations from eastern and southwestern mills. Mixe manufacturers in the Central States hav the principal buyers of feed from the western mills and also of bran for shipment from Minneapolis and other n the spring wheat territory. Bran pric practically unchanged from two weeks a are on an average $3—$4 per ton highe at the first of October last year.

The sharp decline which has occur middling prices since the first of Augu apparently been checked. Standard mi are now about $9 lower than at the August but are still about $4 higher th year. Increased offerings of spring middlings have been largely responsi the downward trend in prices. At the ent time standard middlings from Min lis are being offered in the south markets at a discount under hard i wheat shorts.

Continued increased production of meal has weakened the market for that Minneapolis and prices have tended do but light production in eastern marke held prices firm in that territory. The for meal continues active and current p tion is reported to be readily taken. of this feed are about $2.50 per ton quotations last year at this time n standing the domestic supply of flaxs about 5,000,000 bushels larger than las Higher prices of other feeds, particular

(Continued on next page)

LaPorte County Calf Clubs

C. E. ZARTH, INDIANA

N inspiring demonstration as to the value of well planned calf club work was found in the exhibition of 35 Holstein and Guernsey heifers at the LaPorte County, Indiana, Fair. This exhibit was the outstanding feature of the cattle show and the center of attraction, proving that when properly taught boys and girls can feed and fit dairy animals in a highly satisfactory manner. Two-year-old heifers were selected on account of the quick return on the investment and as several of these are now in milk, the wisdom of selecting animals of this age has been proven. The cost of the heifers upon delivery to the members, including a year's insurance, varied from $119.75 to $162.50. The animals were purchased in Fond du Lac County, Wis., and distributed March 16, 1927.

A tour was held June 29 attended by club members, their parents, and other dairymen with addresses by C. W. Newman and Mr. Earl Cooper, fieldman for the Holstein Association.

The feeding, fitting, and showing of the animals for the fair was unusually good. L. H. Fairchild made the placings for both breeds.



DISTRIBUTION DAY—GUERNSEY CALF CLUB



ONE OF THE STOPS ON THE HOLSTEIN CALF CLUB TOUR

Earl Cooper, fieldman of the Holstein-Friesian Association, giving a judging and fitting demonstration.

The Feed Market Situation

(Continued from page 1020)

ed meal, are largely responsible for the er quotations on linseed meal.

Cottonseed Meal Higher

e cottonseed meal market continues firm quotations have been advanced $1—$1.50 ton since our last report. The higher s are restricting demand but with a rially smaller supply of cottonseed in ject crushers are not pressing their meal the market. Texas mills are paying $37 per ton for prime cottonseed deliv- at the mill and are quoting 43 per cent at $36—$37.50 per ton. Loose cotton- hulls are quoted at $5—$6 per ton. Con- ably less cottonseed meal has been shipped of the country this season, exports for ist totaling 15,122 tons compared with 4 tons last August. The European mar- or cottonseed meal has declined, however, quoted at Hamburg at the middle of mber at about $50.50 per ton, a decline out $4.50 per ton from earlier quotations. ile corn prices have tended downward g the past two weeks gluten feed prices held firm as a result of light production. slow demand for the commodities for n gluten and hominy feed are by-products rgely responsible for the limited produc- and is a more important factor in the et at the present time, apparently, than rice of corn. Practically all mills report output for October contracted for and ffering only sparingly for November ship- .

miny feed continues in good demand with ngs very small and most of the mills of- g only limited amounts for October ship- . Prices of this feed have declined in the rn markets, prices at Omaha being quot- this writing $1.50 lower than two weeks Prices in eastern markets are practically nged.

ice green alfalfa meal continues in ex- t demand with the supply below current rements. Offerings of Nos. 1 and 2 meal arger but feed manufacturers have been g this meal in large amounts, particular- Kansas City. Quotations for choice green are slightly higher but other grades are d practically unchanged.

Quoted October 5

ndard spring wheat bran: $26 Minneap- $29 Buffalo, $33 Philadelphia, $28.25 Chi- Hard winter wheat bran: $26.50 Omaha, $25.50 Kansas City. Soft winter wheat bran: $35 Philadelphia, $32 Cincinnati, $28 St. Louis.

Standard wheat middlings: $30 Buffalo, $33.50 Philadelphia, $30 Chicago, $27 Minneapolis. Soft wheat middlings: $42 Philadelphia, $41.50 Cincinnati, $37.50 St. Louis. Gray shorts: $33.50 Omaha, $33 Kansas City.

Cottonseed meal (43%): $43.50 Cincinnati, $43.25 at Kansas City, $37 Fort Worth.

Linseed meal (34%): $47.50 Buffalo, $51 Cincinnati, $48 Chicago, $45 Minneapolis.

Gluten feed: $39 Buffalo. White hominy feed: $41 Buffalo, $37.50 St. Louis. Alfalfa meal: $26.50 Chicago, $22.50 Omaha, $23.50 Kansas City.

Wisconsin September Condensery Prices

Forty-six condenseries reported to the Wisconsin Department of Markets the prices paid in September per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $1.93 to $2.50, the average being $2.17.

Seventeen factories sent delayed reports for August, the average being $2.15. This is nine cents above the previously reported average of $2.06 for 49 factories.

Milwaukee September Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of September:

For the portion sold as fluid milk, $8.00 per cwt.; and for the portion manufactured, $1.91 per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Eighty-seven per cent of the total receipts were sold as fluid.

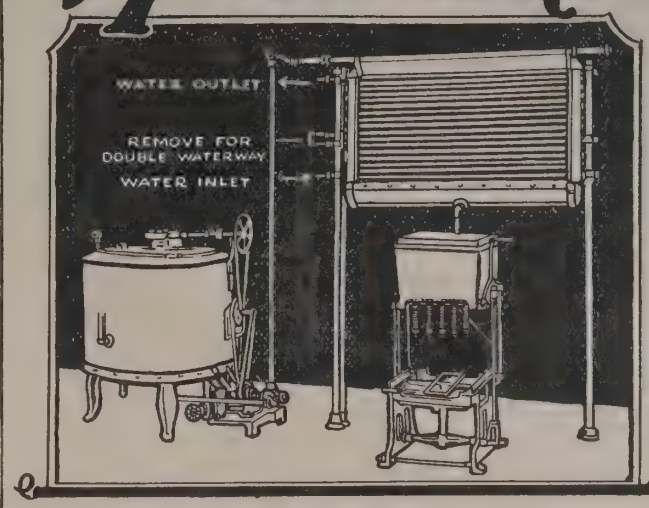
Philadelphia Milk Prices

The Inter-state Milk Producers' Association announces that the October basic price for milk will be $3.29 f. o. b. Philadelphia and $2.71 per hundred at receiving stations in 51—60-mile zone.

The September surplus price was $2.34 f. o. b. Philadelphia. The September surplus price at all receiving stations on railroad was $1.77.

These are based on milk testing 3 per cent butterfat with a differential of 2 cents for each half point of test up and down.

VICTOR DAIRY PASTEURIZER



for the FARM DAIRY and SMALLER PLANTS

REALIZING the need for a simple, efficient and economical milk pasteurizing outfit for smaller plants and farm dairies, *CP* offers the Victor, illustrated above.

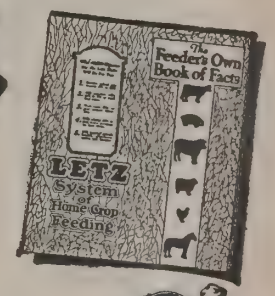
The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

With a Victor Outfit the small dairyman can produce good, wholesome pasteurized milk just as cheaply and efficiently as the big city dealer. Pasteurization provides safe milk and will increase your business. The Victor is a business builder. Write for full information and prices.

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1. Save 25% to 50% of present feed crops by utilizing waste.
2. Release up to 30% of your present feed crop acreage for cash crops.
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LETZ MIXED FEED MAKER



"PELOUZE" New Dairy Scales

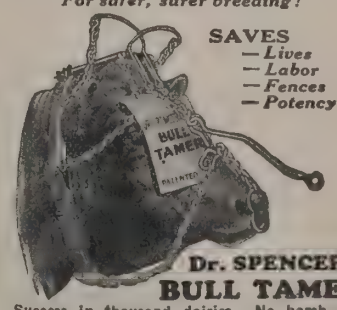
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— *Lives*
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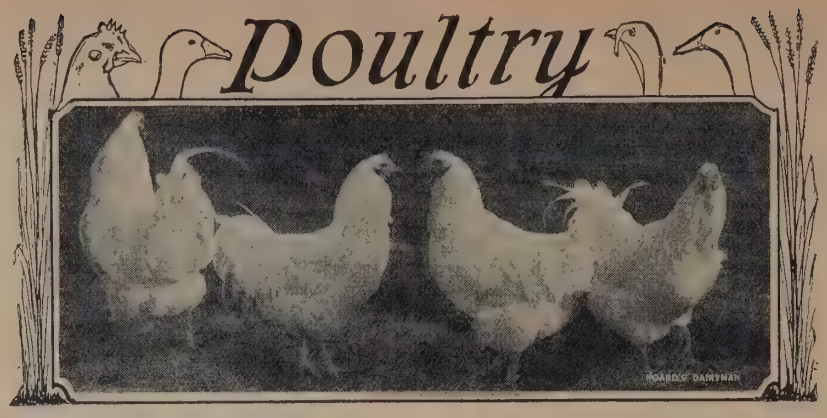
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D. T. FARROW CHICKERIES, PEORIA, ILL.

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Poultry



Pullet Finish

High records are becoming more common. Some few that approach or exceed 300 eggs in a year may be doubtful and made for advertising purposes but the great bulk are perfectly honest and legitimate.

There has been an ever increasing amount of attention given to breeding for higher production; better feeding has caused higher records; and more trapnesting has made these records known.

With the same conditions prevailing in respect to breeding, feeding, and housing, one will always find that pullets not only produce more eggs at a lower cost than hens but also produce the bulk during the season of highest prices. Probably this fact will help determine the per cent of hens and pullets that should constitute the average farm flock.

When egg production only is desired and no attempt is made toward mating but rather depend upon the purchase of baby chicks each year, it is undoubtedly advisable to replace at least 80 per cent and probably all of the hen flock with early hatched, well matured pullets. When it comes to a choice between late hatched, immature, poorly finished pullets and good yearling hens—keep the hens. A poorly finished pullet is at best a bill of expense.

It is at this season impossible to make or remake a profitable pullet out of an improperly reared chick. This is applicable to brooding conditions, feed, ration, or sanitation. Improperly reared pullets or parasite infested pullets are always a questionable venture. We can only hope for the best from them.

A good pullet should be early hatched and well matured at the time that production is wanted. One of the things that is particularly noticeable at the present time is the higher percentage of early hatched pullets that are found on farms each fall. The principal question at the present time is how to prevent early laying while it was how to get production from 1½-lb. pullets in the fall.

Leghorn pullets hatched about the middle of April and properly handled will be just about ready to start producing in October. Heavier breeds will usually require about an additional month for growth. A growing period of about 180 days is required for Leghorns and over 200 days for Rocks and others of about the same weight. Pullets producing in about four months are a "flash in the pan," cannot stand up for an entire year, and usually are a failure. They make nice advertising for the gullible but usually mighty poor producers.

Production should be controlled so that it does not start much before October 1. If controlled both by hatching and feeding until that time, the possibility of a winter molt is greatly reduced. Retarding production does not tell the entire story but is a big part.

For best production the heavier fowls should be about or a little below standard weight—5½ to 7½ lbs. On the other hand, a little larger size is desired in the Leghorns and they should weigh about 4—4½ lbs. When one gets them too big they are apt to be coarse and probably poorer producers. Small, ultra-refined pullets may make good short-time producers, but most of them cannot bat through for the year.

A good pullet has maintained a steady, consistent growth. She must be free from any disease, colds, or intestinal parasites. Health is indicated by deep yellow color in legs and beak of yellow skin varieties, red comb without any purple color to tip or blade, and bright, clean plumage.

In any flock, with any production, there are always some few birds that grow just a little bit slower than the rest, come into maturity a little later, and should be removed as culls. The first essential for good flock management means uniformity of flock so that uniformity in feeding may be followed. If one has birds of several ages it may be advisable to grade the pullets according to maturity and then change management in accordance with their needs.

Pullets when housed should be fat. This reserve, established before production starts, is what the pullet draws on during the period of heavy production. It is the reserve fuel supply that keeps the machinery in operation.

A good pullet has a bright, clean-cut head. The eye is large, bright, full, and prominent. The head should also indicate vigor by proper proportion between length and depth because those little round knob-headed pullets do not make producers.

It is probably possible to tell about as much about the pullet when on the floor as when handled. Any, when developed, that lack in body length or depth are questionable. Cull those especially with sunken eyes and V-shaped bodies. They tend to slope upward fore and aft from the legs.

When handling one should especially stress the need for a long, wide body. The width should be almost the same at the rear of the body as that which obtains across the hips. One will note this especially by runn one's hand across the back of a b and noting the width that prev along the sides.

Depth of body is usually measu by spanning from the hips to the k bone. No attention need be given either depth from pelvic bones keel bones or distance between vic bones. Distance from pelvic keel indicates depth which may measured from the hips to the and between the pelvic bones i cates only production and not proc tion possibilities.

Before production starts, the pu must be fat. After housing it is a question of regulating the consu tion of mash to grain so that proc tion is maintained without los weight rapidly. In fact a pu should gain in weight for about first year.

The use of a moist mash at noo addition to the dry mash that is per fed will tend to start a flock shorter time.

Select a real pullet. She must h vigor, growth, vitality, and the p er machinery to convert feed eggs. Any questionable pullet sh not be considered this year if on afraid of the present feed prices. good pullet can make a profit at time.—J. B. HAYES.

Effects of Feeding Bon Meal

Twenty pens containing 236 in all were used for comparing fertility, hatchability, and viabilit chicks produced when 5 per cen bone meal was added to a stand ration. The results showed tha the eggs produced by the birds re ing no bone meal 82.1 per cent fertile, 64.9 per cent of w hatched. The eggs from those re ing bone meal were 83.6 fertile which 61.1 per cent hatched. chick mortalities to three week age were 24.9 and 27.1 per cent, spectively.—Report of Canada periment Farms.

"Nobody Cares for Me

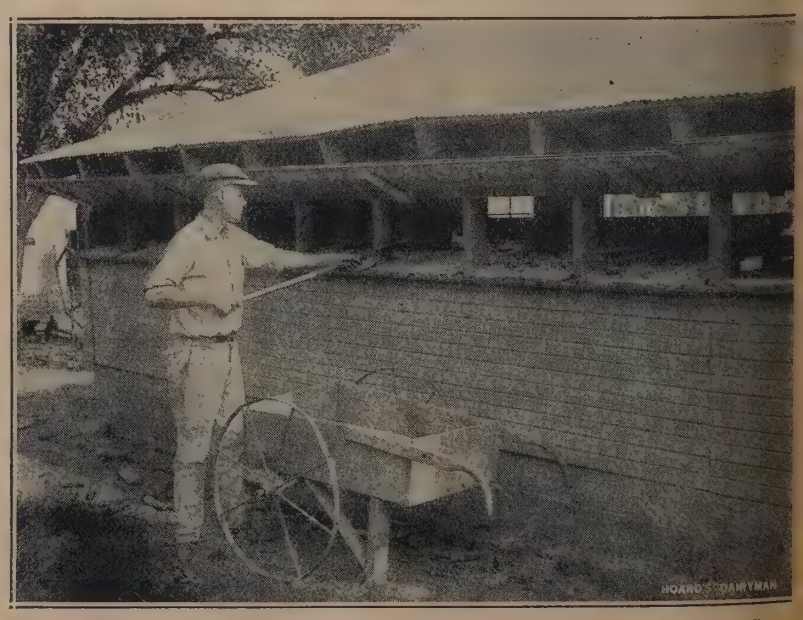
An old hen sat in a sycamore tree,
And said to herself, "No one cares for m
My food is what I find about
By scratching around till I'm frazzled ou

"My shelter is the starry sky.
I sit and watch the clouds sail by
Until my eyes grow weak and dim
When I take fresh grip on my sycamore

"Although I fly and scratch and make t hum
My owner claims I'm on the bum.
He wants an egg every other day
And thinks I ought to sing and lay.

"I wish he had to roost out here
And scratch bare gravel all the year,
I'll bet a copper cent, by Jing!
He wouldn't lay an egg till spring."

—From Extension Farm News, A. an College, Texas.



BRUCE HARDY, INDIANA, AND HIS ARRANGEMENT FOR CLEANING ROOSTS IN HIS POULTRY HOUSE

VETERINARY

dvice is given free in this department. iries must be signed by the writer, and ld pertain to veterinary matters only. re an immediate reply and prescription desired by mail, the inquiry must be ac- panied by a fee of one dollar. In every nce it will be necessary to give a full ription of the symptoms present.

Necrotic Sore Mouth

When milk runs back from the ith of a sucking calf and the cause ot found to be lodging of feed some other object between the gue and molar teeth or teeth and ek, one may find that it is due to sence of large and small ulcers n the lining membrane of the ith. They are called canker sores the dairyman, and are much like cold sores of the human lips. The st sores are caused by the filth n, bacillus necrophorus, invading mucous membranes lining the th, and sometimes the throat is lved. The latter is the most dan- us form of necrotic stomatitis, called "calf diphtheria," which is ighly infectious and often fatal ase.

igs also suffer much from canker s of the mouth and may also con- t the necrotic form of the dis- . The necrosis bacillus lives, nally, in the intestines of swine is therefore voided with the fe- of those animals and consequently unds wherever hogs have long n kept.

uch contaminated places should be occupied by young animals. old, dirty calf pen may also har- the germ, for it lives in any filthy e, and when canker or necrotic s are giving trouble it is impera- that the old infected pens be at abandoned and that unaffected es be moved into new, sanitary s, preferably well away from the stables and yards. The infected s may then be cleansed, disin- ed, whitewashed, properly light- and ventilated, and used for the mmodation of adult cattle or r farm animals.

o avoid necrotic diseases and in- ation by worms, pigs, from birth, uld be managed according to the s of the McLean County, Illi- , plan. A bulletin on that sub- may be obtained from the U. S. artment of Agriculture, Wash- on, D. C. It is equally important eep calves in sanitary pens from h and to cleanse and disinfect udders and teats of the cows be- calves are allowed to nurse for first time and then to keep them n fouling, so far as that is pos- . All utensils used for calf feed- must also be kept clean and ster- d.

reatment of canker sores and ne- ic sores consists in cleansing each hem and then scraping away all l or diseased tissue or pus. Af- rard the ulcers should be swabbed strong vinegar or dilute acetic . That acid has been found dead- o the bacillus necrophorus. Af- rard the ulcers may be swabbed y with a 2 per cent solution of ssium permanganate of potash, with a freshly made solution of urochrome, if the attending vet- arian thinks that will be more opriate. Tincture of iodine is al- xcellent for local application and, me aggravated cases, the veteri- an may use a solution of nitric , or lightly cauterize the sores a mild solution of silver nitrate. tment, usually, has to be applied rding to the conditions found in case, and these vary considera- It is, therefore, best given by xperienced veterinarian who will give such internal or hypoder- mic treatment as he deems necessary. Prevention, by perfect sanitation, is all-important.

Scours—Cholera

I have some hogs from 6 to 8 weeks old that have watery and foamy discharges from the bowels and it looks as though they might have some form of diarrhea. I have been feeding them all the skimmilk that they can drink and they have access to quack grass pasture. Would you kindly advise if you think it serious enough to take steps to check the loose movement and if so what would you advise giving them.

Also please tell me what hog cholera is like and what it is caused from and how to prevent and cure it.

Perkins, Mich. B. H. W.

Feed the skimmilk before it sours and remove the separator froth. Feed it twice daily from clean troughs. Also feed wheat middlings, ground corn, ground (screened) oats, and a little bran and tankage, dry, from a self-feeder. From another self-feeder supply salt, ground limestone, and wood ashes or steamed bonemeal. Add one-fifth pound of potassium iodide to each 100 pounds of mineral mixture. Let the pigs graze a succession of green crops, preferably legumes. Move them into new sanitary quarters on new seeding. If scouring persists, give bismuth subnitrate two or three times daily in doses of 15 to 30 grains.

Cholera may be suspected when hogs show high fever, stop eating, scour, cough, lie down most of the time, die in a few days, and show a purplish discoloration of the skin before or after death. There is no remedy, but the disease can be prevented by vaccination. Consult your veterinarian about that.

Pink Eye

Please tell me a good remedy for pink eye in dairy cattle.

Duncan, Okla. J. B.

Move affected cattle into a darkened stable. Bathe the eyes with a 3 per cent solution of boric acid several times daily and in the evening put a little bit of yellow oxide of mercury ointment (ophthalmic) in the corner of the affected eye and also apply it to the eyelids. If there is a heavy discharge from the eye wet the eyeball with a 15 per cent solution of argyrol, twice daily, after bathing with boric acid solution and when it subsides use the ophthalmic ointment. Feed a light, laxative ration.

Dehorning Calf and Cow

Please advise proper method of taking the horns off a calf three months old or would you advise leaving them now until the calf is older and using a dehorner? I have a cow which I wish to take the horns off. She is fresh three months and a heavy milker. Would you advise waiting until she is dry? Does it affect the next milking period by taking horns off a cow?

Selah, Wash. G. R. F.

Chemical dehorning cannot now be done nor do we countenance gouging out the stub horns as is done by some breeders. It would be best to wait until the horns are well grown and then removing them with dehorning shears. It is not advisable to dehorn a cow when she is well advanced in pregnancy, nor should dehorning be done in very hot or very cold weather or when flies abound. Postpone dehorning until autumn. As a rule, dehorning does not have an injurious affect upon subsequent milk giving.

Barrenness

I want some information about two cows. They have been bred about 8 times in the last 7 or 8 months and they keep coming back. They have both had several calves and are good cows. I also tried my neighbor's bull and the result is the same. I never had any trouble with either one before.

Farson, Wyo. J. E.

An infected condition of the lining membrane of the neck of the womb (cervix) or womb proper (uterus) commonly is the cause of barrenness in such cases. Infection of the contagious abortion disease often is present. To determine whether that is the case have a sample of blood from each cow tested by the agglutination method. Your veterinarian can have that done. Meanwhile he will have to give local treatment with antiseptics. Until you can have that done syringe out the vagina of each cow 3 or 4 times a week with bloodwarm (100 degrees F.) boiled water containing one tablespoonful of Lugol's solution in each 3 quarts. Isolate the affected cows. Feed them a complete ration and minerals.

Garget

Can you give me some advice on garget? We have three cows that have it very bad. We have changed their feed entirely. Have milked them as much as four times a day. Have used several remedies but it seems to be worse than when we started.

Cheyenne, Wyo. M. M.

Instantly isolate the three affected cows and then cleanse, disinfect, and whitewash the stalls they have occupied. The chief aim will be to prevent other cows from contracting the disease which is germ-caused. The infection may be carried from cow to cow by the milker's hands or be contracted by the fluid from a diseased quarter getting on the teats from the ground or a floor upon which it has been allowed to fall. Always catch the unsound milk in a vessel containing a disinfecting solution and then throw it out in a place from which cows are excluded. Chronic mastitis (garget) is incurable and if the affected quarters of the diseased cows are yielding milk or liquid containing pus, those cows should be fitted for the butcher after drying off the remaining secretion of milk. Have your veterinarian give the sound cows hypodermic treatment with mastitis bacterin to prevent infection. If desired he may also treat the diseased cows with anti-mastitis serum or bacterin. Keep the affected quarters stripped clean. Twice daily rub in a mixture of equal quantities of carbolized oil, camphorated oil, and compound soap liniment.

Infected Milk

I am informed that milk from cows having contagious abortion is unfit to use unless pasteurized. Is this true? I have a badly infected herd and do not want to use the milk if it is dangerous.

Aurora, Ind. J. D. C.

The fact that contagious abortion is prevalent among dairy cows and that the milk of affected cows has for generations been used by millions of people with seeming impunity would indicate that it is harmless, but some recent research work has shown that it is a possible menace. Malta fever of the goat and communicable to man through the milk of the affected nanny is caused by a germ very similar to that of the contagious abortion disease of the cow and there seems to be some evidence that supposed cases of Malta fever in man are sometimes really the drinking of the raw milk of abortion disease due to affected cows. Pasteurization of such milk would therefore seem advisable.

Eckles of Minnesota says 150 lbs. of whole milk and 75 to 85 lbs. of dry skimmilk will carry a calf until it will thrive on grain and hay.

Calf Scours



Abortion



Retained After Birth

CALF SCOURS is easily prevented and controlled by disinfecting new-born calves with dilution of B-K, and feeding them a little B-K. Get our book on Scours.

For removing Retained Afterbirth B-K in warm water loosens adhesions, stops inflammation, prevents fever and odors. The afterbirth comes away naturally; the parts are restored to health.

Abortion is caused by germs of several kinds. What they are and what can be done in prevention and control is told in our book.

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B-K represents 15 years of scientific work. It is made by our exclusive process, producing the only stabilized hypochlorite ever approved by the American Medical Association.

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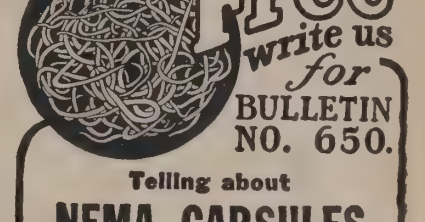
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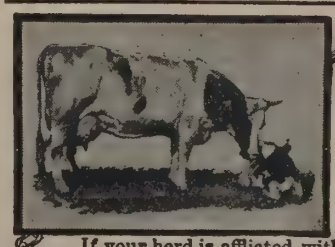
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High class grade Holsteins—Springing or fresh cows from an area tested county. Can also supply Guernseys of top quality. Clean cattle, priced right. 30 years experience in breeding dairy cattle. Write me, JOHN ERICKSON, Waupaca, Wis. 18-*

For Sale—Holstein yearling bull; registered; grandson world's record cow. $125. DR. H. P. BEIRNE, Quincy, Illinois.

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

Purebred Holsteins, good blood lines. 10 yearling heifers, 10 cows, 2 bulls. MEADOW BROOK FARM, Independence, Iowa. 19-2

Registered Holstein Bulls from high producing dams and sired by 1000 lb. son of King Pontiac Champion. WALTER SORGE, Reedsburg, Wisconsin. 20-2

Pick of 20 Holstein springers out of 80 cows. Over stocked. FRANK W. FISHER, Janesville, Wis. 20-2

For sale or trade—5 year old bull, 1200 lb. dam. FRANK VANDERHEYDEN, Lanark, Ill.

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

60 Choice Holstein and Guernsey springers. Also registered heifers, bred and open. Tested. F. B. GREEN, Evansville, Wisconsin. 20-6

For Sale—Fifty head of high grade Holstein and Guernsey cows due to freshen in thirty to sixty days. Priced to sell. JOHN KEENER, Amherst, Wis. 17-4

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 35 miles north of Milwaukee, Wis. 13-*

Young Bulls and Bull Calves, Dots Cherub breeding from dams with good A. R. records. QUINEILO FARMS, 607 Trust Company Building, Milwaukee, Wisconsin. 18-*

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

For Sale—50 high grade Holstein and Guernsey springers, reasonably priced. JOHN PETERSON & SON, Scandinavia, Wis. 19-*

Serviceable Guernsey bulls for sale. Records 500 to 675 lbs. New sale list. HOMER RUNDELL, Linwood Farm Guernseys, Livingston, Wis. 18-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Guernsey bulls for sale. Accredited herd. JOHN MICHELS, Peebles, Wisconsin. 20-2

Registered Guernseys for sale. Both sexes. A. R. breeding. ROY BURTON, Eagle, Wis. 17-*

Registered Guernsey Bulls. Serviceable. FRANK KLEMM, Baraboo, Wis. 19-5

For Sale—Jersey bull calves out of heavy producing dams. A 5-year-old bull for sale. CLARENCE RAGSDALE, 709 Monroe Avenue, Moberly, Missouri.

Jersey bulls sired by son of Sophie's Emily, world's champion producer. Dams records up to 520 lbs. GUY WALKER, Fennimore, Wisconsin. 20-3

For Sale—Bull calves sired by pure bred Sophie Tormentor bull and out of extra good dams. Write C. F. KNECHTEL, Larned, Kansas.

Jersey Bull—Ten months old. Dam has cow testing association record of 508 lbs. butterfat in 8 months. J. H. FORELL, Charlotte, Michigan.

Pure Bred Ayrshire Bulls all ages. Federal Tested. G. A. STEELE, Elizabeth, Illinois. 20-2

Registered Brown Swiss bulls, 4 to 9 months, from high producing cows. WM. REHBERG,, Tomah, Wis.

LIVE STOCK WANTED

Wanted—Holstein Heifers, freshen in 60 days. Carload, good and priced right. CHAS. NOLAN, Timewell, Ill.

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Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 85 cents for one cow, $2.90 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 17-*

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Welsh Shepherd pups. Mother imported. $10.00 each. MAPLE GROVE FARMS, Pope Mills, New York. 18-3

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For Sale—Farm Light Plant, 1¼ KW, 32 volt, starts pressure button, stops automatically, costs dollar month to operate; oversize batteries, pulley on plant to operate churn, pump, etc. Like new. Cost $600; price $150. LEE, 227 S. Eagle, Naperville, Illinois. 19-2

For Sale—Two Unit Success milker, first class condition. Complete equipment for 16 cows, forced to sell. $40.00. Address BOX 538, care Hoard's Dairyman.

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For Sale—Two Empire double units, late models, in good condition. Price $40.00 each. Address BOX 546, care Hoard's Dairyman.

Two-Unit Hinman milker, with equipment for 18 cows. Must sell at once; bargain $50.00. Guaranteed. Address BOX 537, care Hoard's Dairyman.

Dairy Outfit—Pasteurizer, cooler, pump, bottler, boiler, etc; or might consider trade for dairy cows. Address BOX 536, care Hoard's Dairyman.

Two-Unit Hinman milker with equipment for ten cows in one row. Good as new. $100. Address BOX 483, care Hoard's Dairyman. 18-*

Sharples rebuilt separators for sale. Cheap all sizes first class condition. MILLER-LENFESTEY SUPPLY CO., Tampa, Fla. 20-3

For Sale—Second hand Hinman milker outfit. Address BOX 554, care Hoard's Dairyman.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 19-4

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Muncie, Ind. 21-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. ALBERT MILLER & CO., 192 N. Clark St., Chicago, Illinois. 14-*

Alfalfa and Clover Hay for Sale—Ask for delivered prices. HARRY GATES COMPANY, Jackson, Michigan. 17-*

Shippers inspected graded hay; dairy alfalfa, clover, timothy, prairie and straw. CALLIARI BROTHERS, Green Bay, Wis. 19-6

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-*

Alfalfa and Prairie, delivered prices. SUTTIE-PECKHAM CO., Omaha, Nebr. 19-6

Hay and straw for sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 19-4

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

SALESMEN WANTED

Sell Stock Feeding Molasses to feed dealers and farmers. Must have auto. Good proposition. Address FEDERAL FEED PRODUCTS CO., Box 1221, St. Louis, Mo. 19-2

AGENTS WANTED

Agents—We start you in business and help you succeed. No capital or experience needed. Spare or full time. You can earn $50-$100 weekly. Write MADISON CORPORATION, 564 Broadway, New York. 18-11

TOBACCO

Special Offer—Smoking 5 lbs. $1.00; ten $1.75; cigars 50 for $1.95. Pay when received. Money refunded if not satisfactory. FARMERS' ASSOCIATION, West Paducah, Ky. 19-2

Natural Leaf Tobacco—Best grade, guaranteed, 5 pounds chewing $1.00, 12 pounds $2.00; 12 pounds smoking $1.50, pipe free. Pay when received. VALLEY FARMERS, Murray, Kentucky. 20-4

ROCK PHOSPHATES

Our finely ground raw rock phosphate greatly increases yields of small grain and hay crops. Cheaper than acid phosphate. Write for literature and prices. ROBIN JONES PHOSPHATE COMPANY, 572 Bennie Dillon Building, Nashville, Tennessee. 20-*

LUMBER

Guaranteed lumber and shingles sold direct. Big saving! Ask for estimate. KENWAY LUMBER COMPANY, Tacoma, Washington. 15-7

FARMS FOR SALE

The Dairyman in the Ozark region of Southern Missouri and Northern Arkansas operates with 9 or 10 month's open grazing on clean rolling pastures—pure fresh streams of mountain spring water—fine grained clay soil producing a wealth of grass. Mild and healthful climate, average winter temperature 41.6, average summer temperature 78.9. Proximity to the great markets of St. Louis, Kansas City and Memphis makes quick delivery and good prices. Prosperous growing communities, good schools and fine hard surfaced roads. Land can still be bought or farms rented at reasonable prices, insuring good profits for the dairyman. Write for more information about this land of great opportunity. FRISCO RAILWAY, 879 Frisco Bldg., St. Louis, Missouri. 20-Spl

100 Acres, 17 cattle, crops, etc. Handy city of 200,000. The kind of farm so many people wish they had, fertile fields for high-paying crops, estimated 2000 cords firewood, sugar grove and fruit, amply watered pastures; good 9-room white home, 70 ft. barn with silo, milk, hen houses, hog house 18x40, granary, etc; convenient advantages, pleasant motor trip big city markets. Low price $5500, less than buildings' value, includes everything if taken soon, horses, 9 cows, young stock, registered bull, lot hay, oats, potatoes, etc. for winter and all needed implements and tools; part cash. Detail page 11 illustrated fall bargain catalog. Free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

We Want More Factory Patrons. Mason County, Mich., admirably adapted to dairying, offers many inducements to new settlers. Low priced farms are still available. The largest cheese factory in the State is located in this county. Operating twelve months in the year, it provides an outlet for your milk at remunerative prices. Investigate the possibilities of this county before locating elsewhere. We have no land for sale but will be glad to assist prospective buyers in finding satisfactory locations. For further information, write to Dept. A, KRAFT CHEESE CO., Scottville, Mich. 18-4

For Sale—Good 160 acre dairy farm 4½ miles N. W. of Adams, Mower Co., Minnesota. 10 room house, barn 30x80, milk house, De Laval milker, 30 head high grade Guernsey cows, 14 yearling heifers, 1 registered bull. Other necessary buildings, equipment and feed. Address ROBERT JACKSON, R. 2, Adams, Minn. 20-2

Dairying Opportunities—Bargain priced farms in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon suitable for intensive dairying from standpoint markets, climate and feed crops. Free literature and settlement service. Write mentioning state. H. W. BYERLY, 117 Northern Pacific Railway, St. Paul, Minn. 19-4

Stock farm in Polk Co. Minn. for sale or rent on shares, 240 acres. 140 cultivated. 14 Holsteins, registered bull, 70 sheep, few hogs, full set of buildings, silo and windmill. Give experience and references. GREENMAN, 1407 Pioneer Bldg., St. Paul, Minnesota.

Jasper, Missouri, 135 acre dairy farm 1½ miles from milk condensery and Kansas City cement highway. Must sell, improvements exceed price $20,000. Terms. JOHN NEVITT, Carthage, Mo. 17-4

125 acres well improved and located. Prairie lime alfalfa, clover, corn, oats, cotton, live stock farm. Only $5,000.00, terms. Write H. H. HANSEN, Macon, Mississippi. 19-2

For Sale or Trade, by owner, two well improved 200-acre and 100-acre clay loam Columbia County farms, with personal property, well located. Inquire BOX 182, Portage Wisconsin.

For Sale—Improved 80-acre Missouri farm. Will take good grade Guernsey cows or bred heifers as first payment. Balance terms. Owner selling. Address BOX 542, care Hoard's Dairyman.

For Sale or Fent—Farm of 120, 160 or 200 acres located on Highway 26, six miles north of Watertown. Inquire of RICHARD IRVING, 309 N. Church St., Watertown, Wisconsin. 20-3

For Sale—465 acre retail dairy farm. Fine improvements. A real money maker. A. J. WINN, Burlington, Kansas. 20-3

FOR RENT

Wanted—Farmer and dairyman with some capital and with his own help to operate 360 acre dairy and grain farm. Farm completely equipped including milking machine, Delco lighting system and all necessary machinery. 50 head of registered Holstein-Friesian cattle, from which $10,000 worth of milk is sold, largely at wholesale, annually. One of the best advertised farms in the state. A liberal proposition to the right man. Write today to W. H. MOTT, Herington, Kansas. 19-2

Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. Go now and see the harvest. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

Wanted—To hear from a man who is capable of running a two hundred acre farm, on shares. All in good state of cultivation, have cut one hundred tons of hay this season, have twenty acres of corn, twenty-five acres of oats, also other crops. Tractor, horses and all machinery. Farm will handle sixty cows and is located near Scranton on State road. Man must be able to furnish some stock. F. E. PAYNE, Dalton, Lackawanna County, Pa. 18-3

For Rent—Open March 1, 1928, 300 acre dairy farm, 3½ miles from dairy center of Kansas, close to Kansas City, on 50-50. Landlord will furnish farm and high grade and pure bred Holstein cattle against tenant's labor, horses and implements. Tenant must have $2500 in cash and be a real dairyman. Don't answer unless you can meet these requirements. Address BOX 543, care Hoard's Dairyman.

Tenant Wanted—240 Acres Polk Co., Minn. 140 cultivated. 14 Holstein, 70 sheep, full set of buildings including chicken house, silo, windmill, etc. Tenant must furnish work stock. Give reference and experience. GREENMAN, 1407 Pioneer Bldg., St. Paul, Minn.

Wanted—Tenant for our dairy farm. Do not answer unless can show you are good dairyman and farmer. Address BOX 555, care Hoard's Dairyman.

Two Dairy Farms for rent near Janesville. FRANK W. FISHER, Janesville, Wisconsin. 20-2

Model Large Dairy Barns, alfalfa and corn farm, without stock. WILFRED EPES, Blackstone, Va. 20-3

FARMS WANTED

Want 80 to 160 acres close to town. WALT MILLER, Carpenter Bldg., Milwaukee.

DAIRIES

For Sale—Dairy route 350 milk also cream and butter, 35 milk cows, dairy equipment consisting of milking machines 3 units, cooler, separator, bottler, washing vats, steamer, built in refrigerator, boiler, milk house complete with all plumbing, water system, electricity. In city limits of town of 5000, near Twin Cities. Address BOX 515, care Hoard's Dairyman. 19-2

MISCELLANEOUS

Farmer's Wool—Made into blankets, batting and yarns at fair prices. Send for circulars. MONTICELLO WOOLEN MILLS, (Estab, 1866) Monticello, Wisconsin. 17-4

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN. Fort Atkinson, Wis. 24-*

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*

Men with high school training and practical dairy experience wanted for testers in Dairy Herd Improvement Associations. J. H. BROCK, University of Illinois, Urbana, Illinois.



Advertising in this department is 8c per wo
Remit in advance.

HELP WANTED

Wanted—Single man to take charge of a he purebred Jerseys. Must be good milker and feeder, also have some experience with test cow Laval milking machines used. All up-to-date ment. Write giving references, age, and salar pected to LOUIS J. BEAUTES, Fresh Pastures, bert, Georgia.

Working Herdsman Wanted. Married or sing one of the largest private experiment farms country. Holsteins. De Laval Milker. Must b to follow instructions. Must be dependable, and sober. Give full particulars in regard to sc family, and references in first letter. Write BO care Hoard's Dairyman.

Wanted—Herdsman to take complete charge grade Guernsey herd of 200 cows. Must know production, be capable with men and reliable. to have charge of boarding house for dairy men sition open at once. MARA ALVA DAIRY FA Smithville, O.

Wanted At Once—Single experienced man, de able worker, clean milker for small dairy barn milkhouse. De Laval milker, Jerseys. Give ag perience, wages expected. SIEDERRTOPF, Li Alabama.

Wanted—Dependable man for modern dairy using De Laval milkers. Must be a hustler. $60.00 to start. MILES CITY DAIRY, Miles Montana.

Wanted—Three good dry hand milkers to wo large modern dairy farm. One of the three willing to care for dairy work. REYMANN ME IAL FARMS, Wardensville, W. Va.

Wanted—Experienced single assistant herd must be clean, kind to cows. Advancement for man. $65.00 per month, board and room. BROS., Box 728, Midwest, Wyoming.

Wanted—Married couple. Woman board two man general farm work. Apply to BLOODY FARM, Mukwonago, Wisconsin.

POSITIONS WANTED

Position as Dairyman wanted by our former ager, G. P. Johnson, Woodside, Pa., who is no of employment because of the destruction by our dairy. This efficient foreman has always exceptional ability and judgment in caring for in handling men, and in cooperation with his en ers and the medical inspectors of a certified which, largely because of his efficiency, consis produced the best-scoring milk in the East. advertisement is inserted without the knowled Mr. Johnson, as a testimony of the regard in be is held by us. Further information will be given upon request. EDGEWOOD DAIRIES, Heacock Co., Proprietors, Wyncote, Pa.

Wanted Position—Superintendent, or manag dairy or general farm. Am capable in all bra of stock breeding, feeding and managing. da especially. Can handle anything of two hundr thousand acres. Want something with a futur good living conditions and to show that I mean ness, will let you set my wages. Will answer plies. For further details write BOX 550, care H Dairyman.

Position wanted as farm manager Holstein da stock farm. Lifetime experience breeding, fe cattle. Can build up your herd and soil. Exper A. R. O. work, good with young stock, feed a for show, good farm mechanic. Best of refer Salary and percentage. Married, age 34. A BOX 547, care Hoard's Dairyman.

Farm Manager, proven exceptional ability, op position. Life-time experience. College tra Dairying specialist. Certified milk. Very succe Profits guaranteed. Know how. Share or perce salary basis. Will invest. Highest references. COLE, 310 New Hancock Street, Wilkes-Barre, sylvania.

Wanted—Position as manager on up-to-date Married, no children. Experienced in producti Grade A milk, A. R. records and high yielding Good mechanic. Best of references. State pr tion and salary in first letter. Address BOX care Hoard's Dairyman.

Wanted a herdsman job with reliable company. years university work. Specialized in productio manufacturing of dairy products. Two years pr cent experience. Gladly furnish references. DUNCAN, Hawk Point, Mo.

Position Wanted—As herdsman on up-to-date producing Grade A milk, by married man, no dren. Also experienced in A. R. work and cari milk house. Best of references. State salary b letter. Address BOX 549, care Hoard's Dairym

Position as herdsman or farm manager by m man. No children. Understands feeding dairy milk-house work and production of clean milk. willing to board men. Available at once. A BOX 541, care Hoard's Dairyman.

Position Wanted as manager. Married, age 31 lege graduate. Experienced in all branches of farming. Best references. Address BOX 544, Hoard's Dairyman.

German 4½ years in this country, all the th dairy farm, single, steady and dependable. work in good dairy. Best references. Address 540, care Hoard's Dairyman.

Position Wanted by farm raised single man choosing dairying as a life work. Modern dairy to be my school. Ready to work. O. THEO. E MAN, Glenham, South Dakota.

Position wanted as working manager or herd Lifetime experience with stock and farm manage Married. Total abstainer. Highest references. A dress BOX 552, care Hoard's Dairyman.

Wanted—Position as farm superintendent on dairy farm or estate, preferably in Maryland o ginia. Long experience; references. Address 535, care Hoard's Dairyman.

Wanted—Situation as herdsman by single Ame age 42. Experience in feeding, calf raising, mak Grade A milk. No outside work. Capable and ing. References. BOX 56, Brimfield, Mass.

Position wanted as manager or herdsman. S age 23. Best of references as to character and ity. Plenty of experience. Address RAYMON Forest, Indiana.

Position Wanted for work on dairy farm. ried, age 34. Lifetime experience in farm wor handling cattle. References. Address BOX 553 Hoard's Dairyman.

Wanted—Position as tester for cow testing a tion with monthly salary of $100.00. Have six experience. Excellent references. Good habits. dress BOX 519, care Hoard's Dairyman.

American, age 42, single, would like position ing cows. Have had 6 years experience. Would good home and good wages. Address BOX 534 Hoard's Dairyman.

Young Lady wants position as housekeeper. furnish reference. Address BOX 520, care H Dairyman.

Energetic young woman, capable milker and worker, wants work on dairy farm or housework. dress BOX 545, care Hoard's Dairyman.

Wanted—Work on dairy farm by experienced man. Middle aged. State wages. Address BO care Hoard's Dairyman.

Position Wanted—Herdsman, years of expe modern dairy. Single, American, middle aged. full charge business. FRANK ALLEN, Intervill

Married man seeks position on route; Guernse preferred. Address BOX 551, care Hoard's Dair

Using Farm Periodicals

HOARD'S DAIRYMAN:—Farm pa- and women's periodicals are of d importance for keeping ample rmation "on tap" when they are tly used. Right use does not n merely a "once over" or even e articles carefully read and then wn away or piled away and usu- not touched until house cleaning noving day. My 16½ years of hing and county agent experience taught me to value papers, peri- als, and magazines containing erial needed for teaching and for nsion work.

armers and farm women have on y occasions emphasized to me the ssness of their stored away farm women's periodicals because they r can find what they noticed or hurriedly when these periodicals were new. I have heard vocational agricultural teachers complain that they lacked library advantages, when in their own community could be found many of the best current and stored-away farm and women's periodicals.

There are a number of ways of saving and organizing this material. It must be organized to be of value. Some periodicals supply an annual index for subscribers who might want to save papers for binding. It is a pretty safe guess that little of this indexing is done and less yet of material bound in this way is used. A good friend—a professor of rural education—told me recently that he had saved some of his farm papers in this way until he found the accumulation getting too voluminous. As a county agent I knew a fruit man who kept a scrap book of information clipped from fruit and other periodicals. Fortunately for his scrap-book plan, it was only information on disease and pest control that he wanted and so did not accumulate so much but what his scrap-book was very usable. I have tried ways of keeping loose clippings so they could be passed out to my students and others interested. These clippings were classified and readily available, but they were soon lost or worn out from the rough use they received.

It was not until my more recent experience as a county agent that I hit upon the plan I now use. These clippings must be easily referred to, they must be protected from wear by an inexpensive cover, and in convenient form. I found it just as easy to carry with me in my work 10 or 15 of these clippings as one ordinary sized bulletin. At the office there were frequent occasions for referring to them. Often the information desired was in more usable form than that in bulletins. Some of these clipping folders were loaned to domestic science and agricultural teachers and to farm women's home economics clubs. One of these clubs made an excellent start of their own library of clippings in folders. They took time at their club meetings for collecting and organizing this material. I have also loaned these clipping folders to farmers who wrote in for information that could not be as well supplied by bulletins or by letter. These clipping folders were also used as a source for my authority on subjects that I was called upon for talks at farmers' or farm women's meetings. In some cases they formed the basis for discussion. One winter I held a series of meetings in which I combined discussions on legume forage for the dairy, on soil management, and on farm management in which a number of the splendid series of articles, Efficient Feeding of Economic Crops, which ran in Hoard's Dairyman, filled an important place for the basis of discussion on two serious problems in the communities where the meetings were held.

Farm papers accumulate rapidly in a county agent's office. They have to be thrown or stored away. Before doing this I would always go through them and clip what I wanted. At a later time these clippings would be put in folders either with strips of adhesive tape, *passe parteau*, or directly with paste. The folders may be made of heavy wrapping paper on light cardboard cut in sheets 9 by 12 inches. When folded these are the same size as bulletins and can be filed with them.

My folders each had a main heading such as Dairy Feeding, Turkey Raising, Room Improvement, Farm Fun, Fairs, Floriculture, Nutrition, Inspirational, Hints for the Home, etc. In each of these folders I would attach clippings on the subject. The number of clippings would vary with their size. It isn't necessary to crowd them too close. Below the main heading, I have as a sub-heading the title of the clipping.

When one folder was full I began another. This would be marked as, for example, I. Turkey Raising, II. Turkey Raising. Incidentally, these clippings on turkey raising gave me more help for the turkey raisers of the county than I could obtain elsewhere.

New York. H. J. LECHNER.

Ravine Farm Jersey Sale

The first annual sale of Ravine Farm Jerseys held Oct. 8 at Prairie View, Ill., was a successful one. The cattle were in first class sale condition and all arrangements necessary for a well managed sale had been made.

Fifty-two head were sold for $8,155, an average of $157, with $400 the top price. C. Paschen, Illinois, paid this for a very good 3-year-old Raleigh heifer. Mr. Paschen was the heaviest buyer taking 23 head for $3,825. Mr. Astroth, American Jersey Cattle Club fieldman, buying for shipment to the Louisiana flood area, purchased 17 head for $2,375.

Walter Andrews did the selling and Sale Mgr. A. F. Block was in the box.

Below is given the average price for cattle of the different age classes: seven bulls averaged $142; 22 heifers under 2 years averaged $134; 14 two-year-olds averaged $182; 2 three-year-olds averaged $162; 7 cows 4 years old or over averaged $191.

South Dakota Creamery Course

The Dairy Department of South Dakota State College is offering the Creamery Short Course as usual. The course begins Jan. 5, 1928, and ends on March 22, 1928. Courses will be offered in ice cream, butter, and cheese. In addition, several supplementary courses will be required of the students. For further information write Professor Thomas M. Olson, Brookings, S. D.

Uncle Ab says it certainly is heartening to travel with a man who manages to speak well of his fellows.

Dr. DAVID ROBERTS



BLOOD-TONIK



Help Your Cattle to Resist Disease

Agricultural colleges, experiment stations and veterinarians everywhere concede that common breeding ailments of cattle, such as slinking calves, barrenness, failure to clean, goitre, and scours in calves are incident to a germ disease.

Modern Methods

of breeding, feeding and forcing for milk and butter production are practiced at a sacrifice of breeding vitality. Cattle are more susceptible to infection and the germs of disease and such diseases as Tuberculosis and Contagious Abortion more easily develop.

Prevention Better Than a Cure

It is easier and cheaper

If your cattle are subject to any of these common breeding ailments and are not doing their best, it is because there is something lacking. It is now possible for you to overcome these ailments. You can build up the breeding vitality of your herd. You can make your cattle less liable to infection. Dr. David Roberts'

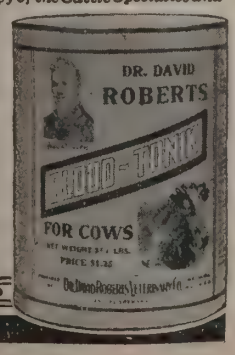
BLOOD-TONIK

is especially prepared to restore the breeding vitality of cattle. Use it regularly and you will note the improved condition of your herd in the increasing number and quality of calves as well as in the quality and quantity of your milk supply.

If your dealer does not have it in stock, order direct. Price postpaid.

3¾ lb. pkg.	**$ 1.25**
15 lb. pail	**5.00**
50 lb. drum	**15.00**

Write for free copy of the Cattle Specialist and how to get the Practical Home Veterinarian, a live stock doctor book, without cost. Veterinary advice free.



DR. DAVID ROBERTS VETERINARY COMPANY, INC.
195 Grand Ave.
Waukesha, Wisconsin

Keeping Cows FIT!



Double Value because there's NO FILLER!

A calf and six thousand pounds of milk a year is a strain for *any* cow—whatever her breed or grade. And 100% of your investment depends on the milk and the calf.

Most dairymen find it pays to keep cows toned up with Pratts Cow Tonic. It's a combination of rare *natural* herbs and medicines that act directly on the reproducing organs and keeps them strong.

Prevents abortions and retained placenta. Cheaper to use because it's all tonic. No filler!

For caked udder and sore teats there's nothing as handy and convenient as Pratts Bag Ointment IN TUBES!

PRATT FOOD CO. Philadelphia, Pa.



Cow Tonic

55 years of success and fair dealing behind the Pratt guarantee. See your dealer for a money-back trial of any Pratt remedy.

WANTED!
A Livestock Man

—in each community to establish and supervise advanced feeding methods recommended by Agricultural Stations. Must know livestock; no other experience necessary. We give individual instruction and training gratis. Appointments at good pay for part or all time now being made. Write, stating age, experience, present occupation and references. This may be a position of great importance to you. Write TODAY.

GOOD PAY

MURPHY PRODUCTS CO.
DEPT. 100
BURLINGTON WISCONSIN

FOR SALE — CREAMERY
With An Established Trade

with more than ten years successful record, in the Black Belt section of the eastern Mississippi prairie, the coming dairy section of the country, at a price that will yield a handsome return.

CHEROKEE REALTY & TRUST COMPANY, 610 Provident Building, Chattanooga, Tenn.



Healthy Cows and Highest Possible Production

are assured by letting them regulate their salt and water supply themselves.

Our special glazed stoneware salt and mineral feeders, and sanitary waterbowls are permanent, practical, and an ornament to the finest barn. Fully guaranteed. 30 days' approval. Price: Salt Feeder, $2.25; Waterbowl with frost and leak proof valve, $3.25. Give diameter of wood or steel post. Pamphlet free. Salesmen wanted.

IDEAL SALT FEEDER COMPANY **Morristown, Minnesota**

SALE ANNOUNCEMENTS

Oct. 26—Holsteins. Sixth State Sale, Michigan State College.
Oct. 26—Holstein. Dairy Center Sale at Owatonna, Minn. Melin—Peterson Co., Sale Mgrs.
Oct. 27—Chippewa Falls, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
Oct. 28—West Salem Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
Oct. 29—Mauston, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
Oct. 31—Holsteins. Hillside Stock Farm Bull Sale. Orrie Kirkpatrick, Mgr., Reedsburg, Wis.
Nov. 1-2—Holsteins. Dispersion of Loeb Farm Holsteins at Grand Rapids, Mich. Melin—Petersen Co., Minneapolis, Sale Mgrs.
Nov. 3—Guernseys. Wisconsin State Guernsey Sale at the Sale Pavilion at Waukesha, Wis. Gavin W. McKerrow, Sec'y., Pewaukee, Wis.
Nov. 3—Holsteins. J. H. Burr's herd at Aurora, Ill., Illinois Holstein-Friesian Ass'n., Mgr.
Nov. 3—Lake Mills, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
Nov. 4—Barneveld, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
Nov. 5—Madison, Wis. Wisconsin Holstein Sales Ass'n. J. R. Garver, Madison, Wis.
No. 9—Fond du Lac Holstein Breeders' Consignment Sale, Fond du Lac, Wis. S. H. Bird, Mgr.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.
Nov. 16—Holsteins. O. G. Clark & Co. pure-bred Holstein sale, Fond du Lac, Wis.
Nov. 17—Holsteins. O. G. Clark & Co. high grade Holstein sale, Fond du Lac, Wis.
Nov. 30—Guernseys. La Crosse Co. Guernsey Breeders' Sale at West Salem, Wis. H. W. Griswold, Sale Mgr.
May 23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florham Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
May 24-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herrick—Merryman Sales Co., Mgrs.
May 26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hopewell Junction, New York.
June 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.

Dairy Cattle Congress

(Continued from page 991)

Vronicka's College Boy. Junior champion bull—Suydam's Nero.

Senior and grand champion cow—June's College Girl. Junior champion cow—Maiden of Meadow Green.

The Ayrshires

Judge: L. V. Wilson, Minnesota.

Coming directly to Waterloo from the Eastern States Exposition where the Ayrshire show was unusually good, made the Dairy Cattle Congress exhibit of red and whites seem just an ordinary showing. There were less than 90 head here, most of them from four midwest herds.

In the aged bull class the contest was between Cavalier's Bobbie Vernon and Cavalier's Ping Pong, paternal brothers from the Seitz herd. Each has been a winner over the other, Ping Pong rating top most often perhaps, but he does not have the depth of body nor the balance of rear quarters and Judge Wilson put Bobbie Vernon number one.

A son of Ping Pong, shown by Wm. Wangen of Minnesota, topped the three-year-olds and Cavalier Fox Trot, owned by Fairfield Farm, was the best two-year-old.

The two-year-old has beaten Bobbie Vernon this year but he didn't look good enough to do it at Waterloo. He lacks the stretch and depth of the older bull that was senior and grand champion.

Cavalier's Fashion Model, Seitz's winning calf, was junior champion.

Cacapon Lass, Fairfield's Farms, grand champion female at the 1926 Cattle Congress, was first prize aged cow but she isn't the close springer showing in bloom like she did a year ago. She has better breed type than Cairncroft Primrose, the winning 4-year-old from the same herd, but she does not have the quality nor did she look to be so much of a dairy cow on judging day, and the heifer went up in the competition for senior championship.

The junior champion Ayrshire, Cavalier's Lady Lola, a senior yearling owned by Seitz, is a very good representative of her breed that promises to become a good cow but the Fairfield 4-year-old was already a very satisfactory cow on show day and the judge gave her due credit for that in placing her grand champion.

Watch any Ayrshire get of sire class where the Seitz herd is shown and you'll be pretty sure to see one by Cavalier's Lord Roseberry at or very near the top. There were two of them at Waterloo—one first, the other third.

The awards follow:

Bull 4 years or over—1 and 2, Adam Seitz & Sons on Cavalier's Bobbie Vernon and Cavalier's Ping Pong; 3, J. J. Lynes & Sons on Lynes' Choice of Penshurst. Bull 3 years, under 4—1, Wm. Wangen on Cavalier's Glenside; 2, Fairfield Farm on Fairfield Mandarin. Bull 2 years, under 3—1, Fairfield on Cavalier Fox Trot; 2 and 3, Seitz on Cavalier's Bondsman and Cavalier's Scotchmaster.

Cow 5 years or over—1, Fairfield on Cacapon Lass; 2 and 3, Wangen on Cavalier's Daisy and Dandy Boy's Meadowmaid. Cow 4 years, under 5—1, Fairfield on Cairncroft Primrose; 2 and 3, Seitz on Cavalier's Celia Louisa and Cavalier's Silver Actress 3rd. Cow 3 years under 4—1, Wangen on Cavalier's Calla Lilly; 2, Seitz on Cavalier Miss Roma; 3, Fairfield on Pearlstone Princess Jean. Heifer 2 years, under 3—1 and 2, Seitz on Milkmaid of Montdale and Cavalier's Peg in the Ring; 3, Fairfield on High Values Brownie.

Young Herd—1 and 2, Seitz; 3, Wangen. Get of Sire—1 and 3, Seitz on get of Cavalier's Lord Roseberry and 2 on Cavalier's Cupbearer; 4, Wangen on get of Cavalier's Ping Pong; 5, Fairfield on get of Alta Crest High Value. Produce of Dam—1, 2, and 3, Seitz. Dairy Herd—1, Fairfield; 2, Wangen; 3, Alta Crest.

Senior and grand champion bull—Cavalier's Bobby Vernon. Junior champion bull—Cavalier's Fashion Model.

Senior and grand champion cow—Cairncroft Primrose. Junior champion cow—Cavalier's Lady Lola.

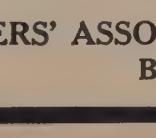
AYRSHIRES

PROFITABLE — PRACTICAL
AYRSHIRES

The home of Mistress Thistle of South Farm, World's Champion Jr. 4 yr. old, and Boggie of Eastside, State Champion and ex-World's Champion R. of H. Sr. 3 yr. old. Each of these famous cows has a son in service in our herd. If you want bull calves out of big, heavy producing cows with long teats, at reasonable prices, write us. Federal Accredited Herd.

SYCAMORE FARMS, Douglassville, Berks Co., Pa.

AYRSHIRE BULLS-$35 and UP



Edgerstoune Wide Awake

Nicely marked, deep bodied, straight bull calves from dams with 10,000 lbs. milk or better. By such sires as Edgerstoune Wide Awake, Imp. Howie's Wait and See, Imp. Howie's Ringmaster and Imp. Favorite Beauty Champion, sires that have over 15,000 lbs. milk back of them for 5 generations. Bulls are priced low because we need the room. $35.00 and up. Herd under State and Federal supervision. Write.

BOOTHSTOCK FARM, Roy F. Booth, Mgr., Northville, Mich.

AYRSHIRE COWS
FULLY ACCREDITED
300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

GLEN FOERD FARMS
TORRESDALE, PENNSYLVANIA

AYRSHIRE BULL—Born: June 24, 1927. Color: White with red spots. Sire: Penshurst Rising Star, 20922. A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 441 lbs. fat, 4.04%; winners of 3 French Cups, 1 Gold Medal, 1 Association Cup and 6 Silver Medals. Dam: Good Jessie, 46271, a Silver Medal Winner with the following records: Class DD, 10,991 lbs. milk, 461 lbs. fat, 4.20%; Class B, 12,529 lbs. milk, 518 lbs. fat, 4.14%; Class A, 14,321 lbs. milk, 602 lbs. fat, 4.20%.

Six World's Records in Six Years

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Center, Wis.

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

BROWN SWISS CATTLE BREEDERS' ASSOCIATION
BELOIT, WISCONSIN

LEE'S HILL FARM
MORRISTOWN, N. J.
BROWN SWISS
(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

JERSEYS

PRIVATE
DISPERSAL SALE
20 MALES —OF— 40 FEMALES
SOPHIE TORMENTOR JERSEYS

The entire Whinn Farm herd and our one-half of females in the Whinnery and Heberding herd are for sale, without reserve. The progeny of Silver and Gold Medal bulls. Females with Silver; Silver and Gold; Silver, Gold and Medal of Merit Medals to their credit. Some State and National Champions for production, they and their progeny for sale. A sale list sent upon request. Tabulated pedigrees showing a wealth of production for each animal.

WHINN FARM, SALEM, OHIO

JERSEY BULLS

from 506-lb. butterfat producers, on two-time milking. Disease free herd. Prices right.

MEADOW LANE FARM
Parkers Prairie Minnesota

JERSEYS—5 Bulls

from 4 to 18 months. $55 to $100. Heavy producing dams. Choice show type. Raleigh, Oxford, Majesty. Wonderful bargains to make winter barn room.

RAYMOND CROSS, Castle Hill, WATERLOO, IOWA

Bred Heifers and Young Bulls

by Xenia's Sultan and You' Do's Volunteer. Breed u quality, type, and productio in your herd with an Elm Hi bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachuset

FOR SALE
PUREBRED JERSEY BU

RALEIGH'S JOLLY GOLDEN 210509, Tattoo Dropped April 3, 1922, solid color, black black switch and dehorned. The dam of this Raleigh's Maggie 389426 in R. of M. with 523 of butterfat (616 lbs. of 85% butter) from 1 lbs. milk. In May, 1922, this cow milked 1826 milk, an average of nearly 60 lbs. per day.

Herd Accredited and Free of Abortion
PRICE $350 F. O. B. Our Station
Send for Pedigree

RAVINE FARM, Lake Co., PRAIRIE VIEW
Breeders of Pure Bred Jersey Cattle
Established 1913

"SYBILS and MAJESTY

No. 1—SYBIL'S COMET—A real Star. A 1927, solid colored bull calf. Sire—Grandson Gamboge & Oxford You'll Do. Dam—Grandda (double)—Sybils Gamboge.

No. 2—RENOWN'S ROYAL OXFORD—A 1926, solid colored bull of quality and size. Grandson Sybils Gamboge & Oxford You'll Do. —Majesty bred with record of 492 lbs. butterfa

CEYLON COURT FARM
G. D. Gilbert, Mgr., Lake Geneva, Wis

Easton Far

-- AN ACCREDITED HERD --
Of Representative Jerse
Golden Fern's Noble and Fauvic's Prince Breedi

MRS. L. F. EASTON, Owner, LA CROSSE,

Jersey Bulls of Serviceable

Also bull calves and a few springing h strong in Vive La France blood lines. to sell. Herd Federal accredited.

H. S. HAGER, PRAIRIE DU SAC,

JERSEY BULL

Dropped March 27, 1927, solid light fawn, well good type. Sired by University Pogis Kenna, dam is a gold medal cow. Price $100. Send for gree. U. S. accredited herd. No abortion.

AMBERG FARM, HILLSBORO,

Golden Sunset Jersey Bul

Young bulls and bull calves very reasonably Blue Belle, Golden Rosebay, Eminent, Flying Gamboge and Hood Farm breeding. Herd esta 1899. Free circular.

THE ENNIS STOCK AND DAIRY FARM, Festus, Mo

***Cream Checks* Soften Winter Winc**



The winter income from a few good dairy cos will make an astonishing difference in your finan during this season.

At this time, when income from other sources lowest, Jerseys produce persistently and profitat

Prepare NOW. Secure a few Jersey cows and joy a profitable "slack season."

For valuable free booklets on Jerseys or assistance in locating cattle write

THE AMERICAN JERSEY CATTLE CLUB, Dept. B, 324 West 23d St., NEW YORK, N.

AYRSHIRES for Steady Production

It's that steady production everywhere, under all conditions that is making the Ayrshire the most popular dairy breed. Ayrshire breeders have long known that profits come from cattle that keep everlastingly producing milk that tests four per cent. Herd records prove that these breeders have developed cattle that lead in high average production.

Ayrshires are built for service. Their rugged bodies and perfect udders wear like iron and keep them working to a ripe old age.

Your profits may be increased by the use of an Ayrshire bull, or the selection of a few females.

Write for booklets or assistance in locating foundation stock

AYRSHIRE BREEDERS' ASSOCIATION
10 Center Street Brandon, Vermont

Jersey Cattle From "The Oaklands" Havo Won This Season, to date [September 24]
83 Championships and First Prizes
At Nine Important Shows in the Mississippi Valley

While the cows at home under official Register of Merit test are averaging Sixty Pounds of Butterfat a Month.

Make your selections of breeding stock from this large imported herd. 200 HEAD to select from. Every great Jersey Island family represented.

A. H. GOSS, Pres.
GEORGE C. COOPER, Mgr.
THE OAKLANDS
P. O. BOX 396
Ann Arbor, Mich.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darlin and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 89 butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sir Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 114 fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON,

Wisconsin State Sale

85 —REGISTERED— GUERNSEYS

Nov. 3rd — Waukesha, Wis.

60 COWS include the Wisconsin State Champion in Class AAA; the 3rd prize cow at 1927 Wisconsin State Fair; another with 681 lbs. fat, official; and nearly all are large, good typed cows with farm records over 400 lbs. fat.

10 HEIFERS are selections from the best herds in the State.

15 OUTSTANDING BULLS, all with dams' records over 500 lbs. All are selected as show individuals and here are two more examples of the wonderful bulls offered—

CORIUM ULTIMAS IVAN

1st prize Fond du Lac County Fair—1927

Sire, Langwater Ultimas 39637
(13 A. R. daughters. Sold for $10,000)

Dam, Proud Dora of Echo Glade A. R. 151373
12,166.6 lbs. Milk, 619.4 lbs. Fat, Class F

DAIRYDETTE'S CHERUB OF CHIPPEWA 124949

1st prize yearling bull, Northern Wisconsin State Fair 1927.

Sire, Proud Prince of the Prairie 69199

Dam, Dairydette's Verena of Chippewa A. R.
13368.8 lbs. Milk, 697.86 lbs. Fat, Class EE

This sale is to be held annually by the State Association and is a demonstration of Wisconsin's Best Guernseys

For CATALOG address—

Wisconsin Guernsey Breeders' Ass'n

Gavin W. McKerrow, Sec'y, Pewaukee, Wis.

Foundation Guernseys

HOME OF

LANGWATER JUVIS 100894

By Langwater Warrior A. R.
Dam, Imp. Barlotteries Rose of Langwater A. R.
Milk 14774.2 lbs. Fat 730.7 lbs. Class D.



LANGWATER JUVIS 100894

A Number of Good Bulls

From A. R. Dams to 719 lbs. fat. Reasonable!

May Rose-Glenwood Breeding

ELM FARM, Deerfield, Illinois

28 miles north of Chicago, 1 mile east of Everett on 42A

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6 Carloads of Grade Guernseys

YEARLING HEIFERS, BRED AND OPEN

We are just now in a position to furnish 6 car loads of high grade Guernsey heifers, a part of them bred. These heifers come from one of the oldest Guernsey sections of the country. They are healthy and are offered at very reasonable prices. Write today.

OSHKOSH, WISCONSIN REID MURRAY Union Stock Yards, CHICAGO

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.

MARSH FARM, WATERLOO, IOWA

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 14) **MUKWONAGO, WIS.**

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) **Lloyd L. Dewey, MUKWONAGO, WIS.**

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the Wis. State Guernsey Breeders' Ass'n Sale, Sales Pavilion Waukesha, Wis., Nov. 3

KIE'S DANNY OF FERN-DELL (121796)
Born January 6, 1926

n: Danny Duff (70839) A. R. The Get of Danny has been the sensation of the big show rings 26 and 1927.

n: Silkie of Fern-Dell (145090). 12,085.7 lbs. 611.6 lbs. fat Class D.

de's Danny is an outstanding son of Danny both as to type and potential production.

We also consign a real cow

ROYAL'S CHRISTIE OF BLOWMEDOWN (131783)
Born March 13, 1920
14,086.2 lbs. milk, 660.9 lbs. fat Class A
Bred March 31, 1927 to our sire Danny Duff (70839)

Sire: Langwater Royal 17th (38527)—Sire: Langwater Royal (14253). Dam: Gerar Pearl (23595). 9 A. R. daughters. 5 full sisters averaged 833.2 lbs. fat.
Dam: Christie of Pleasant Valley (41397)

LARSEN'S FERN-DELL FARMS

EEN BAY A. W. FOX, Manager WISCONSIN

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ernsey Bulls at Farmers' Prices

Six months old show type, sired by the best son of the ous World's Record Cow, Lone Pine Mollie Cowan A. R. No. 11278, who sold for $15,100 tout Dispersal Auction. Dams have A. R. records.

PPY HOLLOW FARM, A. M. Kailing, Prop., THIENSVILLE, WIS.

OOD FARM GUERNSEY BULLS FOR SALE

od's Lucky Strike, age 12 mos. Dam 675 lbs. fat.
od's Successor, age 12 mos. Dam 515 lbs. fat.
od's Merit, age 12 mos. Gr. D's. 566 & 740 lbs. fat.
od's Charm, age 12 mos. Grandams 540 G and 8. fat.
od's Best, age 11 mos. Dam 517 GG, Gr. D. 804 G.
od's Regent, born April. Dam 707 lbs. fat.
od's Actor, born Apr. Dam 744 C, grandam 804 G.
od's Victor, born April. Dam 669 lbs. A.
od's May King, born April. Dam 634 A, gran- 804 G.

Write for New Sale List

LINWOOD GUERNSEY FARM,
r Rundell, Livingston, Wisconsin

UTTERGOLD GUERNSEYS

VICEABLE YOUNG SHOW BULLS

tested dams, sired by National Grand apion whose first four daughters now fin- g tests will average over 600 lbs. fat, two first calves, one with second. Clean stock.

R BROS., NEW AUBURN, WISCONSIN

OR SALE — Yearling Purebred GUERNSEY BULL

lso several young bull calves. Dams ith records exceeding 500 lbs. Prices nd particulars on request. Address

EDWIN EVANS,
NGERSOLL-TILDEN FARMS, Delavan, Wis.

OMESTEAD FARM GUERNSEYS

sell bull calves of various ages. Also rs and cows with A. R. breeding. Accted herd. Write to

ISON BROS., APPLETON, WIS.

THE SOUTHWESTERN WISCONSIN GUERNSEY BREEDERS' ASSOCIATION

at this time **HAVE FOR SALE SEVERAL CAR LOADS OF GRADE GUERNSEYS**—cows, bred and open heifers. Pure bred females and choice young bulls of the best breeding.

CHAS. A. WILKINS, Sec., Platteville, Wis.

BULLS

A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.

GEO. E. LARSON,
Amherst Jct., Wisconsin.

Serviceable Show Bull

FROM CLASS LEADER DAM

Am offering **DAIRYDETTE'S CHERUB OF CHIPPEWA** for sale. Born Feb. 20, 1926. A good show prospect. Dam has 697 lbs. fat in E. E., eighth in her class, first in Wisconsin. Sire, a prize winning son of Cherub's Prince. Write today for detailed information.

L. P. MARTINY, Chippewa Falls, Wis.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

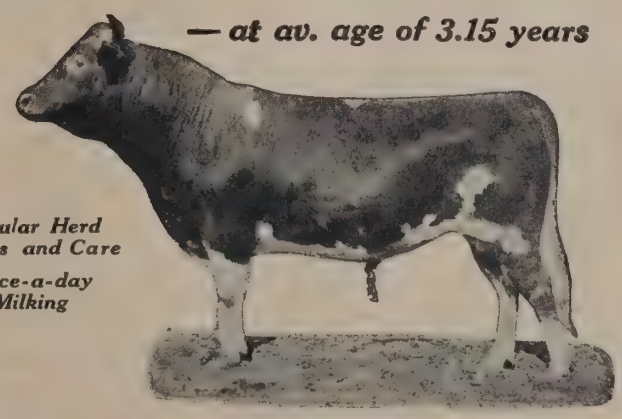
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

His First 20 A. R. Daughters average—434.7 lbs. fat 8989.11 lbs. milk

— at av. age of 3.15 years

— Regular Herd Rations and Care

— Twice-a-day Milking



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. **DAM**—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money. We have several nice ones on hand now — and they are priced to sell.

HERD ACCREDITED

Hoard's Dairyman Farm, Fort Atkinson, Wis.

Cow Testing Testimony

A good place to find out what cow testing association work does for owners of cows is right out on the farms where such cows are kept. Herman Chrispell of Michigan added his appraisal of the work while seated on the seat of a disc in a field he was preparing for corn when he said:

"At the end of the first month, March, 1926, I had 6 cows that brought me $11.50 less than their feed cost for the month. Just a year from that time, March, 1927, my cows brought me $2.06 for each dollar's worth of feed eaten for the previous month."

Evidence like this gives herd owners confidence in good cows. Where there is confidence in one's knowledge of cow feeding and management there is progress.

GUERNSEYS

The Place to Buy Breed Improving Guernsey Sires

is where that kind is bred. Visit our herd of Foremost Guernseys, or write for facts which prove we are breeding the kind of bulls that will increase production, improve type, vigor and reproducing ability.

The dams of our six herd bulls average 13,797 lbs. milk, 729 lbs. fat. Twenty-eight calves dropped since August 1st. Twenty-one cows due to calve before December 1st.

We need room. Your opportunity to buy bulls or bull calves below value.

EMMADINE FARM
Hopewell Junction (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Bulls FOR SALE

The very best breeding. Accredited Herd. Write for information.
OTTO W. POST, Ensenore, N. Y.

BARGAIN BULLS *produce* CLASS LEADERS

BROOKMEAD'S WHITE FACE sired
ALICE LEMAN OF THE RANCHO
Milk 13,625.8; Fat 618.7; Farmer's Class AAA.
White Face was sold sight unseen as a youngster
Write for Sales List
BROOKMEAD FARM, 526 Land Title Bldg., PHILADELPHIA

PENNCREST FARMS

ACCREDITED
WALTER SMEDLEY, OWNER
HERD SIRES—
Lancastrian—A son of Ne Plus Ultra.
Sunnybrook Ultra Noble—A grandson of Ne Plus Ultra out of a 920-lb. cow.
Fairmaid's May Royal—A son of Mixter May Royal out of a 920-lb. daughter of Langwater Demonstrator.
Penncrest's Starlight's Royal Master—Grandson of Langwater Royal Master out of 630-lb. Class G daughter of Langwater Master Fred.
Stock sired by these bulls for sale. Address inquiries to Media, Pennsylvania.
WM. P. SMEDLEY, Manager

Bargains in Bull Calves

A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00
WRITE FOR SALES LIST—FINEST BLOOD Lines—May Rose through King of the May, Golden Secret, Langwater Cavalier; Bellfounder, France, Glenwoods. Greatest group of herd sires in any herd. A. R. records up to 800 lbs. fat.
WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia, Pa.

The Interest on Your Investment is No Greater Than Your Interest in Your Cows--

[Better herd sires mean better cows--and higher profits. Figure on a Guernsey bull. His investment returns are high.]

Ask for "The Story of the Guernsey"

The American Guernsey Cattle Club
8 Grove Street Peterboro, N. H.

BOURNEDALE GUERNSEYS

We Offer For Sale

An excellent son of Maxim of Linda Vista, the only Guernsey sire to have 2 class leader daughters. Dam of calf is Foremost Lassie, 506 lbs. fat in F., a daughter of Langwater Foremost. Bull dropped Sept. 1926.

OTHER GOOD BULLS FOR SALE
3 to 12 months old from A. R. dams—$250 to $750
A clean herd under federal supervision. Write for sale list.
BOURNEDALE FARM, H. F. Andrus, Owner, MILLERTON, N. Y.

Must Sell Fast

We have several Holliston bred **GUERNSEY BULLS** —of all ages—that we must sell before winter. If you want a good bull bred to sire producers, with good individuality, **write**
D. G. TENNEY, 15 West Fourth Street, NEW YORK CITY

Offering An Excellent Son of CHERUB'S ROYAL LEADER of SHOREWOOD

SHOREWOOD GUERNSEYS

our senior herd sire, out of Imp. Elizabeth of St. Croix, 568 lbs. fat Class A. This calf was dropped Feb., 1927, is nicely marked, well grown and has pleasing conformation. Write for pedigree and detailed information. If you want TYPE PLUS PRODUCTION, BUY LADYSMITH'S CHERUB BLOOD.
SHOREWOOD FARM, CRYSTAL BAY, MINN.

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.
E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, MINN.

Herd Sire Prospects FOR SALE

Write us if you want to buy a bull calf with persistent producers back of him. We have some fine individuals to offer you; some of serviceable age if you want to talk business.
Farmers' Prices!
LOMA FARMS
W. W. Blake Arkcoll, Mgr.
MARQUETTE MICHIGAN

Thorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to
AUGUST ZIESING, Deerfield, Illinois.

"Luxerin"

We have three very typy, well grown young bulls about ready for service. Dams on test. One 13 months, May Rose sire, Glenwood dam. A real bull with a real pedigree.
B. F. SHERIDAN, Fond du Lac, Wis.

FOND DU LAC GUERNSEYS
Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to
FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

You need a Vest Pocket Herd Book

MINNEWASHTA MAPLES Purebred Guernsey Cattle

PRICED TO SELL, BULLS two months to serviceable age, sired by son of Maxim of Linda Vista and out of A. R. dams. Also a few FEMALES. Send for sales list.
PUREBRED GUERNSEY FARM,
L. A. Page, Excelsior, Minn.

LE HILLIER FARM GUERNSEYS

Federal Accredited
We have for sale grandsons of Langwater Fisherman 21873 A. R.; also two grandsons of Merry May Day 43520 A. R., 9 to 16 months. From A. R. dams. **Priced $150 to $250**
PRATT & LAW, Box 304, Mankato, Minn.

GUERNSEYS

Registered and High Grades of Any Age For Sale
In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.
WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times
They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.
A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

GUERNSEYS! GUERNSEYS!
Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.
LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

BONNIE BRAE GUERNSEYS

ITCHEN KING 49803 AR is the Sire of King's vocator, 126310, 1st prize and Junior Champion at the N. Y. State Fair. Itchen King has two lb. and one 700 lb. daughters. His Dam made 800 lbs. fat and she has one daughter with a R of over 900 lbs. fat. We offer for sale Sons of I King out of AR Dams. Priced at $250. and u
BONNIE BRAE FARM, CLINTON, N.

GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.
MAHER & MAHER, Devils Lake, No. Dak.

20 years may be a long time, but—
74.4% of Hoard's Dairyman's live stock advertisers have been advertising regularly for from 2 to 20 years

HOLSTEINS

HOLSTEIN BULL FOR SALE

SPRING BROOK BESS BURKE 2ND—OR BY breeding. All sold out of bulls over months of age. Herd under Federal Supe sion for tuberculosis, also blood tested abortion.
WINTERTHUR FARMS. Winterthur,

AN OPPORTUNITY!

A SPLENDID BULL READY FOR SERV Born September 8, 1926. A grandson of the North Star Joe Homestead and from a daughte King Canary Homestead Segis No. 297548—a 113 bull. The dam of this calf has over 320 lbs. of terfat for six months' actual milking in C. T. work. Here is real Homestead Breeding. Priced if taken at once REMEMBER our herd is AB TION FREE and FEDERALLY ACCREDIT Write or wire.
MILWAUKEE COUNTY INSTITUTIONS FARM
E. C. Thompson, Farm Mgr., Wauwatosa,

TWO GOOD BULLS FOR SA

Ollie-S, P. O. M, 37th Breeding
We have two typy young bulls for sale r One is from a 26-lb. granddaughter of and by a 968-lb. son of Iowana Sir Ollie. other is from a 28-lb. granddaughter of and by Sir Ollie Mooie Watson 7th. S calves priced right. Write today or come the farm.
DICMERE FARM
H. E. DICKINSON, Oconomowoc,

ORMSBYS and OLLIE

130 head of real cows and young stock—must sel head to make room for winter. Cows milking u 112 lbs. milk a day. Heifers with up to 33 lbs. bu 7 day. Pietertje Ormsby Mercedes Della the gre producing son of 37th, sire of World's Champi also the highest record Ollie bull in service—first p National Dairy Show.
F. H. BOYLE, Owner, PEEBLES, V
L. F. Murphy, Mgr.

Come to St. Croix County a Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-b and grades of all breeds. One or a carl Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond,

Purebred and Grade Holstein

The best place to get them is at Randolph, Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisco

Jefferson County Holstein Sales Associati

can assist you in purchasing good, clean dairy ca Grade or pure-bred in any number you wish. D all correspondence to A. F. GAFKE, secretary, J FERSON, WIS.

YOUNG BULLS

sired by Governor Fobes and from good 7 day year record dams for sale. Breeding, product type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYMOUTH,

BULL CALVES — HEIFERS

We have for sale some choice bull calves registered heifers at farmers prices. Sired by a lb. grandson of Iowana Sir Ollie and from daugh of a 1040-lb. Homestead bull. Accredited herd.
CHAS. HUGHES & SON, NEENAH,

Buy from Hoard's Dairyman advertisers and tell them you saw their ad in Hoard's Dairyman.

The Next Big Sale Opportunity—

LOEB FARMS DISPERSAL

High Production



Popular Breeding

KOLRAIN MARION FINDERNE
Highest milk producer east of Rockies with 35,339 lbs. in a year. Has 1278 lbs. butter. Two sons and two daughters also selling.

150 PURE BRED HOLSTEINS

Every animal to be sold without reserve or protection. Tuberculin tested and selling with retest privilege.

—MANY COWS AND HEIFERS with records from 800 to 1278 lbs. butter in a year.

—ELEVEN DAUGHTERS of 1000-lb. cows and twenty-five daughters of 800- to 1000-lb. cows.

—FIFTY DAUGHTERS of Sir P. O. M. 40th, a three-fourths brother to "37th" and one of the best proved sons of his famous sire.

—THIRTY-FIVE DAUGHTERS of Sir Ormsby Karen, a son of Sir P. O. M. 37th, from a 30-lb., 953-lb. 3-year-old.

—TWENTY DAUGHTERS of Carnation Mutual Matador, a 1087-lb. son of Matador Segis Walker.

—TWENTY BULLS including the herd sires and four others from 1000- to 1278-lb. dams.

NOV. 1-2, GRAND RAPIDS, MICH.

At West Michigan Fair Grounds. 10 A. M. each day.

SEND FOR CATALOG— MELIN-PETERSEN Co., 306-B Gorham Bldg., Minneapolis, Minn.



SIR INKA MAY
One of Carnation's All-American Show Ring Champion Herd Sires

OUR CONSIGNMENT to the U. S. National Sale
CONSISTS OF —

1. One of the finest sons of SIR INKA MAY ever offered for sale. Ready for service.
2. A daughter of Iowana Sir Ollie due right after the sale to NORTH STAR JOE HOMESTEAD.
3. The daughter of NORTH STAR JOE HOMESTEAD out of this same cow, a year old.
4. A daughter of Burton Hartog De Kol Ormsby from a daughter of Segis Matador Prospect and due soon to a show bull.
5. What we believe to be the finest group of heifers we have ever offered due to freshen in December to those Carnation Herd Sires whose daughters are not for sale at any price.

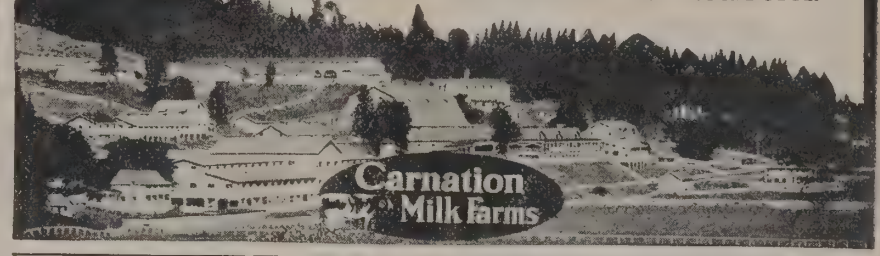
Attend the NATIONAL SALE NOV. 17 & 18 at WATERTOWN, WIS., and bid on—
SIR INKA MAY 11TH. (from 235 pound dam)
WALCOWIS OLLIE ORMSBY CANARY (Bred to Joe)
BURTON RITA PROSPECT (The richest Carnation Breeding)
CARNATION JOSEPHINE ORMSBY CANARY (A Joe Daughter)
And By All Means Find out about the best heifer proposition we ever offered.

Send at once for information that will make it possible for you to get the best Carnation animals that have been offered for sale.

Address all correspondence to

911-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Holstein Milk



Vitality!

The Production of Holsteins

The average butterfat production of the 27,798 Holsteins which have been credited with 305-time tests is 533.72 lbs. of the average 331 producing cows. For the 9,774 aged cows — average producing cows 332 — the average butterfat production is 600.60.

Write for Holstein Literature

Extension Service
HOLSTEIN-FRIESIAN ASSOCIATION of AMERICA
W. Ohio St. CHICAGO

Dealer Does Not Handle Goods Advertised in Hoard's Dairyman— Ask Him Why!

AN AREA TESTED COUNTY

WAUKESHA COUNTY HOLSTEINS

The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Buyers are given every consideration in helping to locate and assemble their purchases, whether it be one or a carload. Can furnish you with **40 pure-bred cows and heifers bred to freshen this fall and early winter. A carload of bred, richly bred, grade heifers. 4 carload of springing and fresh highly bred grade cows. October and November freshening. Also a number of good pure-bred bulls 3 months to 1½ years old.**

Send for bull list or write your wants for serviceable bulls. Sample—Bonair King Pontiac, born October 1, 1926, well marked, a good individual; Sire —Pabst Woodrest Pontiac 288286. Dam has 1178 lbs. butter in a year. Dam—Bonair Beauty Ormsby 4th 454150. Butter 7 days @ 3 years 20.50 lbs. Price $175.

W. L. Baird, Art Bennett at your service. Write or wire.
WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

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75 to 150 High Grade Holsteins and Guernseys

We have for sale at all times from 75 to 150 high grade Guernseys and Holstein springers of all ages. T. B. tested. Sound and heavy producers. We buy and ship on order. Visit us or write. Prices reasonable. Satisfaction guaranteed.

LA CROSSE COUNTY DAIRY CATTLE CO.,
Raymond Knutson, Mgr., West Salem, Wis.

Milford Meadows

Calves from **SIR TRIUNE PANSY** are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.

Ask us about them.

W. W. KINYON, LAKE MILLS, WIS.

Holstein Heifers For Sale

Four registered Holstein heifers coming 2 years old. Sired by Johanna Kayewood Korndyke, a 39 lb. twice 1,000-lb. bull, and from high record dams. Bred to a 30-lb. Ormsby show bull, due this fall and winter. Federally accredited herd. Price $600. Come, phone or write.

HILLSIDE STOCK FARM,
Kirkpatrick Bros., Reedsburg, Wisconsin

Come to Sheboygan County for Holsteins

We have choice grades and purebreds to select from. Write your wants to:

SHEBOYGAN COUNTY HOLSTEIN ASS'N.,
Frank Ubbelohde, Secy., Plymouth, Wis.

BURR OAKS DISPERSAL

7 Bulls— **70 HOLSTEINS** *63 Females*

Aurora, Illinois *Fair Grounds* November 3

Offering real opportunities in foundation cows, well bred Colantha and Ormsby heifers and a wide choice in bulls of all ages including: Prince Korndyke Ormsby Fayne, a 1200-lb. tried sire, and his 6-month-old son; Sir Ormsby St. Clair, a very promising December calf from a 32-lb. 3-year-old; King Rathbun Colantha Johanna Lad, a typy well-bred 4-year-old from a 1000-lb. long distance producer; a Logan DeKol Piebe Fayne yearling show bull from a twice 28-lb. granddaughter of King Pontiac Champion.

BURR OAKS FARM, J. H. BURR, Owner, St. Charles, Illinois

Holstein Breeders' Consignment Sale
Fond du Lac, Wisconsin, November 9

40 Springing Cows and Heifers, 15 Yearling Heifers, 20 Serviceable Bulls

Among the entries are: 1 30-lb. cow due sale time, 1 daughter of a 31-lb. cow, due to a 37-lb. sire. Bulls include a 30-lb. sire, ready for service, 1 29-lb. bull, 1 27-lb. Homestead bull, 2 25-lb. bulls.

DON'T MISS THIS SALE

CHAS. POHLMAN, Ripon, Wis.,— S. H. BIRD, So. Byron, Wis., Managers

---

Mr. Holstein Breeder—

BUY A YEARLING SON, four-fifths white, rugged, strong, ready for immediate heavy service **FROM ANNETTA JOHANNA ORMSBY 832530.** She just completed a 365-day semi-official record of **1228.75 LBS. BUTTER from 26,853 LBS. OF MILK,** as a senior 3-year-old making her one of the ranking 3-year-olds of the breed. Her calf sired by a son of the Wisconsin state champion ten month cow and maternal brother to the world champion 2-year-old heifer and Illinois state champion 4-year-old cow. For pedigrees and pictures write

GLEN M. HOUSEHOLDER, State Board of Control, MADISON, WISCONSIN

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

NORRIS FARM *Is Offering* SEVERAL DESIRABLE BULLS, ready for service this fall. Also YOUNGER CALVES. Write for particulars.

MUKWONAGO (Fully Accredited) WISCONSIN



KING PONTIAC CHAMPION PARTHENEA
A noted show bull and sire of prize winners. First and champion at Wis. State Fair and twice second at the National. His full brother was Jr. champion at the National. *To be Sold.*



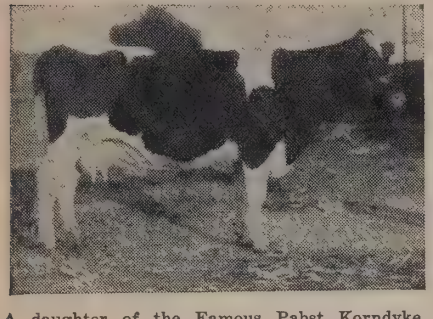
ADMIRAL ORMSBY PRIDE
A son of the U. S. Champion 1327-lb. Sr. 3-yr.-old, sired by a son of the famous Wisconsin Fobes 5th. His 2 nearest dams are wonderful daughters of Sir P. O. M. 37th. *To be Sold.*



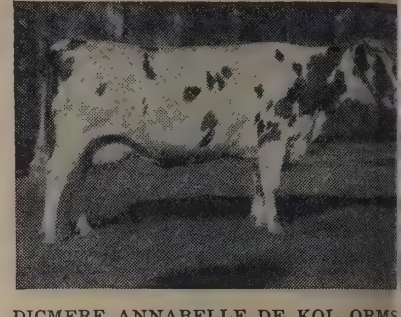
GOVERNOR ADMIRAL ORMSBY
A son of Governor Fobes from a dam that has 850 lbs. butter in her first 8 months as a 3-year-old. His 13 nearest tested dams average 1100 lbs. *To be Sold.*



SIR OLLIE KORNDYKE ORMSBY JOHANNA
Jr. champion at Fond du Lac, first at Jan ville, second at Wis. State Fair, and four ot shows. Will be two in December. *To be S*



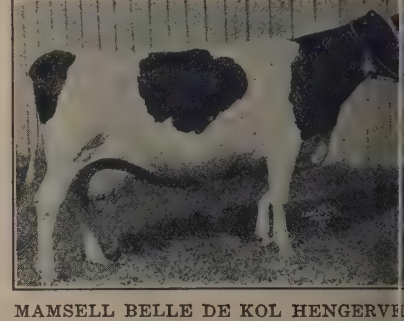
A daughter of the Famous Pabst Korndyke Star, whose first 6 daughters to be tested average over 900 lbs. on official test as 2-year-olds. This one has over 625 lbs. butter in C. T. A., is due about sale and is capable of a real record. *To be sold.*



DICMERE ANNABELLE DE KOL ORMS
Butter 305 days 700 lbs. (approximat
Will weigh a ton and due to freshen s
To be sold.



MOUNTAIN ASH COLANTHA ORMSBY
First prize senior calf in a class of sixty at Wisconsin, 1927. Dam was 2d at Waterloo, 1926. Dam's sister is making almost 800 lbs. butter on ordinary farm care. *To be Sold.*



MAMSELL BELLE DE KOL HENGERVE
Third prize aged cow at Wisconsin State F
1927. She is a 30-lb. cow from a dam
939 lbs. butter in a year. Due at sale ti
To be Sold.



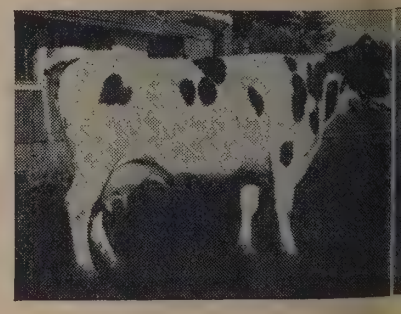
GOVERNOR FOBES CORNFLOWER
By Governor Fobes from a 33-lb., 1000-lb. 4-year-old dam that is making about 1200 lbs. now. *To be Sold.*



A 20-lb. 3-year-old and of real show type will be fresh at sale time. *To be sold.*



LLENROC LADY JEMIMA
A twice 1000-lb. cow, from a 1215-lb. dauge
of a 1280-lb. cow. *Her three-year-old son*
signed, sire by one of Canada's best kn
sires.



DE KOL LOUISA PIEBE 709831
Butter 7 days, 4 years, 28.07; butter 7
5½ years, 28.02. *To be sold.*

U. S. NATIONAL SALE
R. E. Haeger
W. L. Baird
Francis Darcey

U. S. National Fall Sale

NOV. 15-16 WAUKESHA, WIS. | NOV. 17-18 WATERTOWN, WIS.

300 HEAD

America's BEST Holsteins

On this page we show pictures of just a few of the good ones. These pictures do not begin to tell the story of this great sale. These are cows, heifers and bulls that have been hand-picked from good clean herds all over the country, a large percentage of them from ACCREDITED HERDS and the balance from herds under state and federal supervision.

FALL AND WINTER MILKERS—

We have been over Wisconsin and other nearby states with a fine-tooth comb, selecting fresh cows and springers of desirable type and evident producing ability, many with large C. T. A. records, others with A. R. records and still others that are just great prospects. **These females will pay you immediate returns at the pail and at the same time will serve as foundation stock for the building up of a high class purebred herd.**

THE BULLS—There will be 60 bulls of superior breeding and individuality. THE YEAR'S GREATEST SELECTION OF BULLS

30 of them from dams with records of 30 lbs. of butter in 7 days or with butter records the equivalent of from 900 to 1327 lbs. in a year. 30 bulls of superior type selected because of combined type, records and breeding. We have used especial care in selecting our bulls for type, breeding and promise many will bring top prices from the big breeders but there will undoubtedly be a number of desirable ones that will go at prices any good dairy farmer can well afford, or several can pool their resources and get one of the tops. **Here is an opportunity for county agents and others interested in forming bull associations.**

For Illustrated Sale Circular, write

R. E. HAEGER ALGONQUIN, ILL.
W. L. BAIRD WAUKESHA, WIS.
FRANCIS DARCEY WATERTOWN, WIS.



MILFORD PONTIAC ORMSBY
Sixth prize at Wisconsin State Fair, 1927, in that great four-year-old class. Has a good 305-day record. Due in November. *To be Sold.*



BLACK PEARL ORMSBY KORNDYKE
Junior champion at Eastern States and Michigan and first prize calf at Waterloo, 1927. Her dam was All-American calf in 1924. *To be Sold.*



SIDE HILL ORMSBY SEGIS
American Champion milk producer for seven and thirty days and a first prize winner in fast company. *Her son to be sold*, coming two years old, by a 26-lb. sire.



ORMSBY PABST BURKE
Second to the junior champion at Mis
State Fair, 1927. A grandson of Creator
Sir P. O. M. 37th. *To be Sold.*

Healthy Holsteins

you are in the market for grade or registered Holeins from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.
8 S. Dearborn, St., CHICAGO, ILL.

The Best is Usually the Cheapest

ur B 337, born March 15th, has for his two earest dams real TRUE TYPE COWS THAT OTH HAVE RECORDS over 1,100 lbs. and verage 1,200 lbs. **Price $800.** Send for pedi-ree.

Rock River Farms, Byron, Ill.

THE BULL YOU WANT

33-Lb. Dam — Good Type

RAWLEIGH PIEBE OAK POSCH, born Dec. 1926, one of the best calves we have ever had for sale. ow type. Dam a 33-lb. Homestead cow with 885 butter in 305 days as a 4-year-old. His sire is t of the 41-lb. 4-year-old granddaughter of 37th. wo nearest dam's average over 37 lbs. Write today r complete information.

THE W. T. RAWLEIGH CO.
mers, Rawleigh's Ideal Farm, Freeport, Ill.

uffalo Creek Farm Holsteins

e are offering BULL CALVES rich in rmsby breeding from tested dams. These e from six to eleven months old. Some iced as low as $100.00. Write for pedigrees d further information. Herd under federal pervision.

INGHAM BROS., Arlington Heights, Ill.

— We Can Offer —

A Few Choice Bulls of Ormsby Breeding

at will be ready for fall service. They are od individuals from good record dams. Also few younger calves at bargain prices.

ELLWOOD & NELSON
eKALB, ILLINOIS

HYDE PARK FARM

ALOS PARK, - ILLINOIS

Offers BULL CALVES

red by an outstanding 35-lb. son of Mata-r from Fully Accredited Registered Yr. ms with leading cow testing association cords. $100.00 up for typy individuals.

OHN A. CARROLL, Owner — WILLIAM EDGAR, Herdsman

UNITED STATES SOLDIERS HOME DAIRY

WASHINGTON, D. C.

FFERS FOR SALE at reasonable prices from the first credited herd in the United States, PURE BRED OLSTEIN-FRIESIAN MALE CALVES from one nth to seven months old, from yearly tested dams d sons of General Piebe 323266 H. B. One of the hest bred sons of the well known K. P. O. P. whose scendants have in the past eight seasons won no s than 553 first prizes. His five nearest dams, all re 1,200 lbs. butter in 265 days. **Also sons of ahamholm Colantha Pauline Lad 297377 H. B.**

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

OHIO HOLSTEINS

Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

oung Bulls For Sale

FROM AN ACCREDITED HERD

e have for sale some excellent young bulls up to months old. They are from good record dams of lantha breeding. Most of them are by Lauderdale rth Star Champion a 1034 lb. grandson of Johanna nheur Champion. A few by K. P. O. P. 54. Their ices are reasonable. The herd is fully accredited.

SBORNDALE FARM, DERBY, CONN.
WALDO S. KELLOGG, Owner

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

HARGROVE & ARNOLD, Norwalk, Iowa

ERVICEABLE 30-LB. BULL and BULL CALVES

. P. O. P. breeding. Sons of Rival King Ormsby rcedes, his dam world's champion in Class C. nder Federal Supervision. If you want show type, ze and production write

. E. FERGUSON, LAURENS, IOWA.

Buy that herd bull from a Hoard's Dairyman advertiser. You'll be better satisfied.

IN NO OTHER HERD

Can There Be Found Five Cows With Records Equal to These Five Femco Cows

May Walker Ollie Homestead Milk	1,523.24 / 31,610.60
Grahamholm Co. Paul. Segis Milk	1,426.75 / 34,291.80
Grahamholm Col. Segis Maid Milk	1,316.60 / 33,545.60
Miss Mutual Rose De Kol Milk	1,260.50 / 26,551.80
Aurora Homestead Badger Milk	1,208.76 / 32,321.20

Eight other cows in the herd have records from 1,000 to 1,194 lbs. Femco Holsteins are producers.

A Few Choice Bulls For Sale

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

BULLS For Sale

We have young bulls of serviceable age and some yearling heifers of the famous

COUNT-PIEBE
breeding

Some outstanding individuals from

High Record Cows

These animals are priced to sell quickly. Write us for pedigrees. You cannot beat our price or quality.

ARDEN DAIRIES, Inc.
ST. PAUL MINN.

Last Calf Advertised Was Sold to Nevada, But We Have *Another Good One*

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.

ST. OLAF COLLEGE FARMS, Northfield, Minn.

STEELE COUNTY HOLSTEINS

Are noted for their size, type and production. Purebreds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

FOR SALE—Registered Holstein Bull

ready for service. Born Oct. 12, 1926. Dam —Jewel Ormsby Beauty No. 929695, has C. T. A. record of 496 lbs. butter in 305 days as 2-year-old on 2 time milking. Sire—Jerry Ormsby Glen No. 426337. Dam has 26 lbs. butter in 7 days junior 3-year-old and 666 lbs. butter in 305 days as junior 2-year-old. **Price $125.**

CHRIS DITLEVSON, Blooming Prairie, Minn.

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

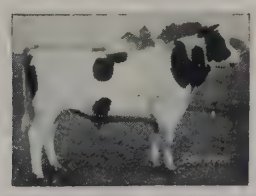
NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
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Come to Michigan for Holsteins

Better Make it Snappy — Winter Cometh !

What Shall I Ask Our Sales Managers to Quote You Upon ?

Write J. G. HAYS, Sec., MICHIGAN HOLSTEIN-FRIESIAN ASS'N, EAST LANSING, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

SERRADELLA FARM OFFERS — A 33-lb. Serviceable Colantha Bull

Sired by Sir Dutchland Colantha Denver whose dam is a 36-lb., 1300-lb. daughter of Colantha Johanna Lad. This young bull is from Serradella Kanaka Rosewood, 33.24-lb. 5-year-old that also has a good 305-day record made as a heifer. The bull is 2 years old, straight, and well grown. A bargain at $300.

SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan

A Yearling Show Bull

Light colored and well grown. A bull of real quality and excellent breeding. Born May 20, 1926. His sire is by a 37-lb. grandson of King of the Pontiacs and out of a 33-lb. cow. His dam is a 20-lb. Jr. 2-year-old daughter of a 31-lb. cow with 1,018 lbs. butter in 365 days.

Send for pedigree of Ear Tag No. 468

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, Lansing, Mich.

AMBASSADOR FOBES -- Our Sr. Sire



is a proven sire with the very best type and breeding. He is by S. P. O. M. 37th and from that great foundation cow, Wisconsin Fobes. Wisconsin Fobes 5th and Wisconsin Fobes 6th, two of the best daughters of 37th were his full sisters.

We have for sale young sons of Ambassador Fobes from 7 day and year record dams with good type and breeding.

WRITE US OR COME TO THE FARM

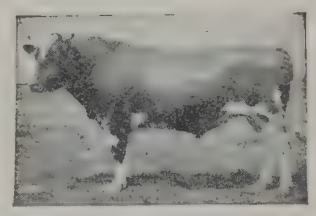
THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

FLINT ONA HENGERVELD SEGIS

OUR JUNIOR HERD SIRE



has the best of type and productive breeding and already has a very nice list of A. R. O. daughters. He is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis that has 4 records over 30 lbs. and 950 lbs. butter in a year. **We have YOUNG SONS of this sire from daughters of Maplecrest Korndyke Hengerveld FOR SALE.**

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. **This bull will put type and production in your herd and is high class in every respect.**

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



Sir Walker Segis Homestead

AKONA HOLSTEIN FARM

BULL CALF born Aug. 31, 1927, dam 819 lbs. yearly record. Sire from a high record daughter of "37th" and a son of Sir P. O. M. from a 1,100-lb. dam. Price $125.

B. A. NORRIS, Anoka, Minn.

Jefferson County Holsteins

Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.

JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

Wright engineers examine Lindbergh's engine!

What their findings tell you about lubrication

In a few days of actual flying Col. Lindbergh's engine did harder work than your car or tractor will probably do in the next 6 months.

In these flights his engine usually ran with wide-open throttle under a heavy load, much as your tractor engine operates. But the load was many times greater than your tractor ever carries.

And on his famous New York to Paris flight his engine ran without stopping for 33⅓ hours, where your tractor seldom runs continuously more than 6 or 8 hours.

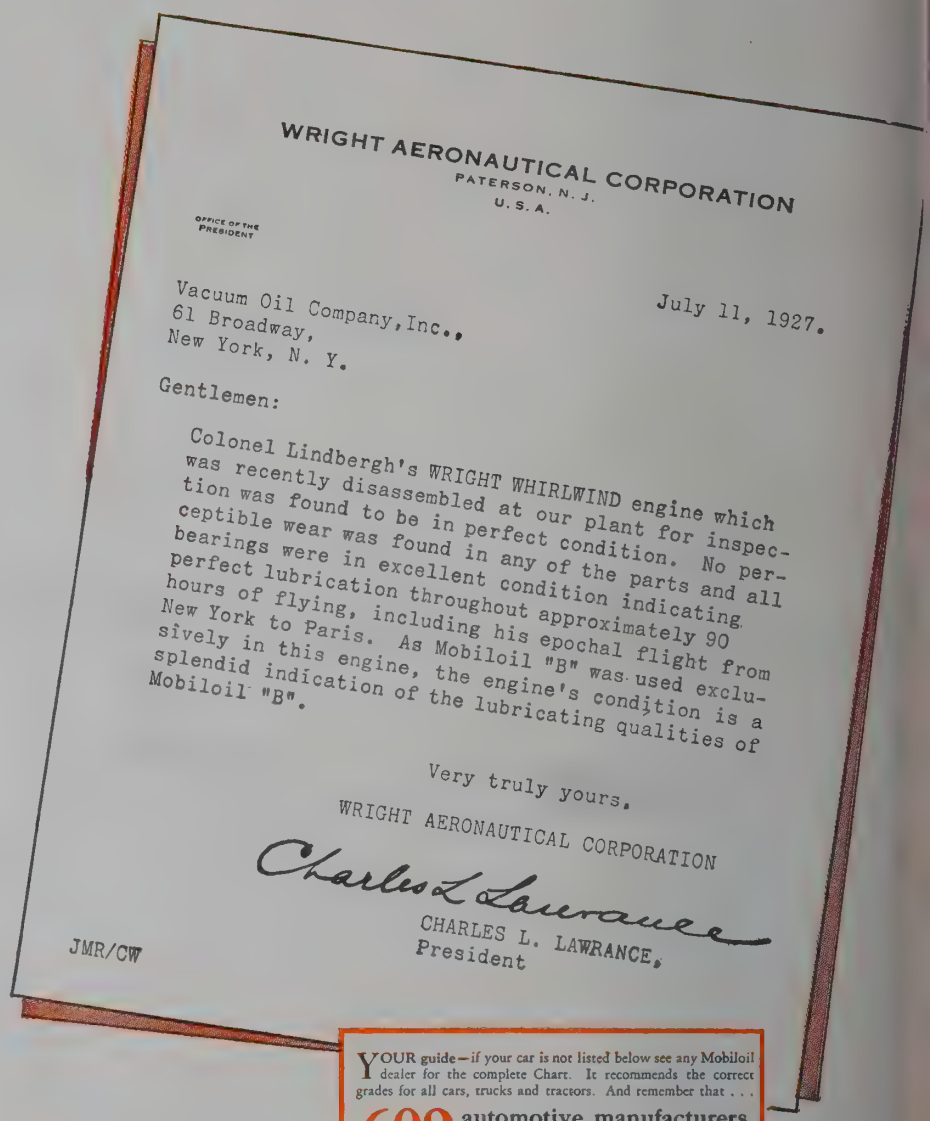
Shortly before Col. Lindbergh took off again for his nation-wide tour of this country, the Wright Aeronautical Corporation examined his engine.

The letter at the right explains their findings.

Col. Lindbergh uses our regular stock Mobiloil "B" — the same oil that is recommended for many farm tractors. The grade recommended for the Fordson and many others is Mobiloil "BB" which is made from the same stocks but is somewhat lighter in body. A nearby Mobiloil dealer has these oils. His Mobiloil Chart will tell you exactly which grade of Mobiloil to use in each of your engines.

The best way to buy Mobiloil is in 30- and 55-gallon steel drums with faucets. Your dealer will give you a substantial discount on these quantity purchases. He also has the 10-gallon drum with faucet and the 5-gallon tipper box.

Mobiloil may cost you a little more by the gallon but it is cheaper in the long run. Let Mobiloil banish wear in all your automotive engines just as it did in Col. Lindbergh's engine.



WRIGHT AERONAUTICAL CORPORATION
PATERSON, N. J.
U. S. A.

OFFICE OF THE PRESIDENT

Vacuum Oil Company, Inc.,
61 Broadway,
New York, N. Y.

July 11, 1927.

Gentlemen:

Colonel Lindbergh's WRIGHT WHIRLWIND engine which was recently disassembled at our plant for inspection was found to be in perfect condition. No perceptible wear was found in any of the parts and all bearings were in excellent condition indicating perfect lubrication throughout approximately 90 hours of flying, including his epochal flight from New York to Paris. As Mobiloil "B" was used exclusively in this engine, the engine's condition is a splendid indication of the lubricating qualities of Mobiloil "B".

Very truly yours,
WRIGHT AERONAUTICAL CORPORATION
Charles L. Lawrance
CHARLES L. LAWRANCE,
President

JMR/CW

YOUR guide—if your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors. And remember that . . .

609 automotive manufacturers approve it!

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc."), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

Follow winter recommendations when temperatures from 32° F (freezing) to 0° F (zero) prevail. Below zero use Gargoyle Mobiloil Arctic (except Ford Cars, use Gargoyle Mobiloil "E").

NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc.	A	Arc	A	Arc.	A	Arc.
Cadillac	BB	Arc	BB	Arc	A	Arc.	A	Arc.
Chandler Sp. 6	A	A	....	....	....	....	....	....
" other mods.	A	Arc.	A	Arc	A	Arc.	A	Arc.
Chevrolet	Arc.	Arc	Arc.	Arc	Arc	Arc.	Arc	Arc.
Chrysler 60, 70, 80	A	A	A	A	A	A	A	A
" other mods.	A	Arc	A	Arc.	A	Arc	....	....
Dodge Bros. 4-cyl.	A	Arc.	A	Arc	A	Arc	A	Arc.
Essex	A	Arc.	A	Arc	A	Arc.	A	Arc.
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hudson	A	Arc	A	Arc	A	Arc	A	Arc.
Hupmobile	A	Arc.	A	Arc	A	Arc	A	Arc.
Jewett	....	....	A	Arc	A	Arc	A	Arc.
Maxwell	....	....	....	....	A	Arc	A	Arc.
Nash	A	Arc	A	Arc	A	Arc	Arc	Arc.
Oakland	A	Arc	A	Arc	A	Arc	A	Arc.
Oldsmobile	A	Arc	A	Arc	A	Arc	A	Arc.
Overland	A	Arc	A	Arc	A	Arc.	A	Arc.
Packard 6	A	Arc.	A	Arc.	A	Arc.	A	A
" 8	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Paige	A	Arc	A	Arc	Arc.	Arc	Arc.	Arc.
Reo	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Star	A	Arc	A	Arc	A	Arc	Arc	Arc.
Studebaker	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Velie	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Willys-Knight 4	....	....	B	Arc	B	Arc.	B	Arc.
" " 6	A	Arc	A	Arc.	A	Arc.	....	....

GARGOYLE
Mobiloil
Make the chart your guide

VACUUM OIL COMPANY

MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas*

Other branches and distributing warehouses throughout the country

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Ed July 28

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 21 Fort Atkinson, Wisconsin November 10, 1927

At Nebraska "Ag"... In Pennsylvania... And o a Vermont Dairy Farm ... *They tell hou they always have*

WARM, DRY FEET

HERE are real people telling you in their own words why they buy Ball-Band (Red Ball) footwear.

They say they like footwear with the Red Ball trade-mark because it gives them more days wear, because it gives them perfect foot protection in wet and cold weather, and because Ball-Band footwear fits.

For more than two generations, millions of other men like them have worn Ball-Band footwear; and everywhere you go, they say the same good things about it.

If you are not already wearing footwear with the Red Ball trade-mark begin at once to do so. Then you will know what these farmers mean when they talk about foot protection, good fit and more days wear.

Ask your dealer for Ball-Band. Every genuine Ball-Band article has the Red Ball trade-mark. Look for it.

MISHAWAKA RUBBER & WOOLEN MFG. CO.
313 Water Street, Mishawaka, Indiana



"I like the way they fit"

"I can't remember when I bought my first pair of Ball-Band footwear, it has been so long ago," says Mr. S. W. Perin, Farm Superintendent of the Nebraska College of Agriculture at Lincoln.

Mr. Perin has been in the service of the University since 1889, and has "set the stage" for farm laboratory experiments for tens of thousands of students. Dipping, fertilizing, butchering, feeding, he has to come and go in all sorts of weather. Through wet grass, mud and manure, and over cinder drives and concrete floors, without heed as to where he steps. Yet, he says:

"I've never had a defective pair of Ball-Band footwear in my life. Every boot or rubber with the Red Ball trade-mark I've owned has given me all the wear I could possibly ask. I also like the way Ball-Band footwear fits. Comfortable feet are as important as warm, dry feet.

"Most of the boys who work under me here wear Ball-Band too, and the wear that some of them give their boots is a real test of durability."

"We got the habit from Dad"

Seventy-five years ago the Greiner farm near East Syracuse, New York, was a forest. Today, it is one of the best farms in the Onondaga Valley and Earnest Greiner and his brothers are certainly among the busiest farmers in the Valley. They have built up a milk route, selling around 350 quarts daily, of which about half is produced by their own herd of 14 Holstein cows.

Go into the Greiner kitchen and you will see an array of Ball-Band rubbers of all kinds that looks like the stock of a small store, for all the boys wear them. There are knit gaiters, sanslips, four-buckle arctics, and half-hip boots.

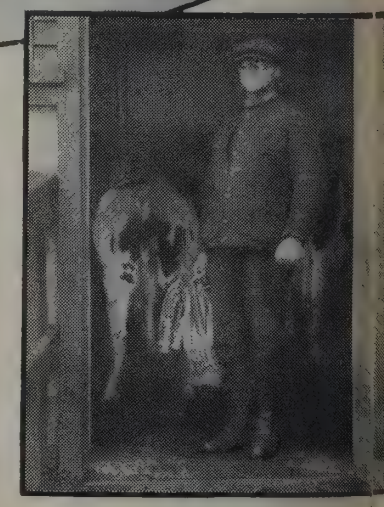
"We've been wearing Ball-Band goods right along," says Earnest Greiner; "I guess we got the habit from Dad. Believe me, we *wear* them too, because peddling milk and looking after a herd of cows is mostly footwork. We can't pick out easy paths to save our feet, and we don't have to with Red Ball footwear."



"The best riggin' in the state"

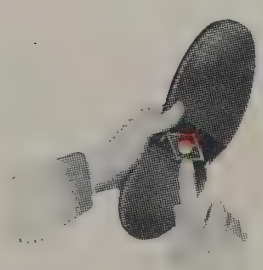
According to D. J. Stebbins (photograph on the right), Manager of the 2600-acre Brattleboro Retreat Farm, "the Ball-Band four-buckle cloth arctic is without question the best riggin' in the state for the kind of work we do around here. It keeps out the wet of even deep slush and is perfectly warm in below-zero weather. I've worn a single pair more than a year. Other kinds won't last me near that long."

The kind of work that Mr. Stebbins does is familiar to every dairyman, only not many farms are as large or as well stocked as Brattleboro Retreat. He superintends about thirty-five men, who work the farm and take care of 140 head of cattle (mostly Holstein cows), 200 head of hogs and 20 horses.





This knee boot and rubber arctic are two popular styles from the large Ball-Band line. First quality materials and honest workmanship build amazing long life into every article that has the Red Ball trade-mark.



BALL-BAND

BOOTS · LIGHT RUBBERS
HEAVY RUBBERS · ARCTICS
GALOSHES · SPORT AND WORK
SHOES · WOOL BOOTS AND SOCKS

Look for the Red Ball



Leather work shoes as well as rubber footwear can now be bought with the Red Ball trade-mark. They, too, give more days wear. Ask your dealer to fit you with Mishko shoes.

Wayside Musings

The Permanent And Abiding

JOSEPH S. MORRIS, WISCONSIN

Isaiah 40:28 "Hast thou not known? Hast thou not heard? The everlasting God, Jehovah, the Creator of the ends of the earth, fainteth not, neither is weary; there is no searching of His understanding."

The second stanza of one of the great old hymns runs thus:

"Swift to its close ebbs out
life's little day;
Earth's joys grow dim, its
glories fade away;
Change and decay in all
around I see;
O Thou who changest not,
abide with me."

WE have not lived very long until there begins to burn into our consciousness the idea that the life of man is a transient life and that the world is constantly changing.

Beset with the thought of our human limitations and imperfections we turn in the direction of religion to see what it has to offer, or, we make up our minds that "since nothing lasts anyway we may as well have a good time and forget all serious concerns." But it is not true that the thought always challenges us, the thought that somehow, here, in the midst of it all, there is Something, Somewhat, Someone that "fainteth not, neither is weary?"

Life is never easy to live. There are difficult tasks, hard problems, burdens to be borne. We do not wish it otherwise, not when we think it through. Friendship leads to strength of body; problems sharpen the mind; burdens call up the divine within us.

It is probably true that we should never boast to our children about how much we do for them, and yet is there not some sense in which they may well understand that without years of painful toil and willing sacrifice they could not have the lives of well-being which they do have? I am committed to the idea that we should "talk things over" with our boys and girls, so that they may really come to know the problems of fathers and mothers.

There is a twofold value in the suggestion: Our boys and girls come to understand us, and we have the opportunity of keeping in touch with the changing thought of the world.

Is it not true that just at the moment we think things have settled down into a condition of permanence we are jarred by changes? Would we have it otherwise? Changes that lead to positive betterment are valuable and we should welcome them, but we must steer clear of too frequent and not well-thought-out changes. Restlessness that results in constant change is costly and demoralizing. Men over whom hangs the spectre of constant change are not likely to give their best to the work of life.

Is not our quest, then, to find in the midst of the constantly changing that which brings the comfort of permanence? Dr. Rudolf Eucken tells us that "Religion is an inner identification with God and the creation of a new life through it." And the process is endless. I have observed among men and women that even though their faiths may differ, yet there is never any failure when they are making full use of what they believe in the building of an ever new, rich, and full life. God bless them for the fruitage of their faith.

During the lifetime of many of us there have come changes that have well-nigh revolutionized life: the electric street car, the automobile, farm machinery, the airplane, and the end is not yet. More and more will we see genius directed to the creation of machinery that will take away the burden of back-breaking toil and release us to the development of finer and nobler lives if we use our opportunities in sane and wise ways.

People will tell you that changes have been rapid everywhere but in religion. They think that is a thoroughly valid criticism. But is it? Is it not religion's noble purpose to comfort the heart of man, in the midst of his swiftly changing life, with the comfort of the unchangeable and eternal? What change may we expect in religion except that which comes through man's moving up to a fuller understanding of the unchangeable and eternal?

What we want is the feel of something that is everlasting, something that a man may tie to in the midst of a world-life in which we are forever conscious of ceaseless movement and change. Make full use, therefore, of all the agencies available for building in us a sense of the nearness of the Everlasting God.

Let not religion be a matter of quarreling about something; let it be a matter of believing something so steadfastly that we come to live in the permanent and the abiding.

The schoolmaster wrote on the back of a boy's monthly report: "A good worker, but talks too much." The father signed the report and then wrote under the remark of the schoolmaster: "You should meet his mother."



JERSEYS FOR THE FLOODED AREA

In recognition of the heroic courage and determination of the dairymen of Louisiana to rehabilitate themselves and build anew, members of the American Jersey Cattle Club have donated two carloads of high quality registered stock to these flood sufferers. The photograph shows some of the young stock assembled and shipped from Philadelphia. The Louisiana Dairy Association and the Red Cross Society co-operated in transporting and distributing the cattle. The shipment contained representatives of many of the most distinguished Jersey families.—The American Jersey Cattle Club.



Cows, hogs, poultry,—outdoors *all winter! in California*

IF you come to California this winter you will see poultry ranches with thousands of hens out of doors in the warm sunshine, and an acre or two of flourishing kale alongside. We'll show you in midwinter, in the Great Valley, fine dairy herds grazing on the sixth or seventh crop of alfalfa, and hogs running free in the thick orchard cover-crops.

An all-year growing climate, with some kind of crop growing or ripening every month in the year, is one of the chief reasons for California's $700,000,000 annual production in agriculture.

And it is one of the reasons why California cows produce, on the average, more butterfat per cow than any other state. But the reason why California dairymen get an average of 20% more for the butterfat they produce so plentifully is simply that there are not enough all 'round farmers in California to serve the growing population of our cities. We need more good farmers, with enough capital for a fair start. We have to go to other states every year to buy 22,000,000 pounds of butter to meet the shortage and for the same reason we need four times as many hogs as we are raising ourselves, besides enough more poultry to keep us from buying chickens by the carload from the middle-west. California prices are high enough to cover middle-western prices and the freight besides.

The frostless belt of California's Great Valley continues for two hundred miles north of San Francisco. There you can see the earliest of oranges being gathered for Thanksgiving prices; olives worth a cent apiece at the packing house and not enough to go around; irrigated cotton that yields twice as heavily per acre as the national average and sells at a premium of 3 to 5 cents for quality. Peaches, pears and other fruits that you buy in a can or carton grow by the hundred-million-dollars-worth in California's Great Valley and the smaller valleys on either side—part of the crop that makes California the third greatest agricultural state in America.

Anywhere in the Great Valley, along the coast or in the hills, you can be almost sure of finding the pleasant California home and the farming opportunity you are looking for. There are good roads everywhere—55,000 miles in all, and 8,000 paved. Electricity is plentiful, and cheap. The mountains, the ocean and the big cities of San Francisco Bay, where a million people live, are but a short drive away. Your children will go to the finest rural schools in America. For all the family, California is a place "where life is better."

There is a wealth of helpful information in this 84-page book, "Farming in California," to enable you to plan your trip. It is authoritative, dependable information, published only by Californians Inc., a non-profit organization of citizens and business firms who are helping in the rapid development of their state. This coupon will bring you the book, prepaid. Send for your copy—today!



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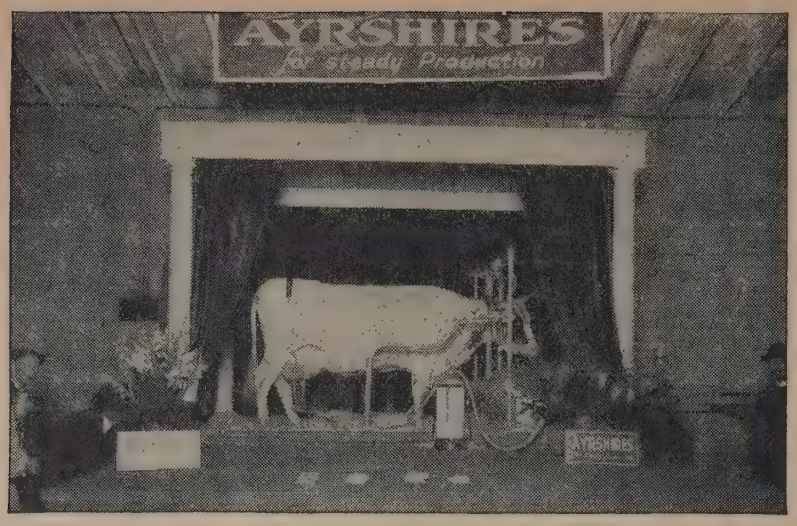
Californians Inc
Headquarters
SAN FRANCISCO

140 MONTGOMERY STREET, ROOM 696

Please send me "Farming in California"—free.

*Name*_____

*R. F. D. or Street, City & State*_____



The splendid exhibit of the Ayrshire Breeders' Association attracted marked interest at many of this year's big shows. The Association selected the De Laval Milker to do the milking in this exhibit and a special glass pail was provided in order that the audience might see the milk flow. Large crowds witnessed every milking.



The New York State Guernsey Breeders' Ass'n. staged a most interesting exhibit which was a center of interest at the New York State Fair. In a model dairy barn erected on the grounds seven purebred Guernseys were kept and the milk sold to an appreciative audience. This Association also selected the De Laval Milker for its exhibit.

De Laval Milkers were at the Shows and Fairs with the Breeders and Breed Associations

VISITORS at many of the noted shows and fairs this season had an excellent opportunity of seeing for themselves the extent of the confidence that the various breed associations and the breeders themselves place in the De Laval Milker.

The Ayrshire Breeders' Association and the New York State Guernsey Breeders' Association each selected the De Laval Milker for use in splendid educational exhibits that evoked interest and commendation from all who saw them.

Prominent herds like the Munroholm Guernseys owned by Mr. Thomas Munro, Camillus, N. Y., and the Shelter Valley Holsteins owned by Messrs. R. M. and J. H. Stone at Marcellus, N. Y., were milked during their entire sojourn at the fair grounds with the De Laval Milker. The fact that prominent breeders place sufficient faith and confidence in the De Laval Milker to see to it that their valuable show herds have the advantage of De Laval milking even when away from home on the show circuit is extremely gratifying. It clearly demonstrates the point that wherever better milking and greater production are sought after the De Laval Milker is considered the only solution by those with whom these are such vital problems. And for the dairyman who produces a low bacteria count milk, the De Laval Milker has a combination of sanitary features that are undefeatable.

Write to the nearest office for complete information, or if you prefer ask to have a De Laval representative call at your home.

De Laval Milker

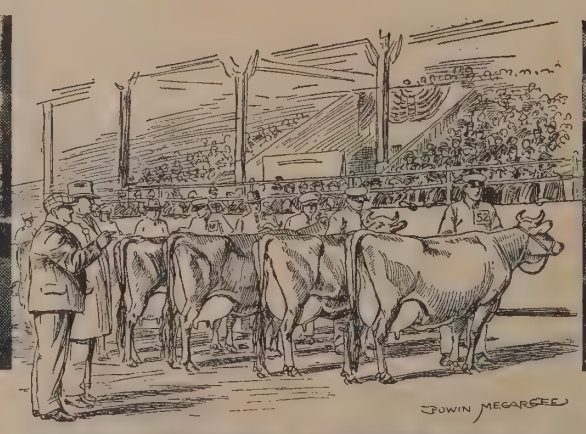
THE DE LAVAL SEPARATOR COMPANY

NEW YORK
165 Broadway

CHICAGO
600 Jackson Blvd.

SAN FRANCISCO
61 Beale St.







Above: *The splendid Guernsey show herd of the Munroholm Farm, owned by Mr. Thos. Munro at Camillus, N. Y., at the New York State Fair, where they were milked with the De Laval Milker as in the home barn.* Right: *Part of the noted purebred Jersey herd kept at Ashland Farm, Chattanooga, Tenn. This herd is said to be one of the finest in the South and captures prizes wherever it goes. Mr. J. O. Key, manager, says that the De Laval Milker is a great aid in making maximum production.*



Another renowned herd that was made to feel at home with the De Laval Milker at the New York State Fair was the Shelter Valley Holstein show herd. This herd, which is owned by Messrs. R. M. and J. H. Stone of Marcellus, N. Y., received much attention from Holstein fanciers and fanciers of fine cattle in general. To their credit it may be said that this interest was not confined to the audience alone for the judges saw fit to permit individuals of the herd to carry home several valued awards.

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

red at Fort Atkinson, as second class matter.

Semi-monthly

Three Years $1.00

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olume 72 FORT ATKINSON, WIS., NOVEMBER 10, 1927 Number 21

Barley Compared To Corn For Dairy Cows

O. E. REED, MICHIGAN

ARLEY has been fed to dairy cattle as well as to other classes of live stock for many years and l results have been reported. A nt trial in which barley was com- d to corn as a feed for dairy cows just been reported by the Michigan eriment Station. The principal on for making this trial was to in further information that could tantiate recommendations which now being made to dairymen in area infested with corn borer in nigan. In the eastern and south-

Composition of Barley and Corn

	Dry matter in 100 lbs.	Dig. nutrients in 100 lbs. Crude protein	Carbohydrates	Fat	Total
y	90.7	9.0	66.8	1.6	79.4
	89.5	7.5	67.5	4.6	85.7

ern section of Michigan the corn r has been gaining a foothold for past three years. It is a well wn fact that corn can be grown used for silage even in an infest- area, but the question of growing for grain presents a e difficult problem. Hence, e has been an increased and for information con- ing growing and using stitutes for corn in this n. A comparison of the entage composition of ey with corn, as shown with, indicates that bar- would not give quite as d results as corn in a ra- . However, the feeding l reported shows very lit- difference between the two ins in feeding for milk duction. Barley should be und or rolled before feed- it to cattle.

he experimental trials re- ted were conducted at the ege during the period in March 10 to June 8, 7. Ten cows, nine pure- d Holsteins and one Ayr- e, were selected from the ege dairy herd and divid- into two lots of five cows n. Care was taken to se- groups of cows that were parable as far as milk duction, stage of lacta- , age, and other factors t might influence the l.

ll cows were fed rough- at the rate of one pound hay and three pounds of ge for each hundred nds of live weight. Grain fed to the Holsteins at rate of one pound to e and one-half pounds of k produced and to the rshire at the rate of one nd of grain to each three nds of milk produced. The s were weighed each day he same time. Changes in ounts of grain and rough- age fed were made at the end of ten-day periods. The cows were fed alfalfa hay of good quality and well matured corn silage throughout the trial. The corn grain ration consisted of 400 lbs. ground corn, 300 lbs. ground oats, 200 lbs. bran, and 100 lbs. Old Process linseed meal. The barley grain ration was the same except that ground barley was substituted for the ground corn.

During the first thirty days of the trial, Lot I was fed the corn ration and Lot II was fed the barley ration. During the second thirty days Lot I was fed the barley ration and Lot II the corn ration. During the third thirty-day period Lot I was returned to the corn ration and Lot II to the barley ration. The first ten days of each period were regarded as a transition period and not included in the final results.

Since cows tend to decrease in their milk production as lactation advances and since this is a fairly uniform factor, the average production of each lot of cows during the first and third periods should equal the production of the same cows during the second period if there is no change in production due to change in feeding.

Lot I—5 Cows—Twenty-day Period

Period	Milk	Fat	Body wt.
	Lbs.	Lbs.	Lbs.
1 Corn in grain ration	4,392.3	136.7	6,375
2 Barley in grain ration	3,993.1	123.2	6,370
3 Corn in grain ration	3,739.0	114.4	6,342
Average 1st and 3rd periods, corn ration	4,065.7	125.5	6,359
2nd period, barley ration	3,993.1	123.2	6,370
Difference in favor of corn	72.6	2.3	—11

Lot II—5 Cows—Twenty-day Period

1 Barley in grain ration	4,391.1	137.1	6,373
2 Corn in grain ration	4,055.1	120.7	6,359
3 Barley in grain ration	3,783.4	115.9	6,319
Average 1st and 3rd periods, barley ration	4,087.3	126.5	6,346
2nd period, corn ration	4,055.1	120.7	6,359
Diff. in favor barley ration	32.2	5.8	—13

The preceding table gives the results of the barley and corn feeding trials. A study of the data presented shows that the five cows in Lot I produced a total of 72.6 pounds milk and 2.3 pounds more butterfat during the average 20-day period when on the corn ration than they produced during the intervening 20-day period when on the barley ration. The average weight of the five cows, however, was 11 pounds greater during the 20 days they were on the barley ration. The five cows in Lot II produced a total of 32.2 pounds more milk and 5.8 pounds more butterfat during the average 20-day period when on the barley ration than they produced while on the corn ration. The average weight of the five cows in this lot, however, was 13 pounds greater during the 20 days they were on the corn ration.

Conclusion

The fact that the cows in Lot I produced more milk and butterfat on the ration containing corn and the cows in Lot II produced more milk and butterfat on the ration containing barley, it can be concluded that the two grain rations are about equal in feeding value and that barley may be substituted for corn in the grain ration of the dairy cow.

MEDICAL AID



"Sales by the Candle"

The London correspondent of the Christian Science Monitor reports the following interesting story concerning a type of auction sales:

"A recent book about the Baltic Exchange, the London center where grain is bought and sold, contains a passage about the age-old custom known as 'sales by the candle.' A number of writers have shown that timber was sold by this method in London as late as the middle of the last century and seem to assume that it afterward dropped out. As a matter of fact, sales of farming crops in the English midlands are still conducted in this way. Such a sale has just been recorded near Brackley, in Northamptonshire.

"The method of sale varies; in some cases a pin is stuck in a candle about an inch from the wick and the last bid before the pin is reached ends the sale. In other cases the candle is cut in inch lengths and each lot offered at auction is sold as the last flame splutters out. The method is one of the many treasured old customs which still survive in rural England."

Railroad Section Hand Becomes Successful Dairy Farmer

German Immigrant Turns from Railroading to Carve Farm from Forest

THE lure of the "promised land" brought 24-year-old Frank Barfknecht and his bride from Germany to Wisconsin. They landed the latter part of April, 1885, unable to speak English, and in possession of little except plenty of ambition and enthusiasm, and a ticket to Cameron, up in Barron County, Wisconsin. The ticket had been sent them by an uncle, Frank Spickerman, who was working for the Omaha Railroad.

For four months the young German toiled on the railroad section at Cameron. Then came a chance, through his brother-in-law, to move to Ladysmith in the next county to the east. While Frank Barfknecht worked on the railroad section there, his wife cooked to board the crew.

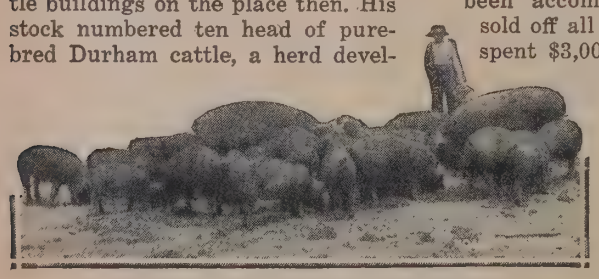
At the end of a year came a chance for promotion. A section foreman was needed. Frank applied. Although still not proficient in the English tongue, he had been a hard worker and had become very familiar with his section. He was highly educated in Latin before coming to this country, so could write English well. Having these qualifications, he was made section foreman.

A Family Cow and Hoard's Dairyman

Fifteen years is a long time when you look ahead. But when you look back it diminishes considerably in size. This was the period that Frank served as section foreman, earning and saving. A home was the first goal; after that a couple of cows, some chickens, and some bees. Soon came Hoard's Dairyman. All the while Barfknecht was nurturing a hope—a dream that some day he might be a dairy farmer. And he was planning. Neighbors and friends called him "farm crazy." But he kept right on planning.

Then came his opportunity. A brother-in-law, Frank Glatz, had a farm about eight miles northwest of Barron. Across the way was a 160-acre tract of solid timber for sale at $5 an acre. Barfknecht gathered up his savings and purchased the land. Three years later he and his family moved there, bag and baggage.

There was a clearing with two little buildings on the place then. His stock numbered ten head of pure-bred Durham cattle, a herd developed from his two family cows at Ladysmith. It was necessary for him to borrow $500 with which to purchase a team, wagon, and sled.



MR. BARFKNECHT FEEDS HIS PIGS

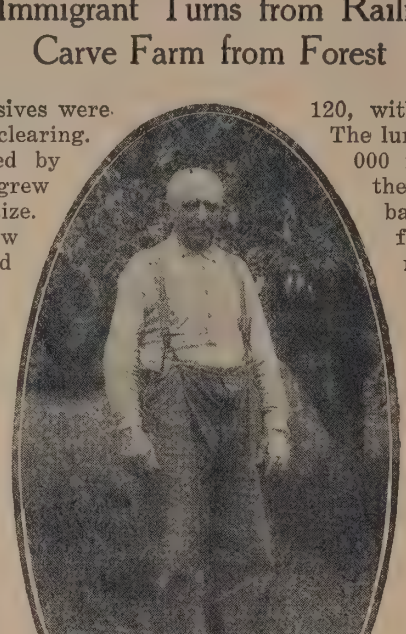
Three years later he purchased another 80 acres north of his property for $1900. This was borrowed money, but the timber on the acres paid for every cent of it. About five years after coming to this Barron farm, Barfknecht added an additional 80 acres at $50 per acre.

Clearing The Land

Barfknecht was a fiend for work. Land must be literally made if crops were to be grown. With the axe and saw Barfknecht hacked his farm from the forest. In the twenty-six years that Barfknecht has been working the farm he has logged off 140 acres, and cleared for cultivation 100 acres. In the early days stumps were grubbed out, but later, explosives were used to hasten land clearing.

As the years sped by Barfknecht's family grew in number and size. Four boys soon grew into manhood and they have assisted in developing this farm land. There were also four daughters in the family, one of whom is home now assisting her mother.

"There is an old saying that 'A sparrow raises another sparrow but a farmer does not raise another farmer,'" said Mr. Barfknecht, "but I have raised four farmers." Two of his boys are on the home farm. To each of the other two boys Mr. Barfknecht has given an 80-acre farm adjoining.

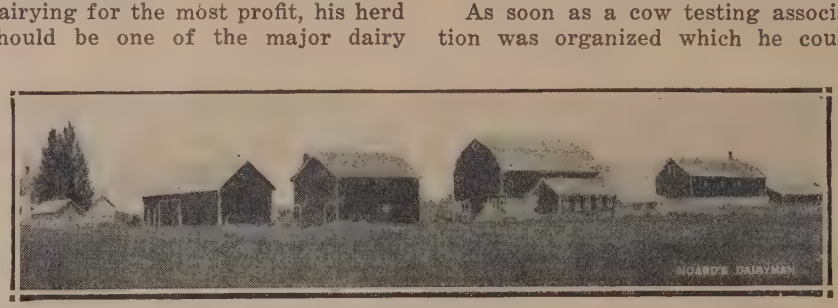


FRANK BARFKNECHT

While the first cattle on the Barfknecht farm were Durhams, it did not take Mr. Barfknecht many years to realize that if he were to follow dairying for the most profit, his herd should be one of the major dairy breeds. In 1910 he decided on Holsteins and purchased a pure-bred sire from Mr. Stevens of Jefferson, Wisconsin. The sire was crossed on the Durham cows and a high grade Holstein herd built up. When this had been accomplished, Mr. Barfknecht sold off all his grades for $4,000 and spent $3,000 purchasing eleven pure-bred females from Fred Krahenbull, a leading breeder in the locality.

As soon as the development of a high grade Holstein herd was well under way, Mr. Barfknecht discovered that his barn was inadequate to house such a herd as he hoped to own in the near future. So in 1912 he built a large barn, 40 by 120, with two inclosed silos. The lumber, more than 100,000 feet which went into the construction of the barn, came from the farm and consists mainly of pine, white oak, and elm.

Stanchions and pens of modern design and drinking cups were installed in the new barn. A feature of the interior arrangement is the row of individual calf pens which extends the full length of the barn. Mr. Barfknecht is satisfied that this system of housing calves is worth while. The calves cannot suck one another and can get more individual attention. The twin silos, located inside the barn at one end, offer the advantage that they may both be filled with but one setting of the machine.



CARVED FROM THE FOREST THE BARFKNECHT FARM IS A MONUMENT TO THE INDUSTRY OF ITS OWNER

Joins a Cow Testing Association

As soon as a cow testing association was organized which he could join, Mr. Barfknecht became a member. The herd average for 1925-26 was 301.8 lbs. fat for 24 cows. The high cow in the herd was Lady Pontiac Pearl Hartog, with a record of 546.9 lbs. fat. The herd averaged a profit above feed cost of about $100 a head in 1925. The herd sire is Pabst King Orchid. Shown at the Barron County Fair he has been awarded a championship ribbon.

The grain mixture fed the herd consists of 200 lbs. corn, 200 lbs. oats, 100 lbs. bran, 100 lbs. gluten, 50 lbs. oil meal fed with first quality alfalfa hay and plenty of corn silage. The cows get the right kinds and amounts of raw material with which to manufacture milk in abundance.

Feeding the Calves

"We feed the calves about 5 lbs. of whole milk a day," says Mr. Barfknecht. "The second two weeks increase the feed to about 7 lbs day, then they get half whole and half skimmilk for another weeks, getting about a gallon of mixture twice a day. We feed skimilk until the calves are a year The big calves get about two gall a day. All the calves have grain front of them. The mixture we f the older calves is made up of 50 oil meal, 100 lbs. ground oats, lbs. ground corn, 100 lbs. bran. T also get alfalfa hay and silage."

Fifteen acres of Irish Cob (early) potatoes make up the crop grown on the farm. A big in the barn is capable of hol 1,000 bushels for storage. In 1 Barfknecht made $3,500 on 12 a of potatoes. A 4-8-6 commer fertilizer is applied to the po ground at the rate of 500 lbs. to acre.

The other field crops grown about 20 acres of corn for silage. acres alfalfa, 10 acres clover, acres oats, 15 acres barley.

"We generally figure to spend al $1600 a year for purchasing fee says Mr. Barfknecht. "Corn is king of the country and I like to k my cows in good flesh."

Sources of Farm Income

The average yearly sale of cattl about $2,000 and a similar figure ers the annual receipts from the of hogs. A source of good profit the farm is the herd of about 60 pu bred hogs. The pigs get plenty skimmilk, ground oats and barley, alfalfa pasture. They are fatte for market on corn, and they also fed a mineral mixture of as and salt. Barfknecht aims to m ket his pigs in August and Febru at a weight of 200 lbs. each.

The farm flock consists of ab 200 laying birds of the White Le horn and Silver Wyandotte bre The income from poultry and e is over $300. The poultry house just been remodeled at a cost of p proximately $1000. It has a moc system of ventilation. It is equip with feeders, nests, fountains, electric lights.

The dairy herd is kept up to ab 60 head, with a milking string



TWO STALWARTS—THE HERD SI AND ONE OF MR. BARFKNECHT'S SONS

about 25. Milk is separated on farm and the cream goes to the Ir ron Co-operative Creamery.

Years of Accomplishment

At the age of 66 years Frank Bf knecht can look upon the fruit of i labors and be proud of his acc plishments. He has reared a fine f ily who have been loyal to him the farm. His farm has been car out of the forest and is produc him a neat income which might be the envy of many business m He has a set of farm buildings as practical and good looking as could wish. The original 160 a have increased in value from $800, which he paid, to $35,000, a conservative figure. The buildi alone are valued at $19,000. Fa ing has paid Mr. Barfknecht richl



THIS BIG BARN WAS BUILT FROM LUMBER CUT ON THE FARM



Hunter of Kewaunee

Traveling Westward to Cleveland—Call of the Wild—A Trying Year—Bear Hunt—Migration to Sauk County

RANSOM A. MOORE, WISCONSIN



N 1820, my grandfather married Sophia Bishop of Vermont. Both were 20 years old. They soon decided to migrate West. From bounty money received from killing panthers and working for others, his assets amounted to about $200, two fine horses, a fine rifle, some blankets, and wearing apparel.



RANSOM A. MOORE

With no real goal in view, they bade the near relatives good-bye, mounted their horses and rode westward. They camped where night overtook them, and came at last within sight of Lake Erie. The lake became their guiding star. They continued until, as they believed, they were in the far, far west. At a point where the beautiful Cuyahoga River empties into Lake Erie, they decided to set stakes.

Grandfather found employment in the little town of Cleveland. He soon became 21 years of age and staked out his government claim or homestead. He proved up on this claim which now lies near the center of the great city of Cleveland, and secured title about 1826. Here the family of nine children were born, attended district school, and helped on the farm.

The country settled up rapidly, which was not to grandfather's liking as the new settlers interfered with his hunting and trapping operations. He heard of the great hunting, fishing, and trapping in the newly formed territory of Wisconsin, and dreamed of the time he might wend his way through the mighty forests of that territory.

His brothers, Joseph and Levi, had already settled in Wisconsin, the former in Waupaca county and the latter at Waraboo. These brothers undoubtedly had written him of the wonderful hunting in this promising country.

In 1838 the call of the wild was so intense that he decided to go again westward, consequently sold his farm for the magnificent sum of $4,600, which at that time was considered one of the best sales of farm lands that had so far occurred in that region. At that time grandfather had two fine spans of horses and by arranging two covered wagons, together with equipment for the trip, the family were made as comfortable as possible and the long journey to a strange land was begun.

The roads were rough and muddy, so progress was retarded and only a limited number of miles could be made in a single day. Horse theft organizations flourished in those days and they were determined to get these two spans of fine horses. However, grandfather was not a man to be trifled with and his experience with firearms was such that the horse thieves were up against a man who could match them at every turn.

Emerging from the Maumee bottoms he came into the openings of Michigan, then Indiana, and finally rounding the head of the lake he came through the corner of Illinois and camped on the site where Chicago now stands.

Following the western shore of Lake Michigan, he crossed the Illinois line and emerged into the open hardwood forests of Wisconsin. These forests were not as dense as those farther north but were more like prairie openings. All breathed a sigh of relief when they found they were already several miles into Wisconsin territory.

Grandfather had no objective point and did not expect to go where his brothers were, but in some instinctive way he seemed to pick out a place that would be congenial for himself and family. His enthusiasm became almost unbounded at the solid trails of deer and now and then the big flat footprint of the bear.

Passing north of where Kenosha now stands, they soon came to a village known as Racine. All signs seemed right—fine lake frontage, game abundant, good water, and fine farm land. What more could a human mortal desire? The village of Racine was started in 1835, four years before the arrival of my grandfather. My grandfather found a village with a total population of 337 and in four years from that time, or in 1844, the population had increased 1100. It can be noted that Milwaukee, in 1840, had a population of 800. The population of entire Wisconsin was only 4,795 in 1834.



HOW GRANDFATHER TRAVELED FROM RACINE TO HIS HUNTING GROUNDS

In the fall, taking his traps, guns, and hounds, he sailed northward on Lake Michigan with his men in mackinaw boats.



GRANDFATHER AND HIS BRIDE TRAVELED WESTWARD TO CLEVELAND

Camping where night overtook them they came at last in sight of Lake Erie. Following the lake they finally set stakes near Cleveland

The first Anglo-Saxon family settled in Milwaukee in 1835 and the first white child was born to Mr. Wriel Smith in this year and was promptly named Milwaukee Smith. The first hotel, "Milwaukee House," was completed in 1837; also in 1837 Michigan was admitted as a state and Wisconsin left as a territory. First child of German parentage was born to Louis Blyer in 1838.

In 1840 a bridge was put across the Milwaukee River. I mention these few facts to show that both Racine and Milwaukee were in their infancy at the time my grandfather came to Racine.

He bought a few acres of land in the village and erected a little home for the family with the view of doing some teaming in the village while he looked over the country. He was so pleased with the general outlook that he purchased two tracts of land, one heavily timbered at "the Point," a place north of Racine, and the other prairie openings to the west. The fisheries were running full blast at each lakeshore town so grandfather found employment in getting out hoop poles and staves for a coopershop.

The second year at Racine was a trying one. Certain religious fanatics under the name of Millerites preached their doctrine far and near. It seemed to gain headway as some of their prophesies came true. They claimed, on a certain day in May, the world was coming to an end and that early in the fall of '41 there would be a heavy snow which would melt and turn to oil and in the spring of '42 catch on fire, destroying all animals and vegetable life.

The snow came in the early fall and with it many converts. Officers in charge of harbor work refused to let grandfather continue hauling timber as they seemed to think it was useless to get out timber that would be burned to ashes in a few months. The deep snows stuck much longer than usual. The Millerites were putting their doctrine across in fine shape. The turning point came when the snow melted to water as usual. The fatal day passed and people wondered at their own foolish superstition.

When grandfather arrived at Racine the fall of 1839, many new buildings were in course of construction. The United States Government had completed a lighthouse on the lake bank and there was a courthouse costing in the neighborhood of $10,000. The Racine House, a good hotel for that period, was finished the year after his arrival as well as several business places. He started to clear and break up land for



A LONG JOURNEY TO A STRANGE LAND

In 1838 the call of the wild was so strong that grandfather sold his farm at Cleveland and set out with his family and equipment in two covered wagons for Wisconsin. The roads were rough and muddy, only a few miles could be made in a day, and horse theft organizations flourished.

(Continued on page 1078)

NATIONAL DAIRY SHOW DOWN IN DIXIE

DISTINCTLY different was the National Dairy Exposition down in Dixie held at Memphis, Tennessee, October 15 to 22—different, yet the same; different in having its location for the first time in the Southland; different because it was held with a big fair—the Tri-State Fair; different because it was divided—a manufacturers' show at Cleveland, the International Milk Dealers at Columbus; but the same because the spotlight still played on the grand old dairy cow, the mother of prosperity and the keystone to health and happiness.

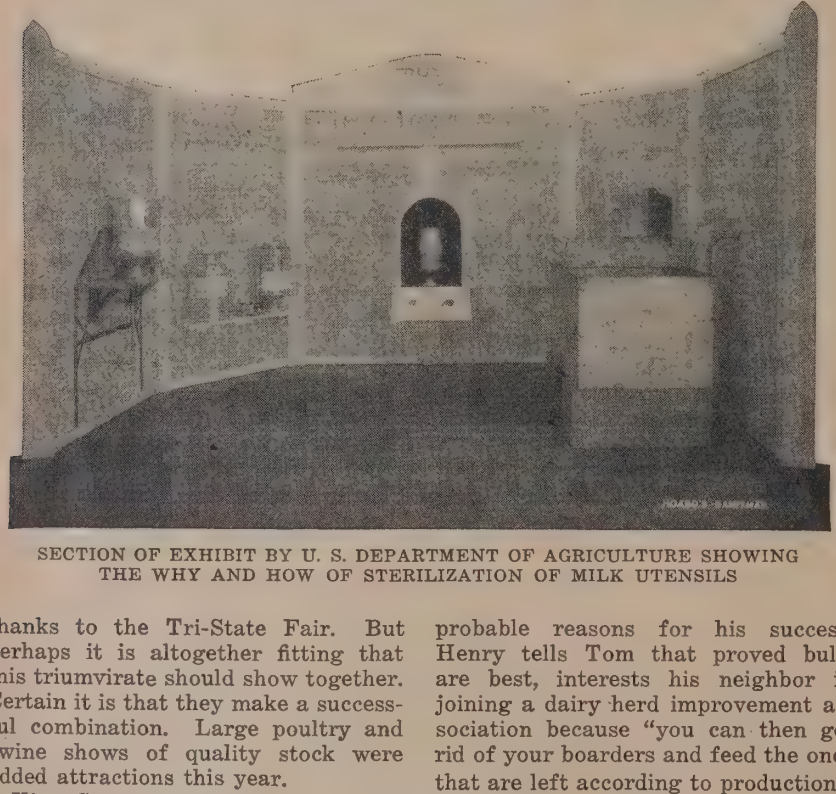
There is interest and enthusiasm for dairying in the South. You could see it in the exhibits of the Tri-State Fair, in the delegations of farmers from the southern states who visited the Dairy Show; you could sense it in the crowds; you gained that impression talking with southerners; and as you studied the exhibits made by several states in that interesting group banded together under the banner "Dairying in Dixieland," you knew it was there. To cement and develop that kinship for the dairy cow in the South was one of the big purposes of the Dairy Show at Memphis.

The cow, the sow, the hen, that eternal triangle for profits in dairying, were on display at Memphis. This is the first time that the National Dairy Show has been augmented by poultry and swine departments,



(Courtesy Memphis Chamber of Commerce)

KING COTTON AND QUEEN COW JOIN HANDS AT NATIONAL DAIRY EXPOSITION



SECTION OF EXHIBIT BY U. S. DEPARTMENT OF AGRICULTURE SHOWING THE WHY AND HOW OF STERILIZATION OF MILK UTENSILS

thanks to the Tri-State Fair. But perhaps it is altogether fitting that this triumvirate should show together. Certain it is that they make a successful combination. Large poultry and swine shows of quality stock were added attractions this year.

King Cotton and Queen Cow joined forces at Memphis and pointed the way to a greater agricultural era in the Southland. Other outstanding features at this year's show were the record breaking judging team competitions.

There is always an abundance of useful information in the educational exhibits. The U. S. Department of Agriculture, the National Dairy Council, and the National Cheese Institute put across their messages in simple but effective booths and demonstrations. In the same building with these exhibits were the dairy machinery and equipment displays—separators, electric refrigerators, barn equipment, farm press, commercial dairy feeds, washing powders, farm electric light plants, and other interests, making just as good if not a better show than formerly.

Tom and Henry

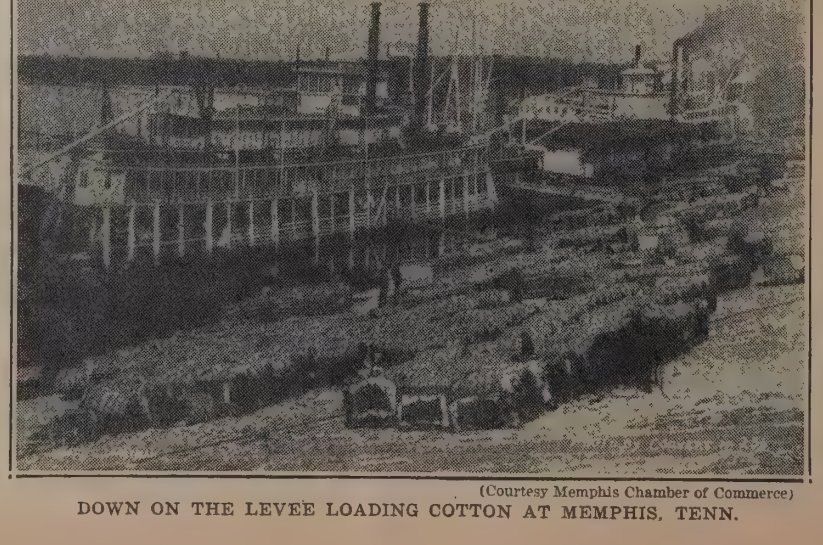
Upon entering this building the thing to attract your attention is the booth in which Tom and Henry hold forth. Tom and Henry are two farmers perpetrated by the U. S. Department of Agriculture who engage in an interesting and instructive dialogue—a discussion on better dairying.

Appreciating that Henry is the better farmer, Tom inquires of him the probable reasons for his success. Henry tells Tom that proved bulls are best, interests his neighbor in joining a dairy herd improvement association because "you can then get rid of your boarders and feed the ones that are left according to production," and states that his records have taught him to grow silage and legumes, and when Tom complains that he has had a lot of milk returned lately, Henry urges him not to lose sight of the essentials in the production of clean milk—clean, healthy cows, small-top pails, sterilized utensils, prompt cooling, and cold storage.

Good Cows Basis of Success

You read over an adjoining panel that good cows are the basis of success, and there you see contrasted the production and consumption of Bluey, an average cow, with a blue outlook; and Blossom, a cow with a rosy outlook for her owner. Bluey produced 4,500 lbs. milk, 175 lbs. butterfat valued at $96, with an income over feed cost of $44. Blossom produced 9,000 lbs. milk containing 350 lbs. butterfat; value of product, $191; feed cost, $75; and income over feed cost, $116. Which cow would you rather have? The figures given show practical results for cows kept under actual farm conditions as tabulated for 14,384 cows in dairy herd improvement associations.

Flanking Tom and Henry on the other side is an exhibit answering the question, "Why feed high grade legumes?" Here is what you are told: "Cows fed on high grade legume hay get enough lime from the hay to provide that which is needed for milk secretion. Cows so fed are likely to have strong, healthy calves and to give large quantities of milk in succeeding lactation periods. Cows fed on low grade hay fail to get enough lime from the hay to provide for milk secretion and so take the additional amount needed from their bones.



(Courtesy Memphis Chamber of Commerce)

DOWN ON THE LEVEE LOADING COTTON AT MEMPHIS, TENN.

Cows which draw large amounts lime from their bones are likely have premature, dead calves and give small amounts of milk in su ceeding lactation periods."

Did you ever stop to think that t udder is the source of a three billi dollar industry? Photographs a preserved sections of udders a shown in another booth together wi some interesting facts recent learned by investigators in t Bureau of Dairying. Their concl sions were that the amputated udde had capacities great enough to ho from 4 to 6 gallons of liquid und moderate pressure. Milk secreti seems to be a continuous proce Pressure of the filled udder tends check secretion—that's why more fr quent milking of heavy producin cows results in greater total mi yield.

Fertility in Dairy Animals

You learn two important fac about maintaining fertility in dai animals from another U. S. Depar ment of Agriculture exhibit. Exerci for at least 1½ hours a day maintai and restores fertility in the dairy bu One way of exercising bulls is hitch them onto a pole fastened one end, driving them in a circ Experiments have shown that sprou ed oats fed to aged bulls and to co aid conception. Breeding cows ha conceived when fed daily 13 to 15 lb of sprouted oats (5 lbs. dry oat for periods averaging 60 days. Oa just germinated as well as oats wi sprouts 2½ inches long have broug results.

You are glad to be reminded th unsterilized dairy utensils are t main source of contamination in mil Sterilizing dairy utensils is this e hibit. The importance of thorou drying of the utensils and of steril ing pails from which calves are f is emphasized.

Successful Dairying

Do you know what's needed f successful dairy farming? Benea a prosperous dairy farm scene y read an answer to the question. The are four items, count' em—farm gro ing legumes, good pastures, and grai cows producing 5,000 lbs or more milk; equipment for high quali products; equipment for economi marketing.

Nobody knows what will happen t morrow, but if we know what ha pened yesterday and what is happe ing today we can make a good gue Market statistics show us a picture the past and help us to understa the present, and these two things t gether enable us to intelligently a ticipate the future. These are t values of market news reports of t U. S. Department of Agriculture pointed out to you in another exhib

The butter price curve explains you how market statistics are us A gigantic farmers' account book te you in a striking way about "t dairyman's dollar," and shows you typical account of the year's busine of more than 2,300 dairy farme whose farm operations were analyz by the U. S. Department of Agric ture in 1925.

Dairy Council Food Show

It just makes you sort of hung for dairy products—milk, cheese, i cream, butter—to look at the attra tive booths which featured the exhi of the National Dairy Council. Tak for instance, ice cream. Makes y think of the Frozen North, doesn't and there before your eyes is a pret little snow and ice scene with the d teams traveling across the horiz

merica's Pleasure Food" and "Ice am Our National Food Dessert" the titles that greet you. You l on and learn that nut ice creams e the added nourishment and fla- of walnuts, pistachios, almonds, lnuts, filberts, and pecans. Ice m is a protective food made from and cream; it promotes growth health. Ice cream contains fruit rs from the gardens of the world, ocolate, vanilla, peach, pineapple, wberry, cherry.

Cooks Stop Gambling

on't gamble with your cooking, housewife is warned. A roulette el, moving and stopping, moving stopping, attracts you and in the breath you read how to avoid gamble—always use butter. Win th for your family. Butter pro- es growth and health, helps to d strong bones and teeth, furnish- ower for work and play, builds re- nce. Butter is the foundation of l taste. Use freely on breads and iwiches, in creamed soups, on led foods, in sauces, cakes, and erts. Butter is the essence of sun- t and clover, one of Nature's best s to man.

National Cheese Institute

What about cheese? You do not remain in doubt as to its value as od. If after reading the informa- given you by the Dairy Council bit you are still in doubt, just look ss the way at the fine exhibit of National Cheese Institute and all ot will be removed. You can learn t about the value and manufac- of cheese in that demonstration.

ut to get back to the Dairy Coun- message on cheese. First off, you l, "Cheese is a nutritious food." l then—cheese dresses up rice and atoes, macaroni, and breads, add- tasty flavor to everyday dishes. ause it is an economical source of best protein, cheese can be the n dish of the meal. Cheese sup- s you with protein for muscle ding, minerals for bones, fat for rgy. It is a rich source of the mins which promotes growth and tects health.

Habits of health practiced by a d in his growing years largely de- nine his success and happiness." niniature schoolroom with teacher tiny tots gives some valuable th lessons. The pupils respond the following: To grow strong well I should: 1, sleep many rs with the windows open; 2, eat e fresh fruits each day; 3, drink lass of milk at each meal and one ore bedtime; 4, eat slowly, chew- thoroughly; 5, eat butter, it will me grow; 6, drink at least four ses of water daily; 7, eat whole in breads and whole grain cereals; rush teeth morning and night; 9, fresh, leafy vegetables every day. uality improvement was empha- d in another panel. Careful pro- tion insures satisfied customers better market conditions for your



The Oklahoma A. and M. College group of boys won first place in the southern section judging contest. Eight teams competed in this contest. The Oklahoma boys placed first on Jerseys, second on Holsteins, fourth on Guernseys, and eighteenth in the national contest out of 32 competing.
Left to right: Professor P. C. McGilliard, coach; R. Miller, R. Shafer, R. Nelms, and S. Stevens.

milk. "Daily mid-morning milk service for adults in offices and factories minimizes fatigue," so you discover, "and increases accuracy and efficiency, protects health, and reduces losses of time through illness—reduces accidents in factories, builds up those with low vitality, and increases capacity for the enjoyment of recreational hours." Thus is the story of milk in the factory told.

Standing for a few minutes before the exhibit which shows the 4-H demonstration on dairy products successfully introduced into club work by Iowa girls a year ago, you learn many good lessons about the use and value of dairy products in the diet. The demonstration works in several clever stunts as well as "packing a mighty wallop" in useful information.

Dairying in Dixieland

In the beginning we said that the South is interested in dairying. Mild climate makes long pasture seasons which in turn help to make healthy cattle. Legumes can be grown successfully. Dairying adds fertility to depleted soils. There is a demand for dairy products. These are some of the reasons you hear given for this interest. You gain a splendid idea of the possibilities and progress of the dairy cow in Dixie by looking over rather carefully that fine collection of booths in the educational building called "Dairying in Dixieland." The central display is a huge map of the United States with the thirteen states in this Southern Empire blocked out. A placard in the front of the booth gives statistics showing the number of dairy cattle now found in each of these states, the annual rainfall, per cent of tuberculosis in cattle, and the average summer and winter temperatures.

Tennessee Tells 'Em

Since Tennessee is host to the Dairy Show you are rather inclined to give her exhibit careful scrutiny. And a right good one it is, too. Under the heading, "Tennessee, the Dairyland of Dixie," you are given the following facts: Tennessee leads the South in creameries, condenseries, cheese factories; is the fourth state in the Union in number of Jerseys; 40,000 head of dairy cattle are shipped to other states annually; ideal soil and climate; excellent dairy markets.

An object lesson for every dairy farmer is contained in that part of the exhibit headed "What made the difference?" The parable, which is a true one, goes something like this: Two Tennessee farmers were members of the same dairy herd improvement association. Their cows were alike, feed the same kind and price, product was sold on the same market, BUT—Farmer "Will Starve 'Em" in one year fed and milked 13 cows whose total income over feed cost was $307. Each cow averaged 2,790 lbs. milk, 130 lbs. butterfat, and $57.49 value of product. All cows were fed the same average of 1 lb. of grain daily.

Farmer "I Feed 'Em" in one year fed and milked six cows and his total income over feed cost was $464. Each cow averaged 6,070 lbs. milk, 323 lbs. butterfat, and $135 value of products. Both herds were fed the same hay, also the same grain mixture, but this herd had the grain fed in proportion to what each cow produced, an average of 5 lbs. daily. The income over feed cost of the average dairy cow in Tennessee can be doubled by proper feeding.

The Tennessee Jersey Breeders' Association booth traces the history of over 40 years which that breed has enjoyed in that state. It makes an interesting study. The Jersey is strongly entrenched in the South.

South Carolina Good Cow State

You need entertain no fears that the dairy cow does not do well in South Carolina because, according to their display, South Carolina produced the first 1,000-lb. butter record in the South; has the world's record senior 2-year-old in the 365-day class; has the former world's record 2-year-old Jersey cow in the 305-day class; has the world's record Guernsey cow in class CCC; has the highest record Guernsey cow in the South; and has 15 cows with records of over 800 lbs. butterfat. Dairying is the greatest opportunity in South Carolina, says a sign. And to show you the help to better farming rapidly becoming available down there, you are told that South Carolina ranks sixth among the 48 states in hydro-electric development, and construction now in progress will place her third.

"Profitable dairying depends on knowing your cows," says Virginia in her exhibit. Over 10,000 Virginia dairy cows have yearly records and there are over 400 Virginia farmers in dairy herd improvement associations. Again the story of two cows faces you. This cow in one year produced 5,934 lbs. milk, 206 lbs. butterfat; feed cost, $126.62; total cost, $216; net profit for one year, $4.00. Cow No. 2 produced 8,809 lbs. milk, 349.4 lbs. butterfat; feed cost, $146.14; total cost, $243.56; net profit one year, $105.

Louisiana and Mississippi

Here are some of the advantages offered by Louisiana: 365 growing days in the year and crops for every month; soil types to suit any crop; 237,000 dairy cows, pasture abundant; a southern coast well adapted to the production of citrus fruits; strawberries and vegetable crops valued at $9,000,000 annually; leading rice producing state in the Union; leads the nation in the production of furs; famous oyster beds and fishing grounds; largest gas fields in the world; produces 95% of the sugar cane grown in the United States;



IOWA STATE COLLEGE WINNERS OF THE COLLEGE STUDENTS' JUDGING CONTEST
Left to right: R. Monahan, C. H. Thompson, T. S. Besh, H. Mathews, and F. Ely, coach.



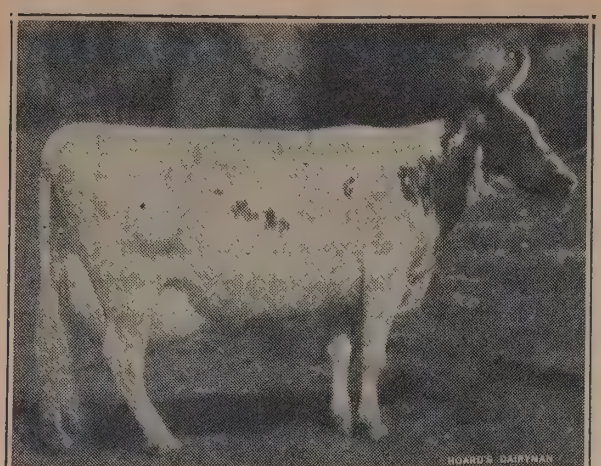
FIRST PRIZE BROWN SWISS GET OF SIRE BY VRONICKA'S COLLEGE BOY
OWNED BY J. FRANK ZOLLER, NEW YORK



GRAND CHAMPION BERKSHIRE SOW AT THE TRI-STATE FAIR—NATIONAL DAIRY SHOW
OWNED BY SYCAMORE FARMS, PENNSYLVANIA



FIRST PRIZE HOLSTEIN GET OF SIRE BY FORUM PATRIARCH
OWNED BY FORUM HOLSTEIN FARM, IOWA



IMP. GREAT CROSS SNOWFLAKE, SENIOR AND GRAND CHAMPION AYRSHIRE COW
OWNED BY STRATHGLASS FARM, NEW YORK



IMP. HOBSLAND WHITE KING, SENIOR AND GRA CHAMPION AYRSHIRE BULL
OWNED BY STRATHGLASS FARM, NEW YORK

5,600 miles of improved highways; navigable waters total 4,700 miles.

Mississippi's dairy industry is growing, you are informed by her exhibit, and this fact is demonstrated by the increase in butter production per minute. In 1912 one-half ounce worth one cent became in 1919 six pounds valued at $3.73 and increased in 1926 to 14 lbs. per minute valued at $6.50. The slogan for this exhibit is "Down in Old Miss' where the sun shines brightest and the grass grows greenest."

Other State Exhibits

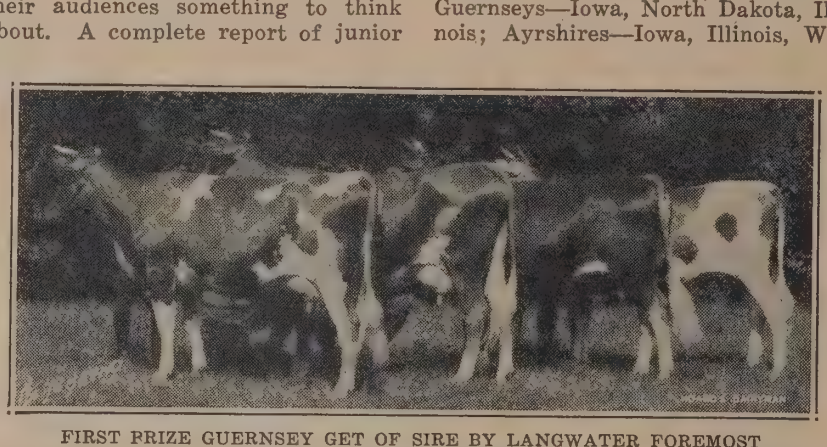
North Carolina welcomes dairy farmers, you read over their exhibit. And why? To meet the average American per capita consumption of dairy products North Carolina needs to produce annually 30,495,000 lbs. more butter, 11,210,000 lbs. more cheese, 110,354,000 gallons more fluid milk, 5,985,000 gallons more ice cream. Some 427,000 additional cows would be required to meet this need. The average price received by North Carolina dairy farmers in 1926 was: Bottled milk 18c a quart; fluid milk at plants $3.48 per cwt.; butterfat at creameries 45c a pound; milk at cheese factories $2.20 per cwt.

In her exhibit Oklahoma stresses the fact that home markets increase dairy profits. A big map shows the principal highways and markets. You learn that Oklahoma eats 5,380,000 gallons of ice cream and consumes 70,000,000 lbs. of butter of which she makes 52,860,000 lbs. Arkansas and Texas also have booths and representatives to tell about dairy possibilities. Yes, the South is interested in dairying.

In the cattle barn two exhibits—one a fine educational exhibit by Femco Farms, Minnesota, and the other "Red Lady," the highest butterfat producer in the South, attracted much attention. May Walker Ollie Homestead, former United States champion butter producer, featured the Femco Farms exhibit. Her year's production of 1,523.23 lbs. butter was contrasted by pyramids built from pound cartons with the production of the average cow in the South.

Indicative of the intense interest of the South in dairying was the reported action taken by officials changing the name of the Tri-State Fair to the Mid-South Dairy Exposition and Fair, to become effective in 1928. Memphis newspapers gave splendid space and support to the National Dairy Show. One of the newspapers summed it up concisely when it said editorially, "Cotton may always be our king. Let us crown the dairy cow as our queen and mate these two for a royal offspring which shall be named Prosperity."

In a brown tent next to the "big top" judging arena the Purina Mills gave daily performances of the dairy play "Joe Guess," driving home better feeding practices in an impressive manner. Upon this platform, also, the several dairy breed associations gave interesting and instructive demonstrations in breeding and breed type. On Tuesday and Wednesday 4-H club demonstration teams gave their audiences something to think about. A complete report of junior activities at Memphis will be found in the junior department of this issue.



FIRST PRIZE GUERNSEY GET OF SIRE BY LANGWATER FOREMOST
OWNED BY EMMADINE FARM, NEW YORK

Dairy Products Judging

On October 17, some 14 teams took part in the eleventh Students' National Dairy Products' Judging contest. This is the greatest number of teams that ever competed. For the fourth time in succession Iowa State College won the team sweepstakes. In judging butter the Iowa State team was first, judging cheese was won by the University of Tennessee, Massachusetts Agricultural College was high team in ice cream judging, and Kansas State College was high team in judging milk. Leo Allen, Massachusetts, was high individual in judging all products; E. Wayne Frey, Kansas, second; Delbert Brazeale, Iowa third. High individuals in the several classes were: butter, Alvin W. Hare, Oregon; cheese, Russell R. Wood, Iowa; milk, Leo Allen, Massachusetts.

Judging Contests Break Records

Never before in the history of the National Dairy Show have so many teams participated in the students' judging contests. All records were broken when teams representing 32 agricultural colleges participated in the nineteenth annual college dairy cattle judging contest.

In winning this year's contest Iowa State College established another record, winning four consecutive big college student cattle judging contests. Iowa State won at both the Waterloo Dairy Cattle Congress and the National Dairy Exposition both last year and this year. It takes hard work, good material, and good coaching to pull a stunt like that.

Nebraska placed second and North Dakota third in judging all breeds at Memphis. The states ranked as follows in judging breeds: Holsteins—Nebraska, Iowa, Kansas; Jerseys—Oregon, Oklahoma, North Dakota; Guernseys—Iowa, North Dakota, Illinois; Ayrshires—Iowa, Illinois, Wisconsin. Members of the winning Iowa State team were Ray Monahan, Ted Besh, C. H. Thompson, Howard Mathews, alternate, and Coach Fordyce Ely. On the Nebraska team were Elvin Frolik, Austin Goth, Harold Fulscher, Glenn Hedlund, alternate, and R. F. Morgan, coach.

Ted Besh, Iowa, was high individual judging all breeds; L. O. Colebank, Tennessee, second; and C. H. Thompson, Iowa, third. In judging Ayrshires the teams ranked in this order: Iowa, Illinois, Wisconsin. Richard A. Brackett of Wisconsin was best individual Ayrshire judge; George E. Gosma, Indiana, was second and G. L. Stearns of Florida third.

Iowa again ranked at the top in judging Guernseys, followed by North Dakota and Illinois. Ted Besh topped the individual judges of this breed, with Austin Goth of Nebraska se and Clyde Barks of North Da third.

Nebraska was first in judging steins, Iowa second, and Kansas t Elvin Frolik, Nebraska, did the individual work in judging Holst Ted Besh, Iowa, second; J. E. Intire, Florida, third.

Oregon proved the best tean judging Jerseys. Members of team were Homer C. Bray, A. Hare, and Frank W. Sherwood; C. Jamison, coach. Homer Bray the highest individual score for breed; W. C. Bute of Missouri second and E. C. Woods of Virg third.

The committee of judges for breeds consisted of J. B. Fitch, l sas, and O. E. Reed, Michigan. contest was in charge of W. W. S

Vocational Judging Contest

A complete report of the vocati students' judging contest will found in the junior departmen this issue.

Dairy Products Awards

The dairy products show this attracted a large number of ex tors from many states and accor to S. H. Anderson, executive secre of the National Dairy Exposi was one of the outstanding feat of the Exposition at Memphis.

Jim McAdams, Minnesota, won gold medal for the highest scor storage butter among the exhibits tered by 139 contestants from 2 states. The score on McAdams' b ter was 94.5. Paul Moerman, Io had the second highest scoring bu sample in this class, 94.35.

Wisconsin won first and secon the American cheese class when Ju tin Kubitz and Fred Winkler sc respectively on their cheese, 95.5 95.25. Fifty samples were ent from 12 states. Scoring 97 po each, William Gempelier and Osc Schneider, both of Wisconsin, took gold medals on Brick and Limbu cheese, respectively.

Minnesota fresh butter made b W. Dalsgaard won the gold meda competition with samples from 2



SIR FOBES ORMSBY HENGERVELD, SENIOR AND GRAND CHAMPION HOLSTEIN BULL
OWNED BY ELMWOOD FARM, ILLINOIS



LONG HOLLOW MERCEDES BUTTER BOY, SENIOR AND GRAND CHAMPION HOLSTEIN COW
OWNED BY FORUM HOLSTEIN FARM, IOWA



FERN'S ROCHETTE NOBLE, SENIOR AND GRAN CHAMPION JERSEY BULL
OWNED BY TWIN OAKS FARM, NEW JERSEY

r states and Canada in which 182 estants entered their product. The ning sample scored 95 points and er made by C. N. Hansen, Illinois, second, scoring 94.75.

The Dairy Cattle Exhibit

he dairy cattle exhibit at Mem- this year was an agreeable sur- e to many. It is the first time show has gone very far south of Chicago—New York line and not yone expected that it would have table and high quality exhibit for f the breeds. It did just that, ever. There were some 850 good le shown, and not so many as a ago perhaps, but enough to in- e most of the good ones from the ier shows, north as well as south, everyone who attended must been satisfied that he saw the dairy cattle show of the year.

he second surprise, and to us it ned the more important, was the rest taken by spectators in the y cattle judging. More often not the seats around the judging a at the National are empty, and spectators are limited to a few g the rail and those who stand le the ring.

his was not true at Memphis. We r saw so many interested specta- , and we would like to underline word "interested," around a Na- al Dairy Show ring before. People e there to see the cattle placed hundreds of them spent seven s of their fair day on a hard h watching, than which no better f of their interest is needed. This true not of one day alone, but of y day and we are glad it was so. are inclined to believe that the y more nearly served its purpose an educational exhibition than it n has in the past.

The Brown Swiss

udge: H. H. Kildee, Iowa.

he Brown Swiss seldom have so e a show at the National as they t Waterloo and it wasn't to be ex- ed that it would be large this in a non-Brown Swiss territory. ertheless they had a very good y that included their best winners n earlier shows. Eighty-five head esented eight different herds.

. F. Zoller of New York was the viest winner, at least so far as s were concerned. He won five of h eight single classes in which he entries and had in addition all npionships except senior and nd champion female. His only bull entries were champions in r respective divisions.

he two best bulls of the show e Maiden's Vronicka's College owned by Zoller and Ursula Sta- owned by Hull Bros. Last year e two shown as three-year-olds at several fairs, usually to the antage of the Ohio entry, but he lost just enough of his smooth- with a year's development so that his New York competitor has been able to beat him regularly this season. Maiden's Vronicka's College Boy has improved; the other bull doesn't show too good at the shoulders.

The Iowa Brown Swiss Company showed the two best aged cows, June's College Girl and Silver Belle, a pair that has been at the top wherever shown all fall, and two that are hard to beat. The former has been first almost always but one could pretty well justify a placing with either one up. "June" is larger, has a better rump, and an udder that looks to be of better quality, but her stablemate is smoother at the shoulders and has a better placement of teats.

Maiden of Meadow Green, a senior yearling full sister to the grand champion bull, was the outstanding junior heifer and an easy junior champion but she wasn't good enough to beat the senior champion aged cow for grand championship.

Zoller won first get of sire with the same group that has been winning all season—the grand champion bull, junior champion heifer, a 4-year-old cow, and another senior yearling heifer—by Vronicka's College Boy.

The awards follow:

Bull 4 years or over—1, Zoller on Maiden's Vronicka's College Boy; 2, Hull Bros. on Ursula Stasis; 3, Bower on Edgard C. Bull 3 years, under 4—1, Iowa B. S. Co. on Vogel Boy 2nd of Valley Grove. Bull 2 years, under 3—1, Suydam on Betsy Girl's Prince; 2, Stevens on Gallatin Browney's Prince.

Cow 5 years or over—1 and 2, Iowa B. S. Co. on June's College Girl and Silver Belle; 3, Zoller on Jonquil of Kinnelon; 4, Hull on Swiss Valley Girl 8th; 5, Bower on Betty of Lake View. Cow 4 years, under 5—1 and 4, Zoller on Elsie A. of Bowerhome and May of Meadow Green; 2, Iowa B. S. Co. on Belle Silver; 3, Bower on Betty A. of Bowerhome; 5, Suydam on Prince's Nellie. Cow 3 years, under 4—1, Zoller on Carl's Valley Girl 9th of L. V.; 2, Bower on Beautiful Belle of Bowerhome; 3, Hull on Nellie F. 2nd Stasis; 4, Suydam on Beauty Belle. Heifer 2 years, under 3—1 and 4, Bower on Duedda of Bowerhome and Septa of Bowerhome; 2, Wampler on Miss Mary W. of Vandalia; 3, Hull on Dayton Beauty of Northside; 5, Zoller on Prince's Beauty.

Get of Sire—1, Zoller on Vronicka's College Boy; 2, Iowa B. S. Co. on Valley Grove Weiss

(Continued on page 1054)



AIDEN'S VRONICKA'S COLLEGE BOY, SENIOR AND GRAND CHAMPION BROWN SWISS BULL

OWNED BY J. FRANK ZOLLER, NEW YORK



JUNE'S COLLEGE GIRL, SENIOR AND GRAND CHAMPION BROWN SWISS COW

OWNED BY IOWA BROWN SWISS COMPANY



The "keep out" sign - *for mud and cold*

Get this extra protection plus extra wear from pressure-toughened rubber

EXTRA life, more strength, added toughness are pressed into Goodrich Hi-Press Rubber Footwear when it is made. That's why thousands of folks on farms are getting sure protection—and more months of wear—from the Hi-Press brand.

You find this name on boots, gaiters, galoshes, rubbers—all kinds of rubber footwear for use on the farm. And you find big, thick soles of live, springy rubber—strong, honest reinforcements—and real comfort in every pair.

Women can also have Hi-Press protection. On galoshes or stylish light rubbers the name means that extra wear is pressed in the rubber. And ZIPPERS—with the genuine smooth-gliding HOOKLESSFASTENER—also have pressure-toughened soles.

The Hi-Press brand is in such demand that over fifty thousand dealers in towns and cities of every size can supply you.

THE B. F. GOODRICH RUBBER COMPANY, *Est. 1870*
Akron, O. *In Canada:* Canadian Goodrich Co., Kitchener, Ont.

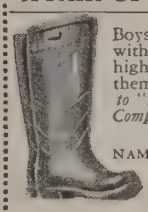
Look for the RED LINE *around the top!*

Above: No. 407
At Right: Black Zipper
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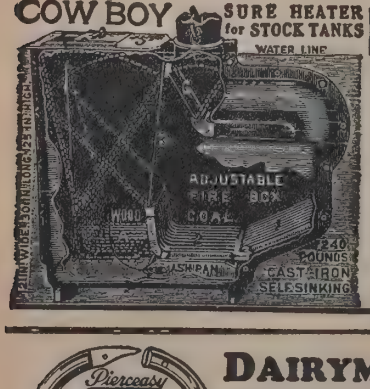
Soles and heels are extra thick. The trim-shaped leg prevents the foot from slipping up and down. In every respect you will find it a boot of wonderful durability and comfort.

Ask for Top Notch Rubber Footwear by name—boots, arctics, heavy and light rubbers, for men, women and children.

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For 27 Years Makers of Top Notch Rubber and Canvas Rubber Sole Footwear
Beacon Falls, Connecticut

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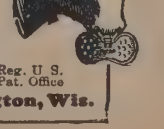
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A Co-operative Centralizer

WALTER E. DOBBINS, NEBRASKA

TWENTY-THREE years ago a poor Danish immigrant landed upon American soil. Scarcely out of his teens, unable to read or write a single word of the English language and "broke," the youth set out to conquer. The lad had grit, ambition, and a thorough knowledge of the creamery business.

That boy was Ole Hanson, present general manager of the Farmers' Equity Co-operative Creamery of Orleans, Nebraska, the largest butter-making company of its kind in the world, an organization backed by over 10,000 farmer-stockholders.

Hanson did wonders. He has performed miracles. He is the Houdini of the butter world, the King Midas of the Nebraska dairy industry. Everything he has touched has turned to gold—yellow gold that has brought him both fame and fortune.

Now Hanson, like many other successful business men, has certain principles and pet theories by which he accomplishes things. Here in part is a brief story of his hardships and his successes:

"Many people have quizzed me about our organization," Hanson explained, "and I tell all the same story. I firmly believe that strict, approved business policies, efficient management, and absolute fairness to the stockholders of the company are the requisites for the success of co-operative societies.

"Many co-operative organizations fail because they try to do things that no one else has tried to do. We try to do business at a profit at all times. Our creamery is operated like any other business. Everybody works hard and keeps on working.

"We forget all about sentiment out here in Orleans. We stick strictly to business principles. That's why we are where we are."

Hanson dropped back in his swivel chair and gazed thoughtfully out of the window. A truckload of cr cans was being unloaded outside was the fourth truck I had seen w in an hour.

Perhaps Hanson was thinking through the years, the days be his success, how he plodded al barely able to keep his feet. many Danish boys, Ole in his y presumably had thought Minne the capital of the United States, it was that glorious state that claimed Hanson as a future citi

First a section hand, then washer, buttermaker, salesman, moter, and so on until he reached present heights, reads the story Ole's early life.



EMPLOYEES AT ORLEANS
The day force, with Ole Hanson at the extreme left with cap in hand.

Hanson's reign at Orleans was bed of roses to start with, nor now. In fact Ole made many st ling discoveries soon after he c to terms with the Nebraska organ tion. The mere facts would f forced many a man to turn to retr But not Ole Hanson.

The Orleans creamery had ope in May, 1917, and exactly one later was ready for the sheriff. company had lost $7,518.30, w was considerably in excess of the



FARMERS' EQUITY CO-OPERATIVE CREAMERY, ORLEANS, NEBRASKA

tual cash. It had suffered the u ailments of a new concern—s volume, no credit, untrained h poor management, and few t sources.

At the end of the first six mo of Mr. Hanson's administration the period ending Nov. 18, 1918, h creamery showed a profit of $8,51 A recent report handed down by auditing firm reveals that in years, June 1, 1918, to Nov. 30, 1 or the time during which Hanson been affiliated with the organiza the total profits have reached astounding sum of $242,584.57. amount is equal approximately to cents profit on each pound of but fat handled.

"The dairy farmer still has

learn," Hanson declares. "In the st place there is dire need of testg associations everywhere. I often nder how many farmers know at part of their herd is profitable. ey will never know until they keep daily record of each cow in pounds milk produced and the per cent of tterfat. Our farmers still have a g way to go in testing, improving eir herds, and forever weeding out e unprofitable boarders.

"Our receiving territory covers ur states, Nebraska, Wyoming, lorado, and Kansas. Some of the eam is shipped to us from points 0 miles distant. At least twenty-e per cent of the cream is by direct ipment, although over a hundred wns are on our sending list," Hann explained.

"The plan of co-operation is simple, simple as we know how to make " Ole stated. He went on carefully, Ve of course experience stiff compeion in the field with the old line mpanies but we manage to meet the nditions just as we find them. Our mpany pays out just as much raight cash as our competitors do on e day the cream is purchased, so I ess everybody is satisfied."

"How are the profits distributed?" asked, knowing that it must be a fficult problem with the countless ndreds of stockholders or cream llers as they should be rightly lled. Hanson's explanation can be mmarized something like this: The oks are balanced at the end of the ar and the profits declared. Deducons are made for depreciation on achinery and buildings, using the vernment approved figures. Ten per nt of the balance net earnings are t aside in a "sinking fund" to be ed only in extreme emergencies. e balance of the net profit is then vided among the cream sellers on a r pound butterfat basis.

The first $100 earned in this way the individual shipper is held back and he in turn is given stock for his earnings. Three per cent interest is paid each year on the stock.

"But supposing the farmer moves away before the end of the year."

"Oh, that causes no trouble," Hanson replied. "We are bound to pay the man the amount of money he has accumulated. It's in our by-laws.

"We received over 125,000 cans of cream last year and as I told you before we shipped out over 3,000,000 pounds of butter. Most of it went to Chicago or New York. There were 175 cars in all and if they could have been lined up in a string they would have made a line two miles long."

Co-operation was the magic word for the Danes. In fact the origin for this famous move is credited to a group of typesetters employed by a Copenhagen newspaper who "ganged" together for the purpose of obtaining drinks and foodstuffs at wholesale prices. As more people began to take advantage of the idea, then it became necessary for the printers to hire someone to do the buying and handle the affairs. This, according to Hanson, was the foundation of the present day co-operative movement.

Hanson is very modest about his own abilities. He ascribes most of the credit to Mr. H. Z. Baker, president of the Orleans creamery, who likewise was one of the early followers and believers in co-operation. It was Baker who carried the company through the embryo stage and it is his principles that have stood the test of years.

The Orleans company was organized after many stormy meetings. The board of directors set its goal at $100,000 but after two discouraging years only a scant $9,000 had been raised. It was Baker who urged the farmers to go through with the proposition. The whole thing was headed for the rocks until Hanson came along but this able pilot steered the craft seaward and the ship is still afloat.

Oregon Has New Long Distance Jersey

Poet's Mabel Mowat, a pure-bred rsey owned by Karl Hanneman of egon, has just gained the distincn of winning her fourth Medal of erit awarded by the American Jery Cattle Club.

In her latest or sixth test, Poet's abel Mowat produced, with calf, 8.25 lbs. fat and 15,551 lbs. milk in 3 days. Her milk averaged 6.10% tterfat for the year. Mowat has so r produced 4,391.17 lbs. fat, equivent to 5,165 lbs. butter. Her averge yield for the six tests is 732 lbs. t or about four times the average all cows in this country.

The records of Poet's Mabel Mowat e tabulated here so that her work ring the past few years may be en at a glance. All six tests were pervised by the Oregon Agricultural College:

ge	Lbs. milk	Lbs. fat	% fat	Days
- 3	6,839	415.35	6.07	319
- 4	13,766	872.03	6.33	365
- 5	13,900	869.90	6.26	365
- 8	13,212	769.10	5.82	305
- 0	8,525	516.54	6.06	246
-10	15,551	948.25	6.10	363

-The American Jersey Cattle Club.

U. S. Cattle to Greece

Bearing on her after-deck fifteen ills and heifers of five different eeds, the finest products of Ameria cattle raisers and representing x different states of the Union, the ty of Eureka of the Export Steamip Company sailed from her dock Brooklyn for Greece early in Sepmber. They are a bovine good-will offering to the people of Greece, and are sent in accordance with a comprehensive plan to regenerate the agriculture and the animal husbandry of that historic country. The animals were contributed by philanthropic breeders of highly bred stock. They were assembled through the courtesy of Ery Kehaya, president of the Standard Commercial Tobacco Company, who has donated $100,000 to assist in the agricultural renaissance of Greece in co-operation with the Near East Relief.

The blooded cattle in this shipment were preceded in December last by a shipment of highly bred American fowl, which were donated by their breeders and by a shipment in April of aristocratic pigs, headed by Charles M. Schwab's celebrated "Colonel Broadcaster." These were placed with the Near East Relief farm school for orphan boys.

The list of donors of the highly bred animals, includes Marshall Field, a Guernsey bull; Clarence W. Barron, a Guernsey bull; E. T. Meredith, former secretary of agriculture, a Jersey heifer; Ery Kehaya, a Brown Swiss bull bred by J. Frank Zoller; Warren Kinney, a Brown Swiss bull; Andrew C. Cobb, two Brown Swiss heifers; Henry Morgenthau, Jr., a Holstein bull; E. A. Moore, a Guernsey bull; W. H. Miner, a Holstein, bull; and W. W. Fry, a Jersey bull and a heifer.

All of the animals shipped are representative of the best American stock; they are from sires and dams valued at many thousands of dollars each and represent many prize winning animals in their ancestry. They are sent without cost to the Near East Relief treasurey.—MRS. M. C. SMITH.

Announcing the Winners of the Nizer-Kelvinator Electric Milk Cooler Name Contest

The delay in announcing the winners of the Nizer-Kelvinator name contest was due to the great number of entries received and the many excellent names submitted, necessitating an extension of time for analysis and deliberation by the judges. The following names were unanimously chosen as the winners after careful consideration of every name submitted:

First Prize—$500.00 to *F. W. Royce,* Berkshire, New York. Winning name, "PEDIGREED."

Second Prize—Kelvinator Model 272 to *Frank Randolf,* Loraine, Illinois. Winning name, "GRANGER."

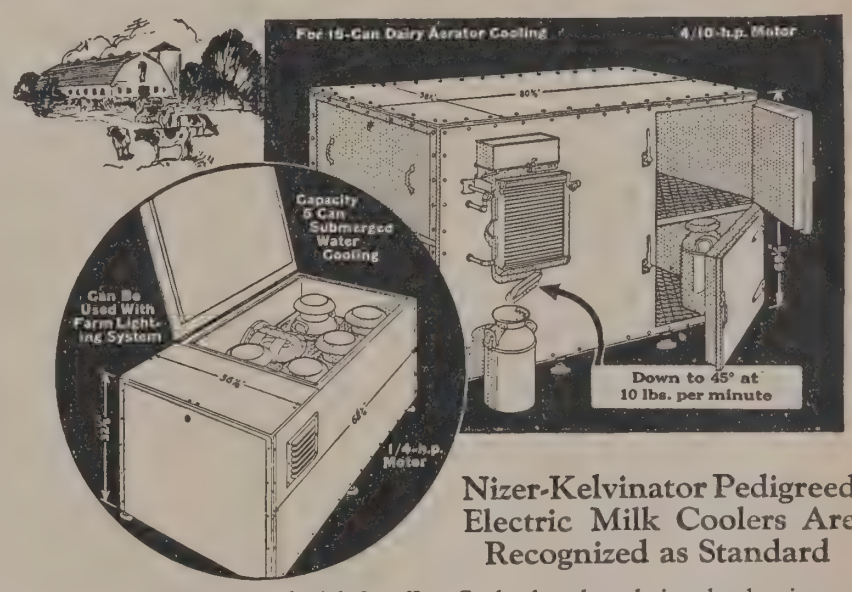
As it is impossible to award prizes to all who entered the contest, we believe, in justice to those who submitted names for Nizer-Kelvinator Electric Milk Cooler, that they should know why the winning names were selected.

Why These Two Names Were Selected

The name "Pedigreed" was selected for the first prize because every dairy farmer knows what it means—he knows what it means in relation to his herd—he knows that "Pedigreed" is out of the ordinary and superior to the common run that cannot show a notable record of past performance. Further—"Pedigreed" implies a background of ancestry and development and therefore focuses on the ancestry of Nizer-Kelvinator and the development from their "pioneering days" in electric refrigeration to the present successful achievement exemplified in the Nizer-Kelvinator Electric Milk Cooler.

The name "Granger" was selected for the second prize. A true "Granger" is a member of a Grange, a local branch of the Patrons of Husbandry, an association formed by farmers to further their interests. The name "Granger" is indeed befitting for the Nizer-Kelvinator Electric Milk Cooler, as the product and organization behind it have as an objective the furthering of the farmer's interests. A "Granger" is recognized as a successful farmer operating on a farm usually supplied with modern appurtenances, which again qualifies the selection of the name "Granger" for the second prize, as Nizer-Kelvinator Electric Milk Coolers should be part of the farm equipment of successful dairy farmers.

A Pedigreed Milk Cooler



Nizer-Kelvinator Pedigreed Electric Milk Coolers Are Recognized as Standard

They have proved up on the job for efficiency, practicability, economy and profitable operation. They have stood the test under the most rigid dairy farm conditions.

Nizer-Kelvinator Pedigreed Electric Milk Coolers are backed by one of the largest organizations in the world. They are made in two sizes and two types; aerator cooler with 16-can capacity and submersion type with 5-can capacity. Durably built to last practically a lifetime.

Nizer-Kelvinator Pedigreed Electric Milk Coolers have been designed and engineered to fit the dairy farmer's urgent need. They increase your earnings without increasing your herd; lessen labor and eliminate the worries incident to handling milk.

Talk to Your Milk Dealer About It

Your milk dealer, who hands you your milk check, will be glad to tell you all about these remarkable milk coolers. You can obtain them direct through him or most any Kelvinator dealer.

NIZER Kelvinator

REG. U. S PATENT OFFICE

THE PRACTICAL ELECTRIC MILK COOLER

Sold to or through Milk Dealers by Nizer Division, Electric Refrigeration Corporation, also by most Kelvinator Dealers, and in Canada by Kelvinator of Canada, Ltd., London, Ont.

Nizer Sales and Service

14210 Plymouth Road, Detroit
816 Sharples Bldg., Chicago
603 Spring St., Atlanta, Ga.
620 S. Delaware Ave., Philadelphia
1 West Forty-seventh St., New York
910 Pacific National Bank Bldg., Los Angeles, Cal.
164-166 Manassas St., Memphis, Tenn.
4003 Wentworth Ave., Minneapolis, Minn.
1911 Washington Ave., St. Louis
701 Pacific Bldg., San Francisco
171 Sidney St., Cambridge, Mass.
208 Third Avenue, South, Seattle, Wash.

MAIL THE COUPON NOW!

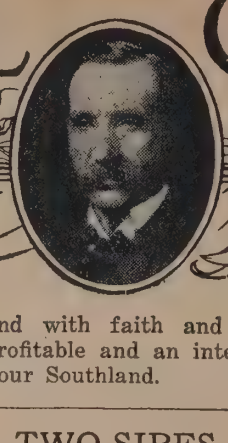
NIZER DIVISION, *Electric Refrigeration Corp.,*
14210 Plymouth Road, Detroit, Michigan.
Gentlemen: Please send a complete description of your Electric Milk Coolers.

Name..... Address.....

Size of dairy herd..... Name of Milk Company I sell to.....

.....

EDITORIAL COMMENT



DEVELOPING LEADERSHIP

The development of community agricultural leaders is to us one of the most important steps in placing farming upon the proper basis. For years we have urged organizing from the bottom up and not from the top down. There will be no danger of peasant agriculture when we have capable local leadership and strong local community organizations.

The Division of Dairy Extension work of the Michigan Agricultural College is planning to develop local leadership and to prepare it for larger service. Two leaders from each township in a county are being brought together for a day and one of the following subjects is being considered: "Possibilities of Dairying," "Factors in Profitable Dairying," "Quality in Dairying." These township leaders will, in turn, discuss these questions at local meetings in their communities.

It is easy enough for a few people to gather in some comfortable hotel and discuss ways and means of serving the farmer. We do not question the sincerity of most men gathered at such places, but we do question the advisability of continuing such conferences. What is needed now and what has been needed for a long time is men to roll up their sleeves and get out into the country where the work is waiting.

The plan to meet with two local leaders in each township in a county and discuss with them topics which they, in turn, can discuss with the people in their community is one way to help agriculture. The sooner we realize this and get behind an educational program of this character, the better it will be for agriculture and those making a living from it. We are having altogether too much talk and too little action.

NATIONAL DAIRY EXPOSITION

The twenty-second National Dairy Exposition held its annual meeting at Memphis, Tenn., a complete report of which appears in this issue. We believe the Dairy Exposition went south at a propitious time, for there is real sentiment for the dairy cow in Dixieland. The South is developing a dairy industry. Tennessee produces annually $50,000,000 worth of dairy products and in 1926 Mississippi manufactured over $3,326,000 worth of butter, also much condensed and fluid milk. The leaders in agriculture have long comprehended that the farmers of the South must sooner or later devote more attention to diversified farming and that the cow, the sow, and the hen would contribute substantially to their incomes. Too much cotton is grown. So long as this crop held full sway there was little or no opportunity to place southern agriculture on a permanent and profitable basis.

The Dairy Exposition with its fine cattle, its demonstrations, educational exhibits, and displays of machinery and labor saving devices has without doubt brought a new vision to the thousands of farmers who visited it and studied its many lessons. It is well to present facts to people, but the nation that progresses is the one that has a people of vision and understanding. It is the purpose of the National Dairy Exposition to stimulate farmers, to cause them to consider new opportunities in their business and better ways of doing things on their farms and plantations. Just how much good the Dairy Exposition will do the South depends on how much the farmers brought to it, how carefully they studied its lessons, and how well they comprehend the cow and her relationship to their other branches of farming.

The South needs the dairy cow, she needs her daily income and her food, and her soil needs her beneficent treatment. The cow leads the way and makes possible a sound system of agriculture. She is not the Alpha and Omega of agriculture, but rather the foundation upon which a sound farming business can be built and a productive soil maintained.

Cotton will remain king and the cow has already been crowned queen of the South. This is a happy combination and with faith and understanding will build a profitable and an interesting system of farming in our Southland.

TWO SIRES

The Bureau of Dairy Industry has been doing considerable work in investigating and analyzing cow testing association records, hereafter to be known as "Dairy Herd Improvement Associations." In a recent circular entitled "Proved Dairy Bulls" the Bureau gives some of the results of its tabulations as to records of dams and daughters.

Here is a comparison of two sires in different herds. Six cows in one herd averaged 489 pounds fat while their daughters by Sire A averaged 675 pounds fat, an increase of 186 pounds fat. Ten cows in another herd averaged 499 pounds fat and their daughters by Sire B averaged 280 pounds fat, a decrease of 219 pounds fat. The daughters of Sire A were better than their dams by 38 per cent, while the daughters of Sire B were poorer than their dams by 44 per cent.

Of course this is an unusual comparison. It is the extreme. Here is another one:

The production of the daughters of 200 sires was compared with that of their dams divided according to the production of the dams. Nine sires were mated with dams having a production of less than 200 pounds fat. Every daughter exceeded her dam. There were 49 sires mated with cows producing from 200 to 299 pounds fat, and the daughters of 44 of these sires exceeded the production of their dams. In the next classification of 300 to 399 pounds fat for dams, the production of the daughters of 57 sires was better and of 28 sires was poorer than their dams.

When we come to the higher producing dams of 400 to 559 pounds fat, we have a different story. The production of the daughters of only 28 sires was better and of 29 sires was poorer than their dams.

All of which shows that as cows increase in production, greater care must be exercised in the selection of a sire if production is to be maintained, to say nothing of being improved.

HOLSTEIN HERD TEST

The directors of the Holstein-Friesian Association of America have taken a decided forward step in breed advancement by the adoption at their recent meeting at the National Dairy Show of a sane and sensible herd test plan. The Advanced Registry has served a good purpose in locating high producing cows and in exploiting family lines. It should, and will, be continued.

The herd test plan, however, has within it not exploitation of individuals but the improved production of all animals within the breed. All animals in the herd will be tested, which will provide the owner with information whereby he can cull out the poor individuals and do more intelligent breeding. It will also provide the buyer with records on animals he purchases and increase his confidence in pure-breds. As Professor Anthony says of the Danish system, the whole idea of the herd test plan will be "to raise the average for the herd unit and in turn the breed, not by spotting occasional high producing cows, but by quickly spotting out the low and undesirable producers."

The Holstein herd test plan provides for twelve monthly tests throughout the year. Retests are to be made when unusual production is reported and there must be at least one surprise test during the year. The provision for a preliminary milking was wisely abandoned as it would make the system unwieldy and costly.

Under the new plan the owner must keep daily milk records, which are to be available to the inspector if called for if question arises. Cows may be milked three or four times a day, but the tester is not allowed to handle more than 48 milkings a day. If cows are milked twice a day, 24 cows may be included in a one-day test; if milked three times, 16 may be tested. Owners of pure-bred herds can conduct this work through a regularly organized cow testing association, provided the special ... quirements of the herd test are complied with.

For a time we feared that the real purpose a intent of the herd test plan would be defeated the insistence of incorporating into it the sa ideas of supervision and inspection that prevail advanced registry testing. Not only would this ha defeated the project through the cost, but it wo have tended to emphasize exceptional records ra er than raising the general breed average throu better selection and better breeding based on t records of large numbers of animals. We are a glad to note the report that the Ayrshire Assoc tion intends to slightly modify its herd test pl so as to conform more nearly with the Holst herd test. It is desirable to have more uniform between breed associations in these particulars.

We believe the herd test plan is sound, and th its adoption by other breed associations is as evitable as that day follows night. While expe ence will doubtless demonstrate desirable chang in operation, we trust that there may be co-o eration between the several breeds in the consid ation and adoption of these changes.

NOT MORE COWS

"But what's the use of producing more poun of butterfat per cow and supporting more co per farm, if farmers can't get more money f more product?"

This question comes from a Minnesota subscr er who believes farmers must be thoroughly o ganized if they are to place their business upon proper basis. In answer to his question it may said there is no use increasing the production cows or producing more dairy products if farme can not make more money. Since the inception Hoard's Dairyman we have urged farmers to ke efficient cows for we know there is no better w of increasing the profits of the dairy farmer th by keeping capable cows. No system of organiz tion or co-operation is capable of rendering assi ance to farmers that will give them a profit if th keep low producing cows. The man who says have as efficient cows as we need and all that necessary is to organize to make dairy farmi profitable is doing a positive injury to dairy pro ress and is blocking the way to profitable retur

We are not so foolish as to believe that all t dairy farmer must do is to keep efficient cows order to make a profit from his business. In eve issue of Hoard's Dairyman we give some lesson the value of organization and some reason w more co-operatives should be established for t purpose of processing and marketing farm pro ucts. We do not believe agriculture will be plac upon a proper basis until the farmer is thorough organized and until a good percentage of fa products are processed and marketed co-operativ ly. We do not believe it is essential for farmers handle all their products co-operatively but th must be in position to control a substantial pe centage if they expect their business to be plac on a comparable basis to other enterprises.

It is not good business for agriculture to simp produce products and then turn them over to oth agencies for processing and marketing. No oth manufacturer does this and why should the far er? We therefore believe most thoroughly in o ganization for the purpose of permitting farme to act together and to secure information abo their affairs, markets, etc. We also believe a have urged the establishment of local co-operati enterprises for processing and the federation these local institutions for co-operative marketi

We have no fear that overproduction will co when farmers all keep high producing herds. Wh we have such high intelligence among far ers milking cows, they will have too mu sense to keep on producing more than the mark will pay a fair price for. There will always be o portunity to eliminate low producing cows. T very fact we are increasing the production of dai products to meet increased consumption per capi and the demands of our increased populati with fewer cows is not indicative of danger

o'rproduction by keeping efficient cows. In 1926 w produced over 120 billion pounds of milk and w had over 600,000 fewer cows January 1, 1927, th n we had January 1, 1925.

Not more total production but more efficient pro- d tion is our great problem. Organization and co operation belong in the scheme of dairy progress a we must not lose sight of their value, but it w ld be most destructive to dairy progress if we d ended upon them alone for increasing the in- co e of the dairy industry. Efficient production is th most important factor to successful dairying a when hitched with organization and co-opera- ti produces a strong team which will require but li le legislation to place the dairy industry upon a roper footing.

Cost of Barns

an your men give us an idea as to the approxi- m e cost of a dairy barn as appears on cover of S tember 10th issue? The size appears to be ca- p le of caring for 50 to 60 head. The size we are i rested in is for 30 head.

'ennsylvania. SUBSCRIBER.

Building costs vary over such a wide range in d erent parts of the country that in order to esti- n te costs it is necessary to be familiar with local c ditions where the building will be constructed. T e complete cost is also influenced by the amount o modern steel equipment used such as stalls, car- r s, and ventilating system.

n some dairy sections it will cost approximately $ 0 per head to build a barn such as is shown on th cover of the Sept. 10th issue.

Slippery Concrete Floors

HOARD'S DAIRYMAN:—With reference to the i uiry of "A. M. W." and the reply by Mr. W. G. Kiser discussing the best way to prevent cows s ping on a concrete floor.

f "A. M. W." will obtain some ordinary ground li estone, unburnt and such as is applied to the la d, and daily, after cleaning out the cow barn, s inkle it finely so as to give a light covering over a the concrete floors, he will find that if he w hes, he can gallop his cows from one end of t barn to the other and he cannot make them s).

Besides this desired effect, the lime produces a c an white floor, is a slight disinfectant and de- o rant, and is a highly desirable fertilizer for the la d. If sawdust or shavings are used for bed- d g, the lime helps to neutralize the acidity.

f the spreading of the limestone produces a d t it can be slightly damped before using, and t cost is negligible in view of the many bene- fi derived.

Both chipping the floors and the use of acids to r ghen them are useless methods to prevent cows s ping besides doing away with a smooth surface w ich is very desirable for purposes of cleanliness.

Vermont. F. KENDZIOR.

How Big is a Can

HOARD'S DAIRYMAN:—On page 927 of your O tober 10 issue is an illustration purporting to s w by figures and graphs the increase in various p ses of milk production and consumption in re- c t years. May I call the attention of the design- e of the graphs to the fact that the contents of s ds are to each other as the *cubes* of their like d ensions and not in a simple direct proportion? C the three milk cans shown in the graph, the s allest is labelled "80 million" and the largest "2 million," which is approximately a ratio of 2 o 3. But when the height and diameter of the c s each bear this same ratio, it makes the rela- t e capacities of the two containers to have the r io of 8 to 27; thus the graphic illustration indi- c es an increase of some 300 per cent whereas the fi res on the cans indicate an increase of only a ut 50 per cent. This same mistake appears in t other parts of the half-page illustration.

Michigan. C. H. YODER.

We are cognizant of the mathematical error n ed by Mr. Yoder. The charts were intended t emphasize to the eye something of the great i rease in milk consumption, a fact that would be d rlooked by many if the printed table only was u d. That there was no deception intended or c veyed is shown by the fact that the actual f res are given prominence and the eye itself will s rcely recognize the increase as being as large a it is.

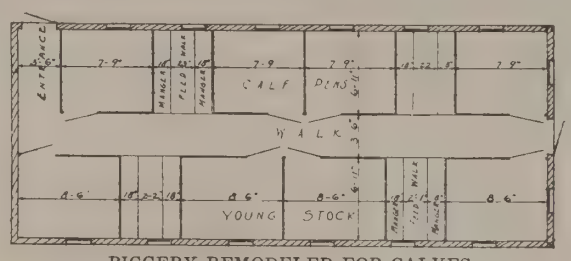
We are always pleased to receive letters such a the above, because we take it as a compliment t have intelligent and critical readers. We would a preciate suggestions as to how similar illustrations and cartoons may be drawn in the future to better illustrate the statistical data given in the wonderful story of the advance of the dairy industry.

Arranging a Calf Barn

I have a building, used for a while as a piggery, that I wish to remodel into a calf barn. Inside measurements are 44'x17'. It has a concrete floor, is lined with matched lumber on sides and ceiling. All windows are 3-light, cellar windows set between studding, with window sill 4 feet from floor. There are six such windows on the east; a door and six windows on west; door and two windows on north.

I will appreciate it if you will suggest plan for calves and young heifers alone; and for these and a bull pen, if you think that it is advisable to include the latter.

Building rests on cement foundation; has studding, sheeting on outside, building paper, clapboards; with matched sheeting on inside of studding. Presuming that in a building made so tight that there should be systematic provision for ventilation, please suggest same. As means are rather limited, I shall appreciate it if you would suggest plans involving metal pens, and also those that can be home-made. I would like to have the general



PIGGERY REMODELED FOR CALVES

appearance of this calf barn somewhat above the ordinary, as I intend to use it as a show place in which to develop and show stock for sale.

Hay and bedding will have to be carried in daily as there is but little loft room.

Grayling, Mich. R. D. B.

A suggestion for interior arrangement is shown by the accompanying floor plan. This layout will accommodate a total of sixteen calves, four in each pen, and twelve young heifers, three in each pen. A walk 3'—6" wide at center makes it convenient to care for the stock. A small feed walk between feed mangers has been provided between two pens as shown by plan. This makes for sanitation as the pens can be cleaned without the litter coming in contact with the manger.

This plan can be carried out regardless of whether the pens are constructed of wood or steel. In view of the fact that you wish to have the appearance of this barn somewhat above the ordinary and will use it as a show place, we suggest the use of steel. If other quarters can be provided for the bull we believe it would be well to keep him out of this barn. As the bull should have a yard to exercise in and be permitted to run in and out, it requires an open door and this would not be satisfactory where small calves are kept.

Ventilation should be provided to insure plenty of fresh air which is necessary for animal health and growth. We suggest that this problem be taken up with the manufacturers of ventilating systems whose advertisements will be found in Hoard's Dairyman. They will make a study of the requirements and furnish the outfit which will give you the most satisfactory conditions in the barn which conditions permit.

Wisconsin. THOS. BURTON.

Sale of Tested Cows

While the purpose of the dairy herd improvement association is mainly to aid the member in bettering his herd production, the influence of testing on sales price is not without value. Mr. Geo. Weidmann had an average herd production of 381 pounds fat in the Thiensville—Lakefield Dairy Herd Improvement Association. He rented his farm and sold his 15 grade Holstein cows at auction last spring. These cows sold for an average of $161.83 each, and in practically every case the higher the cows produced the more the neighbors bid for the animal.

The same day at the same sale there were five cows brought into the sale ring that did not have any records. These five cows sold for an average of $80 each. As James Rezach, the tester, well says: "Leave it to the dairy herd improvement association; it will talk for itself."

It might be added here that "dairy herd improvement association" is the new name by which cow testing associations will be known hereafter. Some may regret the loss of a familiar name, but the new one is more expressive of the work that is being done. It is dairy herd improvement for which we aim, rather than mere records. It touches the whole farm. Crop rotations, feeding, health of cattle and their proper care, and a hundred and one other things are covered in what we formerly called a cow testing association. Now we must learn to use the new and more descriptive name—dairy herd improvement association.

Produce or Buy Milk for Retail Route

We are running a milk route of about 300 quarts daily besides a large amount of cream. Milk wholesales at 8c per quart and retails at 10c, coffee cream at 35c a quart and heavy cream at 70c a quart. We have 80 acres of good land and keep on the average 25 head of grade Holsteins. Figuring the cost, trouble to get good labor, money invested in cattle, and pasture outside costing us $10 per head, what do you think of our disposing of the cattle at $100 a head?

We are offered milk from two neighbors at 4c per quart. Milk will test 3.5% and will be cooled and handled O. K. in cans. We would separate this milk to get our needed amount of cream, the rest to be bottled.

Which plan would be the most profitable? We have had this amount of cattle for over eight years and would like to hang the milk stool up for one year, at least, allowing us time to do our own farming.

Ludington, Mich. W. E. M.

It is always difficult to advise a person as to the relative profits it is possible to secure from a given enterprise on the farm. The costs of producing milk vary from farm to farm according to a number of factors and it is unsafe for any individual to base a decision upon what might be termed average costs. This variation in costs of production is due to the varying producing abilities of the cows, the economy with which they are fed, the cost of feed and labor, and the type and amount of investment in barns and equipment. These are all variable factors and the only safe procedure is to take all these into account on a given farm.

If the feed cost of producing milk is known, one can roughly estimate what the total cost of milk production may be. Investigations indicate that the feed cost of producing milk will range from 50 to 70 per cent of the total cost of producing milk. If there is not an extravagant investment in buildings and the labor costs are not unusually high, we anticipate that in this case the cost of feed for producing milk will more nearly approach 70 per cent of the total cost of milk production than 50 per cent. In other words, if the feed cost of producing 300 quarts of milk is, say, $7.00, the total cost would be $10.00 if the investment in equipment, etc., is moderate and the feed cost amounts to 70 per cent of the total cost. If the feed cost is 50 per cent of the total cost, then the total cost would be $14.00 for 300 quarts. It can be seen from this example showing a variation from 3⅓ to 4⅔ cents per quart in the total cost of milk production that it would be difficult to make any definite statement unless one had a pretty complete statement as to the items entering into the particular costs. Please understand that these figures do not necessarily apply to the case presented, but are merely illustrative.

At 4c a quart the neighbors would be receiving a fair price for their milk, particularly when it is taken into consideration that they will have practically no cost for the delivery or transportation of their milk. The question arises, however, if these neighbors can produce milk at this price and still make a profit, would not a retail dealer already equipped be able to do the same? Also, if one were to make the change he would want a reasonable assurance that his neighbors would maintain the same quality of milk that he has maintained and that their supply would be not only of this quality each day of the year but also that he would be assured of all the milk he required for his trade and yet would not be burdened at certain periods with a surplus that he might have to sell at a lower price than he pays.

Another factor that must be taken into consideration is the profitable and complete employment of the labor required to operate the milk business and the farm. It is quite possible that merely eliminating the cows will not necessarily permit cutting down the employment of labor sufficiently to enable the complete time of the labor being used. It is always a very important factor in farm profits, as well as in every other business, to keep the labor that is required profitably employed. Another factor that must be considered is whether a profitable market for the crops of the farm will be found if they are not sold to the cows on the farm.

MINNETONNA
HOME BUTTER MAKER

A WONDERFULLY efficient butter making machine built on the same working principles as the machines used in large creameries, differing only in size and price.

It gets all the butterfat out of the cream. It churns rapidly so the butter comes in from one-half to one-fourth of the time. By simply throwing in clean water and giving a few turns, you remove all buttermilk. Instead of working the moisture *out*, the MINNETONNA works the moisture *in*, so necessary to the flavor and the keeping qualities, and giving an "over-run" (of moisture and salt) of from 20 to 25 per cent above butterfat test. Hence *more* and *better* butter.



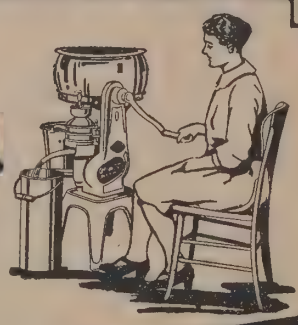
Churning capacity 3 to 12 gallons. Working capacity 3 to 20 lbs. Larger sizes up to 100 lbs. capacity.

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CHURNS THE BUTTER AND WORKS IT.

EASY OPERATING
CREAM SEPARATOR



Five features (ball bearings, chain drive, complete lubrication, high crank, and low swinging tank) make it very easy to operate the

Rock Island
"Great Western"

Realizing that most of the cream separating is done by women on the farm, exceptional care has been taken to make the Rock Island easy to operate. Equipped with ball bearings where most essential. Ball bearings reduce friction to the minimum.

The chain drive is most simple. The chain follows its track on the sprockets with practically no friction or binding, runs at a very low speed, requires less lubrication, and operates the separator smoothly, easily and quietly. Chain is entirely enclosed and guaranteed forever against breakage.

Complete lubrication is obtained by a combination direct feed and splash system. All moving parts are plentifully supplied with oil at all times. Faultless lubrication means less friction, ease of operation and long life.

The crank is in exactly the right position so the Rock Island can be comfortably turned with the operator in either a standing or sitting position. The low supply tank reduces lifting of milk to a minimum and is easily moved aside.

These features, and the famous skimming device that takes the cream from the top and milk from the bottom, are explained in our free booklet. Write today for booklet C-104.

Rock Island Plow Co., Rock Island, Ill.

Buy from Hoard's Dairyman advertisers. They are reliable.

Elimination of Feed Flavors

A. M. LOOMIS, WASHINGTON, D. C.

THE active efforts of doctors and dietitians in behalf of increased use of milk and dairy products and the work of the dairy industry itself, toward larger sales of their products, have brought about the necessity on the part of the dairymen of supplying a product which of itself attracts favorable attention. No food product can maintain a high place in competition which does not appeal to the taste, and no food product is more subject to off-flavors and off-odors than milk and its products.

This is entirely aside from the matter of purity and safety from the health standpoint. The public will and does assume that an off-flavor product is intrinsically bad, whether it is or not; and therefore the elimination of bad flavors from milk has become a factor of nearly the same importance as sanitation in bringing success to the numerous campaigns to increase its use.

Causes of bad flavor and noticeable odor in milk have been classified by those working on these problems in four classes: those due to poor physical condition of the animal, those due to highly flavored feeds, those due to odors absorbed after milking, and those due to biological changes in the milk. The first two are noticeable immediately after milking and are very closely subject to the control of the dairyman himself.

If the cow is in poor condition, resulting in off-flavored milk, the remedy is either the veterinarian or the butcher.

If the off-flavor is due to highly flavored feeding material or to weeks in the pasture, then the dairyman can accomplish a large measure of relief by himself. The research men have found that for the most part this kind of off-flavors comes through the body of the cow, not through the air of the milking barn as has generally been supposed.

Corn silage, legume silage, green alfalfa, turnips, and cabbage are among the worst offenders. It is found that if milk is drawn from the cow within one hour after she has eaten these feeds, the milk will carry the off-flavor. After one hour it is comparatively free from these flavors. The feed tainted air has comparatively little influence on the flavor of the milk, but milking within one hour of feeding must not be done.

Green rye, green cowpeas, potatoes, beet pulp, or carrots give but slight flavor to the milk. A brief interval between feeding these and milk usually makes the milk free fr trouble. Green corn, green oats peas, pumpkins, and sugar beets n be fed at time of milking with trouble, according to these investi tions.

None of these feeds, if fed af milking, show any bad results in next milking.

Of all causes of off-flavor, garlic the worst. Careful study has b given this subject with such a dea of results that remedial measures the main must be confined to eli nating the weed from the pastures. a cow inhales the odor of garlic, m drawn two minutes later will cont the taint. Milk drawn at any ti within four hours after a cow eaten garlic, will be intensely impr nated with the odor. It will persist perceptible amount for three hours seven hours after the eating. That milk must be drawn more than se hours after a cow has grazed in a g licky pasture in order to be presum to be free of the odor.

The odors absorbed after milk include those from barn tainted and those coming from dirty, unsa tary surroundings, gas or oil fum or accidental contamination. M dairymen understand the necessity keeping their product free and cl from such conditions.

Biological changes in the milk self, except in rare cases, are preve ed by prompt cooling and proper ca

The investigations of the resea men of the Bureau of Dairy Indust conducted at the Beltsville Stati show conclusively that the feed od and flavors discussed here are tra mitted through the stomach and lu walls direct to the blood, then throu the mammary glands to the milk self, and, as indicated by the ga test, that this transmission is a m ter of minutes only.

Elimination of weeds from pastu is one of the big problems. Very lit actual field work has been done test out methods of weed eliminat using results of modern chemical a technical research. This is a field research of value to the dairy ind try which needs more thorough ploration.

When Edith and Alexander we engaged she said: "I just love to s you smoke that pipe!"

When Edith and Alexander we married she said: "I'd just like to s you smoke that pipe!"—Life.



Langwater Archer was the highest priced animal at the recent Fairydale Guernsey dispersal. This 9-year-old May Rose sire was purchased by E. F. Price, New York, for $4,200.—H. A. GULLIVER.

for Christmas



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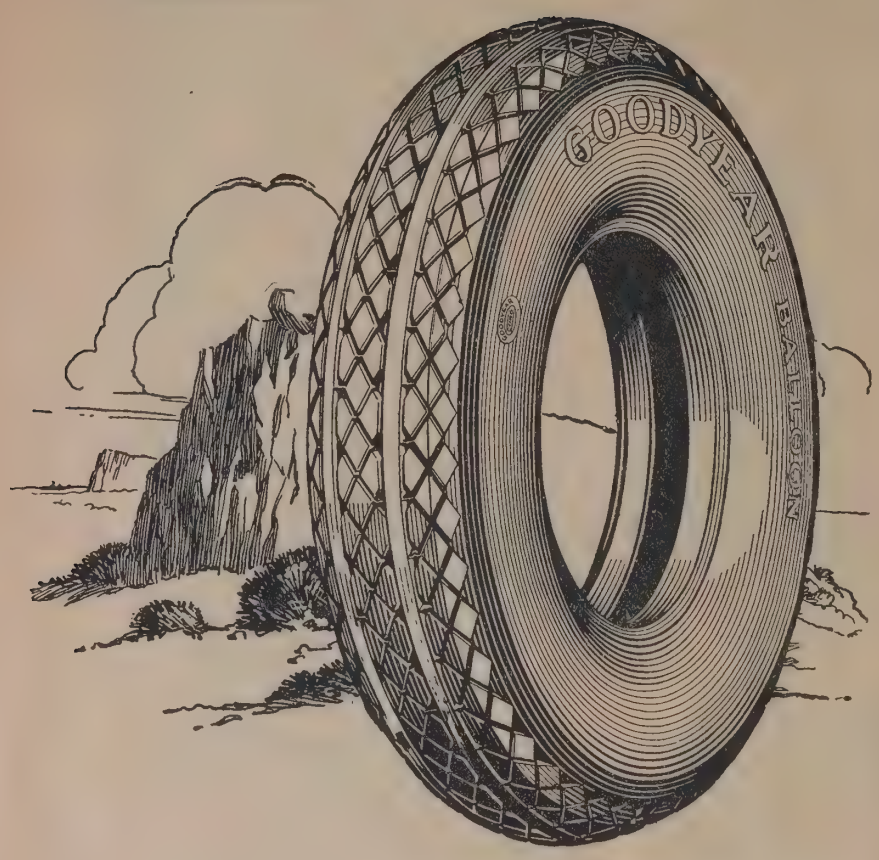
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If you want extra traction and long tread wear in addition to balloon tire comfort, be sure you get this quiet-running *new-type* Goodyear All-Weather Tread



"Let's look at it!"

Most of us like to *see* what we are buying, whether it be tires or anything else.

You can do that when you buy tires of your home town Goodyear dealer; he has *your* size in stock where it can be examined before you pay.

He will recommend the size and type of Goodyear Tire that is best for your car. He will mount that tire on the rim for you, and fill it with air.

All the time that tire is in your use he will help you give it the care it should have to deliver you the maximum results.

This service of the Goodyear dealer will prove a time-saver and money-saver for you. Test it once and see for yourself.

It is part and parcel of the traditional Goodyear policy: *to build the greatest possible value into the product,* and *to provide facilities so that users will get all that value out.*

Goodyear makes a tire to suit *you*—whether you want the incomparable All-Weather Tread Goodyear, the most famous tire in the world, or the lower-priced standard quality Goodyear Pathfinder

Goodyear Means Good Wear

GOODYEAR

Copyright 1927, by The Goodyear Tire & Rubber Co., Inc.

Death of Oldest Guernsey

GUY A. PETERSON, WISCONSIN

TRICKSEY'S Arabella, until her recent death, was the oldest registered cow in the Guernsey herd book. Her passing at the age of 20 years, after giving birth to 20 healthy calves, 19 of which are recorded in the register, marks the end of a long and faithful service to the cause of dairying.

Bred by William Jones and owned by George Kiel of Wisconsin from the time she was one year old until her death, she not only founded Kiel's pure-bred herd, but her descendants have been the foundation female animals in a number of neighbor herds. County Agent Robert Smith once made the remark that close to a half of the pure-bred breeders in Manitowoc County have animals in their barns that trace to this grand old cow.

Remarkable Show Yard Record

Probably no cow in Wisconsin can equal the record of Tricksey's Arabella as a local county fair show winner. For ten years she was never defeated in her class at the Manitowoc fair. One of her daughters followed in her footsteps and captured championship honors for the next three years and she in turn was s planted by a granddaughter who v first place in her class every year was shown for seven years. She her offspring have captured a b ribbon and either one or both of championship female honors at t fair every year since 1908.

The herd that Tricksey's Arab founded has had only one year's portunity to be in a cow testing as ciation because not enough neighb could be induced to join, but its av age fat production that year was lbs. She herself has an A. R. recor 387 lbs. fat and 9,578 lbs. milk class AA made as a 14-year-old i year when she suffered with a seri attack of udder trouble. Her most mous daughter is Tricksey's Gl wood Girl with a high Illinois cl record of 800 lbs. fat and 15,359 milk. She sold at the Lake For sale in 1913 for $1,000.

Arabella's end came soon after g ing birth to her 20th calf as a res of acute garget and general wea ened condition due to old age. She will long be remembered by her ow er as well as by the many who h benefited by her life. There are s seven generations of her offspring the Kiel herd.



GEORGE KIEL AND HIS OLDEST 4-H CLUB BOY, LESTER, WITH TRICKSEY'S ARABELLA AND HER 19TH CALF, TRICKSEY'S PRIDE OF CRYSTAL SPRINGS

Ice Cream Plant on Dairy Farm

HOARD'S DAIRYMAN:—The dairy cow is proving that France's famous wine lands are good for something besides producing wines. This process is described by J. L. Keith, an American and a graduate of the University of Idaho, who is now manager of the largest ice cream manufacturing plant on the continent.

The plant, operated by Sampson Tchernoff at Saint Laurent, near Bordeaux, is in the heart of a section famous for several brands of fine Claret wine. In this congested territory, hitherto believed suitable only for wine production, Mr. Tchernoff bought nearly 1,000 acres of old vineyards and waste land. He has cleared the land, pulled up most of the vines, and converted it into an up-to-date dairy farm.

M. Tchernoff apparently is more completely sold on American methods than American farmers themselves. His enterprise is revolutionary in a region where farming is still carried on by hand or with oxen and two-wheel carts. He has spared no expense.

All power is furnished by tractors and electric motors. The farm has its own electric power plant, its own water system, electric light system, and machine shop.

All cattle and hogs are pure-bre The few horses are fine Percher and the chickens, turkeys, and du are the best that can be secured.

Two new cow barns (100 co each) are equipped with mod stanchions, feed and manure conv ors, and ventilators.

M. Tchernoff employs scient methods as well as machinery. I instance, he uses a "soiling syste —cutting and bringing feed to cows instead of pasturing them. the last six years he has built the soil until he gets 120 bushels corn to the acre, 20 tons of corn lage to the acre, and grows oats feet high. "If I hadn't seen some his oats I couldn't believe this l one," Keith writes, "but it's true."

The ice cream plant of which Ke is in charge is built to manufactu a million gallons a year. Tcherni plans, however, to make only w he can from the milk produced the place, which will be about 5 gallons daily. By 1930, he sa there will be 10 cow barns instead two.

Keith, who took his Master's d gree at Idaho University in 19 went to France in March after bei selected from a list of more than 2 applicants.

Idaho. ALAN DAILEY

Everyone makes mistakes, but don't specialize on them.

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The General Motors Proving Ground, at Milford, Michigan, is the greatest outdoor laboratory ever devised for testing automotive products.

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$595

The Touring or Roadster	$525
The Coupe	$625
The 4-Door Sedan	$695
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½-Ton Truck (*Chassis Only*)	$395
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The illustration below shows a bird's eye view of the General Motors Proving Ground at Milford, Mich.



QUALITY AT LOW COST

Quaker Dairy Rations *mean* MILK PROFITS

Quaker Dairy Rations insure maximum milk production at minimum cost. Our recommended methods of feeding prescribe this important advice:

"Feed the Feed that Fits Your Farm, Your Herd"

Which of these feeds is the one for you?

Quaker Boss Dairy Ration is the ideal **24%** grain ration for cows receiving timothy hay, grass hays, straws, corn stover, or poorer grades of clover.

Quaker Big Q Dairy Ration exactly **20%** meets the need of those herds receiving poor alfalfa hay, fair clover hay, or real choice mixed clover and grass hay.

Quaker Dairy Ration has no superior **16%** when cows are receiving choice clover hay, good alfalfa hay, or an excellent grade of fine mixed grass-and-clover hay; a good ration for dry stock and for young growing stock.

Quaker Sugared Schumacher Feed, as the exclusive grain ration, has a real place when the herd is receiving liberal quantities of the very best grade of alfalfa hay. For blending it combines beautifully with any Quaker high protein feed. For all stock—dry stock, horses, sheep, swine and steers it is unexcelled.

All Quaker Dairy Feeds contain molasses in dried form and are rich in the minerals cows must have to make milk.

Send for the FREE book—"The Dairy Herd," for detailed information. It tells you just how to meet the feed requirements of your farm, your herd.

The Quaker Oats Company

CHICAGO, U. S. A.

Manufacturers of

Quaker Ful-O-Pep Poultry Feeds — *Quaker Pig-N-Hog Meal* — *Quaker Green Cross Horse Feed*

(BUY THE FEEDS IN STRIPED SACKS!)

Dairy Herd Improvement Associations



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk	Ass'n. Report Ave. fat	High Herd Average Breed	High Herd Average No. of cows	High Herd Average Ave. milk	High Herd Average Ave. fat	Owner
				Lbs.	Lbs.			Lbs.	Lbs.	
Conn.	Middlesex Co.	Sept.	519			M.	8	792	33.1	W. J. Ewald
Va.	Aug.-Rockbridge	"	396	554	24.3	M.	13	880	37.3	Nat. Bridge Hotel
Mass.	Essex Co.	"	595	568	21.1	G.	49	644	28.9	Randot Farms
Minn.	Barnum*	"	341	457	21.1	G. G.	7	736	34.7	Lindberg & Carlson
Penn.	Allegheny Co.	"	337	610	24.5	R. G.	7	905	43.9	Fairacres Farm
Ind.	Randolph*	"	240	580	28.9	G. J.	10	855	44.2	C. Gordon & Sons
Ohio	Licking Co.	"	290	504	21.5	H.	13	926	33.1	R. Snyder & Thomp
Tenn.	Hamilton Co.	"	663	488	21.9	J.-H.	20	669	31.5	Big Oak Dairy
Colo.	Pueblo Co.	"	511	560	22.3	H.	13	942	29.0	A. M. Gaide
Mo.	Jackson 1	Aug.	220	682	26.5	M.	16	902	37.2	Dr. E. L. Young
"	Jackson 2	"	919	718	26.8	H.-G.	29	1067	37.5	L. H. Haas & Son
Kans.	Reno	Sept.	314	545	21.8	R. H.	11	800	30.7	A. F. Miller
"	Harvey	"	136	496	19.3	S.-H.	12	631	27.8	H. O. Molzen
Ore.	Tillamook	"	1618	661	31.3	G. G.	39	842	41.4	C. Hunt
Ida.	Pioneer	"	460	610	24.5	H.	5	1304	41.6	J. S. Wiseman
"	Canyon Co.	"	686	500	21.8	G. H.	8	1311	47.9	J. Froman
Ala.	Hale Co.*	"	510	338	16.6	G. J.	25	597	32.0	B. L. Allen
Ill.	Moultrie*	"	240	570	27.0	J.	7	797	43.5	E. F. Bayne
Ore.	Clackamas	"	523	551	24.3	R. J.	8	798	45.5	F. W. Fischer
Wis.	Poynette-Col. Co.*	"	425	349	12.9	H.	20	747	25.6	Townsend-Pache
"	Genesee-Eagle	"	511	422	21.2	G. H.	27	882	29.9	Von Rueden Bros.
"	Baldwin 1	"				G. S.		734	29.9	E. Sangestad
"	Merton-Lisbon	"	512	493	18.3	G. H.	9	1108	35.2	E. H. Hardy
"	Stanley*	"	545	668	25.9	G. H.	11	1005	37.0	H. L. Brocking
"	West Bend	"	361	481	18.8	G. J.	19	882	51.1	W. Hanlyn & Son
Mich.	Van Buren Co.*	"	287	532	21.6	R. H.	6	1053	36.4	M. R. Wilkinson
"	Barry Co. 1*	"	227	460	18.2	G.-N.	9	687	28.8	O. Johnson
"	Leelanau Co.*	"	205	432	21.3	J.	6	718	39.4	J. Hilbert
"	Ogemaw	"	276	445	18.9	R. H.	9	864	31.5	O. A. Carroll
"	Lans.-Ingham*	"	269	523	20.4	R. J.	8	586	34.2	J. R. Worthington
"	Macomb 2*	"	247	637	24.2	G. G.	11	729	35.1	J. DeLand
"	So. Kent*	"	244	418	18.3	R. J.	12	681	33.1	C. Kenyon
"	E. Oceana*	"	247	342	17.1	J.	6	634	28.5	H. Keith
"	So. Wexford	"	229	523	21.5	H.	6	1097	34.2	G. Rock
"	Hillsdale 2*	"	241	445	19.9	R. J.	4	829	44.7	L. Wolf
"	So. Berrien	"	291	503	22.6	R. G.	12	707	33.8	W. Tony
"	So. Newaygo*	"	203	786	18.0	M.	4	890	37.1	T. Carr
"	W. Oceana*	"	224	402	19.5	R. J.	4	523	31.1	Collins & Hewson
"	Otta.-Allendale*	"	269	474	18.9	G. J.	17	700	32.4	B. Johnson
"	Charlevoix*	"	256	702	26.5	J.-G.	6	846	37.4	G. Ver Snyder
"	Elsie-Ovid*	"	241	491	18.3	R. H.	2	1234	47.5	J. Coleman
"	Alcona 1*	"	244	674	24.4	M.	11	855	34.2	L. Effrich
"	Missaukee 2*	"	257	412	17.3	R. H.	9	876	32.2	L. Hunsberger
"	Ott.-Jamestown*	"	206	560	20.1	R. H.	9	1021	31.0	H. M. Vande Bunte
"	Miss.-Falmouth*	"	168	478	20.3	H.-D.	7	863	38.9	J. Spitsbergen
"	Chippewa*	"	296	640	24.1	H.	3	935	39.2	A. MacDonald
"	Kalamazoo 2*	"	352	466	21.2	R. J.	18	634	30.1	L. J. Bradley
"	Miss.-McBain*	"	225	463	19.4	M.	10	771	30.4	J. Hockwater
"	No. Antrim*	"	222	461	21.6	M.	5	788	35.6	J. Drake
"	Alpena-Leer	"	255	413	19.4	D.-G.	3	750	33.5	R. Ohlrich
"	N. Berrien*	"	278	716	31.0	R. G.	6	828	41.9	O. O. Dunham
"	Livingston*	"	369	638	25.0	R. H.	8	1014	35.1	C. Reed
"	Genesee 2*	"	204	488	18.1	R. H.	5	917	29.2	G. Van Wagoner
"	So. Eaton*	"	367	495	19.0	R. H.	11	912	31.1	L. C. Hunt
"	Traverse 1*	"	347	739	28.3	R. H.	97	1201	39.4	Traverse City S. Hos.
"	Gladwin 1	Aug.	255	489	22.7	J.	12	650	31.6	C. Glidden

*Retest rules followed.

A Neater Herd Book

HOARD'S DAIRYMAN:—I have already adopted as a New Year's resolution, "I will compile a neater and better herd book the coming year." I recommend it to other testers for adoption at any time, but preferably at the beginning of a new year for their own dairy herd improvement association.

Last year was my first year as a Michigan cow tester. In looking over the different herd books I found there were three prevailing reasons for bad looking books on my part.

In the first place I used the same pen for both the blue and the red ink I used in making entries monthly and the totals to date. The result was a blend of ink. To avoid this trouble I will have a certain pen for each ink.

In the second place I discovered I was not blotting my work thoroughly. There is nothing like having a good supply of blotters on hand and using them.

In the third place, and probably the most important, there were mistakes in adding and failing to correct them in time. Often the mistake was near the top of the page. Although amounting to just a few cents the whole column must be changed. To avoid this I have been okaying my books. Every three months I checked to see if the totals were correct. When found correct I put O.K. with red ink in the remarks columns, opposite total. With th method I can get the mistakes befo they get the best of me.

We must also bear in mind that ca fulness will go a long ways in maki a neater and better herd book.

W. G. KIRKPATRICK, Tester.

Rinsing or Washing

HOARD'S DAIRYMAN:—"It's gettig cooler now. We'll not bother abo washing the pails tonight; just ta them over by the pump and rin them out good."

How often this expression has be made, not only in regard to the m pails but all other utensils, such s the cooler, strainer, and separator.

A tester in a local cheese facto near Portland, Oregon, recently sa "Last month we threw away 8,0 pounds of cottage cheese because t was spoiled. On close inspection e found that the milk we were buyi was causing this. I took a sample f each shipper's milk after it w weighed here at the factory a placed the samples tightly corked in hot water bath. At the end of seve hours some of the samples of m turned to a solid curd but the n turned to whey or had begun to tu consequently we learned who w shipping the poor milk.

"I went out that afternoon to d cover the trouble. The first place came to they had just finished mi ing and had the pails rinsed out. I

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	No. of ass'ns. Reporting	No. of cows*	Ave. fat per cow* All cows	Ave. fat per cow* High ass'n.	Ave. fat per cow* High herd	High cow fat	No. of separators Tested	No. of separators Over .05%	Co cull
					Lbs.	Lbs.	Lbs.	Lbs.			
Wisconsin	Sept.	164	143	59,813	18.7	26.8	44.5	96.0	1197	93	9
So. Dakota	"	7	7	2,258	14.8	19.0	31.9	60.2	103	16	
Michigan	"	104	81	18,820	26.4	31.2	†58.6	†95.6			
Iowa	"	85	79	28,464		23.3	43.2				3
Utah	Aug.	5	5	2,492	25.4	27.1	46.3	76.7			
Vermont	"	22	20	9,454	20.0	25.5	43.8	72.0			

*Includes dry cows. †Retest rules followed.

to: my scraper and ran it along the se ns and sides of the pails and fo nd that thin layer of fat which is al ost invisible to the naked eye but w n placed under a powerful micro- sc pe is found to be alive with bac- te a that cannot be rinsed out with co water but must be scrubbed with a trong washing solution and then th roughly scalded with water of not le than 185°F., and the hotter the bo er. Some of the bacteria which a left to grow along the seams and si s of milk utensils are of the worst ki l and pasteurization will not de- st y them. They must be kept out fr n the start."

e also showed how the bacteria sp led the sale of the cheese; it gave th cheese a very bad odor, which if on the market for public inspec- ti would have done more damage to th r reputation as expert manufac- tu rs of pure cottage cheese than fi times the price of the 8000 pounds w ch they threw away.

Vouldn't it be much better for all co cerned to use a little cleaner m hod of producing milk?

A. W. BADGER, Tester.

Cow Testing in Illinois

n January 1, 1927, there were tw nty-eight dairy herd improvement as ociations in Illinois with 12,198 co s, owned by 700 dairymen, under te . The 8,851 cows on which a re- pit for 1926 was secured, averaged 7,.6 pounds milk containing 288 p nds fat. The average feed cost p cow was $77.53 and the average re rn above feed cost was $110.12.

n their annual report, Messrs. R de and Brock state that the aver- a cow in dairy herd improvement w k produced 72 per cent more milk th n the average cow in Illinois. The m which represents the difference in p duction between the 12,198 cows a compared with a like number of a rage yield dairy cows would be w th $776,036 at $2.00 per hundred p nds.

ne member of the Will County N nber 2 Association changed his fe l from an expensive prepared ra- ti to a home-grown one of ground o s, ground corn and cob meal, and li eed meal. By doing this he cut th cost of the feed 20 per cent, in- cased the production over 11 per c t, and increased his returns over th previous month nearly 48 per c t.

nother member was able to re- d e his feed cost 77 cents per cow d ing one month by changing to the a ised ration of corn, oats, bran, and oi meal, instead of a ration contain- in only corn and oats. His returns f one dollar expended for feed were al increased from $1.88 to $2.73.

n the Montgomery—Macoupin As- sc ation one member changed his ra- ti from corn alone to corn, oats, b n, and oil meal, and secured an in- cr se in production of 20 per cent. T high herd in the Will County N nber 1 Association had an abun- d ce of sweet clover pasture and w fed grain according to the in- st ctions given on the feeding chart w ch was left by the tester.

ne herd was receiving a poorly b anced ration and the value of the p duct was $65.00 less than the feed b . After changing to a balanced r on and feeding according to pro- d tion the herd during the second m nth showed a profit of $25.00 and o of $113.00 during the third month w h three less cows.

When the Moultrie County Associ- a n was first organized, many mem- b s were feeding 18 to 20 pounds of e corn regardless of production. U der this system during April one h d returned $3.50 over the feed cost a produced a pound of butterfat at a eed cost of 43 cents a pound. By changing to a balanced ration and feeding according to production, this herd returned $800.00 over feed cost for the year and reduced the feed cost of butterfat to 17 cents a pound.

One of the members who doubted the value of balanced rations and was of an experimental turn of mind, proved to his own satisfaction that his theory was wrong. He fed two of his cows a balanced ration while he fed the rest according to his old feeding ideas. The two cows with the opportunity averaged 7,056 pounds of milk, 394 pounds of fat, and a return of $107.74 above feed cost. The other cows in the herd averaged 5,120 pounds of milk, 279 pounds of fat, and $70.07 above the cost of feed.

6000 Herds in Honor Roll

More than 6,000 dairy herds are now included in the National Herd Honor Roll created by the National Dairy Association. This is an increase of 1,000 herds over last year. Herds of five or more cows which have produced at least 300 lbs. of butterfat per cow a year are eligible for the Honor Roll.

Wisconsin again leads the nation this year with approximately 1,400 herds, an increase of more than 175 herds. Michigan has 1,078 herds. Minnesota had 538 herds in 1926. This year the state has 659. Ohio jumped from 191 herds to 258 this year. Washington did not have a herd listed last year. This year the Apple State has registered 88 herds. Pennsylvania jumped from 335 to 426 herds. Idaho gained 38 herds. Massachusetts lists 70 herds this year against 9 in 1926.

Virginia predominates among the southern states with 105 herds, an increase of nearly 100 per cent over last year. Georgia has six herds.

Cow testing associations fostered by the National Dairy Association have been responsible for the growth of the Herd Honor Roll.

The Boss: "Robert, I hope you try to save half of what you earn."

Office Boy: "I don't get that much, sir."

More For Your Money when you buy a CHRYSLER

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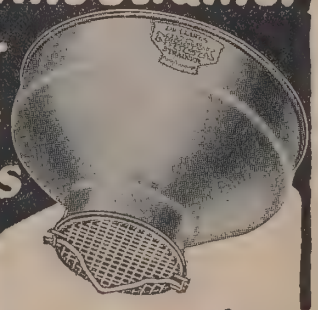
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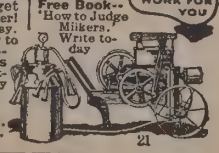
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21

Buy a Vest Pocket Herd Book

National Dairy Show Down in Dixie

(Continued from page 1043)

Boy; 3 and 5, Bower on Edgard C.; 4, Suydam on Prince of Meadow Green. Produce of Cow—1 and 3, Zoller on Cinnamon's Maiden and Styx 2nd's Beauty; 2 and 5, Hull on Ursula and Swiss Valley Girl; 4, Iowa B. S. Co. on Silver Belle. Young Herd—1, Iowa B. S. Co.; 2, Hull. Dairy Herd—1, Zoller; 2, Bower; 3, Hull; 4, Suydam; 5, Wampler. Proven Sire Class—1, Hull; 2, Wampler.

Senior and grand champion bull—Maiden's Vronicka's College Boy. Junior champion bull—Suydam's Nero.

Senior and grand champion cow—June's College Girl. Junior champion cow—Maiden of Meadow Green.

The Jerseys

Judge: J. B. Fitch, Kansas.

We had always heard that the Jersey cow ruled a popular favorite with the dairy farmers of the South and after National Dairy Show week this year, we believe that statement must be true. There were more Jerseys exhibited at Memphis than there were representatives of any other breed, more Jersey exhibitors, and a larger ringside gallery for Jersey Day than on any succeeding day. Every available seat in the judging arena tent was filled on the first day Jerseys were judged. They came early and most of them stayed until the judging was completed at 5 o'clock. More than that it wasn't just a crowd of spectators, it was an interested crowd that made its likes and dislikes in the matter of placings known.

Two hundred and fifty-eight Jerseys from fifty-eight different herds in thirteen states gave Judge Fitch a busy two days and while, as always, some of the entries weren't quite up to standard, it was a splendid show.

The Twin Oaks herd from New Jersey has for several years been showing winners especially in the bull classes and Bob Callender, who has charge of the herd, didn't disappoint his friends this year. He didn't do so well in the calf or in the 2-year-old class but in the other four he held number one position without much trouble, and both bull championships were won by his entries.

In the two-year-old class the first prize winner at Eastern States, a Twin Oaks entry, went down to sixth. This wasn't so much of a surprise, but some spectators looked to see the Longview entry or one from The Oaklands crowd the son of Fern's Wexford Noble from Crieve Hall Farms a little harder for first place. At some of the earlier shows we believe at least one of these contenders has placed above the Tennessee bull.

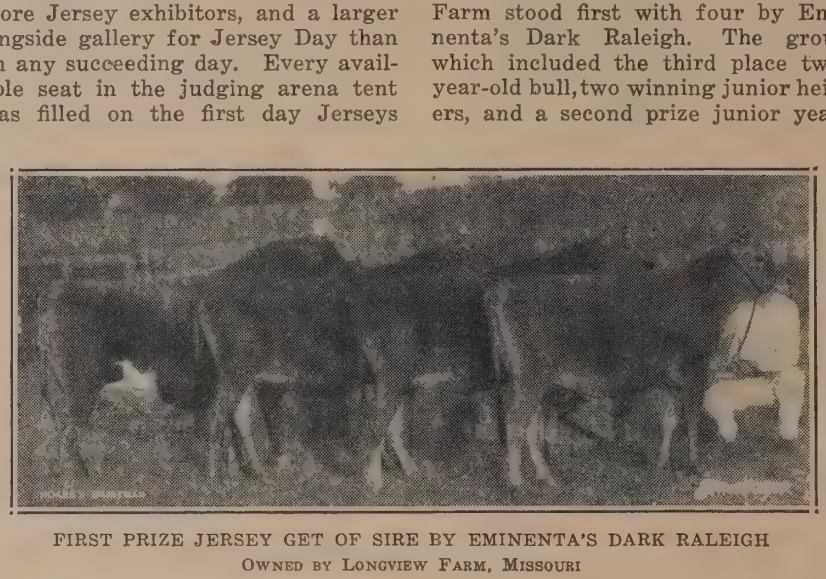
The winning three-year-old, Oxford Wexford Noble from Twin Oaks, will be remembered as last year's grand champion. He was a good winner this time but he wasn't good enough to beat the 7-year-old Fern's Rochette Noble, another son of Fern's Wexford Noble, for senior championship. The aged bull is a wonderful bodied, good lined bull that was in the best of show shape on show day.

The aged cow class with 25 entries was the second largest class of Jerseys shown and it was just about the easiest class from which to select the winner, for even among twenty-five, most of them good ones, Crieve Hall Blonde's Segunda was outstanding. She has been undefeated so far this year and we haven't seen one for a year or two at least that we think could beat her.

Crieve Hall Farms won again in the 4-year-olds, but after that they couldn't get better than third in the female classes. The Oaklands won with their 3-year-old daughter of Imp. Forward and Twin Oaks and Longview divided the remaining four blue ribbons equally.

The aged cow was an outstanding senior and grand champion and Longview's senior yearling was junior champion.

In the get of sire class Longview Farm stood first with four by Eminenta's Dark Raleigh. The group which included the third place two-year-old bull, two winning junior heifers, and a second prize junior year-



FIRST PRIZE JERSEY GET OF SIRE BY EMINENTA'S DARK RALEIGH
OWNED BY LONGVIEW FARM, MISSOURI

ling, were no doubt entitled to their place especially with their single class placings to be considered, but from the side lines we rather preferred the more mature get by Fern's Wexford Noble. It included the grand champion bull, the first prize three-year-old, and two two-year-old heifers.

The awards follow:

Bull 4 years or over—1, Twin Oaks on Fern's Rochette Noble; 2, Wardmere on Blonde's Oxford Baron; 3, Oaklands on Blonde's Xenia Sultan; 4, Morrison on Raleigh's Farmer's Glory; 5, Douglass Bros. on Silver's Fauvic. Bull 3 years, under 4—1, Twin Oaks on Oxford Wexford Noble; 2, Ashland on Butter Boy's Bright Prince; 3, Bonnell on Sybil's Lustrous Lad; 4, Duntreath on Raleigh's Bright Sultana; 5, Oaklands on Oxford's Sleeper's Nap. Bull 2 years under 3—1, Crieve Hall on Bermuda Wexford Noble; 2, Berry Schools on Sydonie's Noble Raleigh; 3, Longview on Fairy's Eminent Raleigh; 4, Cohn on Noble Jolly's Silver Medal; 5, Trost on Oxfonde Noble.

Cow 5 years or over—1 and 4, Crieve Hall on Crieve Hall Blonde's Segunda and Crieve Hall Dreamer's Fairy; 2, Twin Oaks on Rower's Golden Starlight; 3, Oaklands on Oakland's Roella; 5, Longview on Lady March Fern P. Cow 4 years, under 5—1, Crieve Hall on Volunteer's Nurse Segunda; 2 and 3, Oaklands on Lady of Broadfield Imp. and Rosebay's Finance; 4, La. State Uni. on Eminent's Raleigh Flora; 5, Biltmore on Raleigh's Ever Eminence. Cow 3 years, under 4—1, Oaklands on Forward's Paradise; 2, Twin Oaks on Bowlina's Xenia Lass; 3, Crieve Hall on Brampton Mary; 4, La. State Uni. on Jolly Majesty's Lady Bell; 5, Berry Schools on Jolly's Bisson Belle. Heifer 2 years, under 3—1, Twin Oaks on Design's Oxford Pride; 2, Oaklands on Brampton's Successful Lass; 3, Longview on Imp. Sunbeam's Clipper; 4, Crieve Hall on Crieve Hall's Rainbow; 5, Berry Schools on Leda's Jolly Brown Girl.

Get of Sire—1, Longview on Eminenta's Dark Raleigh; 2 and 5, Twin Oaks on Fern's Wexford Noble and Imp. Fern's Oxford Noble; 3, Oaklands on Imp. Forward; 4, B Schools on Leda's Whitehall Raleigh. Pro of cow—1, Crieve Hall on Royal Carus S.; 2 La. Uni. on Best Clemence of Leigh 3, Twin Oaks on Warder's Briar Rose; 4 5, Longview on Chief Raleigh's Dairymaid Dairylike Ceres. Young Herd—1 and 5, L view; 2, Twin Oaks; 3, Oaklands; 4, B Schools. Dairy Herd—1, Crieve Hall; 2, lands; 3, Longview; 4, Bonnell; 5, La. Proven Sire Class—1, Bonnell; 2, Cohn; 3, Uni.; 4, Shuford. Eight animals entered state breeders' Asso.—1, Tennessee; 2, M gan; 3, Missouri; 4, Georgia; 5, Ohio.

Senior and grand champion bull—F Rochette Noble. Junior champion bull—F Signal of Oaklands.

Senior and grand champion cow—C Hall Blonde's Segunda. Junior champion —Dark Raleigh's Rose.

The Guernseys

Judge: John S. Clark, New Y

John Clark had the best Guern show of the year, and one of the b we've ever seen, to pass on at M phis, October 20—21. There w 190 Guernseys there and except one or two classes, the tops and near tops were exceptionally g ones.

The aged bull class, while v good, wasn't so interesting as might otherwise have been beca the three best entries, Border King Roberts owned by The Larsen C ing Co., Shorewood Resolute fr Emmadine Farm, and May R Cherub owned by Mrs. Chauncey Cormick, have met so often dur the past three seasons that the sp tators are beginning to mark th catalogs ahead of time in antici tion of the judge's placings. course sometimes those who do have to look for an eraser, but wasn't necessary at Memphis. three bulls placed as named, Ju Clark giving the Wisconsin bull cr it for a better head and better spr of rib and criticizing the more sty Illinois entry for being too thick not sufficiently good on top.

D. D. Tenney's Cherub's Golden cret of Shorewood finished his sea an undefeated three-year-old Cherub's Yank of the Prairie ow by W. W. Marsh headed the t year-olds. Neither bull was su ciently good to beat the aged bull senior championship.

Emmadine Farms showed the j ior champion, a senior yearling of Shorewood Resolute, and the younger bull classes were won Aiyukpa entries from New York.

In the female classes W. H. W liams' entries pretty well monop lized the blue ribbons, taking th all but one. They showed no thr year-old heifer.

Shuttlewick Levity headed about the best aged cow class we e saw. She of course is in a class herself,—a really wonderful cow, she was by no means the only g

(Continued on page 1068)



CRIEVE HALL BLONDE'S SEGUNDA, SENIOR AND GR CHAMPION JERSEY COW, WITH FRANK BARTON FARM MANAGER, AND MR. AND MRS. HERBERT FARRELL, OF TENNESSEE, OWNERS



The Farmer Is the Biggest Truck User!

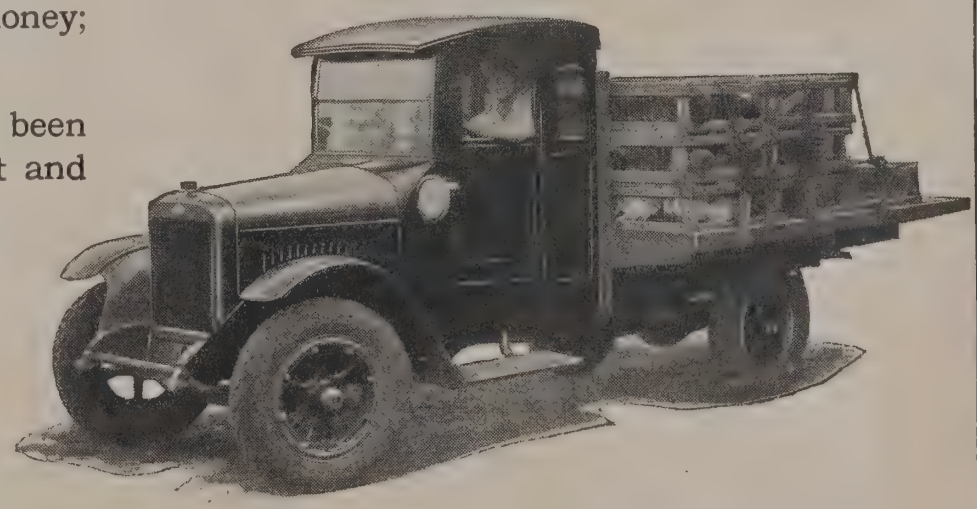
MOTOR trucks everywhere and the farmer leads all other groups. The National Automobile Chamber of Commerce has just published figures to show that farmers own over 248,000 trucks and the next group has a hundred thousand less.

That shows the spirit of farming in the U. S. A. The farmer needs fast, time-saving, economical hauling and he invests in the good motor truck. He has loads and loads of every description to haul, the year around, and hundreds of miles to go. His time is money; he cannot afford to waste it on the road.

International Harvester Trucks have been cooperating with the farmer to his profit and satisfaction for many years. In every county the nation over International trucks are relied on. They come in any size any man might need, from the ¾-ton Special Delivery and the Speed Truck line up to the 5-ton Heavy-Duty Truck, with bodies for every kind of farm hauling. As for service, remember our 136 Company-owned branches in the United States. The service Mr. Rockne speaks of in his letter is the same as you will get anywhere.

Write us for an International Truck folder which gives full details about the line.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA
(Incorporated)
606 So. Michigan Ave. Chicago, Illinois



And the Careful Farmer Sticks to
INTERNATIONAL TRUCKS

From a Stockman

Mission Hill, S. D.
Aug. 26, 1927

Gentlemen:

We are boosters for the International Harvester Company. We have three International Trucks in use all of the time. These are stock trucks and are run from here to Sioux City, a distance of about 140 miles round trip, and we find they stand up wonderfully. The service one receives at their place of business in Sioux City is of the very best.

The letters, "I. H. C.," it seems to me, might fittingly stand for Industry, Honesty, and Courtesy.

Yours truly,
O. D. Rockne,
Mission Hill, S. D.

From a Dairyman

Caldwell, Idaho
Aug. 17, 1927

Gentlemen:

Under separate cover we are mailing you a picture of our fleet of International Trucks. (See illustration above.)

You will recall that we have purchased fourteen Internationals from ¾-ton to 1½-ton capacity, and I take great pleasure in telling you that in my thirteen years of experience in hauling cream with motor trucks, I have had more satisfaction with the International Trucks than any other make we have used. I might say we have standardized entirely on your equipment.

Yours very truly,
J. R. Brown, Manager
Dairymen's Co-op. Creamery of Boise Valley

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Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Nov. 14-19—Pacific Slope Dairy Show, Oakland, Calif.

Nov. 29-30—National Creamery Buttermakers' Association, Nicollet Hotel, Minneapolis, Minn.

Jersey Fieldman for South

Prof. J. W. Keegan, formerly at Clemson College, South Carolina, has been appointed field representative for the American Jersey Cattle Club in the states of Mississippi and Alabama.

Widow: "If poor John had only made a will there would not be all this difficulty about the property."

Visitor: "Do the lawyers bother you?"

Widow: "Bother me? They almost worry me to death. I sometimes almost wish that John hadn't died."—Exchange.

Black Goes East

Harvard University is extending the scope of its instruction in farm problems and agricultural economics by adding to the faculty one of the foremost authorities in that field, Professor John D. Black, who has been chief of the Division of Agricultural Economics in the University of Minnesota since 1920.

An extensive research program is contemplated under the direction of Professor Black. Harvard is peculiarly qualified to undertake research-



PROF. JOHN D. BLACK

Who has resigned as chief of the Division of Agricultural Economics in the University of Minnesota to teach Agricultural Economics at Harvard University.

es having a national scope, Professor Black says, because of its character as a national university.

Professor Black was born on a farm in Jefferson County, Wisconsin. He was graduated from the University of Wisconsin in 1909, and received his Ph. D. in 1918. He has taught at Western Reserve University, Cleveland, O.; Michigan College of Mines, Houghton, Mich.; University of Wisconsin and the University of Minnesota. He built up the department of agricultural economics at the University of Minnesota from two graduate students to fifty, the largest in the country. Men trained at Minnesota are now teaching and doing research work in agricultural economics in 23 states and several foreign countries.

Soil Management

The second edition of Firman E. Bear's book on Soil Management is ready for distribution. The book is intended primarily for use in beginning courses in soils in agricultural colleges, in which many of the students are not interested in the more technical phases of the subject and have little or no need for the course except as it may be useful to them in making practical application of the solution of problems of soil management. Old material has been revised where necessary and new material added. Copies of the book may be secured from Hoard's Dairyman Book Department on receipt of $3.50 per copy.

Try This on the Cow

"About three years ago," says Ed. Neterval in the annual report of the Kenosha, Wisconsin, Cow Testing Association, "I was milking 32 head of dairy cows. As we had an abundance of mixed timothy hay which we raised on the farm, I was feeding this to my herd. I had the opportunity to buy a carload of alfalfa hay that was slightly colored in transportation from the West, so I made this purchase for $180 for the full carload.

"As soon as we began to feed this alfalfa, our cows increased in milk flow very noticeably. We then baled and sold a carload of our timothy hay for $190.

"When our carload of alfalfa was fed up our herd dropped in production to the amount of 3 cans per day or 204 lbs. while we were still milking the same cows as before. We figured out the value of this extra 204 lbs. milk per day for the period of time we were feeding the alfalfa hay and found it paid for itself in extra milk and we had the $190 for the timothy sold besides."

T. B. Cattle Branded in California

Our attention has been called, by Mr. W. B. Stull of California, to the fact that an error appeared in the article by Peter Guyson concerning the branding of tubercular cattle in California.

California enacted a new tubercular law that went into effect in July of this year which provides among other things that all animals reacting to the tuberculin test must be branded with a hot iron with the letter "T" on the left jaw. The brand must be not less than three inches in height and two inches wide, and the branding edge of the "T" shall be not less than one-eighth of an inch in width.

It may be well to add that the article by Mr. Guyson was prepared prior to the enactment of the California law and publication was delayed owing to the pressure on our space for other material. The conflict between the statement as made and the new California law was not noted by the editors prior to the final publication of the article.

Alfalfa Variety Trials

HOARD'S DAIRYMAN:—The most widely grown forage crop in irrigated regions of the Pacific Northwest is alfalfa. At high elevations Grimm alfalfa has been established for some time, and its excellence, under the rigorous conditions obtaining in high mountain valleys, has long since ceased to be questioned. General farm practice has indicated that this advantage was perhaps lost at lower altitudes, and, of course, warmer regions. Research on this point has been carried on by the Washington Experiment Station since 1919, and the results obtained to date indicate that in the Yakima Valley, which is fairly typical of the warmer regions of moderate elevation, northern grown common alfalfas exceed in yield the Grimm variety and others of the variegated strains.

According to the United States Department of Agriculture, there are five alfalfa varieties common to the United States, and the classification in brief is as follows:

"This common group includes the ordinary purple-flowered, smooth alfalfa of which there are numerous regional strains generally grown throughout the western part of the United States.

"The Turkestan group includes alfalfas that have been developed in Turkestan. They differ from the common alfalfas of this country in that they are somewhat shorter and more spreading in habit of growth and are slightly more hairy. No commercial distinction is made between the various strains from Turkestan, all of them being sold under the name 'Turkestan.'

"The variegated group includes the alfalfas that have originated from a cross between common alfalfa (Medicago sativa) and the yellow-flowered species (Medicago falcata). The Grimm, Baltic, Canadian variegated, and sand lucern are best known amples of this group.

"The nonhardy group incl rather distinct varieties that are susceptible to low temperatu They are, in general, very erec habit of growth, recover quickly a cutting, and have a long grov period. The Peruvian and Ara varieties are members of this gr

"The yellow-flowered group cludes the various forms of the low-flowered species. They are e distinguished from members of other group by their yellow flo and crescent or sickle shaped pod

The studies of the Washington periment Station in the Yakima gion, in addition to establishing superiority of the common strains dicate emphatically the inferiorit Turkestan and Peruvian; in fact, ter the severe conditions during winter of 1924—25 the Peruvian fi were depleted to one plant per square feet. One year during the the Peruvian was second highest ducer in the variety study. Per cally Peruvian alfalfas win te rary favor in the Northwest. Sow a result of the solicitations of s seed dealer and with weather co tions mild, a year or two of good sults may be obtained, and when t alfalfas are doing well they prese very pleasing appearance. Such the condition, for example, in I County, Oregon, about 1920. So or later a severe freeze cleans out stand, as occurred in Lake Count 1922.

In the Washington experiment common alfalfas are so similar in duction that they have been grou for further consideration. Over a year period no marked differe were obtained in yields from Dak Kansas, or Montana seed. The su iority of the common varieties the variegated varieties was a ton per acre per year for the six- period. Results obtained in this st in the Yakima Valley are gener applicable, as a rough estimate, half of the alfalfa acreage in Pacific Northwest.

Oregon. F. L. BALLAR

Romance of Dairying

"Much romance," says Sen Copeland of New York, "is attac to the dairy industry, although m of those engaged in it fail to se Actually the dairymen of the cou are doing more for humanity than other group of people, but they, th selves, and most of the public fa appreciate this. When car lines tied up, the ice men on strike, roads are almost impassable, when the general public is on holi the milkman is on his rounds deli ing the life-promoting fluid for little babies who depend upon Therein is the great romance."

Bulletins of Interest

The Common Chokecherry a Plant Poisonous to Sheep and Cal by C. E. Fleming, M. R. Miller, Dr. L. R. Vawter. Bulletin 109, vada Experiment Station, Reno, N

Study of the Manufacture of ter Ices and Sherbets, by A. C. D berg. Bulletin 536, New York periment Station, Geneva, N. Y.

Peas in the Diet, by Abby L. latt. Special Circular by Exten Service of Wisconsin College of A culture, Madison, Wis.

Electricity for the Dairy Farm Southern Wisconsin Electric C pany, Lake Geneva, Wis.

Bacterial Stalk Rot of Corn, b R. Rosen, Bulletin 209, Arkansas periment Station, Fayetteville,

Studies in Milk Secretion, by J Gowen. Bulletin 329, Maine Exp ment, Station, Orono, Me.

Sore throat waits here also



In the **THROAT** *and nose more than* **50 diseases**

have their beginning or development. Some, of mild character, yield to an antiseptic. Others, more serious, do not. At the first sign of an irritated throat, gargle frequently with Listerine, and if no improvement is shown, consult a physician.

watch your throat!

Gargle when you get home

After long exposure to bad weather, after sudden changes of temperature, after mingling with crowds—gargle with Listerine, the safe antiseptic, when you get home.

This pleasant precaution has nipped many a cold and sore throat in the bud, before they became serious.

Listerine, being antiseptic, immediately attacks the countless bacteria that lodge in the mouth and throat where so many colds start.

It is important, however, that you use it early—and frequently.

Most of the fall and winter months are "sore throat months," and for your own protection use Listerine night and morning. It is a good habit to acquire. Lambert Pharmacal Company, St. Louis, Mo., U. S. A.

SOUNDS LOGICAL
The great success of Listerine Tooth Paste has proved that the idea of a scientific dentifrice at 25c (for the large tube) is a popular one.

LISTERINE

—the safe antiseptic

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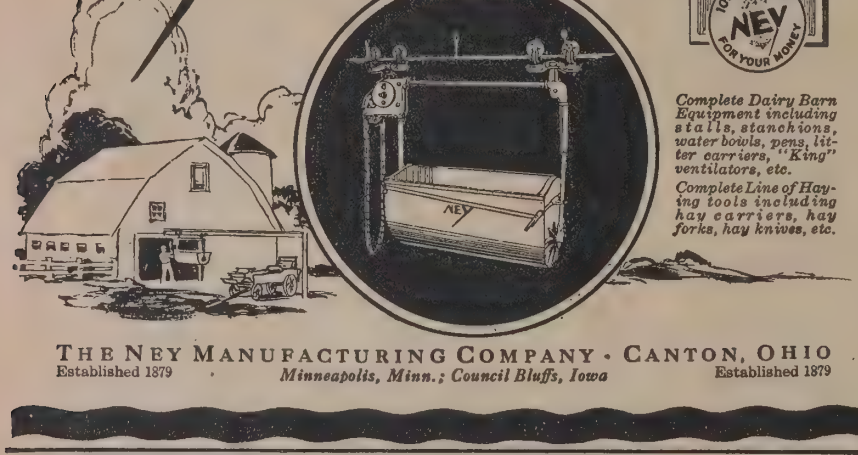
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HEALTHY, sanitary conditions in the dairy barn make happy, contented cows. And happy, healthy cows produce more milk—and a better quality milk. That means bigger milk profits for you.

Ney Litter Carriers and other Dairy Barn Equipment will improve the condition of your barn—help your cows produce richer milk and pile up more milk profits for you.

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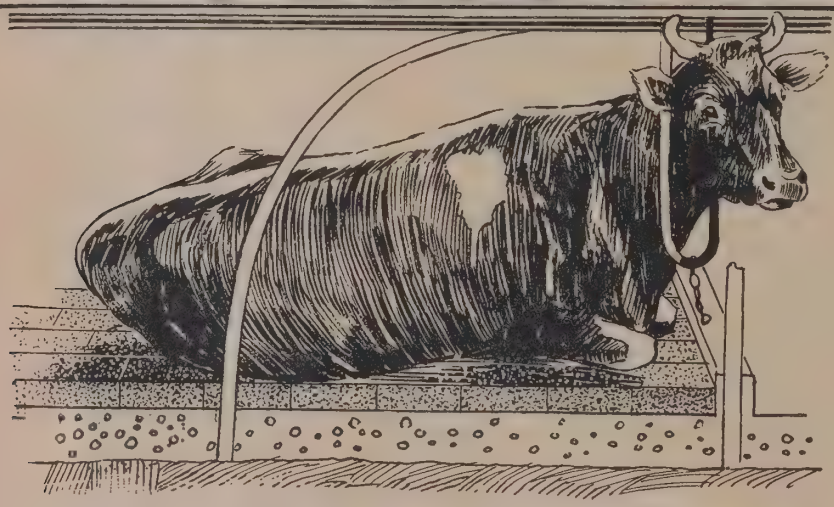
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Complete Line of Haying tools including hay carriers, hay forks, hay knives, etc.

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A sample brick and the book, "Circle A Cork Brick," will be sent on request. ARMSTRONG CORK & INSULATION COMPANY, 112 Twenty-fourth Street, Pittsburgh, Pa.

Circle A Cork Brick Floors

For Dairy Barns and Hog Houses

OWNER AND TENANT

G. P. WILLIAMS, OHIO

ON the way to his present position as an outstanding Maryland dairy farmer, A. H. Derr of Frederick County worked by the day and by the month. In his young days Mr. Derr cut corn for a dollar a day and was concerned about giving his employer the worth of that dollar! Although Mr. Derr has a working investment much in excess of many farm owners, he chooses to operate a 220-acre farm as a tenant.

The Moran farm running up to the outskirts of Frederick represents an investment that does not permit the owner to stack up his returns and say that it pays in cold cash—but listen! The Moran farm has been formed by the consolidation of two of the historic old farmsteads of this glorious agricultural county, so that the landlord still lives a gratifying retired life in a fine farm residence set back among the trees while Mr. Derr occupies the other homestead with all modern conveniences. This is an ideal form of tenancy.

The Moran farm is not a gentleman's estate but a farm formerly operated by the owner. This owner chooses to live a comfortable life and enjoy seeing his lands in thrifty and competent hands. These same conditions are to be found everywhere—farm owners who stand ready to negotiate part of the farm dividends in personal satisfaction as they look out over the acreage of well tilled land they once labored on and that has a significance that prosperous appearances now enhance. This form of tenancy is rather frequent in Frederick County—the operating tenant being fully equipped with teams, dairies, and implements on the one hand and the landlord maintaining the staunch old houses and barns in the same condition of commanding dignity that has always struck the knowing agricultural eye as a distinctive garden spot of our country.

It was not by direction of anyone that the writer drove to the Moran—Derr farms—it was the four massive teams of Percheron horses working in the hay fields as the casual traveler passed the place. It was the growing corn and the outstretched acreage of June wheat shedding its aroma and the staunch farmsteads that invited a closer acquaintance.

Five hundred dairymen in Frederick County ship milk to Washington; 300 others ship to Baltimore and still another 200 put their product into the Philadelphia daily milk trade. Right now Mr. Derr is loading 600 pounds milk daily—two young Derrs being his right hand men behind the cows at milking time. This cow herd is sort of a double header—half registe Jerseys and half registered Holste During the month of May the D herd stood third in the county testing association. The average for the herd was 4.3; no Jersey av aged less than 5% and the high in the herd scored a fat test of Mr. Derr's two bulls are both p winners in the Maryland fairs circ

Mr. Derr works ten Perche horses, mostly mares, which he been breeding ten years. One of mares has raised five colts on farm, one of which commanded price of $500. The tandem hitch characteristic of the whole Freder — Walkerville — Middletown secti While waiting for the hay to dry the morning of my visit, four D teams of Percherons were cultivat corn. On an adjoining farm two t dem hitches were taking out the l of the barnyard manure.

Mr. Derr himself is the man at hay loader end of the load—twen foot hay wagons being the type m common in the county. One yo Derr was on the mower and anot young Derr was riding the side-de ery rake. There is also a Derr dau ter—possibly it was she, maybe mother, that baked that wonder raisin pie!

Last year the wheat crop on Moran—Derr farms threshed 3, bushels. Thirty acres of sweet c are being tilled this year at contr price for a local cannery. The av age delivery of ears per acre last y was around three tons, while stalks are cut into the silo once week and stacked up approximat 150 tons of silage as a by-product

There was no manure in the D barnyard the 25th of June. Th weren't two wagon loads of straw sight from that 3,600-bushel crop last year's wheat. There is no sp ing your shoe-shine in Mr. De barnyard at this season of the yea no stepping light or hanging to fence to keep out of soft footing wh moving among the cows after milki

Though hard at work in the l field, both Mr. Derr and his two s were noticeably clean shaven dressed in fresh, clean clothes. man who works hard ought to comfortable—clean, fresh clot contribute to that. I have never s a cleaner dressed and more comfo able looking man working at the "h end" of a hay loader than Mr. De When it comes to turning out a la volume of heavy work and keep ahead of the season with it, perso morale is a large factor—and M Derr's personal tidiness and appar personal bodily comfort seem to radiated all over the farm.



PUTTING UP HAY WITH PERCHERONS ON THE MORAN—DERR FARMS



You can tell 'em for *me*

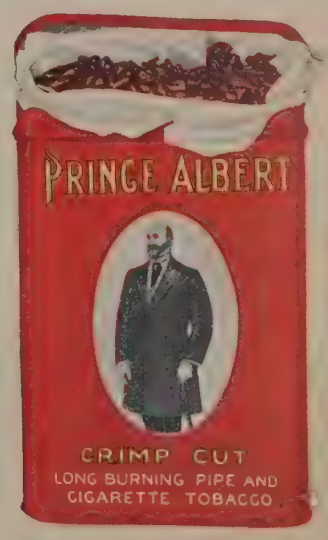
P. A. PUTS into the bowl of a pipe exactly what I expect to take out through the stem—Satisfaction, with what the printers call a cap S. When I first went in for a pipe, I said: "Give me a tobacco that won't bite the tongue or parch the throat—something mild."

The man shoved a bright-red tin across the counter, and said: "Here's Prince Albert." Smart fellow! He knew his stuff. I opened the tin and got a real thrill out of the aroma itself. Some fragrance, Fellows. If the taste was *half* as good, I said, P. A. was *my* brand for life.

Half as good? Huh! It was marvelous! Cool as the boss when you ask for a raise. Sweet as an extra five in next week's envelope. Mild and mellow and long-burning, with that rich, full-flavored tobacco body you want in a smoke. There's nothing like Prince Albert, Boys.

You never get fed-up on P. A., no matter how hard you hit it up. Morning to midnight. Slow or fast. Just fill your pipe and hop *to* it. If you think I'm over-enthusiastic, there's one sure way to tell. Make the personal test!

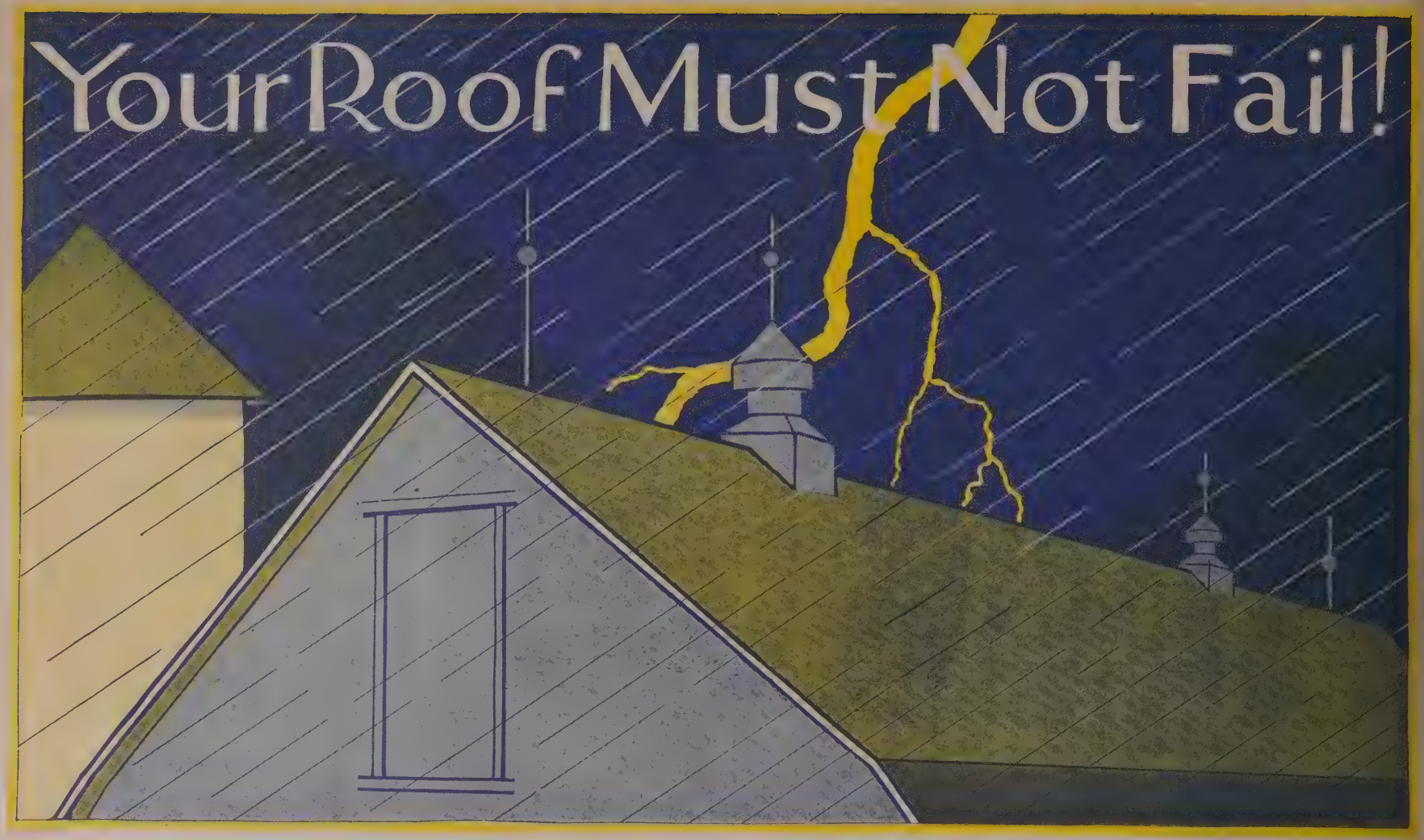
P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



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How much thought do you give to selecting the material that must meet this warfare with the elements? What assurance that when the job is finished, it will remain steadfast against water and wind, heat and cold, hailstorm and gale?

You can tell something about roofing by looking at it, handling it, but to a large extent you must buy it on faith. You must take the manufacturer's word. And fortunately there are manufacturers who know the farm problem. They have studied roofs under all sorts of conditions for many years. They have experimented with every kind of material. Modern machinery and efficient methods keep costs down and make prices reasonable.

That's the kind of roofing made by manufacturers who advertise in this paper. By years of square dealing they have built up the reputations men are proud of. Their laboratories jealously protect that reputation, and their inspectors see that no inferior material goes into the product.

The finished product is honestly made to give service, and on goes the Trade Mark, the personal signature of the manufacturer. It's a product he's proud of. When he drives by your place he will point to it after years of use and say, "That's one of my roofs."

And when you see that manufacturer's advertising in this paper, you know the maker backs it with his reputation. On top of that this publication adds its endorsement, saying, "This is a good and worthy product. You can buy it and be well satisfied."





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Everyone knows the famous RADIOLA 20, which established itself as "the greatest value in radio." Many thousands of these receivers are now in use throughout the country. Their amazing sensitivity and selectivity have given them a deservedly high reputation, and particularly in farm homes.

And now RCA, in cooperation with the Westinghouse and General Electric laboratories, offers another remarkable value in a highly efficient receiver—the new storage battery set, RADIOLA 16.



RADIOLA 16—Storage battery receiver of great compactness. For selectivity, sensitivity and tone quality, it sets a new standard for receivers in its price class. The cabinet is finished in mahogany.

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Seasonable Live Stock Notes

[ERE we are again back in sight of home barns and familiar surroundings. It has been a grind for show animals that ted early and hung on proving r worthiness to contest for champ- nships in the arenas of the last big ws.

erdsmen who have gone the full e welcome regular meals and ething to sleep on besides baled w. These artists of show ring ests who polish horns, who pa- tly teach animals to behave while ding at pleasing postures, who e animals up or down the line at a from the judge—these men con- ute much to the breeding of erior animals as also to the enter- ment and education of thousands eople who sit at the ringside. Let fully acclaim their services.

et us look to the future to the do- of things tomorrow and next k that may influence the returns n our flocks and herds during the oming new year.

Let's Be Fair With Our Cows

ome dairy cows will show a loss ome herds and a profit in others, of which implies a difference in managers. Usually in such cases reason may be ascribed mainly to er feeding both before and after ring.

Dairy cows are a little like popular letes; it is difficult to make them duce in maximum form every year. y go down some years frequently no apparent reason.

One should not be in too great te to turn a cow out of his herd apparent failure to produce satis- orily. We know a very successful yman in Michigan who gives each ng cow two years (lactations), to ve her right to remain in the herd. minimum standard is fairly high. gives each cow the benefit of the bt and he also gives cows good ra- s. He aims to be fair with his cows. t this time of year what better g can one do for one's self than be fair with one's cows.

Improve Unpalatable Roughage

When seasonal weather conditions such as to reduce the quality of ghages to the extent that cows refuse to eat normal amounts, the of milk production increases un- something is done to improve the atability of such roughage. This r, for example, quite a lot of Wis- sin's fodder corn was caught in e or less rain every day for two ks after it had been put in shocks. vs will certainly cut down on the y consumption of roughage if of- d such fodder. Hay is sometimes coarse or has lost too many leaves e relished by cows. Such rough- may be made more palatable by ting it through a feed cutter or der after which it is moistened h thinned feeding molasses. The lasses, aside from its feeding value ch is nearly equal to ground corn, es a flavor relished by cows after y have become accustomed to it.

Building Up an Abused Cow

few days ago we received an in- ry from a subscriber who had ked a high producing cow right up calving time. He wanted to know y to proceed through the succeed- lactation period. Presumably the uirer wanted his cow to continue give plenty of milk after calving at the same time regain the de- tions resulting from past abuses. s a timely topic about cows in like umstance of which there are a siderable number. The first thing cow will do that will likely sur- e her owner is to bear a healthy, normal-sized calf. That is, she will do this if her pregnant feeding period was reasonably good. The second thing that will surprise the owner of this cow is that she will likely drop considerable in production from her normal level in spite of how well she is fed. We assume here, of course, that the cow was pretty well worked down when she calved. Liberal feeding is all that can be done for this cow until she approaches the close of her lactation at which time she should be dried off 8 weeks before calving. During this 8 weeks she must be fed enough of the right feeds to enable her to rebuild her body.

Swine Breeding Season is Here

Sows bred on November 7, three days ago, will farrow on or about February 27 but that is too early for pigs on most dairy farms. Some farmers with good equipment and enough gumption to stay up late nights in the hog house will venture the risk.

One of the most important immediate factors that may have considerable to do with the number of pigs farrowed next spring is that of condition of sows at breeding time.

Progressive swine producers have learned to imitate a practice known among sheep producers as "flushing." Beneficial results of the practice are based on the theory that sows that are made to gain rapidly for a week or two before being bred will release a larger number of female egg cells, ova, at a given heat period than they will under any other condition. Inasmuch as the number of pigs in a litter is limited to not more than the number of ova released at the time of conception, the practice is based on fairly firm calculation. The success of the practice requires also that boars in good breeding condition be used.

Fitting the Boar for Service

A well known authority on swine production makes the statement that nine out of every ten mistakes made in feeding the mature boar are the result of supplying him too liberally with feed and too little with exercise as a consequence of which he becomes too fat.

A large number of boars will not be put in service for several weeks. Is your boar overweight? Does he have opportunity for a reasonable amount of exercise? Now is the time to consider whether some changes ought to be made in his management.

Record Date of Service

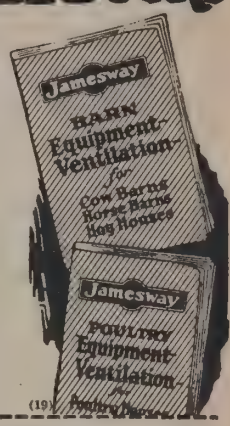
Many a litter of pigs has been lost because the owner failed to record the date of service of the sow in consequence of which he neglects to take proper preliminary precaution at farrowing time or sometimes takes no precaution at all. The sow does the best she can which is surprisingly well if the weather is dry and warm but frequently she gets caught on the rainy side of an old straw pile or out in the woods. Her pigs perish and her owner takes up the slack in his purse strings. Occasionally one records the date of service and promptly forgets where he put the record. Frequently service records are marked down on whatever happens to be handy when one thinks about marking them down. We have seen such records on hog house doors, on the wall of the hog house, on a shingle stuck overhead in the hog house, or on bits of paper that happened to be tacked up in the hog house. For the sake of sows and their prospective litters it is important to record dates of service and to be able to find the information when it is needed.





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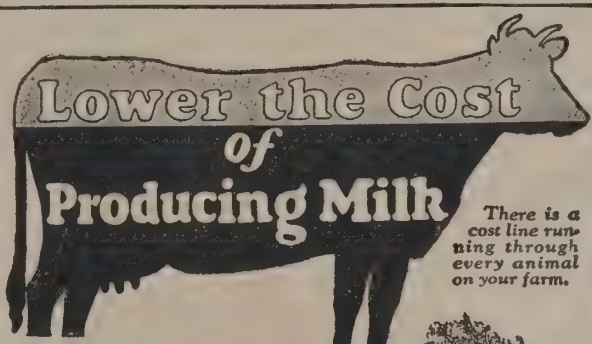
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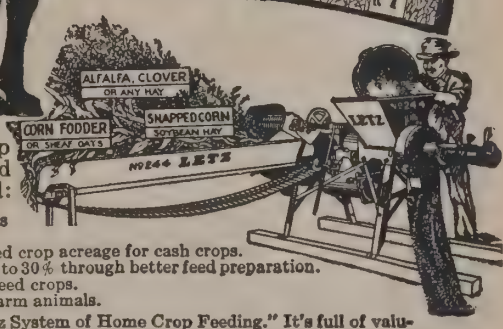
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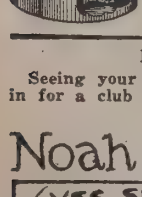
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DON'T PUT OFF

Seeing your friends and having them join in for a club of subscribers.

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., October 20—Announcement is made this week at the Washington office of the American Dairy Federation that it is now believed to be well assured that the request of the industry expressed through the Federation for considerable new research work in the Bureau of Dairy Industry will be approved by the Bureau of the Budget. This is the same program as presented last year, and the fact that in spite of disappointments last year the representatives of the industry came back this year with the same program seems to have emphasized the importance of the program. Dr. C. W. Larson, chief of the Bureau, made detailed explanations of the program before the advisory committee of the Budget bureau last week, and has had the full support and approval of both Dr. A. F. Woods, director of Scientific Research, and Secretary of Agriculture Jardine.

The program asked for has been outlined in this correspondence before. It includes approximately $20,000 for intensive new work in nutrition of dairy cows, about the same amount for further work in studying the problems of breeding to fix high production characteristics. More animals for experimental work in both the inbreeding and the cross-breeding experiments are badly needed and also funds to carry on a lot more co-operative work where the only expense is for supervision. About as much more appropriation is asked for to go ahead with work of fundamental character in the various manufacturing problems in the industry, in chemistry and in bacteriology dealing with the problems of handling milk and manufacturing milk products. The remainder making up approximately $100,000 is for the care and feeding of the larger herd of cattle needed and two small new buildings on the Beltsville experimental plant.

The statement is made on behalf of President Bailey and the officers of this organization that they believe every project set down is of such grave importance to the industry and the public, in helping this greatest of all agricultural food producing industry, that they are prepared to take the whole matter directly to Congress to get its approval on the whole program.

Poultry production has stepped up to the third largest branch of animal industry, according to a Department report just issued. Poultry products now account for 16 per cent of the total of all animal products in domestic commerce, it is stated, with hog products accounting for 22 per cent and dairy products 40 per cent. These figures are in sharp contrast with the volume of government money spent through the department and of taxpayers' money spent in the several states on projects designed to aid and assist the development of these industries. In the U. S. Department of Agriculture, for example, although there is a bureau devoted to dairying, it has the least money of any bureau in the department except one, while as to the poultry industry it is a minor part of another bureau, and while some unusually effective work has been done both in the production and the marketing field, it ranks way down below the average of a large number of other kinds of work far less important in dollars and cents.

One reason for all of this is that the Department of Agriculture is not organized along lines of commodities or industry divisions. It is organized chiefly on the basis of a bureau to each science involved, one on plants, one on animals, one on forestry, one on meteorology, one on insects, one on chemistry, one on economics, etc. This scatters the poultry work in at least three bureaus, animal industry, economics, and entomology, just as it does the work for a dozen other great agricultural industries, and it handicaps and discourages those in the industries who come to Washington for real help. The Dairy Bureau was a step away from this situation.

Progress in Spite of Adversity

HOARD'S DAIRYMAN:—Leland Bandelow had always been a strong, healthy farm boy until a strange lingering sickness, lasting for two years, left him crippled and almost helpless. This misfortune, together with the death of his mother, left him utterly discouraged.

However, with a faint ray of hope he again entered school to complete his high school education. He was especially interested in agriculture to which he applied himself diligently and live stock was his favorite branch. He never missed a judging contest though he often hobbled along on his crutches a few minutes late.

"I am going to make the stock judging team," he told his teacher.

The first six weeks of agriculture last fall were devoted entirely to stock judging. Every day the instructor kept a careful report of the boy's scores. The day the winners were announced was exciting for Leland for his name was among the first three.

The ride to Madison to the State Live Stock Judging Contest was anything but comfortable with his stiff leg jostled in a crowded car. Nor were his travels about Madison convenient for he had to depend on his colleagues for help in getting about



LELAND BANDELOW AND HIS CHICKENS

the city and to and from the jud arena. However, his efforts were rewarded for he helped his teamn win ninth place in judging all cl of live stock among 72 conte teams and second place in the jud of beef cattle.

Supplementary to the class the boys taking agriculture ha have supervised and directed projects. They could choose a c calf, a sow and litter, a flock of or capons, ducks, geese, or turk They could plant pedigreed gr test herds of cows for butterfat prune, spray, and care for orch or have any other kind of a prac home project. Leland decided to for his project a dairy calf ar flock of chickens.

One of the best Holstein h calves in the barn was selected started on the road to the show but more effort was required to the chicken project. There was a adequate hen house or brooder h on the farm, so upon the advice o agricultural teacher he bought material for the hen house and dered it hauled to the farm sho the high school. In a short time boys taking the farm shop co constructed on skids a fine Wisco brooder house. About April 15 it hauled to the farm a distance of t miles. In a short time 400 chicks cozily domiciled in the new hom

Here was when Leland's real cation in poultry husbandry bea He soon learned that the road to p try success was not an easy one that one who thinks there is litt know about the raising of chick greatly mistaken. He lost n chicks and to cap the climax brooder stove went out one cold n which meant the loss of—I won't t how many.

To make a long story short, losses were replaced and the les learned proved of value in the u ceeding days. He now has 360 i chickens which, barring any g calamity, will sell for enough to r all losses and expenses and still l a fair profit.

Wisconsin. MANLY SHAF

What is a Scotchman? A pe who eats salted peanuts on his wa a friend's house for a little drink.

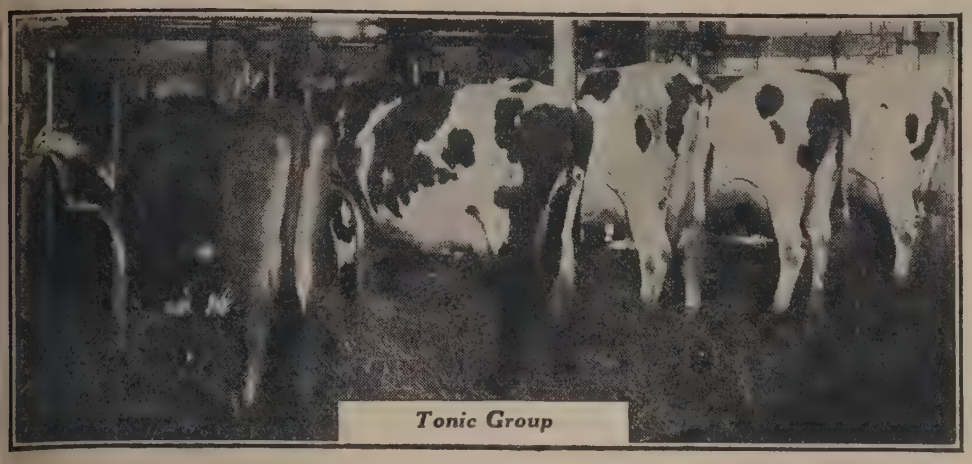
Noah Lott ~That Bull always was gentle.



BULLETIN

Profit Records on 10 Cows for 10 months

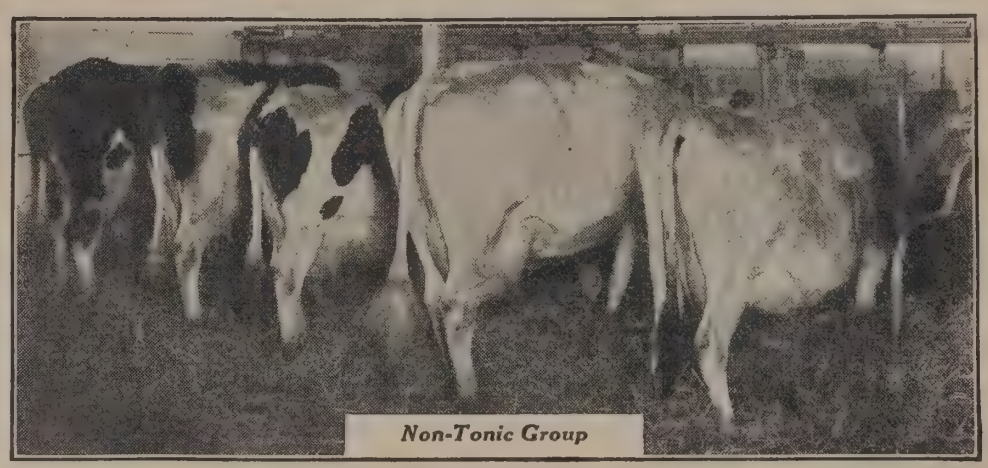
Research Farm—Dr. Hess & Clark, Inc., Ashland, Ohio



Tonic Group

These five ordinary-grade cows were on pasture in August when they freshened. In September they received a common dairy ration of ground oats and corn, bran with oil meal added. That month, the first month after freshening, they made an average profit of $9.94 per cow. They did not receive any Tonic—only the ordinary dairy feed above and ordinary care. But beginning with October they had Dr. Hess Improved Stock Tonic added to their feed and were placed in competitive test with the five other cows shown below. Read their profit record month by month for 9 months while receiving Dr. Hess Improved Stock Tonic.

These five cows are as nearly like the cows above in grade and condition as possible. They also freshened in August while on pasture. During September, their first month after freshening, they made a profit of $10.55 per cow. Note that they were a little better milkers, to begin with, than the cows above. Beginning with October they were fed alongside of, and had the same feed and care as, the cows above, but these cows opposite did not receive Dr. Hess Improved Stock Tonic at any time.



Non-Tonic Group

Beginning October 1st these two groups of cows were placed in competitive test. They received the same ordinary feed and care, and there was no effort made for high production. The results demonstrate the effect of Dr. Hess Improved Stock Tonic.

MILK—The milk production record showed that while the production of the Non-Tonic group decreased at the rate of approximately 9% the Tonic cows lost only 3% per month.

The Tonic cows maintained an average weekly production of 1049 lbs., while the Non-Tonic cows averaged 646 lbs. weekly.

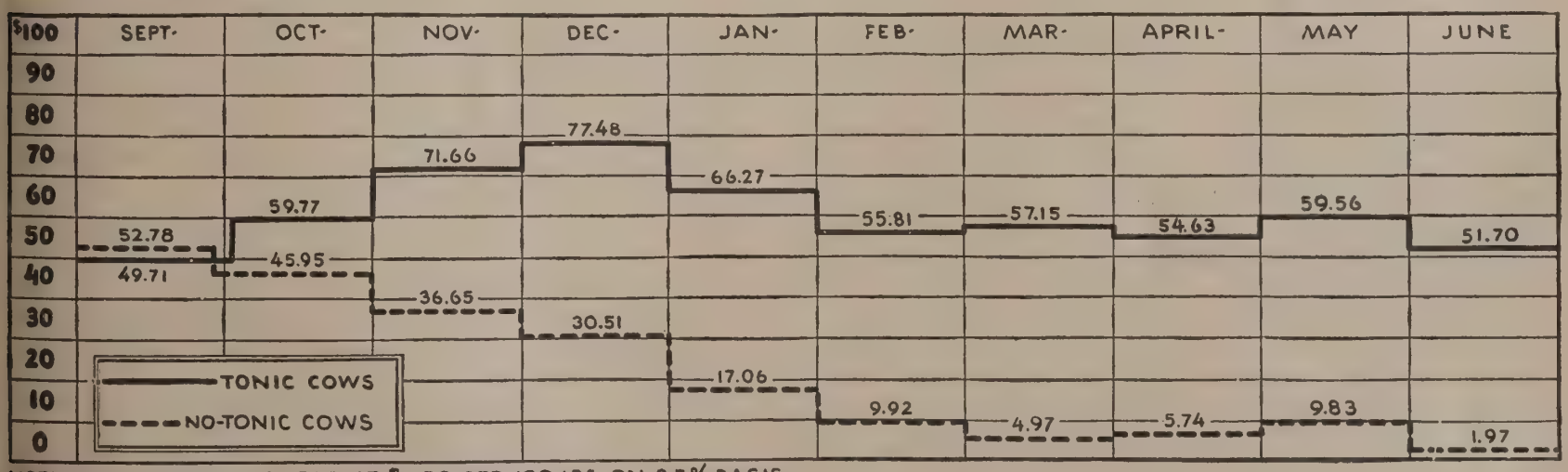
By sustaining their production, the Tonic cows gave 16,900 lbs. more milk during the 10 months' period.

BUTTER FAT—During September, the butter fat production of the two groups was practically even, the Non-Tonic group being 3.2% and the Tonic group 3.15%. It then increased, with both groups reaching their highest points in January.

The average butter fat for the whole period for the Tonic cows was 3.64%.

The average butter fat for the whole period for the Non-Tonic cows was 3.41%.

PROFITS—A record of profits combines the milk production, butter fat, and feed consumption into one very interesting picture. Below we give a graph which traces the profits month by month.



NOTE:- MILK VALUE FIGURES AT $2.50 PER 100 LBS. ON 3.5% BASIS

OBSERVATIONS—You will note the Tonic cows did not reach their peak profits until the third month on Tonic, while the first month was the peak for the Non-Tonic cows.

The Tonic cows never dropped as low as the month before receiving Tonic. The sustained milk production at a higher butter fat average made this possible.

The extra profits earned by the Tonic cows during these 9 months amounted to $391. The total cost of Tonic used was $22.50.

Dr. Hess Improved Stock Tonic

APPETIZER—REGULATOR—MINERAL BALANCE—*all combined in one product*

PRICES: 100-lb. drum, 10c per lb.; 500 lbs. 9½c per lb.; 1000 lbs. 9c per lb.
Ton lots 8½c per lb. *(Except in extreme West and Canada).*



Why Not Have a Debate?

The old time things are coming more and more into modern use and even the spelling bee is now the fashion in many places. The book markets are flooded with "quiz books" containing sets of questions on both general and special subjects and it is not only fun to test yourselves on these but a great deal of information is picked up besides.

The same thing is true of having a debate. Of course there will always be people in a community to say that a debate is a stupid, old fashioned thing. Don't mind them; the world progresses in spite of the folks who keep saying "it can't be done" and "what's the use" and "that's no fun." There are many communities that have a fine set of up-and-coming young people who would really enjoy doing some think serious along with having their fun but they need someone to start them. Often a debate proves just the thing to interest them in things that are wholesome and educational.

Subjects for debate, especially when you are just beginning to interest people in them, should be chosen with the greatest care. They should be of timely interest and never along religious lines or on other subjects that might arouse antagonisms. As I remember the debates of my childhood, they were on very silly questions such as, Resolved, That it is better to be ready and not go, than to go and not be ready; or, Resolved, That fire does more damage than water. Such questions are only a waste of time for they are not instructive and they are not interesting.

The extension division of the University of Wisconsin makes the following suggestions as to questions that are both interesting and instructive.

Resolved, That the basis of taxation for state revenue should be income rather than property. (This is the question being debated in Iowa this year by farmers under the direction of the Iowa Farmers' Debate Council.)

Resolved, That more efficient productive methods should not be developed without first developing better marketing facilities.

Resolved, That this community set aside every Saturday afternoon for the purpose of community recreation.

Resolved, That modern conveniences should be secured for the farm house before they are installed on the farm.

It is usual to have a debate judged by three persons acceptable to both sides. One person, however, may act as judge and present his decision orally, with reasons for it, at the end of the debate, or the audience may ballot for the decision.

Plays, too, are valuable for providing interesting community evenings. Everyone will say at once that he cannot be in a play because he does not know how to act but it is surprising how much real talent an amateur production will often uncover in a community.

Information as to getting up plays and debates can be had in most states by writing into the extension division of your state university or agricultural college. If they do not have the material they can tell you where to write to get it.—LUCY THOMPSON.

Neighborly Notes

Last year our community spent Thanksgiving in quite the nicest way in which I ever celebrated the day. Thanksgiving has changed step by step just as the trend of our progress has altered, and instead of being (as it was in days gone by) a day for meditation and a day spent in giving thanks to the Giver of all good things, with feasting thrown in as a necessary evil, it is now observed as a day of feasting with a scant amount of thanks thrown in for the sake of easing our conscience. As a result it has become rather a hit-or-miss day, for there are not even the large family gatherings of yesteryear. Taking all of these items into consideration the people of our community decided last year to hold a community gathering and dinner on Thanksgiving Day at the church. Perhaps the idea reverted back to the Pilgrims gathering in the church for this day of thanks, but certainly it was not celebrated in any stiff, cold manner, but in a way that left a glow in every heart because of its simplicity.

It was planned to have a community dinner at which everyone in the surrounding district was welcome regardless of creed, belief, or church. And everyone came, many even bringing guests with them who had come from a distance to spend the holidays with them. This gathering supplied a place for everyone to come to and no one was left out to spend Thanksgiving Day alone at home because the children just couldn't get home for the day.

The housewives in the community had been busy for days baking, cooking, and roasting, and then that memorable Thursday each packed her baskets full of goodies and set forth for the church which lay in the center of the community. Here in the church parlors long tables had been spread. And as we took our places the minister of the little brick church asked grace, and gave thanks for the blessings that had been bestowed upon the community through the past year. The minds and hearts of all his listeners followed with him through the progress of the year which had just elapsed and echoed his prayer of thanksgiving. Then everyone fell to with a hearty appetite and did justice to the board which was literally groaning before them. Such a dinner,—roast goose, duck, and chicken, mashed potatoes, dressing, gravy, rolls still hot from their recent contact with the oven, creamed carrots, squash, cabbage salad, celery, beet and cucumber pickles, fruit jello, devil's food and angel food cake, not to mention hickory nut cake, pies of apple and pumpkin, with cheese and coffee and tea, of course. Even now I know I have forgotten part of the menu; it was a meal no pen could paint a picture of and when we had finished it was the guests and not the board that groaned.

After everyone had eaten until he could eat no more, the women all worked together, sided the tables, washed the dishes, and straightened the parlors. The young people meanwhile had wandered off in search of excitement in the form of a neighboring football game, but the older folk were quite content to sit about in the pleasant rooms and spend the afternoon in visiting with old friends; many a friendship was renewed which had of necessity been let to lapse a bit through the busy summer and autumn months.

With a little forethought a very interesting time might be provided if desired. Sports might be provided for the young folk on the church lawn, games for the children, and a program of music for the older folk. Or it might be an evening affair with dinner at six or seven o'clock, followed by an evening's program consisting of music, readings, a playlet, or a lecture, or even moving picture slides of an educational aspect.

But just to spend the day as we did is indeed worth while, for the feeling that accompanied us home late that afternoon after a day of feasting and visiting under pleasant and agreeable circumstances was one of comfort, well-being, restfulness, and thankfulness.—ETHEL MORRISON MARSDEN.

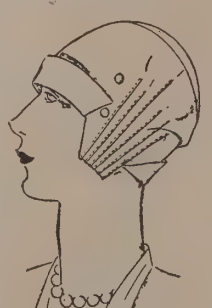
The Family Pocketbook

"Father, can you spare me five dollars this morning, Ellen's shoes are just entirely gone?" Ma Brown asked timidly as father shoved back his breakfast plate. "Yes, that's just the way it goes; money, money all the time, that's all you ever think about. What did you do with that money I gave you just the other day? You get all the egg and chicken money, but that is not enough. How am I ever going to pay the taxes and interest I'd like to know? Well, there take it."

Oh, how ma hated to ask father for money. It had been three months since he had given her the money he had spoken about, but if she had told him it would only have made him worse. She would never ask him for money for herself, but for the children; well, she just had to that was all. How she resented his attitude. She worked just as hard or harder than her husband, bought most of the groceries and most of the family clothes with her egg money, yet whenever she asked for a cent father acted just like he was being held up. So ma goes silently on with bitterness in her heart and does the best she can, contriving to ask for as little as possible and father goes on selfishly

(Continued on next page)

HAVE YOU EVER—



made a hat? No, it's not hard. Surprisingly easy and quite a pleasant way to spend an afternoon. Page No. 10 of our Fall and Winter Fashion Magazine shows four dashing sports hats all included in one pattern and all easy to make.

This is, of course, just one feature of our new book. It's just filled with new ideas and new dresses. Order your copy now while you have the matter in mind. Just write your name and address on any piece of paper and enclose 10 cents in stamps or coin. Or send 25 cents for a one-year subscription. Pattern Dept., Hoard's Dairyman, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 899—Graceful Lines. Pattern in sizes 16, 18, 20 years, 36, 38, 40, 42, and 44 inches bust measure. The 36-inch size requires 3 yards of 40-inch material with ⅞ yard 36-inch contrasting.

No. 886—Comfy Night Drawers. Pattern in sizes 1, 2, 4, 6, and 8 years. The 4-year size requires 2 yards of 36-inch material

No. 750—Morning or Sports Dress. Pattern in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 2¾ yards of 40-inch material with ⅞ yard of 36-inch contrasting.

No. 809—Smartness and Simplicity. Pattern in sizes 16, 18, 20 years, 36, 38, 40, 42 and 44 inches bust measure. The 36-inch size requires 3⅝ yards of 40-inch material with ⅝ yard of 27-inch contrasting.

No. 3088—Pierrot. Pattern in sizes 12, 14 years, 36, 40, and 44 inches bust measure. The 36-inch size requires 4¼ yards of 36-inch black and 4¼ yards of 36-inch white material.

No. 3089—The Old Fashioned Girl. Pattern in sizes 16 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 4⅞ yards of 40-inch plain material with 3⅝ yards of 40-inch figured material and 4½ yards of ribbon.

No. 3094—French Coat and Hat. Pattern in sizes ½, 1, and 2 years. The 1-year size requires 1⅝ yards of 40-inch material with ¼ yards of 40-inch lining.

How to Order Patterns

Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

"Ah, we doctors have many enemies in this world."

"Yes—but more in the next!"



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FOR MILK BOTTLES

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AMERICAN DAIRY SUPPLY COMPANY

Dept. G-41 430 Delaware Ave., S. W. Washington, D. C.

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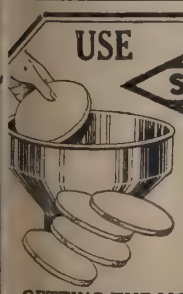
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Buy a Vest Pocket Herd Book

drawing the strings of the pocketbook ma helps to fill tighter and tighter.

Ma Brown would be quite indignant if I should tell her that she is greatly to blame for father's stinginess, but she is nevertheless.

When she was first married she had plenty of clothes to last for three or four years, she was so good at making over things. She had the egg money, yes, and the butter money, too, then for father wasn't keeping but two cows and didn't sell to the creamery and pocket the check as he does now. Ma had all the money she needed for the house and never needed to ask for any of the farm money; she never even thought of wanting any of it. She was so glad they were buying the farm and getting the machinery father needed. Even when the children were little she had plenty, for it only took such a little to buy the material from which to make the little dresses and suits, and so the years slipped by.

Father never thought of ma as a partner with whom to share their joint earnings. Why, wasn't she his wife, and didn't he provide her a good home and plenty to eat? It was a wife's duty to help her husband to get ahead. Now that the children have grown too large to be dressed with her egg money, father has grown so selfish that ma is afraid to ask for anything. If she had the gumption to "fight it out" she could perhaps make father see the light. He isn't really a bad sort and does not realize how ma and the children feel. He is doing just as his father did and as ma let him do in their early years. If once he realized just how degraded it makes ma feel, how like an unpaid servant or slave, he would be horrified and only too glad to make amends. I doubt if she ever will, she thinks he ought to realize it all without her telling him. I do hope though that she will teach her boys and girls to look at marriage when they approach it as a true partnership and insist that they start right and not make the mistakes she made.—GRACE GORDON.

Making Footsteps

It was a cold, wintry day when little Bobby and his father started across a snowy field on their way home from town. Father walked ahead saying, "You follow me, Bobby, and step in my tracks." At first easy progress was made as father took short steps and kept his path straight but gradually his steps grew longer and uneven. Soon a little voice behind him spoke up, "Be careful of your steps, daddy. Remember I'm following."

As I read the above story, its big thought sank deep within my heart and spread into many channels. I thought how true is that old saying, "You teach much by what you say, more by what you do, and most by what you are, for an ounce of example is worth a ton of teaching." If we could mentally see ourselves as the noble ideals which the little folks often picture us in their minds, would not it help us to make our tracks just the best we could for those little feet to follow.—LULA A. CAMP.

Grape Nut Bread

I thought I had made, or at least heard of, about all the kinds of bread there are, but the other day my husband came home with a recipe for grape nut bread as it is made by Mrs. J. B. Parker of Indianapolis. I knew I could depend on anything recommended by so fine a cook so I tried it and the results were all that I expected. Here is the recipe in case you long for something different in the way of bread:

2 cups white flour
⅔ cup sugar
1 egg
1 cup sour milk
2 teaspoons baking powder
½ teaspoon soda

Beat all together and then add ¾ cup grape nuts. Let stand 20 minutes. Bake slowly about 45 minutes.

I've lately seen grape nuts used in two other ways that I liked. At a party not long ago someone remarked to the hostess, "Who but you, Kate, would have thought of grinding up almonds to put in this whipped cream." Kate said nothing then but she told me later that the thing that tasted like expensive salted almonds was nothing but grape nuts. She had mixed them with whipped cream and put it on sponge cake.

Grape nut ice cream is delicious, too, either with the grape nuts put over each individual serving or else put into the freezer when the cream is about half frozen.—LUCY THOMPSON.



Wonderful Combination on White Indian Head—No. 3013—This lovely hemstitched set on best Indian head is sure to please. The many pieces include: Scarf, 18x45 inches, 65c; centerpiece, 18 inches, 28c; centerpiece, 36 inches, 88c; centerpieces, 44 inches, $1.25; centerpieces, 54 inches, $1.75. Luncheon set, consisting of one 36x36 inch lunch cloth and four 14-inch square napkins, $1.60; napkins, 14 inches square, per dozen, $2.20; buffet set, three pieces, 65c; vanity set, three pieces, 50c; pillow cases per pair, 42 inches long, $1.40; pillow cases, 45 inches long, per pair $1.50.

The design, worked in orange and yellow, with shaded lavender centers in the larger flowers and two shades of pink combined with blue for-get-me-nots, green stems and leaves in the smaller flowers, is very artistic. A detailed working chart showing where each color is to be used is furnished with each piece of material. Be sure to specify number and size of material desired when ordering. Send to Embroidery Department, Hoard's Dairyman, Fort Atkinson, Wisconsin.



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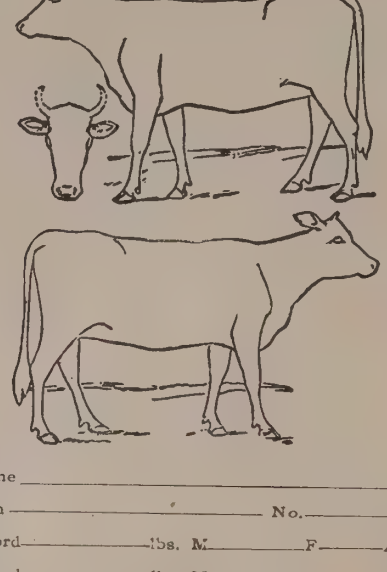
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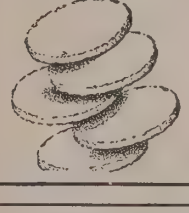
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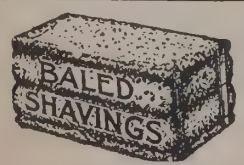
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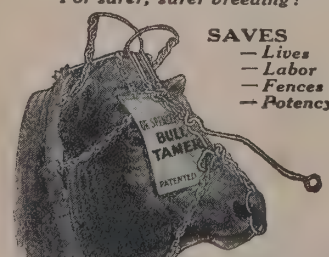
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National Dairy Show Down in Dixie

(Continued from page 1054)

one there. Imp. County Flower of Langwater, good enough to head most Guernsey cow rings, was second, and Admiration of the Prairie, a former National grand champion and a very good cow indeed, was third. In fact some of the cows that didn't win any bright colored ribbons would look well in most herds. It was by quite a margin the best cow class of the show.

It would be unjust to pass by Shuttlewick Levity with just the customary mention. Not only was she the outstanding cow, winning senior and grand championship honors, but her senior yearling daughter was first in class, another daughter was seventh among the aged cows, and a maternal sister was second prize 4-year-old. More than that she and her sister headed the produce of dam class and two of her daughters were second. Add to that the fact that she is a proven producer, her Class G record of 804 lbs. fat is still second for the breed, and you must mark her down as the outstanding member of an unusually good family of females.

The 3-year-olds were the other outstanding class just as they were at Waterloo. Mrs. McCormick's Florence of Waldwic finished first again as she has all season and right behind her was Raider's Golden Lily of Roberts owned by Chas. Hovey of Iowa. The latter showing dry was the best bodied one in the class. Had she been in milk carrying the right kind of an udder she would doubtless have been number one.

Cherub's Queen of the Prairie, last year's junior champion, was first prize two-year-old.

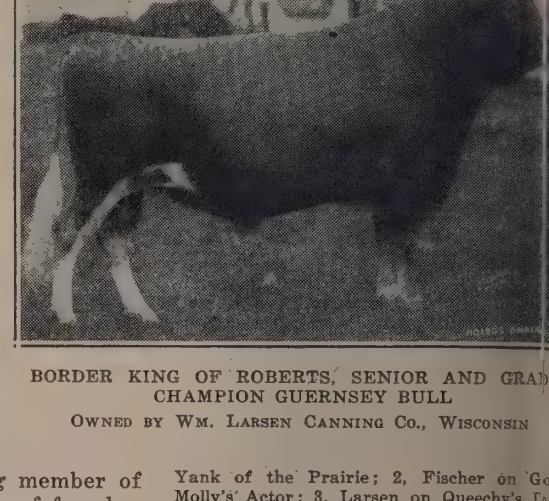
Junior championship was won by Imp. Aiyukpa Comique, a junior yearling owned by Mr. Williams.

J. C. Penny's get of Langwater Foremost, undefeated on the eastern circuit, won another blue at Memphis and four by Langwater Eastern King were second. A group by Ladysmith's Cherub from Shorewood Farm were away down in eleventh place below at least three they had beaten two weeks earlier at Waterloo. This was one of the few nearly mature gets shown, and while the individual members may not have won the ribbons in the open classes to entitle them to place at the top, it did look as though they belonged materially higher number eleven.

Only one state herd, that from sissippi, was shown.

The awards follow:

Bull 4 years or over—1, Larsen Canning on Border King of Roberts; 2, Emmadi Shorewood Resolute; 3, McCormick on Rose Cherub; 4, Firestone on Sergeant's ernor of Mountrose; 5, Ransom on May of Ransom Farm. Bull 3 years, under Tenney on Cherub's Golden Secret of S wood; 2, Firestone on Sergeant's Senat Mountrose; 3, McCormick on Cantigny's lier; 4, Gayoso on Gayoso Roberta's Bull 2 years, under 3—1, Marsh on Ch



BORDER KING OF ROBERTS, SENIOR AND GRA CHAMPION GUERNSEY BULL
OWNED BY WM. LARSEN CANNING CO., WISCONSIN

Yank of the Prairie; 2, Fischer on G Molly's Actor; 3, Larsen on Queechy's L of Fern-Dell; 4, Williams on Aiyukpa H Boy; 5, Emmadine on Foremost's Uncle

Cow 5 years or over—1, Williams on Sh wick Levity; 2, Larsen on Imp. County er of Langwater; 3 and 5, Emmadine on miration of the Prairie and Imp. Gem's of the Gron; 4, McCormick on Imp. Kit er's Irene. Cow 4 years, under 5—1 a Williams on White's Treva Girl and Sh wick Happy Girl; 3, Emmadine on Fore Royal Anne; 4, Tenney on Cherub's P of Shorewood; 5, Gayoso on Gayoso Y Girl. Cow 3 years, under 4—1 and 3, M mick on Florence of Waldwic and Chief's Laura of Guernsey Far Hovey on Raider's G Lily of Roberts; 4, E dine on Caumsett Chris 5, Fischer on Floridale May. Heifer 2 years, 3—1, Williams on Ch Queen of the Prairie; 3, Emmadine on Foren Babette and Foren Beauty; 4, Marsh on a cissus of the Prairie Gayoso on Gayoso A Beauty.



SHUTTLEWICK LEVITY, SENIOR AND GRAND CHAMPION GUERNSEY COW
OWNED BY WM. H. WILLIAMS, NEW YORK

Get of Sire:—1, Em dine on Langwater most; 2, Williams on I water Eastern King; 3, oso on Langwater A 4, Larsen on Mea Brook's Danny Duff Marsh on Cherub's N reil of the Prairie. Pr of Cow—1 and 2, Wil on Langwater Levity Shuttlewick Levity; 3, som on Imp. Donny 6th; 4, Firestone on Sweet Countess Primro Myra Alva; 5, Hovey o von's Lilly. Young He and 5, Williams; 2 and 4, Emmadine; 3, sen. Dairy Herd—1, Williams; 2, McCor 3 and 5, Emmadine; 4, Gayoso. Proven Class—1, Gayoso on Langwater Actor; 2, som on Dauntless of Edgemoor. Eight an entered by State Breeders' Associatio Mississippi.

Senior and grand champion bull—B King of Roberts. Junior champion bull—e olute's Eminent.

Senior and grand champion cow—Sh wick Levity. Junior champion cow—A Aiyukpa Comique.

The Ayrshires

Judge: John Cochrane, New Jer

The Ayrshire show this year wa nearly so large as it was in 1926 o did the quality of the show as a wh seem to us quite so good, altho the tops in practically every c were good ones. There were 125 h from 10 herds shown, a little m than half as many as a year a This, however, was to be expected

ephis is in a section where not ev- y farmer knows what an Ayrshire looks like, and it was hardly pos- that all of the good herds that out at the earlier shows would the long ship south.

e aged bull class with but five tes was one of the most interest- of the show because every entry a good one and all but the top been winners at large shows ng the past two seasons. Cava- Ping Pong owned by Seitz was probably the first time he ever d there at a big show. Cavalier's y Vernon, first prize aged bull at erloo this year, was just above and ahead of him was Imp. land Lucky Star from Strath- Farms, first prize aged bull at 1926 National and in many re- s the best dairy bull of the five. did not, however, have enough g of rib to please the judge. Al- rest Ringleader, grand champion astern States this fall and a con- nt winner for the last two sea- had to take second place to a omer, Imp. Hobsland White , a paternal brother to "Lucky " recently imported by Strath- Farm. Hobsland White King is g, stretchy, breedy looking bull should prove a good one, but he 't at his best on show day, per- , because he hasn't been long out uarantine.

valier's Bondsman, a 2-year-old m by Adam Seitz and Sons, was surprise of the bull show. Three s ago at the Dairy Cattle Con- s he was beaten by a Fairfield n entry. At Memphis, Bondsman with the Kansas bull fifth and e was that much difference in the at the two shows. Three weeks er he was just a fairly good bull. he National he was a mighty well n winner that deserved his place. e aged bull was senior and grand pion and Strathglass Kirbo, also ed by Strathglass Farm, was or champion.

e aged cow class with thirteen ies didn't have as many real good as we like to see in an Ayrshire class although we believe the er would compare quite favor- with the one that won a year When they were finally in line . Great Cross Snowflake, a Strath- s entry that we haven't seen out re, was first; White Dorothy the same herd was second; and pon Lass from Fairfield Farm, ing aged cow at Waterloo, third. he first cow apparently hasn't fresh for long and looked like a class dairy cow. She has enough e, breed, character, and good lines, needs only a little better udder to a strong contender in any com- . White Dorothy lacked a little er stablemate's scale and is a bit shouldered and the Kansas cow ving dry didn't look milky enough o higher.

airfield Farms won the 4-year-old s with their Waterloo grand pion, and Alta Crest had a right first prize two-year-old in Alta st Blue Bonnet but neither was d enough to beat the old cow for or championship.

eitz showed all three of the win- juniors, their junior yearling, alier's Strawberry, placing up for or championship.

irst place in the get of sire class won by Strathglass with a Hobs- Lucky Boy get that included the d champion bull and the third e aged bull, but we liked quite as the Alta Crest entry by Morton ns Lord Barrylyndon. This latter p included Ringleader, second bull, the second prize three-year- heifer that could we thought have gone first, and the first and fourth prize two-year-olds.

The awards follow:

Bull 4 years or over—1 and 3, Strathglass on Imp. Hobsland White King and Imp. Hobsland Lucky Star; 2, Alta Crest on Alta Crest Ringleader; 4 and 5, Seitz on Cavalier's Bobby Vernon and Cavalier's Ping Pong. Bull 3 years, under 4—1, Fairfield on Fairfield Mandarin. Bull 2 years, under 3—1, Seitz on Cavalier's Bondsman; 2, Alta Crest on St. Sulpice Colonel; 3, Davidson on Springburn Sir Douglas; 4, Strathglass on Strathglass Yellow Chief; 5, Fairfield on Cavalier's Fox Trot.

Cow 5 years or over—1, 2, and 5, Strathglass on Imp. Great Cross Snowflake, White Dorothy, and Imp. Hobsland Nancy 10th; 3, Fairfield on Cacapon Lass; 4, Alta Crest on Alta Crest Spicy Girl. Cow 4 years, under 5—1, Fairfield on Cairncroft Primrose; 2 and 3, Seitz on Cavalier's Celia Louisa and Cavalier's Silver Actress 2nd; 4, Strathglass on Imp. Spittal Jingle; 5, Davidson on Allencroft Marcia. Cow 3 years, under 4—1, Strathglass on Strathglass Miss Pearl; 2, Alta Crest on Alta Crest Cheer 2d; 3 and 4, Fairfield on Pearl Stone Princess Jean and Fairfield Brown Eyes; 5, Seitz on Cavalier's Red Lola. Heifer 2 years, under 3—1 and 4, Alta Crest on Alta Crest Blue Bonnet and Alta Crest Sonya; 2, Strathglass on Strathglass Miss Violet; 3, Seitz on Cavalier's Peg in the Ring; 5, Fairfield on High Value's Brownie.

Get of Sire—1 and 4, Strathglass on Hobsland Lucky Boy and Leto; 2 and 3, Alta Crest on Morton Main's Lord Barrylyndon and Lessnessock Searchlight; 5, Seitz on Cavalier's Lord Roseberry. Produce of Cow—1, Strathglass on Nether Craig Missie; 2, Alta Crest on Holehouse Buttercup; 3, Seitz on Buttercup's Perfection; 4, Fairfield on Cloud's Brownie 2nd of Cacapon; 5, Seitz on Cavalier's Creampot of S. C. 2nd. Young Herd—1 and 4, Seitz; 2, Strathglass; 3, Alta Crest; 5, Fairfield. Dairy Herd—1, Strathglass; 2, Fairfield; 3, Alta Crest; 4, Seitz. Proven Sire Class—1, Strathglass on Leto.

Senior and grand champion bull—Imp. Hobsland White King. Junior champion bull—Strathglass Kirbo.

Senior and grand champion cow—Imp. Great Cross Snowflake. Junior champion cow—Cavalier's Strawberry.

Holsteins

Judge: Ward W. Stevens, New York.

Holsteins were down to third place in point of numbers this year; there were 184 shown, but they made a very good showing, one of the two best we've seen this year, and Judge Stevens had a busy day and a half lining them up.

In the first class shown—bull calves under a year—there was a little bit of a mix-up from the Waterloo line-up two weeks earlier. King Sylvia Ormsby Piebe from Elmwood Farm, showing improvement over his early season form, went first while Starlight Richmond Pietertje, owned by Christ & Braman, and first at Waterloo, dropped to eighth perhaps because the judge overlooked him.

The Detroit Creamery Farms' junior herd sire, DeCreamCo Calamity Posch, just about clinched a position as all-American junior yearling by winning his class and junior championship again. He looks to be the best junior bull that has been out in the Middle West this season.

The two outstanding senior bulls were King Homestead Piebe Lad, J. D. McDonald's two-year-old, and Sir Fobes Ormsby Hengerveld, the aged bull from Elmwood Farm. Each has been undefeated in class all season and there was nothing at Memphis to seriously threaten either of them. They were close competitors for senior championship and although the older bull won again we doubt if he has been so near defeat before in two years.

The aged cow class brought another upset. Colantha Hark Delaphene, from Elmwood Farm, won her class without too much trouble at Eastern States and at Waterloo, presumably because she approached the type that those judges favored. She has freshened since show day at Waterloo and although Judge Stevens found no fault with her udder, he set her down to sixth place below several cows she had beaten previously, because she wasn't just the type of cow he liked. We won't attempt to say which judge was right or which was wrong, but it looks very much as though the cow was wrongly placed at one time or the other. We had rather hoped she would win and change the custom of having a dry cow first at the National.

The winner at Memphis, Tulip Beauty, a dry cow owned by the Michigan Reformatory, was second at Waterloo. She is a well veined, milky

(Continued on page 1086)



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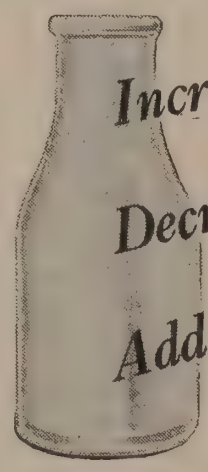
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Dairy Juniors Meet at Memphis

GREETINGS, Juniors, from the land of sunshine and cypress, cotton, darkies, mules, river boats, and southern hospitality. We are writing this from Memphis, Tennessee, down in Dixie, where more than 350 4-H club boys and girls from 33 states have gathered this week, October 15 to 22, at the National Dairy Show. Winners all, they have met in friendly competition, or have come as honor guests for their achievements and one and all they've had a good time.

Wish you all could have been at that 4-H club banquet tonight, which is Wednesday. Sears, Roebuck & Co. sure entertained in royal fashion, and the pep and enthusiasm of those club folks were sure inspiring. It concluded three days so chock-full of events for the young folks that it fairly made your head swim trying to keep up. While we're talking about that banquet we'll tell you something about it.

To begin with there was that delicious chicken served southern style, and, oh, so nice. There were yells and songs. A. W. Palm, South Dakota, president of the National Council of County Agents, spoke. Then there was G. L. Noble, secretary of the National Committee on Boys' and Girls' Club Work, and I. W. Hill in charge of the southern states from the United States Department of Agriculture, who has been doing 4-H club work since 1912 and making a great record, and C. L. Hill, president of the National Dairy Exposition. E. M. Harmon, editor of The Dairy Farmer, who judged the 4-H club demonstrations, announced the winners. Jesse Billyeu of Nebraska spoke for the boys and Marguerite Stoner of Tennessee spoke for the girl club members. W. D. James of the James Mfg. Co. presented winners of championships in the calf club exhibit each with a bull staff. George Biggar of Sears, Roebuck & Co. was toastmaster, and G. L. Herrington, Tennessee state club leader, led the whole list of minute men speakers. Mr. Herrington, you know, was one of the hosts, in fact he was the head man at the 4-H club camp out on the Tri-State fair ground, where the Dairy Show was held. The banquet was a mighty success.

This afternoon—today is Wednesday—several busloads of boys took a long ride out into Shelby County, where Memphis is located, and we all got a good slant at dairying as it is in this country, cotton growing, ginning, and marketing, and farming conditions in general. To us from the North it was a real treat to inspect a cotton gin. And at one place where we stopped what do you suppose we found right beside the gin? A creamery. And what do you think of that? Oh, yes, the creamery had been there four years. And they gave us a drink of nice, rich, Jersey milk and one of those famous little vanilla cakes at the Chickasaw Creamery at Bailey, Tennessee, and some nice little souvenirs, besides, including a cotton boll.

We visited three nice dairy farms —Jerseys on all of them. On one of them they told us they grow about six tons of alfalfa to the acre and get five cuttings a year. We tramped on pastures of thick matted lespedeza. We picked pecans, persimmons, and fresh figs. To many these were new and unusual experiences. We saw as fine equipment as you could wish on the Duntreath Certified Dairy Farm where well over 100 head of Jerseys and a herd of goats turn southern sunshine, fresh air, grass, and feed into wholesome, nutritious milk. We saw cotton and cows on the same farm and the cotton crops are bigger and better now than they were before the cow came bringing diversified farming and adding humus to a soil so depleted of this element that in places it must be terraced to keep it from gullying, eroding, and washing away.

We are glad that this opportunity was arranged for the juniors and other visitors to get out into the country. Trips of this kind were made on different days during the week giving all a chance to see the country on a free ride, with eats thrown in at several of the stops.

Monday was the day of the big judging contests for juniors. Yesterday they showed their calf club animals, also had demonstrations going on which finished up this morning. Another event on today's program was the junior showmen's contest. Club activities wound up tonight with the banquet and many of the boys and girls are now pulling stakes for home, because it takes some of them two days, maybe three, to get back.

There were two junior judging contests going on at the same time in the same ring on Monday, 4-H club teams from 26 states and vocational agriculture students' teams from 32 states. They were busy, too, and we don't mean maybe. Results of the 4-H club contest will be published later.

The winners of the vocational students' judging contest were announced last night, Tuesday, by C. H. Lane, chief of the agricultural education service of the federal board for vocational education at a big banquet of contestants and coaches. Governor Henry Horton of Te see spoke to the boys, too.

A team from the "Show Me" Missouri, won first in judgin breeds. Members of the team Fritz Hackaday, Edwin Miller Baker Lamar. Charlie T George Guest, and Victor Br the Texas team, came in second ginia third—T. Miller, John Tu and Tom Woody; Illinois fourt Massachusetts fifth. Charlie T of Texas was high individual in ing all breeds; Willard Maland, nesota, second; Laverne Johnso nois, third; Fritz Hackaday, Mis fourth; and Robert Lawrence of necticut, fifth.

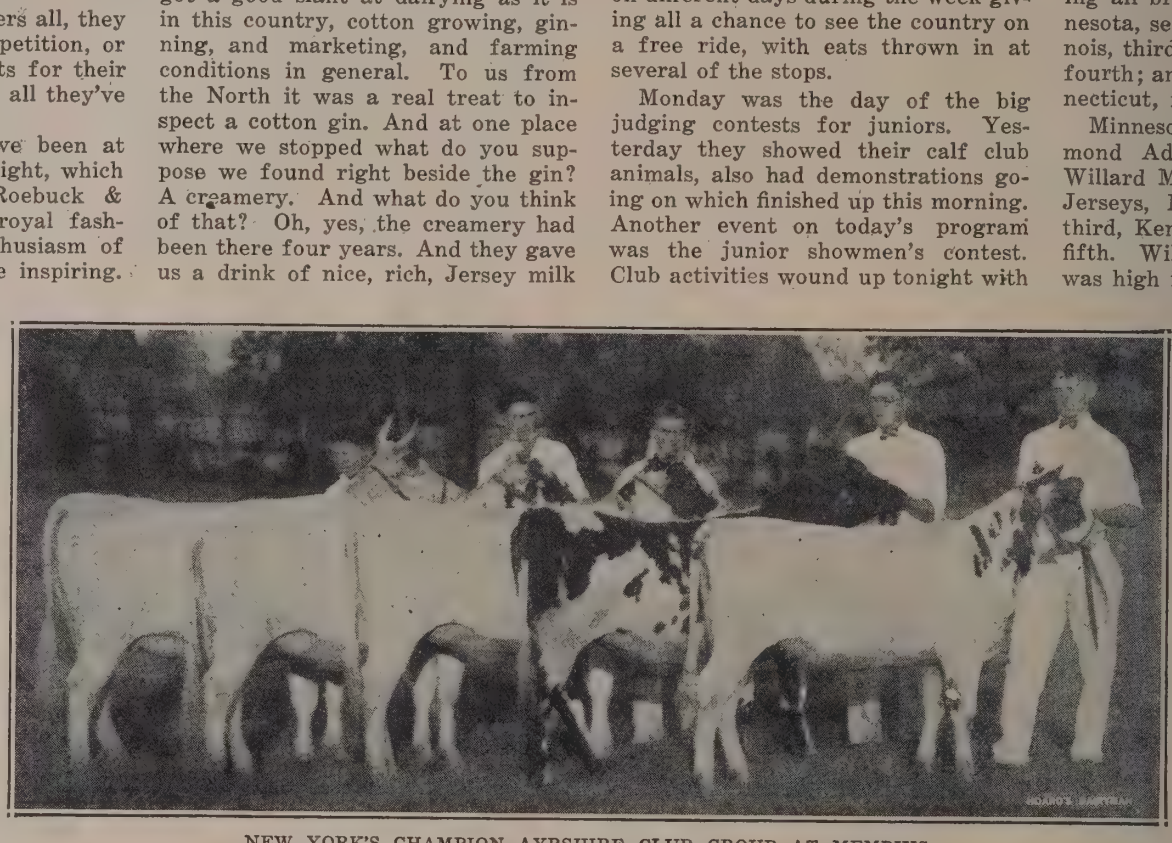
Minnesota's team composed of mond Adams, Nestor Pentius, Willard Maland, was first in ju Jerseys, Missouri second, Okla third, Kentucky fourth, and Vi fifth. Wilbur A. Branson, Kent was high individual followed by Nelson, Oklahoma, ard Smith, Kansas, Hackaday, Mis Raymond Adams, nesota, and Edwin er tied for fifth.

Texas won firs judging Holsteins. composed of Law and Clarence Parke Walter Fuller, was ond; Illinois third, sachusetts fourth, Maryland fifth. Cu Taylor, Texas, was individual followe Browning Knight, nois, Lawrence Pi LeRoy Miller, Pen vania, and W. S. M Oklahoma.

In judging Guer the teams finished i t order, Texas, Pen vania, Minnesota, necticut, and Illinois; and the n viduals in this order—Willard M land, Minnesota; Robert Cutter, sachusetts; Ray Collar, Mich Walter Fuller, Iowa; Donald u mings, Connecticut.

Missouri composed of Fritz H day, Edwin Miller, and Baker L took first honors judging Ayrs Massachusetts with Robert C Rudolph Merten, and John Hil placed second; and Florida, Geo and Connecticut finished in the named. Norman Updegrove of I sylvania was the first individual lowed by Fritz Hackaday, D Cummings of Connecticut, Cl Taylor, and Randall Lining of

Teams from 29 states were en in the milk judging contest for

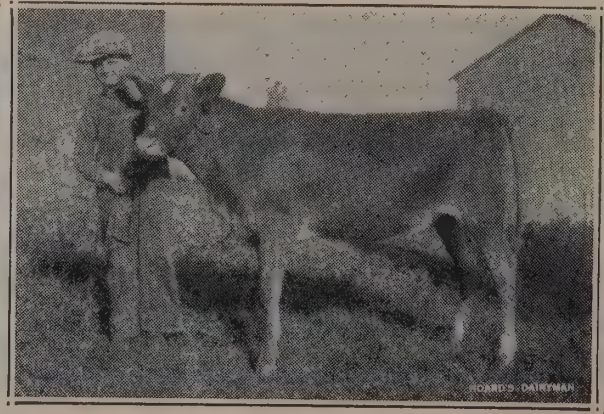


NEW YORK'S CHAMPION AYRSHIRE CLUB GROUP AT MEMPHIS

Left to right: John Crowley, George Clark, Wendell Wicks, Charles Goodwin holding Clifford Hoppenstedt's calf, and Ward Winsor holding Gordon C. Thompson's calf.



LEONA MAYER, IOWA, AND HER CHAMPION HOLSTEIN HEIFER, MAYOWOOD BESS LOLA LASS



ART ERDMAN, GUERNSEYWAY CALF CLUB, WISCONSIN, AND ARLENE OF ERDALE, CHAMPION



WENDELL WICKS, 17-YEAR-OLD NEW YORK CL MEMBER, CHAMPION JR. SHOWMAN AT MEMPH

al students. Mississippi won first. nbers of the team were Stewart , Harvey Adams, and Bonner Ar- d. Iowa composed of the Parker hers and Emmett Duggan was nd. Ohio was third, Texas fourth, California fifth. Individuals in contest rated as follows: John on, New Jersey; Victor Bradley, as; Harvey Adams, Mississippi; rence Parker, Iowa; Stewart , Mississippi.

wenty-three demonstration teams n as many states competed in the y demonstration contest. The lity of the demonstrations was ve any performances at previous



GUERNSEYWAY CALF CLUB, WISCONSIN, GUERNSEY GROUP WINNER
Left to right: Grace Smithback, Everett Smithback, Mike Boese, Ormal Kiesling, Orin Anderson, and J. C. Ralston, leader.

ry Shows. South Dakota won first e, Minnesota second, Michigan d, Nebraska fourth, Missouri fifth, a sixth, Wisconsin seventh, Ten- see eighth, Georgia ninth, West ginia tenth, Arkansas eleventh, Kentucky twelfth. The South ota team was composed of Ken- Heneghan and Raymond Olson harge of Gerald Heebink, South ota Agricultural College. The ject of their demonstration was eam Separator Care and Adjust- nt."

Ve haven't told you about what pened Tuesday at the supper table afterwards, have we? To start meal off right, G. L. Herrington a song or two, and the cheers he brought him back for encores. n after everybody was finished ng, there was a delightful period wenty minutes with James Speed, or of the Southern Agriculturist. Speed took all the 4-H club folks it back on the farm with his real- imitations of animals and birds,

the Memphis Y. M. C. A. judged the stunts and helped direct the club camp.

There were two outstanding features of the calf club department. One was the splendid Jersey showing in which Tennessee took plenty of honors. The Jersey club classes were the biggest of them all. The other was the sweeping victory of Wisconsin club animals in the Guernsey and Holstein classes. Finishing first and second with their two entries in the group class and taking first and champion with two individuals, the Guernseyway Calf Club of Fort Atkinson, Wisconsin, J. C. Ralston, leader, took all the high prizes that it was possible for them to win. Their exhibit showed plenty of quality and class and attracted much deserved attention at Memphis. The Ideal Holstein Calf Club of Jefferson County, Wisconsin, Charles Clingan, leader, defeated New York, in the group showing and placed second to New York for individual championship. New York won the Ayrshire group and was represented by good calves in all the breeds. New York was the only state to enter in all the breeds, a record worthy of special mention.

Judging in the calf club department was done by C. H. Staples, Louisiana.

Ballard & Ballard gave ten sacks of feed to owners of winning animals in the calf club classes.

In the Junior Showmen's contest the following winners were declared: Jerseys—Dallas Batcheldor, Georgia; Guernseys—Orin Anderson, Wisconsin; Holsteins—Ward Winsor, New York; Ayrshire—Wendell Wicks, New York; grand champion showman, Wendell Wicks.

State Club Leaders G. L. Herrington, E. G. Jenkins, Maryland, and T. A. Erickson, Minnesota, are members of the advisory committee on 4-H club activities at the National Dairy Exposition and to them goes the credit for the success of the 1927 junior department at Memphis.

Calf club awards follow:

Jerseys

Over senior yearling, won by Sybil's Sultan's Lena, owned by Peter Luchsinger, New York. Calf, won by Raleigh's Jersey Island Model Beatrice owned by Dallas Batcheldor, Georgia; 2, Crieve Hall's Faith owned by Her-

(Continued on next page)



Courtesy Memphis Chamber of Commerce

GREETINGS FROM THE LAND OF COTTON, RIVERBOATS AND DARKIES
A scene down at the wharves in Memphis on the old Mississippi river. The boat is loaded with cotton bales and there are many more bales on shore.

s, hogs, crows, and his little stori- s on the subject "Keep Your Eyes n" were charming. There was a on in them and we think every and girl got it.

nd after supper? Well, just the t fun ever was had by all. It was t night and—but wait a minute. ut 14 states put on stunts. First t to Oklahoma with their mock l of one of their boys who desert- ranks on account of the Wisconsin s. Second was a mock cattle ging contest put on by Iowa. rd place went to Michigan, tied h Minnesota.

. R. Forsdick and J. L. Gunn of



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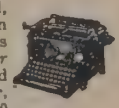
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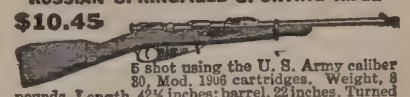
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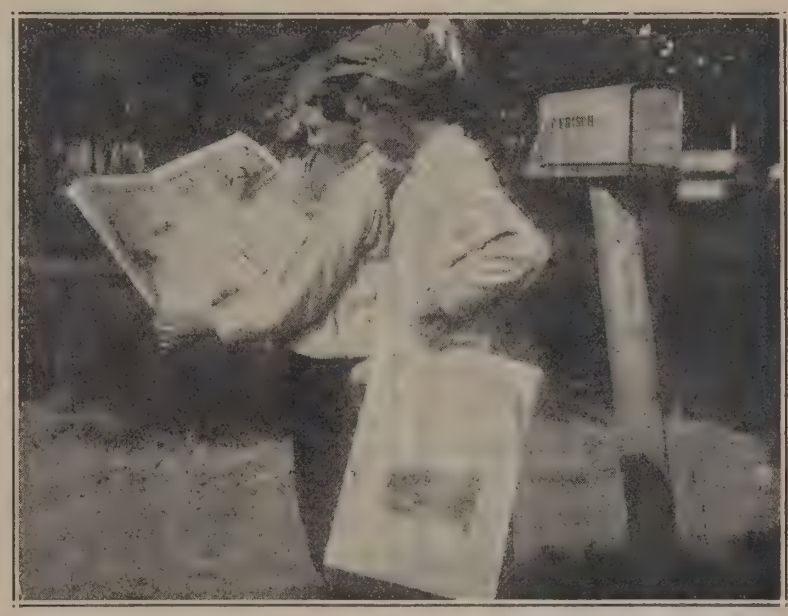
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"Let's Join the Juniors!"



"C'mon Gang, what do you say? Look at those emblems! That watch fob is just what I need! We always wanted to belong to a club, and here's our chance. It says here, 'If you are a regular reader of the junior department and some member of your immediate family is a regular subscriber to HOARD'S DAIRYMAN join the HOARD'S DAIRYMAN JUNIORS' CLUB. It's free!' Of course we're regular readers of the junior department. Wouldn't miss a single issue, would we, fellows! Dad's taken HOARD'S DAIRYMAN as long as I can remember. Let's join the Juniors right now! Are you with me?"

You bet, they're with him!

So are thousands of other boys and girls the world over. And so are you. Sign and mail the membership application NOW. You want to join this great big club of up-and-doing young men and young women. The age limit is 20 years and some member of your immediate family must be a regular subscriber to HOARD'S DAIRYMAN. Your emblems—a watch fob, button and creed—are waiting for you!

APPLICATION BLANK

HOARD'S DAIRYMAN
Junior Editor
Fort Atkinson, Wisconsin, U. S. A.

Dear Sir:—

I hereby apply for membership in the Hoard's Dairyman Juniors' Club. I agree to read the Junior Department of Hoard's Dairyman regularly and do all I can to make the Juniors' Club a success. Will you please send me the watch fob [ ] or necklace [ ] (mark x after your choice), the pin, and the Hoard's Dairyman Junior's Creed. Name .....
(Write distinctly, or print)

Address ..... I am
(R. F. D.) (City) (State)

..... years old. Hoard's Dairyman comes to my home addressed to ..... My favorite breed of dairy cattle is ..... My father's name is .....

Do you belong to a Boys' and Girls' 4-H Club? ..... If so, what kind? .....

11-10-'27

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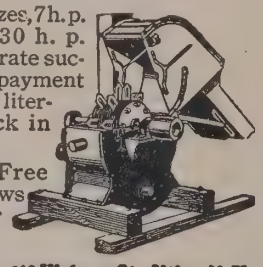
Mount Meadow Farm, Gadsden, Ala., writes: "We have never spent 1c for repairs nor have we had a shut-down for one minute with our **'JAY BEE'** in 5 years. We grind practically everything and got baling wire, nails and the like into the mill which have failed to damage the mill one bit.

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S. Shipman, Guide Rock, Nebr., writes: "I have ground more than 15,000 bushels of corn and at least 400 tons of hay and fodder, and haven't spent a dime on my **HUMDINGER** yet. One sure thing, when you are feeding full feed, a breakdown and waiting for repairs costs lots of money. My **HUMDINGER** has never failed me yet."

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You need a Vest Pocket Herd Book

bert Farrell, Jr., Tennessee; 3, Lynwood's Oxford Dutchess owned by Mildred Carr, Kentucky.

Best state group of five animals, won by Tennessee, exhibitors Thomas McAdams, Randolph Tatum, E. K. Waters, Jr., G. C. Turner, H. C. Chappell; 2, Georgia, Herbert Bolton, David Walker, Tom Lindsay, Dallas Batcheldor (2); 3 and 4, Tennessee, William McBride, John H. Gulbertson, Eugene Liggett, Miss Lacy Malone, Herbert Farrell, Jr., Tom Latimer, James A. Harris, Jr., Robert Jones, Chas. Blankenship, Annie Ethel Cason; 5, New York, Peter Luchsinger, Millard Blakeslee, Barton Armstrong, Edgar Jennings, William C. Lamb; 6 and 7, Todd County, Kentucky, Nancy Katherine Boyd, Mildred Carr, J. S. Askew, Jr., Marion Carr, Barbara Askew; Merrill Scott, A. Garth Howe, J. D. Smith, Walton Short, and Marshall House.

Guernseys

First, Daisy of Becker Homestead, Grace Smithback, Wisconsin, owner; 2, Sunshine of Elmwood, owned by Dorothy A. Onderdonk, New York. Champion owned by Arthur Erdman, Wisconsin.

State groups—1 and 2, Guernseyway Calf Club, Wisconsin, exhibitors, Grace Smithback, Mike Boese, Ormal Kiesling, Everett Smithback, Orin Anderson, Harlow Telfer, Irene Boese, Arvilla Boese, William Erdman, Art Erdman; 3, New York, Dorothy A. Onderdonk, Roland Kelley, Ford Harrison, Albert N. Huff, and William E. Hiesley.

Holsteins

Champion, Mayowood Bess Lola Lass, owned by Leona Mayer, Iowa. Calves, 1, Union Valley Mildred Segis 2nd owned by Ward Winsor, New York; 2, Glenbucket Lyons owned by Wilna Klitzkie, Wisconsin.

State groups, 1, Wisconsin, exhibitors, Charles F. Schuman, Jr., Lucille Ramsey, Clarence Fleming, Gerald Hevey, Alan Cooper, George Sayre, Harlow Hevey; 2, New York, Winsor Brothers, Marvin Ives, Charles Bump, Eugene Huff, Wesley Thomas.

Ayrshires

First and champion, Milkmaid of Montdale owned by Robert Seitz, Wisconsin; 2, Florence Bonnie 2nd owned by John Crowley, New York.

State groups won by New York, exhibitors, John Crowley, Wendell Wicks, George W. Clark, Clifford Hoppenstedt, and Gordon C. Thompson.

Brown Swiss

First and champion, Euthal's Eulaine owned by Charles Goodwin of New York. No state groups shown.

Tennessee Special Jersey Class

1, Wilson County, exhibitors, Miss Ida Mai Bryan, Patton Bryan, Randolph Tatum, E. K. Waters, Jr., and Mary Neil Thockston; 2, Marshall County, exhibitors, Eugene Liggett, John Culbertson, Miss Lacy Malone, Thomas McAdams, and William McBride; 3, Williamson County, exhibitors, James Guthrie, Hugh Gracey, Parks Johnson, Ben Waller, William Gasser (2); 4, Sumner County, exhibitors, Woodrow Wright, Henry C. Wright, Robert Buchanan, W. Ben Douglass, Tom Lattimer; 5, Davidson County, exhibitors, Ivan Whitworth, June Tune, Horace Smith, Raymond Parish, Richard Fox, G. C. Turner; 6, Maury County, exhibitors, Thomas James McMeen, Colin P. Chappell, Clyde K. Chappell, H. C. Chappell, Bernard Woodward; 7, Rutherford County, exhibitors, Chas. W. Blankenship, Sanford Phillips, Bob Jones, Ben Waller, John Shachlett; 8, Shelby County, exhibitors, Cornelia Cohn, Oliver Pace, William Aycock, Nina Dickerson, Lawrence Elliott; 9, Rutherford County, exhibitors, Ralph Kelton, Annie Ethel Cason, Charles Blankenship, Bessie Lee Farmer, Bob Jones, James David.



WINNING TENNESSEE JERSEY CALF CLUB GROUP
These calves are owned by Thomas McAdams, Randolph Tatum, E. K. Waters, Jr., G. C. Turner, and H. C. Chappell.

Little Talks for Juniors

Friendship. Is there anything more to be desired than friends? We doubt it. Of what use are all the riches in the world if you have not friends?

Something sacred about that word, friendship. Kind of gets you—takes right hold around the heart strings and won't let go—a great feeling.

"He's my friend," said a youth. Wonderful, lad! Great Stuff! Friends bring happiness.

Did you ever go away from home, miles and miles away where you're sure nobody knows you from Adam's off ox, and have somebody come up and slap you on the back booming out "Hello, Tom, how are you, old boy? Gee, I never expected to see you here." Thrilling—oh, boy! Beats an aeroplane ride a thousand ways.

The fellow with many friends, the fellow to whom friendship is a sacred and revered word, he's the fellow to be envied, and he has every reason to make good. Make friends, good friends, and hold them, and you'll be rich all your life.

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

For further discussion of the following see the October 25th issue.

How many dairy herd improvement associations are there in the United States? A report recently issued by the Bureau of Dairy Industry states that there are now approximately 900 active associations. (See "Problems in Herd Improvement.")

What are some of the problems in herd improvement? Inadequate rations, inferior animals, indifferent members, and inefficient testers. If every member of the 900 associations would provide at least one acre of legume hay for each animal in the herd and feed a balanced grain ration based on the daily milk flow, there would be a big increase in the income above feed cost.

How much milk is handled by the Seattle Milk Shippers' Association? Between 65 and 70 per cent of the total milk supply of Seattle. The association is in its seventh year of operation. (See "Seattle Milk Shippers' Association.")

How is quality milk produced for the association? Each dairyman is scored. Milking barns must be sealed if there is hay overhead; no manure may be dropped nearer than 50 feet from the barn; the gutters must be tight; the stable must be washed or sprayed with whitewash; cobwebs must be brushed down; udders should be cleaned with washing cloth; covered milk pails must be used; and dairy utensils must be sterilized.

How much did Hollyhock Holsteins sell for? The dispersion of Gustav Pabst's Hollyhock Holstein herd at Oconomowoc, Wis., brought an average of $835 for 108 head. Nineteen went for $1,000 or more; 3 brought more than $5,000 and one cow sold for $10,000. (See page 1019.)

What is a good winter ration for growing heifers? Good quality legume hay, 10 to 15 lbs. of silage, and a grain mixture of 100 lbs. each of ground corn, ground oats or barley, and bran, and 25 lbs. of a high protein feed. From 2 to 4 quarts should be fed daily. (See page 1002.)

Why and how should pullets be culled this fall? Pullets should be culled to cut down the feed cos unprofitable birds during the w and to make a more uniform sy of management for the flock. A pullet should have body length depth, a bright, clean-cut head, plenty of vigor, growth, and vit (See poultry department.)

When was the Pioneer dairy improvement association organiz Minnesota? The oldest D. H. I. the Gopher State was organize Freeborn County in the sprin 1910 and started by Tester H. C. Murray, who has served every but one.



ROBERT SEITZ, WISCONSIN, AND CHAMPION AYRSHIRE CALF CL ENTRY, MILKMAID OF MONTDAI

Junior Letter

A Club Song

Hoard's Dairyman Juniors:—I have a club song here that I am sending you:
(Tune: "It Ain't Gonna Rain No Mor

CHORUS
Oh, we don't want to leave the old home
We don't want to leave any more.
The greatest fun is work well done,
We don't want to leave any more.

PIG CLUB
You folks can have your hens and shee
Your cattle, small and big;
The thing I want to do just now
Is raise the first prize pig.

POULTRY CLUB
Our chickens bring us lots of dough,
The poultry members said;
We sell the eggs before they're hatched
And dress them when they're dead.

DAIRY CLUB
I'll feed my calf some corn and oats,
And sweet alfalfa hay;
She'll pay me well for feed and care
And make a herd some day.

SHEEP CLUB
Oh, some folks like the dairy
And others hogs will keep,
But as for us, we'll make our pile
By raising pure-bred sheep.

SEWING CLUB
You other girls can have your calves,
Your poultry, pigs, and spuds,
You'll all be green with envy when
You see our Easter Duds.

CANNING CLUB
We can can candied cantaloupe,
We can can succotash,
We can can all you kids can raise
And sell it quick for cash.

BREAD CLUB
We do not care for calves and pigs
Or chickens 'til they're dead;
We'll play our game and win our fame
With choicest home-made bread.

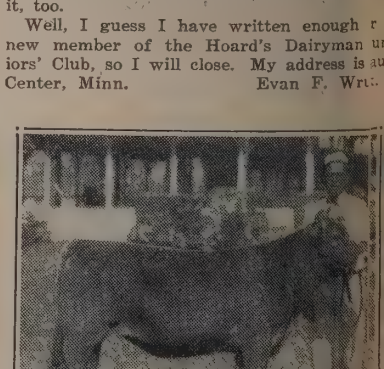
GARDEN CLUB
Oh, some folks like fresh cabbage,
Or carrots, peas, and greens,
We'll raise you anything you want
From salsify to beans.

ORCHARD CLUB
We're experts with the pruning knife,
We know just when to spray,
We'll raise your berries, apples, plums
The scientific way.

—H. A. Sip.

I was 11 years old the 27th of March. I did not make up this song, but I sent it in be I thought you other boys and girls would like it, too.

Well, I guess I have written enough new member of the Hoard's Dairyman Juniors' Club, so I will close. My address is Center, Minn. Evan F. Wri



CHARLES GOODWIN, NEW YOR AND HIS CHAMPION BROWN SWI CALF CLUB HEIFER, EUTHAL'S EULAINE

lerd Sire's Part in Reproduction

W. W. WILLIAMS, MASSACHUSETTS

HE statement that a bull is one-half of the herd is quite frequently put forth but its signance little appreciated. When in , a bull's efficiency is usually ed by his conformation, type, gree, and his prepotency or abili- transmit certain desired breed acteristics to his offspring. As rtant as these various considera- may be, they become of second- importance to the breeder when ven bull fails to impregnate the which he serves and there are breeders of wide experience who not been without the occasion of nating herd sires because of .

any such eliminations of impo- bulls concern animals whose grees, type, etc., would mark as high class breeding animals such eliminations are usually e only after the group of cows ed has either failed to conceive as delivered weak or immature es. Regardless, however, of the elimination of bulls because of ding inefficiency, there has been a ral tendency to absolve the bull the various reproductive losses which he is connected, owing aps first to the time-worn adage the male is always healthy; and, dly, to the general opinion gst laymen that all or almost all oductive troubles are due to B. tus or contagious abortion.

step further in the process of oning leads the mind to the con- on that since contagious abortion affects the pregnant animals, the bull is immune from this con- n, he is therefore absolved from important responsibility in the er of reproductive losses,—rath- ratic logic but yet judging from ent writings a conclusion into h more than one enthusiast in the gun elimination of abortion has bed.

ith the purpose of clearing up of the less understood causes of tion and sterility, studies of dis- of the bull and the relation that diseases bear to reproduction commenced in 1919. Part of this stigation was conducted by Dr. . Williams of Cornell University later comprehensive and impor- information has been accumulat- y Dr. Alfred Savage of the Mani- Agricultural College who for the a three years has been conducting stigations along this line under a t allowed by the Canadian Re- ch Council for this purpose. The of work has centered in deter- ing the relation of the health of spermatozoa upon reproduction.

seems opportune that the breed- should have some information erning these investigations for they have developed a practical bearing in the matter of reproduction, first by showing that demonstrable disease of the spermatozoa of the bull is often the cause of abortion and sterility and further pointing out that normal and efficient reproduction cannot be anticipated unless a healthy male cell (spermatozoon) unites with a healthy female cell (ovum). To date, over 400 herd sires have been studied and it has been found that over one-tenth of that number have been sexually inefficient on account of disease of the germinal cells.

At the present time, extensive investigations are under way (paralleling the work referred to) upon the spermatozoa of stallions, man, and rooster. I am advised by the investigators that similar disease changes are noted in the spermatozoa of these species as occur in the bull and result in like disturbances of reproduction.

It has been shown that good breeding bulls emit spermatozoa that are very uniform in size and shape. When diseased spermatozoa are present in too large quantities, there is invariably trouble with the bull either by his failing to impregnate the cows that he serves or by the production of immature calves.

The examinations are made upon semen which has been smeared and dried on a microscope slide. Preparations thus made will keep for examination indefinitely. The spermatozoa are then stained and examined for abnormal or disease forms under a magnification of about 1,000 diameters. They are then magnified to 3,000 or 4,000 diameters and measured. From the information thus gained, one is enabled to estimate the health of these cells and thus the fitness of the bull for service.

This method of examination has provided an available means by which the potency of a bull can, to a large measure, be predetermined. It is particularly valuable in determining the health of young bulls before they are put into service, in clearing up the cause of outbreaks of abortion and sterility, and as a breeding warranty in the purchase of herd sires. Changes in the spermatozoa of the bull are not produced rapidly as a rule. Thus a careful examination of the spermatozoa when done as a matter of routine upon herd sires furnishes a valuable means of the prevention of breeding trouble, for it will often pick out important disease changes in the spermatozoa before sufficient time has transpired to allow these changes to be reflected by poor breeding of the cows. Where high class breeding stock is at stake, the elimination of the sexually unfit is of great importance.

Feeding Milk Goats

ARD'S DAIRYMAN:—"The cost of e ing my Toggenburg milk goats a es from season to season accord- to the price of feeds," says R. C. I. s of Kearney County, Nebraska. I ersonally like third and fourth u ngs of alfalfa used in the form f eal. I mix this with corn chop n equal parts of bran and oats. I a pen this feed and they greatly e h it. I never feed more than they a clean up as they love to be fed f n. In cold weather a warm bran n once a day is appreciated."

r. Mars says that he always pan- e s the kids, never allowing them o urse. When about two hours old they are given their first feed. By taking the kids from their mother at birth they can be turned in with the mother at a week old with perfect safety as she will not allow them to suckle.

For housing the kids, Mr. Mars has a building, six feet high in the front and 4 feet high in the back and 20 feet long, covered with ship lap, tar roofing, and shingles over the top, thus making it storm proof. It is partitioned off in five compartments. The whole front is set with glass, the floor is of concrete and during even the coldest of winter weather the kids can enjoy the warmth of the sun's rays in perfect comfort.

Nebraska. H. H. BIGGAR.



The Farmers' Best Investment

TEN years of increasing strength of the Federal Land Banks have made their Bonds a seasoned standard investment. Not a default on interest or principal. Over one Billion dollars of these Bonds now held by investors. They are guaranteed jointly by the twelve Federal Land Banks, with combined capital and reserves exceeding $70,000,000. Back of these Bonds are farms valued at more than twice the amount loaned. These Bonds are safer than any single first farm mortgage.

Federal Land Bank Bonds

Completely Tax-Exempt

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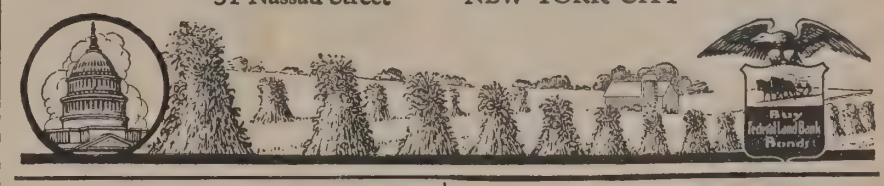
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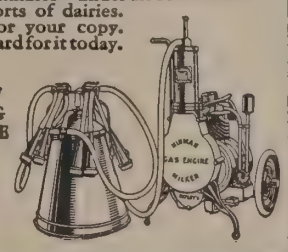


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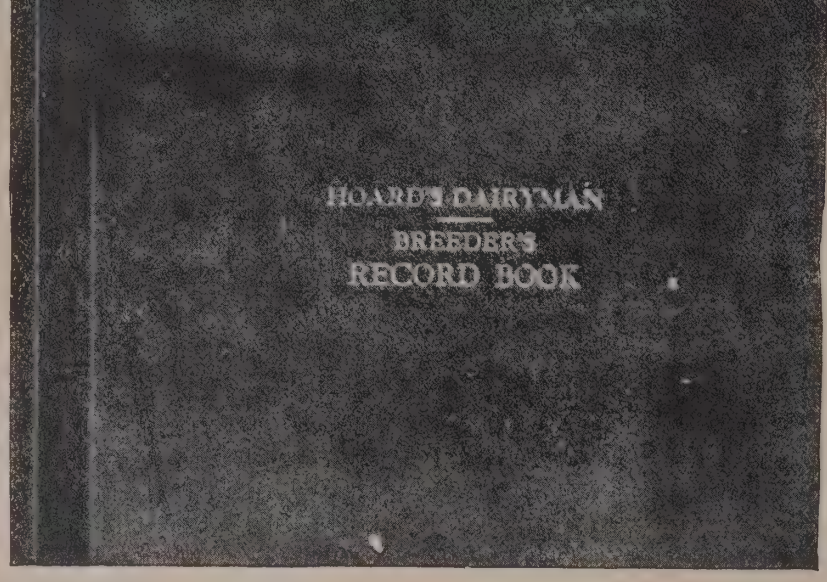
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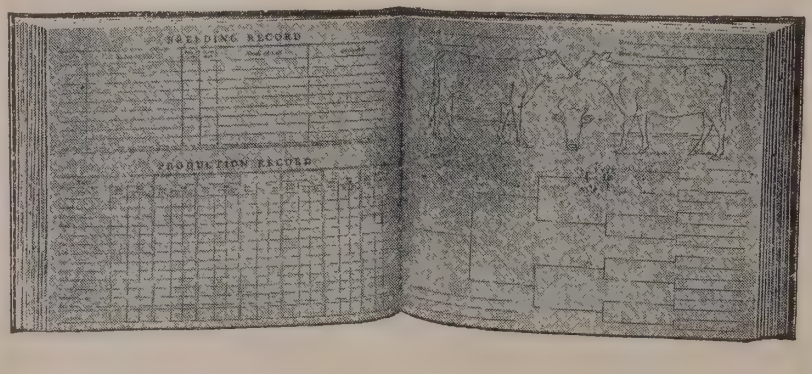
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DAIRY MARKET NEWS

The Feed Market Situation

(By the Grain, Hay, and Feed Market News Service, Bureau of Agricultural Economics U. S. D. A.)

Present indications point to a smaller supply of feedstuffs and feed grains than a year ago although plenty of hay will be available on the whole. Most of the reduction is accounted for by smaller harvests of corn, oats, and cottonseed this year although the smaller crop of corn is partially offset by an increase in barley and grain sorghums. Corn production is expected to be about 44,000,000 bushels under last year's figure while considerably less old corn is on hand than a year ago. Both the oat crop and the carryover of oats are smaller than in 1926 while the reduction in the cotton crop this year suggests that only about two-thirds as much cottonseed cake and meal may be produced as in 1926—27. The higher prices prevailing for cake and meal this year, however, will doubtless reduce exports to some degree.

Wheat feeds were barely steady during the past two weeks with shorts and the heavier feeds weaker than bran at some points. Production has been of fair volume as indicated by flour output at milling centers but still is slightly below that of a year ago. The output in the Northwest reflects the larger wheat crop available in that territory this year and feed prices there were relatively easier than in the Southwest. Bran made a fractional decline at Minneapolis but was practically unchanged at Kansas City and eastern markets. Middlings were also draggy at Minneapolis but were relatively steady at Kansas City where this feed met a fair demand from the South while prices at Buffalo and Philadelphia were quotably unchanged.

Cottonseed meal prices are practically the same as two weeks ago with a slight reaction following a fractional advance. The cottonseed movement for the first two months has been heavier this season than last in spite of the smaller crop this year. About 331,000 tons of cottonseed meal were crushed during August and September or nearly 82,000 tons more than for these months last year while shipments have been only around 20,000 tons larger than a year ago. This has tended to offset the reduction of nearly 80,000 tons in the carryover into this season and stocks of cake and meal on October 1 totaled nearly 110,000 tons compared with about 127,000 tons a year back. Holdings of cottonseed at mills at that time were about 10 per cent larger than a year ago.

Linseed meal prices have been irregular with western markets firmer than eastern points. Demand fell off at Buffalo and prices declined materially. Crushers there were more anxious for business but were endeavoring to prevent further declines. Prices met a fractional decline at Chicago but were quotably 25c higher at Minneapolis where large purchases had been made at a low point about midway in the season when the market had been rather weak. After these sales, mills had only small amounts of meal to offer and were holding prices firm.

Hominy feed prices turned sharply lower in sympathy with the weakness in corn while it appeared that a number of buyers were holding off in the hope of future shipments. Mills have been anxious to sell and have been pressing the market. Movement of this feed has appeared rather heavy but stocks seemed of only fair size.

Alfalfa meal held steady on limited offerings of choice quality meal but the lower grades made fractional declines. Because of the unusually heavy rains over much of the alfalfa meal producing territory during the time of alfalfa cutting much less than the usual amount of best grade hay is available there for grinding into meal.

Tankage prices are the same as a month ago. Although quotations were reduced earlier in October, demand seemed active at the reduction and prices were advanced to t mer level late in October.

Quoted Oct. 26

Standard spring wheat bran: $25.25 apolis, $28.50 Buffalo, $33 Philadelphia Chicago. Hard winter wheat bran: Omaha, $25.50 Kansas City. Soft winte bran: $34 Philadelphia, $31.50 Cin $27.75 St. Louis.

Standard wheat middlings: $29.50 $33 Philadelphia, $29.25 Chicago, $26.25 apolis. Soft wheat middlings: $40.50 $36 St. Louis. Gray shorts: $32.50 $32 Kansas City.

Cottonseed meal (43%): $47.25 Phila $43.75 Cincinnati, $44 Chicago, $43 City, $37 Forth Worth.

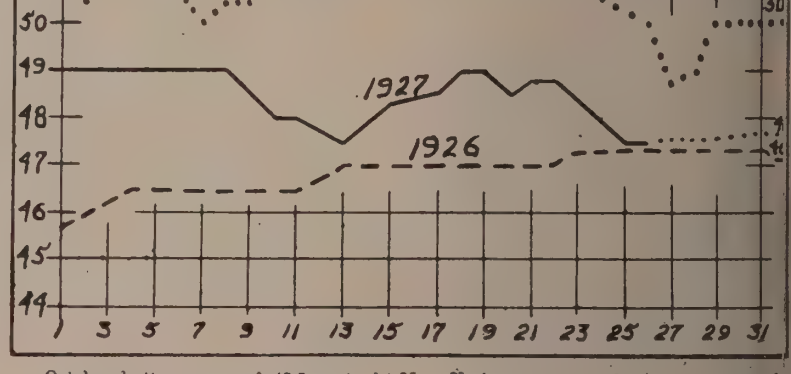
Linseed meal (34%): $46 Buffalo, Cincinnati, $47.25 Chicago, $45 Minn

Gluten feed: $39 Buffalo. White feed: $36.25 Buffalo, $33.50 Chicago. meal: $26.50 Chicago, $23 Omaha, and Kansas City.

League September Pr

The New York Dairymen's League September a net pool price of $2.75 pounds of 3.5 per cent milk in the 20 mile zone, with the usual freight and ferentials. This is the highest Septembe in the history of the farmers' co-operat ganization, and has been surpassed b two other months.

In announcing the price the Dair League warns producers of the New Shed that they must exert every ef



October butter averaged 48.5 cents in New York, as compared with 46.9 cents l year and 50.9 cents two years ago.

Twin City September M

The Twin City Milk Producers' Assoc of Minnesota paid $2.48 a hundred fo milk delivered in St. Paul during Sept The association handled 19,664,871 lbs. m which 35% was surplus.

Cream patrons were paid 52 cents a o for butterfat in first grade cream durin tember. This is 5.5 cents above the a price of 92-score butter on the New market.

October Milk Prices

(From Report by U. S. Dept. of Agricu

Table I represents a comparison of t prices received by producers in Octobe markets, for fluid milk (test 3.5%) f local shipping point or distributors' c plant.

Table I—October Producers' Prices by Geogr Sections

Sections	Range of prices per cwt.	Compari average 1927 Oct.	192 Sep
New England	$3.47—4.42	$3.78	$3.7
Middle Atlantic	2.20—3.37	2.96	2.8
E. No. Central	1.75—3.13	2.58	2.5
W. No. Central	1.70—3.10	2.33	2.2
So. Atlantic	2.75—4.80	3.51	3.4
E. So. Central	2.13—3.40	2.45	2.2
W. So. Central	1.87—3.00	2.41	2.2
Mountain	1.88—3.20	2.34	2.2
Pacific	2.34—3.15	2.70	2.6
United States	1.70—4.80	2.77	2.7

Table II shows for certain represen city markets the prices of standard grad

...e B, test 3.5%) received by producers ... city and paid by consumers:

...l—October Producers' Prices f. o. b. City and Consumers' Prices

	Producer received per cwt.	Consumer pays per qt.
		Cts.
...ngham, Ala.	$3.26—3.91	17
...ix, Ariz.		10—15
...iego, Calif.		15
...ancisco, Calif.	3.11—3.21	14
...r, Colo.	2.10	12
...rd, Conn.	4.22*	16
...ngton, D. C.	3.49*	15
...nville, Fla.	3.37*	18—20
...a, Ga.	2.97	
...o, Ill.		14
...apolis, Ind.	2.10	12
...oines, Ia.	2.65*	12
...s, Kans.	1.90—2.35	10—11
...ille, Ky.	2.31—2.36	12—13
...rleans, La.	2.93	14
...ore, Md.	3.55*	14
...t, Mass.	4.32*	15.5
...t, Mich.	2.90	13—14
...ul, Minn.	2.80*	11
...is, Mo.	2.60	13
... Mont.	2.60	13
...n, Nebr.	2.19	11
...n, N. J.	3.41*	13
...and, O.	3.30*	14
... Okla.	2.27—2.45	13—20
...nd, Ore.		12
...elphia, Pa.	3.49*—3.52*	13
...rgh, Pa.	3.85*	15
...ence, R. I.	4.32*	15.5
... Falls, So. Dak.	2.50	12
...his, Tenn.	2.58*—2.73*	15
... Tex.	2.60*—2.80*	11—13
...ake City, Utah	2.35	11
...ond, Va.	3.93*—4.05*	14
..., Wash.	2.75*	11—12
...ne, Wash.	2.45*—2.55*	12
...aukee, Wis.	3.00*	11

...ic prices for fluid milk.

...es paid per hundred pounds for stand... ...ade milk (Grade B, 3.5%) at the deal...

ers' country receiving stations or at the producers' railway shipping points, as also price f. o. b. city, are given in Table III:

Table III—October Prices at Country Stations

Cities	At country stations	Freight zones to which prices apply
New Haven	$3.70*	28c rate
Washington	2.91*	35c 10-gal. can
Chicago	2.50	All
Baltimore	2.97*	35c rate
Boston	3.50*	181—200-mile zone
St. Louis	2.10	34c rate
Trenton	2.85*	41—50-mile zone
Buffalo	2.62—2.72	28c rate
New York	3.37*	201—210-mile zone†
Cleveland	2.92*—2.99*	All
Philadelphia	2.91*—2.95*	51—60-mile zone
Pittsburgh	3.10*	All
Scranton	3.05	30c rate
Dallas	2.10*	All

*Basic prices for fluid milk. †53c rate.

The following net prices were reported paid to members of producers' associations supplying the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and "Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade, and the latter applying to that portion classed as "Surplus," which is used for manufacturing purposes:

Table IV—Net Prices Paid Members of Producers' Associations for 3.5% Milk

Cities	Paid*	Period	Previously announced price for same period Basic	Surplus
Hartford	$3.75	Aug.	$4.22	Butter markets
Des Moines	2.33	Aug.	2.55	$1.85
Baltimore	3.32	Aug.	3.55	Butter markets
Boston	2.47‡	Aug.	3.34	Butter markets
Detroit	2.80	Aug.	3.00	Butter markets
Minneapolis	2.38	Aug.	2.60	All milk pooled
New York	2.42†	Aug.	3.16	$2.15—$2.46
Akron	2.90	Aug.	3.40	$2.00
Pittsburgh	2.90	Aug.	3.45	Butter markets
Milwaukee	2.85	Sept.	3.00	Butter markets
Duluth	2.10	Aug.	2.54	All milk pooled
Superior	2.30	Sept.		All milk pooled

*f. o. b. city unless otherwise indicated.
‡181—200-mile zone. †201—210-mile zone.

Table V gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat:

Table V—October Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Akron	16—18	20	8	10	16
Asheville	19	25			20
Baltimore		30	14	15*	18
Birmingham		25	7—10	22	15
Boston	19	26	10		
Buffalo	14	30	10	15	19—22
Chicago	17	25	20	15*	16
Cleveland	19—20	25	12—13	15	17—22
Columbus	17	25	12	20*	14—16
Denver	14—15		8		14
Des Moines	14—15		9	14	13—14
Detroit		25	35		16
El Paso	16—17	25	10	20	15
Hartford	20—25	25—35			18
Indianapolis	16		10	15*	13
Jacksonville	25		10—12	30	20—30
Los Angeles		28—30	10	15*	17
Louisville	16—17	24	13		15—16
Milwaukee	15—20	25	7	9—10	12—15
Minneapolis		22	14		15
Nashville	18		10	20	16
New Orleans	18	31	14		17
Omaha	15	15	10	15*	11
Philadelphia	15—16	30	9—13		17
Pittsburgh		25	10		18
Portland	14		12	15	15
San Francisco		25	14	20	20
Seattle	15	20			15
St. Louis	18	25	10—18	15	17
Washington	18—20	30	15	15—20	16

*12 oz. package. †18 to 25% fat.

Connecticut October Milk

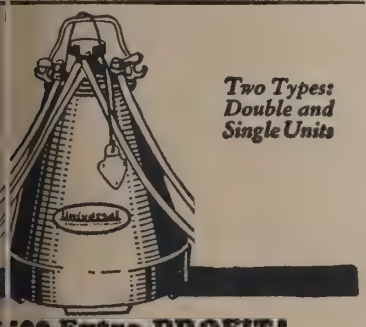
The Connecticut Milk Producers' Association announces the following prices for Grade B milk delivered during October at market milk centers:

All milk sold in fluid form, 9.5 cents per quart for 4 per cent milk, and 4 cents per point allowed for other tests; all milk made into cream that is sold in fluid form, 22.5 cents per pound fat above the average monthly price of 92-score butter on the Boston market; all milk made into butter, at a price per pound fat equal to the month's average on 92-score butter in Boston.

Butter and Cheese in October

Butter averaged 48.5 cents in New York for the first four weeks in October, an advance of 2.3 cents over September. This is about midway between the average of 46.9 cents in October of last year and of 50.9 cents in 1925. Storage holdings at the four principal markets have been reduced during the month by over ten million pounds, which is a withdrawal of over a half million pounds greater than occurred last year. Despite this greater reduction, storage holdings are nearly a million pounds greater than a year ago and this may

(Continued on page 1077)



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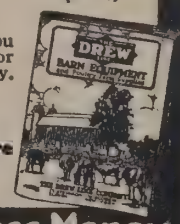
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Registered Guernseys for sale. Both sexes. A. R. breeding. ROY BURTON, Eagle, Wis. 17-*

Registered Guernsey Bulls. Serviceable. FRANK KLEMM, Baraboo, Wis. 19-5

For Sale—Bull calves from 2 to 6 months old. Out of pure bred Sophie Tormentor bull with world's record dams on both sides. Out such cows as Sophies Berthas Sons Edith and Sophies Agnes. This bull traces to Sophie 19th seven times and to Pogis 99th five times. If milk production is what you want, these calves will give you results. They are all out of high producing dams. For particulars write C. F. KNECHTEL, Larned, Kansas.

Jersey bulls sired by son of Sophie's Emily, world's champion producer. Dams records up to 520 lbs. GUY WALKER, Fennimore, Wisconsin. 20-3

Jerseys—Noble, Owl breeding, $60. SAMUEL SCHLABACH, Shanesville, Ohio. 21-3

Pure Bred Ayrshire Bulls all ages. Federal Tested. G. A. STEELE, Elizabeth, Illinois. 20-2

LIVE STOCK WANTED

Wanted—Registered Brown Swiss bred heifers or young bred cows. Write all details. NICK GOETZ, R. 5, Owensboro, Ky.

EXCHANGE

Wanted to exchange foundation herd of well bred Angus cattle for foundation herd of Guernseys. SANFORD & RICH, Mocksville, N. C. 21-3

Wanted—Gray Percheron mares for Registered Holsteins. ROY HARRIMAN, Appleton, Wis. 21-2

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 85 cents for one cow, $2.90 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 17-*

A sure cure for the new dog disease, running—barking—fits. 30 pills $1.15. SUPERFINE'S REMEDY CO., Desk B, Manistique, Mich.

POULTRY

Single Comb White Leghorn yearling hens. Priced low. Large or small lots. JOHN HASS, Bettendorf, Iowa. 18-5

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Hundred Hunting Hounds cheap. Supply catalogue. KASKASKENNELS, AW87, Herrick,, Ill. 21-2

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

LUMBER

Guaranteed lumber and shingles sold direct. Big saving! Ask for estimate. KENWAY LUMBER COMPANY, Tacoma, Washington. 15-7

MACHINERY

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Sharples rebuilt separators for sale. Cheap all sizes first class condition. MILLER-LENFESTEY SUPPLY CO., Tampa, Fla. 20-3

Dairy steamer and sterilizer for dairy farmers. Satisfaction guaranteed or money back. Write for circulars. E. W. MARQUETTE, Robbinsdale, Minn.

Want to hear from owners of used milking machines, cream separators, and farm light plants for sale. WISMON, Elgin, Illinois.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 19-4

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Muncie, Ind. 21-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Wholesale hay and straw. Write us for prices. Consignments solicited. We buy straw or timothy. J. D. REID & CO., 79 Board of Trade, Chicago, Illinois. 2-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. JOHN DEVLIN HAY CO., Inc., 192 N. Clark St., Chicago, Illinois. 21-*

Alfalfa and Clover Hay for Sale—Ask for delivered prices. HARRY GATES COMPANY, Jackson, Michigan. 17-*

Shippers inspected graded hay; dairy alfalfa, clover, timothy, prairie and straw. CALLIARI BROTHERS, Green Bay, Wis. 19-6

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-*

Alfalfa and Prairie, delivered prices. SUTTIE-PECKHAM CO., Omaha, Nebr. 19-6

Hay and straw for sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 19-4

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

AGENTS WANTED

Agents—We start you in business and help you succeed. No capital or experience needed. Spare or full time. You can earn $50-$100 weekly. Write MADISON CORPORATION, 564 Broadway, New York. 18-11

Send name, address on postcard. Free introductory copy Salesology Magazine; contains 1000 money making opportunities offered by big reliable firms; no obligation. SALESOLOGY MAGAZINE, Desk B 252, 500 No. Dearborn, Chicago.

TOBACCO

Natural Leaf Tobacco—Best grade, guaranteed, 5 pounds chewing $1.00, 12 pounds $2.00; 12 pounds smoking $1.50, pipe free. Pay when received. VALLEY FARMERS, Murray, Kentucky. 20-4

Homespun Tobacco—Guaranteed, good flavor, Chewing, 5 pounds, $1; 10, $1.75. Smoking, 5 pounds, 75c; 10, $1.25. Pay when received. FARMERS UNION, Mayfield, Kentucky. 21-4

ROCK PHOSPHATES

Our finely ground raw rock phosphate greatly increases yields of small grain and hay crops. Cheaper than acid phosphate. Write for literature and prices. ROBIN JONES PHOSPHATE COMPANY, 572 Bennie Dillon Building, Nashville, Tennessee. 20-*

MISCELLANEOUS

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

DAIRIES

For Sale—Well equipped milk business in Southern Michigan manufacturing city. Doing $13,000.00 business annually. Price $2,200.00. Dissolving partnership. Address BOX 559, care Hoard's Dairyman.

WANT TO RENT

Wanted to Rent—My big dairy farm on a fifty-fifty share basis. Possession this fall. In high state of cultivation. Best of market. Address BOX 561, care Hoard's Dairyman.

FARMS WANTED

Need several farms immediately. Must be close to school. WALT. MILLER, Carpenter Bldg, Milwaukee.

FARMS FOR SALE

For Sale—I own the following Wisconsin farms and will sell them cheap as I live in Oregon and want to dispose of my Wisconsin holdings; 80 acres improved farm with good buildings, about 40 acres under the plow 3 miles west of Stetsonville; 35 acres, good buildings, about 15 acres under the plow in the city limits of Medford, above farms in Taylor County, Wisconsin. The following are in Clark County, Wisconsin, 134 acres good buildings, this is an extra good farm, about 80 acres under the plow, 3 miles west of Abbotsford; 60 acres one mile from city of Colby, about 20 acres under the plow, small house. For particulars address BERT WELLS, Box 28, Roseburg, Oregon.

325 Acres Premier Dairy Co. 4 horses, 26 fine cows and young stock, pure-bred bull, tractor, milking machine, hay loader, grain drill, gas engine and buzz saw, full complement machinery, vehicles, harnesses, crops hay, corn, oats, potatoes, etc.; usual hay cut 125 tons, pastures 50 cattle, stream watered, 40 acre timber and woodlot, 225 acres splendid machine worked fields,, good 10-room residence, 2 dairy barns with cement floors, 40x65 and 32x70 ft. with 41 stanchions, silo, tenant house and stable; buildings painted this year. Monthly milk income recently around $300. Here's a grand farm and a money-maker; only $12,000, terms arranged. Folder this and other bargains from W. H. MAYNARD, Strout Agency, P. O. Bldg., Canastota, N. Y.

Because of poor health will sell my 370 acre model dairy farm. Will carry 40 cows. Nicely located in fertile valley, Central New York, hour's drive from Syracuse, a great produce market. Mile from milk station, paying highest quotations, near trunk line State road open during winter. Beautiful 12-room, stucco house with modern conveniences. 100 ft. basement barn, concrete floors, feed room connecting three silos, 100 acres growing timber will soon pay for farm at only $13,000, much less than buildings cost. Only $3,000 down, balance your own terms. Immediate possession. Act quickly, "Nuf sed." F. E. SAUNDERS, DeRuyter, N. Y.

We Want More Factory Patrons. Mason County, Mich., admirably adapted to dairying, offers many inducements to new settlers. Low priced farms are still available. The largest cheese factory in the State is located in this county. Operating twelve months in the year, it provides an outlet for your milk at remunerative prices. Investigate the possibilities of this county before locating elsewhere. We have no land for sale but will be glad to assist prospective buyers in finding satisfactory locations. For further information, write to Dept. A, KRAFT CHEESE CO., Scottville, Mich. 18-4

Dairy Tenant Farmers of Wisconsin and Minnesota: An opportunity awaits you in the famous Yakima Valley. Alfalfa, corn and pasture produce an abundance of cheap feed. Excellent markets for dairy products and surplus stock. Mild climate, good churches and schools, paved roads, two railroads. Agricultural products last year from this valley valued at $43,000,000. If interested write us and we will tell you more about the opportunities here for dairymen. S. E. CHAFFEE, Chairman Agricultural Com., Sunnyside Commercial Club, Sunnyside, Wash.

Dairy Farm—320 acres Jefferson County, Kansas, 3 miles market, town 500, good high school, good road, 40 miles Kansas City, mostly hard surface, balance completed soon. Land high state cultivation, all smooth, gently rolling, well watered. Blue grass pasture, alfalfa, corn, oats produce well. All kinds fruit, large dwelling, water and electric lights, 3 good barns, 2 silos. Good milk market, condensery. Financed long time loan, priced at great sacrifice by owner. Address BOX 558, care Hoard's Dairyman. 21-2

244 acres for large family. Everything complete; tractor, horses, cattle, furniture, all crops, full line machinery, 3-section tractor harrow, milking machine, gas engine, etc., included; 160 acres tillable; good 9 room house and bathroom, furnace; tenant house, large basement barn, near advantages and shipping point. Only $6500 for quick sale; part cash. Details page 9 illustrated fall bargain catalog. Copy Free. STROUT AGENCY, 255-DL, 4th Ave. at 20th St., New York City.

Concrete Highway Farm, $5500 income. Equipped, 65 miles to New York City. Motor bus service to Middletown; 148 acres, 60 in tillage with 20 acres rich black muck for celery, onions, etc.; income last year $5500; good 8-room house with furnace heat; large barn. Carries $6000 Federal Farm Loan, runs 33 years; full price only $11,000 with 15 cows, young stock, bull, horses, hens, equipment and furniture; part cash. J. J. KOLLER, Strout Agency, R. F. D. No. 1, Middletown, N. Y.

For Sale—Good 160 acre dairy farm 4½ miles N. W. of Adams, Mower Co., Minnesota. 10 room house, barn 30x80, milk house, De Laval milker, 30 head high grade Guernsey cows, 14 yearling heifers, 1 registered bull. Other necessary buildings, equipment and feed. Address ROBERT JACKSON, R. 2, Adams, Minn. 20-2

Dairying Opportunities—Bargain priced farms in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon suitable for intensive dairying from standpoint markets, climate and feed crops. Free literature and settlement service. Write mentioning state. H. W. BYERLY, 117 Northern Pacific Railway, St. Paul, Minn. 19-4

A very desirable farm home, 100 acres, located half way between Chippewa Falls and Eau Claire. On State Highway and Co-operative milk route. Average price per pound for butterfat for 1927 will be better than 60c. Stocked with high class Guernseys. Special price for November. J. F. COTTON, Chippewa Falls, Wisconsin.

Dairy Ranch—One of the best in the famous Palo Verda Valley, 160 acres $125.00 acre. With or without equipment. Come to Southern California where there is green pasture the entire year and dairying is a pleasure. I am 68 and going to retire. JOSEPH BULLER, Ripley, Riverside County, Calif.

Southwest Missouri—938 acre dairy farm for sale, 3 sets of buildings, 9 barns, green grass 9 months in the year; good all year road from County Seat, R. R. town and U. S. Highway. Price $25,000.00. Terms if desired. T. J. MURRAY, Springfield, Missouri.

An estate. 200 acre dairy and chicken farm. School two miles; college, four. If interested, write MRS. NELLIE GILLEY, Williamsburg, Virginia.

For Sale—465 acre retail dairy farm. Fine improvements. A real money maker. A. J. WINN, Burlington, Kansas. 20-3

For Sale—140 well improved, good house, in sunny Washington. Write for information. NEIL GORDON, Usk, Washington.

FOR RENT

Wanted—A dairy farmer, who would be interested in developing a herd of pure-bred, high producing cattle, mostly Holsteins, and who knows how, to rent my half-section farm in South Dakota, on a 50—50 basis. I will furnish the cattle which are already on the place and include heifers from dams with records up to 1175 pounds of butter and 29,000 of milk in a year. Renter must be able to buy the horses and machinery on the farm, and a half interest in 45 ewes and some sows and also half the feed, and be able to stand the strictest investigation as to his honesty and ability. Possession given March 1, 1928. EDWIN T. RAMSEY, Clark, S. D.

Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. Go now and see the harvest. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

For Rent on Shares—240 acres, forty miles from Chicago. Large barn, three silos, other buildings. Woven wire fence. 25 acres of new alfalfa seeding; 100 acres of sod manured this fall. Some fall plowing. Equipped for dairy or feeding. Will furnish stock and machinery. W. H. SCHENDORF, 1340 E. 63rd St., Chicago, Illinois.

Dairy farm 6 miles from Columbia, near concrete highway. Good buildings, good water supply, productive soil, 200 acres, 90 acres in bluegrass. W. K. FREUDENBERGER, Columbia, Missouri.

Two Dairy Farms for rent near Janesville. FRANK W. FISHER, Janesville, Wisconsin. 20-2

Model Large Dairy Barns, alfalfa and corn farm, without stock. WILFRED EPES, Blackstone, Va. 20-3

TESTERS WANTED

Iowa Cow Testing Associations need test
ary $900 per year and up, plus board.
courses offered. Give age, experience, refer
letter. DAIRY EXTENSION, IOWA STA
LEGE, Ames.

THE LABOR EXCHANGE



**Advertising in this department is 8c pe
Remit in advance.**

HELP WANTED

Wanted at once, on one of Wisconsi
Guernsey dairy farms, man to take care of
making Grade A milk. One who understar
care of milking utensils. Also want good
can operate milking machines. Using
Surge. Living conditions ideal. Hot water
electric light. Wages $60 per month for
tions, board and room. WHITE PLAINS
SEY DAIRY FARMS, J. B. Keeney, Owne
ville, Wisconsin.

Wanted—Single man, must be steady an
habits, to work in dairy barn feeding cows a
Milking with a De Laval milker. Man wh
perience feeding and milking test cows prefe
references and wages expected in first lette
WATER JERSEY FARM, Coldwater, Michi

Wanted—Herdsman, single, about 35,
capable and well able to handle men sho
Good opening. Certified Guernsey herd,
to 55. Personal interview. BELLE ALTO
Wernersville, Pa.

Herdsman Wanted—Married man without
Must be capable and experienced. Wife to
work. $100 per month to start. Must furn
ences with first letter. Address BOX 564, ca
Dairyman.

Wanted—Dependable man for modern d
using De Laval milkers. Must be a hustle
$60.00 to start. MILES CITY DAIRY,
Montana.

Hardsman wanted to take charge of mo
barn and dairy. Must be good feeder and
care of dairy. Herd about sixty. Address
557, care Hoard's Dairyman.

Wanted—Married man with one in famil
milk. House, garden, milk furnished. Must
erence. FRED O'DONNELL, Lone Rock, W

POSITIONS WANTED

Position as Dairyman wanted by our for
ager, G. P. Johnson, Woodside, Pa., who
of employment because of the destruction
our dairy. This efficient foreman has alw
exceptional ability and judgment in caring
in handling men, and in cooperation with h
ers and the medical inspectors of a certi
which, largely because of his efficiency,
produced the best-scoring milk in the E
advertisement is inserted without the kno
Mr. Johnson, as a testimony of the regard
he is held by us. Further information will
given upon request. EDGEWOOD DAIRIE
Heacock Co., Proprietors, Wyncote, Pa.

Farm Manager, proven exceptional ability
position. Life-time experience. College
Dairying specialist. Certified milk. Very
Profits guaranteed. Know how. Share or
salary basis. Will invest. Highest referenc
COLE, 310 New Hancock Street, Wilkes-Ba
sylvania.

Position wanted as farm manager Holstein
stock farm. Lifetime experience breedin
cattle. Can build up your herd and soil. E
A. R. O. work, good with young stock, fe
for show, good farm mechanic. Best of
Salary and percentage. Married, age 34.
BOX 547, care Hoard's Dairyman.

Young married man, 26 years old, wishes
position on dairy farm. Lifetime dairyma
cow tester. Experienced in all lines. Am ca
clean. Would like herdsman or milk he
Start after November first. Separate hou
No children. Address M. L. THOMPSO
Farms, Grandin, N. Dak.

Buttermaker wants position, has had exp
all from plow to creamery manager; first r
man, understands cows and horses, a mec
capable of handling men, have a good reco
vious work, forty-six years old, wife a good
prefer Michigan, Ohio, or Indiana. Address
care Hoard's Dairyman.

Clean, steady, sober, single man, age 40
hand and machine milker, wants change to
house work, or work on up-to-date poul
western states preferred. State all particula
ing wages in first letter. Address BOX
Hoard's Dairyman.

Wanted—Position as farm superintendent.
perience in dairying, farming and general
ing. Experience practical and scientific.
Small family. Scotch. Good references.
class position considered. JAMES M. KIN
Virginia.

Position wanted by single, experienced
dairyman on up-to-date establishment, only
sible position desired. The East preferred. P
particulars. 145 E. 101st., Los Angeles, Cali

Position wanted as herdsman, single, g
and expert calf raiser. Nominal wages first
increase thereafter as proved worthy. Ad
563, care Hoard's Dairyman.

Wanted—Position operating farm on wag
basis. Married. Own help. Life experie
reference. December 1st or before. BOX
6, Station C, Milwaukee, Wis.

Want work on farm as cook. Experienc
two school girls. Address MRS. G.
STARKLOFF, 640 Galapago, Denver, Colo

Dependable man wants work in dairy b
good work will be appreciated. Prefer Holst
erence given. TRYGVE HVOSLEF, Eyota,

Vergeront and John
Jersey Sale

The Vergeront & Johnson
Holmen, Wisconsin, Thursday
ber 6, was fairly well atten
spite of a bad rainy day whic
it necessary to sell the cattle
barn. Most of the buyers fro
tance were unable to attend
count of the roads. Top bull
Angell & Grathwold of Mi
on a bid of $300. John Ter
Wisconsin paid $265 for a 5-y
cow which topped the femal
Forty-nine head made a to
$5077.50; twenty-eight head o
years averaged $129.82; and
one year old and under two a
$84.83; calves under one yea
aged $45.37.

Butter and Cheese in October

(Continued from page 1075)

art account for the erratic course of s.

eese markets continue their advances and a striking contrast to butter. The October ge on the Wisconsin boards is 26.75 , and the market shows a tendency to ad- further. This is not only the highest paid for October cheese since 1919, but highest in relation to the price of butter. he past several years October cheese on Visconsin boards has averaged to be less 50 per cent of the price of 92-score butter e New York market, but this year the er cheese price is 55 per cent of the but- rice.

)ctober Condensed Milk

ort by U. S. Department of Agriculture) ces paid producers for 3.5% milk f. o. b. ry were as follows for October, covering factories manufacturing both case and goods:

raphic tion	Price per cwt. Range	Ave.
England	$2.30	$2.30
le Atlantic*	2.32—3.00	2.64
North Central	2.01—2.40	2.16
North Central	1.89—2.05	1.99
Central	1.89—2.00	1.95
Western	1.85—1.94	1.89
Western	1.84—2.15	1.94
ed States	1.84—3.00	2.15

ifty-nine additional factories reported s based in part on current month's whole- butter quotation. Twenty-five factories ted prices not determined as yet and 20 ted factories closed.

nufacturers' wholesale selling prices for ened condensed and unsweetened evapo- milk were as follows for September:

	Range	Ave.
ensed, per case	$5.60— 6.65	$ 6.28
ensed, per cwt.	9.25—13.00	10.38
orated, per case	3.37— 5.20	4.50
orated, per cwt.	6.99— 9.50	8.48
ensed skim, per cwt.	5.19— 7.25	5.96
orated skim, per cwt.	2.50— 6.45	3.70

September Dry Milk

m Report by U. S. Dept. of Agriculture) e wholesale prices given below are based eports from manufacturers governing ac- sales f. o. b. factory during September: y Skimmilk: Prices ranged from 7 cents cents for dry skimmilk in bulk, averag- .3 cents a pound for sales, totaling 7,170,- lbs. When packed in one-pound cans the reported was 33.5 cents a pound.

y Whole Milk: Prices ranged from 22 to 22.5 cents for dry whole milk, averag- 26.5 cents for sales totaling 375,528 lbs. n packed in one-pound cans the price re- d was 46.5 cents a pound.

y Buttermilk: Prices ranged from 7 cents .5 cents for dry buttermilk in bulk, aver- g 8 cents a pound for sales totaling 1,807,- lbs. When packed in one-pound cans the reported was 10.5 cents a pound.

'isconsin September Milk

e average Wisconsin farm milk price for ember, according to the report of the Department of Agriculture, was $2.14 hundred. This is ten cents higher than ust of this year, 25 cents above September st year, and 23 cents above September,

Iowa August Butter

e Iowa Creamery Secretaries' and Mana- Association reports that for the local meries reporting, patrons received 47.83 a pound for fat in August as compared 46.58 cents for the same month a year The price paid per pound of fat ranged 43 cents to 51 cents, with the average handled per creamery being 33,789 pounds.

Alfalfa Experience

OARD'S DAIRYMAN:—In 1923 I ght a farm with sandy soil in sago County, Minnesota. The fol- ing year I seeded about 6 acres lfalfa which did not seem to do t and some of the neighbors hed at me and thought I was ting my time and money in this ertaking.

n the summer of 1925 I seeded acres that gave a fair crop of lfa in 1926. This year's first cut- is about three tons to the acre a finer crop was never grown. It ld go five tons per acre for the ion.

applied two tons to the acre of stone and the results are shown. This year I had seeded ten acres to white sweet clover with the same treatment, and I am awaiting results.

The above, I believe, was the first alfalfa ever seeded in this section, and what it does here can be done anywhere. It is my intention to plant the whole farm to this crop in time, as I am convinced that the price of land will thereby be advanced, for alfalfa land is worth considerable more than land without it.

Minnesota. A. E. RINKER.

The Agglutination Test

The agglutination test for abortion was described as follows by Dr. J. G. Wills before a meeting of the New York Breeders' Association:

"It has been found that the blood serum of an animal affected with certain germ diseases contains a certain product which has the power, when added to other blood, of producing a clumping or grouping of the bacteria in such blood if of the same kind as in the test fluid. In the agglutination test for abortion the germ is grown in the laboratory mixed with a definite quantity of weak salt solution which is used in making the test. To this a definite fixed quantity of blood serum from the animal under examination is added. If the specimen under test contains the abortion germ, after this test tube stands over night we will find a grouping or clumping in the bottom of the tube. If the blood from the animal under test does not contain these germs the fluid will remain cloudy.

"A small amount of blood is necessary, not more than a tablespoonful or thereabout being needed. This is usually obtained by inserting a hypodermic needle into the jugular vein. It is necessary to restrain the animal by using a nose leader or having an attendant hold the animal, place a cord or small rope about the neck close to the shoulder, draw tight thereby stopping circulation in the jugular vein, which will stand out clearly—insert the needle with a quick jab through the skin and, if properly inserted, there will be an immediate flow of blood, which should be caught in a sterile bottle. This blood is allowed to clot and forwarded to the laboratory. Each bottle must be marked preferably with the ear tag number of the animal from which taken. It is necessary that great care be used in getting the proper identity of each sample taken, otherwise we may easily confuse the results.

"The technical training required to conduct this blood test is such that attempts to use it without laboratory facilities are, as yet, extremely unreliable. It should also be understood that while obtaining the blood sample may not, necessarily, require a veterinarian, it does require a person familiar with the exact technic to be followed and trained to observe certain sanitary precautions to avoid possible injury to the animal, as for example through infection from the needle, as well as to obtaining a proper blood sample.

"It is necessary that blood from all cows in the herd, as well as the herd bull, be taken, as well as heifers that have been bred and are carrying calves. There seems to be no necessity for taking blood from unbred heifers or from calves still nursing. The former are not often infected. Calves will respond, almost without exception, if the mother is diseased; this being due to certain products in the milk of the mother being carried into the blood of the calf and producing agglutinating power even though no abortion germs actually exist in the body of the calf."

Half Day's Work But No Groundhog

HOARD'S DAIRYMAN:—As I see it now, the hardest half day's work I ever did was trying to dig out a groundhog den. At the time, of course, it wasn't hard work—it was fun. I moved as much earth in that half day as a day laborer would in a week, I do believe. And I didn't get the groundhog. "You couldn't expect to," Ben Foster, an old timer in the neighborhood told me. "Don't you know a groundhog can dig faster than you can? He was keeping ahead of your spade."

Maybe so—I don't know whether Ben was right or wrong. One thing I do know, though, I can get rid of a groundhog now in less than a half day's time, and a whole lot easier than the digging method.

Calcium cyanide—that's the new method. All you have to do is put a tablespoonful of this material in the burrow, fill up the burrow, and the groundhog will never see his shadow.

This material, calcium cyanide, comes in crystals or powder. Some folks use the powder in a hand dusting machine—just stick the nozzle down the burrow, work the duster handle, then withdraw the nozzle and stop up the hole with a spadeful of earth.

The only thing to be careful about is breathing the fumes of calcium cyanide—it's dangerous.

Oh, yes, get after the woodchucks before June or July. The young chucks leave home along in the summer, and you may miss some of them if you wait too late in the summer.

Inexpensive, too; it costs only two cents to kill a groundhog with calcium cyanide. Costs more than that to dig them out, let me tell you.

New Jersey. E. A. KIRKPATRICK.

Holsteins to Japan

We are advised by Thomas J. Owens, president of the Washington State Holstein-Friesian Association, that a shipment of foundation Holstein cattle was made from Seattle October 19 on the S. S. London Maru for Japan. They were purchased for the Imperial Live Stock Experiment Station at Chiba, near Tokio, from the Carnation Farms. Included in this lot is the great cow, Bella Veeman Segis Matador, with a record as a four-year-old of 32,217 pounds milk containing 997.6 pounds fat.

Levi: Did you ever fall in love with words?

Solomon: Yes, with these, "enclosed find check."



WANTED!
A Livestock Man

—in each community to establish and supervise advanced feeding methods recommended by Agricultural Stations. Must know livestock; no other experience necessary. We give individual instruction and training gratis. Appointments at good pay for part or all time now being made. Write, stating age, experience, present occupation and references. This may be a position of great importance to you. Write TODAY.

GOOD PAY

MURPHY PRODUCTS CO.
DEPT. 100
BURLINGTON WISCONSIN



MEN WANTED ON RAILROADS
Nearest their homes—everywhere. Firemen, Brakemen, beginners $150—$250 monthly. Promoted to Conductor or Engineer—$3,000—$4,000 yearly—highest wages on railroads. RAILWAY ASSOCIATION, Desk M10, Brooklyn, N. Y.

End foot troubles forever!



Do you realize that your weariness, mental exhaustion, and many more serious ills are the direct result of foot neglect?
The everlasting service that you expect from your feet can only be realized if you give them the care which they deserve! Run-over heels are the danger signal, and should have immediate attention — if you want health.

Make Your Feet Happy!

THE National Bureau of Foot Correction has devoted many years specializing exclusively on the creation and development of foot aids that make feet happy
We offer you a foot aid that will positively adjust itself to your feet, and that will end the nerve-racking torment of aching feet.
National Foot Aids are constructed of finest leather with an aluminum heel-base, and with provision for adjustments at the arch, ball and heel.
You will rejoice in the comfort, correct support and youthful buoyancy—which you cannot possibly get in shoes alone! And it doesn't matter how many different pairs, or kinds of shoes you wear—National Foot Aids are adjustable and one pair of foot aids will fit all your shoes. And our special price, direct to you, is only $5.00 per pair.

Do NOT Send Money!

Just fill out the coupon at the bottom. Place stockinged-foot on a piece of paper, and trace outline of your foot, holding pencil upright. This is best accomplished while sitting down, to avoid too much pressure on the foot while tracing.
On receipt of the coupon and tracing, our experts will make up a pair of adjustable foot aids to fit your particular feet, and they will be mailed to you within 24 hours. On their arrival pay your postman only $5.00—as the carrying charges are paid by us! Send the coupon and tracing now, to—

Nat'l Bureau of Foot Correction
Paul Brown Bldg. Dept. D St. Louis, Mo.



How tracing should be made. If troubled with callouses, mark an X on the tracing where they appear.

Our Broad and Genuine GUARANTEE
We guarantee these foot aids to be exactly as represented. If after wearing them as directed, you do not believe that they give you genuine foot happiness —return them, and your money will be refunded promptly.

National Bureau of Foot Correction—Dept. D
Paul Brown Bldg., St. Louis, Mo.

Please send me, as per your guarantee, one pair of National Foot Aids, for which I will pay postman $5 on delivery. Enclose find tracing of my foot.

Name_____
Address_____
R. F. D._____ State_____

Sell your surplus cows, poultry and other live stock with an ad on our Special Opportunities Page.

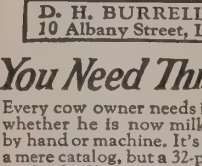
SALE ANNOUNCEMENTS

Nov. 15—Holsteins, at Council Bluffs, Iowa. C. T. Eaton, Bethany, Mo.
Nov. 15-16-17-18—Holsteins. United States National Holstein Sale at Waukesha and Watertown, Wisconsin.
Nov. 16—Holsteins. O. G. Clark & Co. pure-bred Holstein sale, Fond du Lac, Wis.
Nov. 17—Holsteins. O. G. Clark & Co. high grade Holstein sale, Fond du Lac, Wis.
Nov. 30—Guernseys. La Crosse Co. Guernsey Breeders' Sale at West Salem, Wis. H. W. Griswold, Sale Mgr.
May 23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florham Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
May 24-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herrick —Merryman Sales Co., Mgrs.
May 26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hopewell Junction, New York.
June 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.



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YOUR grandfather had to milk his cows by hand. But you don't—any more than you have to drive to town with an ox team. Isn't it time to banish forever the drudgery of hand milking? Don't be the last to give up the old way. Join up with the thousands of farmers who now milk their herds easier, quicker, better and more safely with the Burrell Milker. The time you save can be used for other productive work, for leisure, and for pleasure—no other farm investment will give you such large returns.



Single Tube System

The Burrell also eliminates hand stripping—*It Milks the Cows Clean.* That's why you'll finally come to the Burrell.

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Every cow owner needs it—whether he is now milking by hand or machine. It's not a mere catalog, but a 32-page profusely illustrated book which is a guide in both selecting and using a milking machine—backed by 67 years' experiment and experience. You owe this book to yourself. It's *free.* Send for it now.



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ANTI-COW KICKER

Saves your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

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CLIP YOUR COWS IT MEANS MORE--

Cleaner and Better Milk.

Easier to keep them clean, make them feel more comfortable and keep dirt out of the milk pail.

CLIPPING improves the health of CATTLE, HORSES, MULES, etc. Use a GILLETTE PORTABLE ELECTRIC CLIPPING MACHINE. Also furnished with GROOMING ATTACHMENTS for cleaning. Operates on the light circuit furnished by any Electric Light & Power Co. or on any make of Farm Lighting Plant.

Price list free on request.

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Carlots Only



Order Now

For bedding, most convenient, serviceable and sanitary. Write for special, delivered prices.
Jagerson Fuel Company, Neenah, Wis.

Hunter of Kewaunee

(Continued from page 1039)

crop of wheat which he planted in the spring of 1841. A log cabin was erected where they resided for several years. My father, a lad of five, took kindly to outdoor life and would frequently accompany his father in search of game.

One fine spring morning while these two were out in the woods, they ran across a couple of cub bears. Strange to say they did not squeal as cubs usually will when molested, so they carried them home. One of the cubs was sold but the other one became tame and would accompany my father to the village or any other place. At the approach of winter, a hole was dug underneath the sill of the barn and a chain stapled to the sill. In this den the bear spent his first winter. He grew so rapidly that father had to discontinue taking him to the village as people were afraid of him, although he was perfectly harmless.

An interesting incident occurred in the fall. Two well-to-do Englishmen visited the United States for adventure and to kill bears for their skins. They expected to go West where bears were plentiful. Upon reaching New York they were told that what they needed was a bear dog.

The innocent Englishmen fell for this proposition and paid this fellow $500 for a dog which was untrained but whose bear killing instinct had come down through a long line of ancestry. They went from New York City to Buffalo and there got a boat that took them to Racine. While resting there for a few days they heard that Seth Moore had a large bear.

Early one afternoon, while my father was playing out in the yard, these two gentlemen came up leading a huge dog. It must have been a Great Dane. They immediately asked about the bear and were told that the bear was down near the barn. They asked if they could see my grandfather and my father readily ran to the house for him. They told my grandfather about their bear hunting expedition and the dog they had purchased.

Grandfather listened while they informed him that the dog wasn't trained and they felt before going into the forest in search of bears it would be a good plan to train him as to just how a bear smelled and acted. They said they would keep a rope on their dog and would only let him get close to the bear.

Grandfather, of course, was amused and told the men that as far as injuring the bear was concerned, they need not keep a rope on the dog. They seemed to be very solicitous about the bear being killed by the dog, but grandfather told them if they were willing to risk their dog that he would risk the bear, consequently they were delighted to take the rope off of the dog to leave him unhampered. Father claims that the dog was courageous and nearly as large as the bear. They found the bear amusing himself by circling in front of his den at the end of his chain.

On the approach of the strangers with the dog, he stopped his circling motion and sat up. When the men set the dog on the bear, the dog, desirous to obey, jumped at the bear. The bear wasn't used to such excitement but he stood his ground. Finally the dog, in one great leap, cleared the bear's head and grabbed him by the back of the neck. This bothered the bear and greatly aroused his anger. The bear broke the dog's hold by turning a somersault, then grabbed the dog with his paw and dashed for his hole. He went under like a flash and all that was heard were a few yelps from the dog.

The men immediately ripped up the barn floor, but found only a few mangled parts of the dog and the bear who resented their intrusion. The men expressed regret at the outcome. Grandfather told them it was a good lesson, that no one but a skilled hunter should attempt to go on a bear killing expedition and probably the loss of their dog meant the saving of their own lives.

The lands in the vicinity of Racine were very fertile. They were not so hard to clear west of town because of the prairie openings. The settlers came in rapidly. This was not so much to grandfather's liking because it interfered with hunting and trapping.

So grandfather took his family overland to visit his brother at Baraboo who had written him wonderful tales of that country. He rented his farms at Racine, put the family into wagons and started his westward trip. He went by way of Madison and camped on the shores of one of the beautiful lakes. He followed a tote road up to Baraboo and crossed the Wisconsin River with his horses and family on a ferry.

However, the country didn't look as wild as he had expected, so after visiting a day at Baraboo, he continued up the Baraboo River. He located about ten or twelve miles from Reedsburg and quite close to La Valle. He built a log cabin on the banks of Big Creek, a short distance from where it joins the Baraboo River, and purchased land from the government at $1.25 per acre. This seemed to be the most favorable country that he had yet reached from the hunting and trapping standpoint. He spent a great deal of his time hunting wild bees. He cleared off a few acres of land. He cut considerable bluejoint hay along the Baraboo River to feed his horses and one or two cows.

As fall approached, he devoted considerable of his time to hunting deer and trapping on the Baraboo Indians were plentiful but pe My father was then thirteen ye and hunted and trapped a grea with his father. His brothers take so much interest in huntir trapping.

There is one instance that relates that is quite interesting eral hundred Indians were cam the Baraboo River near their The Indians some time befor deeded their lands to the States Government, but many Indians didn't fully realize w meant to give the land away, that they had a just right of s there. They were notified s times by government officials to on their own lands in Minnesot refused to go.

Finally the government got s ox teams, loaded the Indians in wagons and carried them into M sota by way of La Crosse. T dians made no serious objecti though my father knew from t with the papooses that they want to go. The Whites retur the Wisconsin side of the rive started their long, tedious jo back. They were very much prised, however, when they re the old location of the Indian to find it inhabited again by the Indians. They wondered very how the Indians could have them back. They soon learned they had secured boats, gone do the mouth of the Wisconsin and paddled quickly back to the camping ground.

After a meeting at which the matter was discussed, they decid leave the Indians unmolested, they did, and the Indians lived happily for several years befor moved on of their own accord.

The early settlers, moving int County, cleared off the lands rapidly. This was not to my father's liking so he made one trips westward and hunted trapped in the vicinity of Neil and Black River Falls. Finally cided to return to his farm in Fo This he did early in the fifties found a big change in the county

He conceived the idea of see some big mackinaw boats with bows pretty well decked, and fall of the year took his hounds, and guns and sailed ward on Lake Michigan. This regularly for two or three fall ting up to a point where civiliz almost ceased to exist. One of h ceedingly good hunting points near the division line of Manit and Sheboygan Counties. My and one of his brothers, together a man or two who had worked grandfather, spent a goodly port the fall hunting and trapping

(To be continued)

Comparing Breeds

HOARD'S DAIRYMAN:—After reading your very interesting and instructive articles on the dairy breeds of the United States, I would like to set before your readers a few interesting figures regarding the number of completed records of the Holstein, Jersey, and Guernsey breeds in comparison with the total number of animals (including both males and females) registered in the herd books of each breed.

From data obtained from these articles and through breed papers I find that there have been registered to date about 1,500,000 Holsteins, approximately 700,000 Jerseys, and about 320,000 Guernseys. The average production for all cows tested of these breeds are: Holsteins, 15,720 lbs. milk testing 3.5% or 532 lbs. fat; Jerseys, 8,698 lbs. milk testing 5.4% or 466 lbs. fat; Guernseys, 9,664 lbs. milk testing 5% or 482 lbs. fat.

The point which I wish to carry is, when comparing breeds are these averages absolutely fair to each individual breed? I find that from these 1,500,000 Holsteins (males and females) we have 25,431 yearly tests, or about 1.69% of these cattle tested, while in our younger breed, the Guernsey, we have only some 320,000 registered, but with 22,165 tests or about 6.6% of this b total enrollment tested. The comes in on the happy medium approximately 700,000 registere with 19,742 yearly tests, or 2.85% tested.

Will not these wide variatio tween cattle tested, and total ment of each breed make it imp or unfair to one breed or anot attempt to compare the averag duction of these breeds?

Freeport, Pa. G. E

They call her compass becaus does have her good points.

krest Guernseys Average $632

e dispersion of the Barkrest nsey herd, owned by M. J. Bark-., Oct. 12, at Wooster, Ohio, was much of a success. Twenty-five als, guaranteed breeders and un-ished, went through the ring for '95, an average of $631.80. Six als sold for $1,000 or more each ne went to $2,050.

e high animal of the sale, Paul-f Shady Lawn Guernsey Farm, e Ohio state champion in Class and is in addition one of the ng cows in the state in Class A. was purchased by Edw. Orton, f Ohio.

E. Loker, Ohio, a newcomer g Guernsey men, purchased, g others, the 5-year-old son of Maid Queen of Spring Hill 1 lbs. fat in Class A) for $1,000. e sale was managed by the Ohio nsey Breeders' Association. Wal-ndrews did the selling and Sec-y Barlow was in the box.

llowing is a list of those animals g for $600 or more and buyers:

Firestone, Ohio	
rkrest Irene	$600
ugh, Ohio	
le's May Day	$600
Loker, Ohio	
auty of Shady Lawn	$1500
iry Maid's Warrior of Shuttlewick	1000
Maurer, Ohio	
ble Mole's Yellow Daisy	$900
owdrop of Shady Lawn	1200
d Orton, Jr., Ohio	
uline of Shady Lawn	$2050
Smith, Indiana	
ene of Shady Lawn	$1025
ue-Bell of Drury Lane	1475

An Island Dairyman

ARD'S DAIRYMAN:—Not the d of Guernsey, but Guernseys on line Island, the largest island of postle Group located in Lake Su-r north of Ashland and east of eld. Madeline Island is about en miles long and three or four wide. It is inhabited principally en who give their time to com-al fishing, though there are a armers who devote most of their tion to dairying and fruit grow-

e writer called on one of the prominent dairymen on the l this summer and was greatly ed with what he saw. This dairy-Theodore Bissell, has about 200 , most of which are under culti-n and in grass. He keeps 18 to ernsey grade cows, and I might hat they are exceptional ones hat he is a good farmer and un-ands his business. Mr. Bissell n eighty-ton silo which is prob-the farthest north of any silo in nsin. When asked if he consid-the silo profitable, the owner l that it saved him some three or hundred dollars per year, and it paid for itself each year. This n, however, he remarked that orn is extremely backward and y be caught with a frost before ready for the silo.

is doing excellent work and ng a success of his dairy farming what I would call great handi-In visiting his farm I first in-ed his herd, which being in a did pasture close to the roadside only a few steps from the auto-e to the cows. They certainly above the average and all d thrifty and well kept. Mr. ll reported that he was selling $450 worth of milk and cream nth to the summer resorters. In winter and spring he produces n which has to be sent across the el to the creamery at Bayfield.

e growing period on these islands ort, and the cold water of Lake rior surrounding them acts as a gerator and prevents the hot weather experienced on the main land.

To illustrate how short the seasons are in this region: We found early Richmond cherries ripening August 15; the oats were still green and corn was about two feet high and would require from a month to six weeks to even make silage. In winter the water that must be crossed and the cold along with much snow which blocks transportation, makes it difficult to get to market. The islands are shut in during long periods when the ice is forming or breaking up. Sometimes the islanders cannot get to a store or trading place for several weeks owing to the dangerous condition of the ice which can neither be crossed by a sled nor boat. The springs are late and the summers short and cool. In spite of this or because of it, it is a wonderful grazing country. Splendid crops of hay can be grown, and clover of all kinds thrives and produces enormous crops. Fruit grows to perfection as well as vegetables which all seem to have a better flavor than can be obtained farther south. The summer and fall seasons are delightful, and the islands have a wonderful future as a resort country. They are especially adapted for sufferers of hay fever and asthma. Dairying and fruit growing are dependable and will in time make the islands rich centers of production.

Nebraska. A. L. HAECKER.

Salesman: This is the type of press that pays for itself, sir.

Printer: Well, as soon as it has done that you can have it delivered at my shop.

Camel

The cigarette that leads by billions

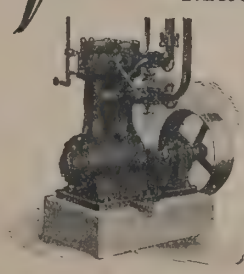
Just to state a great truth in another way—Camel is so exactly what so many smokers want that no other brand is even a close second.



If all cigarettes were as good as Camel you wouldn't hear anything about special treatments to make cigarettes good for the throat. Nothing takes the place of choice tobaccos.

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If Your Dealer Does Not Handle Goods Advertised in Hoard's Dairyman—Ask Him Why!



"Experience is a dear teacher"

From way out at Jay Em, Wyo., S. M. Foote writes: "I could have borrowed money at 10% interest and still be ahead if I had fenced when I started."

A $250 team of mares and five horses frozen to death in a blizzard—his only cow gorged to death in a cane field—a valuable Holstein bull altered by ranchers—jennets bred to a neighbor's scrub stallion—two Holstein heifers strayed away—200 chickens killed by coyotes—10 acres of cane mowed clean by range cattle—these are a few of Mr. Foote's losses before he fenced.

RED BRAND FENCE
"Galvannealed" Copper Bearing

will not only save losses like this for you but make enough extra profit to pay for itself, over and over again, in the many years of service it will give.

RED BRAND can't help but last for many years. Copper in the steel keeps long life in; extra heavy "Galvannealed" coating of zinc keeps rust out; picket-like stay wires, wavy line wires, can't-slip knots, help keep it straight, trim, hog-tight and bull-proof.

What has been your experience with or without good fence? We will pay $5 or more for each letter that we use. Write for details, catalog and 3 interesting booklets that tell how others have made more money with hog-tight fences.

KEYSTONE STEEL & WIRE CO.
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[Advertisement]

Starts Hens Laying

Here's a New Way to Get Eggs in Winter. Costs Nothing to Try

A letter from Miss Dama Wright, Vernonia, Ore., has a real idea for chicken raisers who are not getting plenty of eggs. She says:

"Late in October, our fifteen hens were not laying at all. I started giving them Don Sung, and for ten days they still didn't lay. But on the eleventh day they laid thirteen eggs, and it is wonderful what Don Sung has done for our egg basket."

Don Sung, the Chinese egg laying tablets which Miss Wright used, are opening the eyes of chicken raisers all over America. The tablets can be obtained from the Burrell-Dugger Co., 316 Postal Station Bldg., Indianapolis, Ind. Poultry raisers whose hens are not laying well should send 50 cents for a trial package (or $1 for the extra large size, holding three times as much). Don Sung is positively guaranteed to do the work or money promptly refunded, so it costs nothing to try. Right now is the time to start giving Don Sung to your hens, so you will have a good supply of fresh eggs all winter.

SPROUTED OATS



No single invention in poultrydom has so largely increased egg production and the profits from a flock of hens as has the famous original

CLOSE-TO-NATURE
VAPOR BATH
GRAIN SPROUTER

Our W. H. Monroe invented the first grain sprouter and we are its largest manufacturers and make five kinds to meet every need and climate, the DOUBLE QUICKS, EGGETTERS, SECTIONALS, MAMMOTH and ELECTRICS, and all sizes from 8 qt. to 15 bu. Ask for "SPROUTED OATS—MORE EGGS," the most valuable and complete catalog on sprouted oats and sprouters ever offered.

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More Egg Money

Make $1,000 a year from 300 hens. Get eggs when prices are high. Raise chickens the Poultry Tribune way. New methods of feeding, housing, marketing, etc., that you can use. Practical articles every month by successful poultrymen. Free breed pictures in natural colors. **3 yrs.,$1. 1 yr., 50c; 3 month trial 10c.**

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WHITE LEGHORN Eggs and Chicks

big discount if ordered now for spring shipment. Sired by 200 to 293 egg males. Egg bred 28 years. Winners 20 egg contests. Shipped c. o. d. Catalog, special price bulletin free. Thousands of pullets, hens, cockerels at low prices.

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FARROW CHIX FOR SUCCESS

First Chix Will Be Ready in February, 1928
D. T. FARROW CHICKERIES, PEORIA, ILL.

Poultry



Choosing a Breed

We want to buy some chicks this fall, that is, some of the lighter kinds. What kind would be best to get, the Leghorns, the Minorcas, or the Andalusians? Will the lighter kind mature quicker than the heavy kind?

What should we feed them and what should we give them to drink in the beginning?

Please tell me what the Wisconsin ration contains.

When you say feed chicks 48 or 72 hours old, does that mean that they should not have anything to drink until they are that old?

Ackley, Ia. M. V.

Every time a person starts talking breeds, regardless of whether that may be in poultry, dairy cattle, hogs, or anything else of that kind, it is an absolutely positive indication that an argument is going to result. I find that a person is just about as safe in criticizing a man's selection of a breed as he is in criticizing his selection of a wife, since in either instance they are sold on either one of them for life.

In most instances, though under average conditions which is the controlling factor, we find there are more high records made and more high record stock available in Single Comb White Leghorns than there are in any other one of the breeds or varieties that we know of. Some people will take the Minorcas because they are a little bit larger and produce larger eggs, but under the present market conditions we do not get any premium outside of the production of a 24- to 26-ounce egg. When it comes to producing 26- to 28-ounce eggs about the only added benefit we get from it comes from that pride of production of something superior.

One of the disadvantages of the Andalusians, of course, is that the Blue Andalusians do not breed true. Each year from the mating of blue males and blue females one will obtain a certain percentage of blue birds but another percentage will be black and another percentage will be white or white mottled with black. This will occur each year and there is no way possible by which a Blue Andalusian can be produced that will not produce in turn both blue, black, and white offspring. That is a point not always understood on the part of a purchaser and they are sometimes disappointed in the progeny that they may obtain from the Blue Andalusian. They sometimes think it is a result of mixed breeding but that is the result of the means by which they have been produced and will always continue.

The so-called Wisconsin Ration is made up of 80 lbs. of ground yellow corn, 20 lbs. standard wheat middlings, 5 lbs. of raw bone chick size or special steamed bone, 5 lbs. of a high calcium carbonate grit, 1 lb. of salt, with milk for the chicks to drink.

In most instances when it says not to feed the chicks for 48 to 72 hours it means that the chicks should not eat anything during that time providing they are not allowed under the brooder.

You have undoubtedly noticed in some of the earlier discussions in this column that we do not advise chicks to be placed under the brooder until time to feed them, which means they are kept either in the chick boxes or in the brooder, preferably in the chick boxes until they are 48 hours old, and then at that time are placed under the brooder and are fed and given the milk to drink at that period. Oftentimes the mistake is made in that a great many people will put some sand or gravel on the floor of the colony house under the brooder, put the chicks in there and then wonder why they lose chicks as a result of their becoming filled up with this sand or gravel and a heavy mortality resulting. A chicken is going to eat most anything it has there if the feed is not supplied. Overcome it by not putting them under the brooder until ready to feed them.

For the first three, six, eight, or ten, or possibly twelve weeks the chicks would have nothing to drink except milk and no water supplied to them during that time which is the one source of animal protein feed which is possible for them to obtain.

The advantage of sunlight has been discussed previously and whether or not cod liver oil should be supplied as a part of the ration is based entirely upon your conditions. If you have sunlight available for them, the cod liver oil should not be supplied, otherwise about 2 per cent should be added to the mash mixture. —J. B. HAYES.

Estimates of the cost of brooding and rearing Barred Rock and White Leghorn chicks indicated that the feed costs were similar for both breeds, but since the Barred Rocks made more rapid gains the cost per unit of gain was less.—Report of Canada Experiment Farms.

The codfish lays a million eggs,
And the helpful hen lays one,
But the codfish doesn't cackle,
To tell us what she's done;
And so we scorn the codfish coy,
And the helpful hen we prize,
Which indicates to you and me,
That it pays to advertise.

—Grit.

Only $38.75 for Latest HAMMER TYPE FEED MILL

Run by 2 H.P. Electric Motor or 2½ H.P. Gasoline Engine. Grinds 35 bushel shelled corn per hour. Runs slow — grinds fast. No burrs to replace. Nails, bolts and wire can't damage it. Screens changed without stopping mill.

PRATER MILL

Does best grinding, is lowest in first cost and operating cost — is durable and simple. Endorsed by Electric Power Companies. Can be started fully loaded without causing line disturbance.

Made in Three Sizes
Capacities 35 to 85 bushel shelled corn per hour

2 H.P., price $38.75; 3 H.P., price $44.25; 5 H.P., price $65. Can be furnished equipped with Fan Blower and pipe for elevating feed up to 40 ft. Also complete with Electric Motor, mounted as unit with Mill.

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PRATER PULVERIZER CO.
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Also makers of **Blue Streak Mills**, large capacity Hammer Type, moderate speed. Grinds roughage as well as grain—for Fordson or equal power.

Pipe Smoker Ap
Medical Trainin
Selecting Tobac

Taking nothing for gr
he sets out to find the
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Some folks act on "hunches,"
on emotion, some on pet theori
still others on cold logic.

Here is a pipe smoker in the
class. And the reason, as he e
is that for three years he h
taught to take nothing for g
but to prove his way as he goe

So when he took up pipe-s
he simply applied laboratory
finding the right tobacco. No
satisfied that he is not smoking
tain tobacco on theoretical supp
but on proven worth.

Mr. Plaine, the medical stu
question, writes as follows:

427 Lyons Av
Newark, N
Larus & Bro. Co. Oct. 16,
Richmond, Va.
Gentlemen:

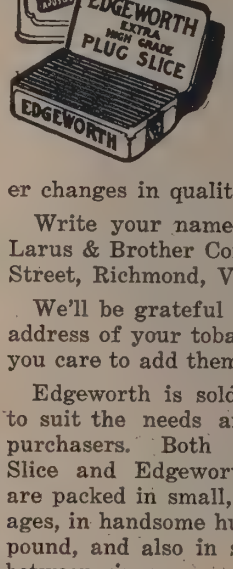
Most medical students by the
they reach the third year of
work have absorbed the scientific
it. That is, we take nothing for g
ed unless it has been confirmed by
periment or other reliable me
Prove it, we say!

Some time ago I decided to
smoking a pipe. Choosing the
was easy enough, but finding the
bacco to go with it was not so ea
experimented, trying one tobacco
ter another. Some would have a
grant aroma, but oh—what a
they would leave! Others left
mouth like a furnace. A few rem
ed me of a poorly ventilated chem
laboratory.

I had almost decided that wh
was looking for—a cool, sweet
and a pleasant aroma—was impo
ble. Finally, I took the advice of
of the fellows and tried your good
blue can. Eureka! You can't get
away from it now.

You should call Edgeworth—"
ey's worth."

Sincerely yours,
Irving H. Plaine



To those wh
never tried
worth we ma
offer:

Let us ser
free sampl
Edgeworth s
you may put
the pipe te
you like th
ples, you'll
Edgew
whereve
whenev
buy it, for
er changes in quality.

Write your name and addr
Larus & Brother Company, 15
Street, Richmond, Va.

We'll be grateful for the na
address of your tobacco dealer,
you care to add them.

Edgeworth is sold in variou
to suit the needs and means
purchasers. Both Edgeworth
Slice and Edgeworth Ready-
are packed in small, pocket-size
ages, in handsome humidors ho
pound, and also in several han
between sizes.

To Retail Tobacco Merchan
your jobber cannot supply yo
Edgeworth, Larus & Brother
pany will gladly send you prep
parcel post a one- or two-dozen
of any size of Edgeworth Plu
or Edgeworth Ready-Rubbed
same price you would pay the

[*On your radio—tune in on WRVA, Richmon
the Edgeworth Station. Wave length (254.1
1180 kilocycles.*



Swine

ning or Two About Hog Houses

is a time of year when hog come into their greatest use- s. We may differ on the size and of hog houses but we can be of pinion on the desirability of ating or avoiding slippery floors with large cracks or in them, low doors, narrow high door sills, heavy banging poor ventilation, and such like. m agree that a pig can stand erable cold weather if it has leeping quarters. Comfortable rs, therefore, are largely a of a tight roof, a well drained and proper circulation of air, tilation.

Cull Cows, Why Not Sows?

hin the next two months thou- of sows and gilts will be bred e 1928 spring pig litters. It is tant at this time to consider the iness of each sow or gilt to be ued or started in the breeding

orous culling of unfit breeding ls is one of the fundamental s of success in live stock im- ment and applies to swine in the degree as to other classes of animals.

e tends to beget like. If our are consistently selected from litters of strong pigs the ten- for them to reproduce in like ers and kind may be expected. ends to beget like. If our tried are poor milkers, have a small er of teats, and do not know o mother their pigs, they have oved their worthiness to be con- in the breeding herd. If our and gilts are not from litters o well, provided they have been rly fed, their places could well en by the kind that will give the t of doubt for doing well to pigs.

sinfecting Hog Houses

ore winter sets on in earnest we to advance a word or two about ecting the winter quarters for . The particular thing we want e on swine producers is that the e done thoroughly.

purpose of disinfecting is to ll disease germs or as many as le. To do this the disinfecting on used must reach all parts of terior of the building.

at otherwise might have been a gh job of disinfecting frequent- s because the wall and floor sur- have not previously been d and exposed so that the dis- ing solution can reach them. b of disinfecting can be proper- e until the surfaces to be treat- ave been thoroughly cleaned. vater in which lye has been dis- l, one pound to 30 gallons, s a very good cleaning solution. A stiff broom and a brush or two oiled with elbow grease complete the necessary cleaning equipment.

Balanced Rations are Most Efficient

At this time we are concerned with good rations for fall pigs. By good rations we mean those that will produce 100 lbs. gain with the least requirement for feed and at the same time afford health protection to a degree consistent with satisfactory gains.

Perhaps the greatest fault in winter rations for fall pigs is the frequent lack of the proper balance of nutrients brought about chiefly by the use of too great a proportion of cereal grains or by the complete lack of high quality protein supplemental feeds.

Feeding pigs nothing but cereal grains and their by-products is an expensive way to make pork and the higher the prices for feeds the more expensive it becomes.

Prices for supplemental feeds look high and we decide to feed corn, oats, or barley or combinations of these with, perhaps, wheat middlings. The price of the supplemental feed is not nearly so important as the money value of the amount of grain a given unit of such feeds will replace. For example, in an Iowa Station experiment two lots of 9 pigs each averaging about 135 lbs. per pig at the beginning of the trial were fed; one lot on corn meal, the other on corn meal 10 parts to 1 part tankage. The lot fed corn meal required 556.6 lbs. for 100 lbs. gain; the other lot required 409.9 lbs. corn meal and 40.9 lbs. of tankage. Thus the 40.9 lbs. of tankage replaced 146.7 lbs. of corn meal. If we value the corn meal at 2 cents a pound the tankage was worth $140 a ton. Furthermore, the pigs fed a simple balanced ration reached the handy market weight of 225 lbs. 29 days sooner than those fed the unbalanced ration of corn meal.

It is not a difficult task to properly supplement cereal grains. If skimmilk is available the feeding of 3 lbs. of it to each pound of grain fed will balance the ration. If skimmilk is not available tankage is very good and should be fed in the proportion of 1 of tankage to 10 of grain. The grain requirement could be further reduced and the rate of gain increased by feeding both skimmilk and tankage or by feeding a mixture of tankage 60 parts, linseed meal 20 parts, and middlings 20 parts.

Well balanced rations need less attention to the vitamin supply than those not so well balanced with respect to nutrients. This does not mean to say, however, that beneficial results will not be secured from supplying this growth stimulating factor. A very simple and effective way to supply the vitamins most likely to be deficient in winter rations is to feed alfalfa or clover hay in racks where the pigs may help themselves. If alfalfa meal is fed it is best to mix it with the supplemental mixture.



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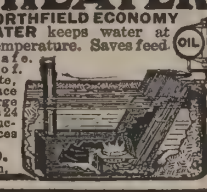
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Disposal of Carcasses

Some years ago, on a blazing hot July day, as we were driving past a small, sandy lot near a farm house an explosion occurred. We saw the sand fly up and then the gas almost overwhelmed us. That was many years before the introduction of mustard gas, tear gas, and poison gas bombs. Had a dozen skunks suddenly gone into action the result would not have been more powerful. A shallow-buried horse had exploded!

Often, too, we have seen the legs of a buried animal sticking out of the grave and sometimes dogs have been tearing at them and other exposed parts of the carcass. It is also a comparatively common thing to see a carcass lying unburied in an old sand pit or on some back lot on the farm, or partly submerged in a river, creek, or pond. To these carcasses go dogs, wolves, coyotes, foxes, buzzards, and crows. By their means germs of malignant diseases are spread in a countryside. To such a source may be traced many an outbreak of anthrax and hog cholera. In Indiana it was found that the latter disease occurred in exact ratio to the distance of the herd from a certain river. The supposition is that the river was made the dumping ground for hogs dead of cholera, and so the infection was spread by the water. In other instances a stream has been found the distributor of tuberculosis, contagious abortion, dysentery, and contagious foot and mouth disease. In North ern Iowa we remember of anthrax that killed a number of cattle being traced to the carcass of an animal that had died in a surface water pond, or been thrown there by the owner. In another instance, anthrax that killed several fine cattle grazing on a low ground pasture was traced to a grave on a distant gravel knoll, in which two anthrax carcasses had been buried. A stream may also carry infection from a tannery or slaughter house. Earthworms have even been blamed for bringing to the surface, on pasture, anthrax germs from graves. A carcass not entirely destroyed by burning or by very deep burial in quick lime remains a source of infection and is therefore to be considered a serious menace.

The fact that it is not a very easy matter to burn the carcass of a large animal and that digging a deep grave for such an animal is a "big chore" accounts for the incomplete burning and shallow burial of carcasses. Once, in Illinois, anthrax killed a large number of cows and when we visited the district, to make an investigation, we saw half and quarter burned carcasses lying about in several fields near the public highway. Around each carcass was some partly burned straw and brush. No wonder the attempt to consume the carcasses failed!

The right way to burn a carcass is to dig two 7-foot long trenches at right angles to each other, thus forming a cross. The trenches should be 15 inches wide, 18 inches deep at the center, and slanting up to the outer ends so that they will allow admission of air from each quarter of the compass. The earth from the trenches is thrown into the angles and across the heaps are placed two or three old railroad rails, or an iron wheel to serve as a grate. On the grate dry wood is piled, the carcass on top, then more fuel and finally the legs and entrails, if the animal has been opened. It is best not to open an anthrax carcass. Finally the fuel and carcass are saturated with kerosene and a light applied. By such means a large carcass may be completely consumed in five or six hours. If deep burial is deemed preferable, cover the carcass with several bushels of quick lime. Graves in which anthrax carcasses have been buried should be so fenced that they cannot be grazed over by cattle or other farm animals.

Rickets

Please let me know what is the matter with pigs, about half grown, that are weak behind, sometimes hardly able to get on their feet. They eat good but are at all times very gaunt. They stagger around like drunk. One pig was sick for about three weeks and now most of them have it. They have been sick for two weeks; have not lost any but one or two show signs of dying.

Shell Lake, Wis. M. E. A.

Isolate sick pigs. Burn carcasses or bury them deeply in quick lime. Cleanse, disinfect, and whitewash the hog house, including the floors. Move the pigs that are not sick into new quarters on grass and let them gorge green crops, preferably clover and alfalfa. Treat them for worms by giving santonin in sloppy food in the

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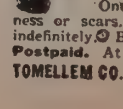
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ng, after giving similar food in norning and at noon. The dose ro grains for a pig one month nd an additional grain for each ional month of age up to 8 s for a pig 7 months old or over. ve hours later give enough Ep- salts in tepid milk or water to s a physic. Supply a complete n and minerals. Lack of lime is hief cause of rickets indicated e stiffness mentioned. Give each affected pig 1 tablespoonful of iver oil daily.

Abnormal Milk

ve had several cows come in fresh in st six months with watery milk. The t first shows a little garget and the nilk is a little salty but does not run a acteria count. When the milk is left ig twelve hours it separates. I use a g machine but am careful to dry the up completely before calving time. heim, Calif. R. H. E.

ngestion of the udder just be- and after calving may cause a to exude into the tissues nd the udder and even into the t. That is the cause of the drop- or edematous swellings so com- y seen in such cases. They are ny and pit or dent when pressed the tips of the fingers. The first may contain such serum and it also be present in mastitis (gar- When the condition you men- is present have the cow milked an hour until the milk becomes al or let a calf or two calves . Do not milk an affected cow achine. Isolate any cow that arget. Fit for the butcher any that has garget in chronic form. ent excessive congestion of the r, before calving, by reducing feed, increasing exercise, persis- massage of the udder, and, if ssary, administering Glauber salt physic.

Scaly Skin

is the best way to get the roughness a heifer's back? I have a heifer about months old that is very rough at the I want to have her ready for the fair. co, Tex. G. H. H.

rub the scaly or rough skin with and warm water; then dry thor- ly by rubbing with a soft towel. rward rub in every three days a ure of two parts of flowers of ur, one part of carbonate of pot- and 8 parts of lanolin (sheeps'- fat) or unsalted lard. Wash n in 10 days.

Impure Water

se advise me as to whether water d from a coal mine is an injury to milk It is full of sulphur as it colors the d for two miles away; also has killed all h in the stream. er, Pa. T. M. H.

ch water is absolutely unfit and erous for use by farm animals poisons fish.

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Write for booklets or assistance in locating foundation stock

AYRSHIRE BREEDERS' ASSOCIATION
10 Center Street Brandon, Vermont

JERSEYS

PRIVATE
DISPERSAL SALE
20 MALES —OF— 40 FEMALES
SOPHIE TORMENTOR JERSEYS

The entire Whinn Farm herd and our one-half of females in the Whinnery and Heberding herd are for sale, without reserve. The progeny of Silver and Gold Medal bulls. Females with Silver; Silver and Gold; Silver, Gold and Medal of Merit Medals to their credit. Some State and National Champions for production, they and their progeny for sale. A sale list sent upon request. Tabulated pedigrees showing a wealth of production for each animal.

WHINN FARM, SALEM, OHIO

"SYBILS and MAJESTYS"

No. 1—SYBIL'S COMET—A real Star. A Jan., 1927, solid colored bull calf. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Granddaughter (double)—Sybils Gamboge.
No. 2—RENOWN'S ROYAL OXFORD—A March, 1926, solid colored bull of quality and size. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Majesty bred with record of 492 lbs. butterfat.

CEYLON COURT FARM
G. D. Gilbert, Mgr., Lake Geneva, Wisconsin

JERSEY BULL

Dropped March 27, 1927, solid light fawn, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

AMBERG FARM, HILLSBORO, WIS.

Easton Farm

-- AN ACCREDITED HERD --
Of Representative Jerseys
Golden Fern's Noble and Fauvic's Prince Breeding.
MRS. L. F. EASTON, Owner, LA CROSSE, WIS.

Bred Heifers and Young Bulls

by Xenia's Sultan and You'll Do's Volunteer. Breed up quality, type, and production in your herd with an Elm Hill bull. Write for sale list.

ELM HILL JERSEYS
LEE BOYCE, MGR.
Brookfield Massachusetts

FOR SALE
PUREBRED JERSEY BULL

RALEIGH'S JOLLY GOLDEN 210509, Tattoo M68. Dropped April 3, 1922, solid color, black tongue, black switch and dehorned. The dam of this bull is Raleigh's Maggie 389426 in R. of M. with 523.7 lbs. of butterfat (616 lbs. of 85% butter) from 10,835.5 lbs. milk. In May, 1922, this cow milked 1826.9 lbs. milk, an average of nearly 60 lbs. per day.

Herd Accredited and Free of Abortion
PRICE $350 F. O. B. Our Station
Send for Pedigree

RAVINE FARM, Lake Co., PRAIRIE VIEW, ILL.
Breeders of Pure Bred Jersey Cattle
Established 1913

Jersey Bulls of Serviceable Age

Also bull calves and a few springing heifers strong in Vive La France blood lines. Priced to sell. Herd Federal accredited.

H. S. HAGER, PRAIRIE DU SAC, WIS.

Golden Sunset Jersey Bulls

Young bulls and bull calves very reasonably priced. Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

THE ENNIS STOCK AND DAIRY FARM, Festus, Missouri

Buy that herd bull from a Hoard's Dairyman advertiser. You'll be better satisfied.

Cream Checks Soften Winter Winds



The winter income from a few good dairy cows will make an astonishing difference in your finances during this season.

At this time, when income from other sources is lowest, Jerseys produce persistently and profitably.

Prepare NOW. Secure a few Jersey cows and enjoy a profitable "slack season."

For valuable free booklets on Jerseys or assistance in locating cattle write

THE AMERICAN JERSEY CATTLE CLUB, Dept. B, 324 West 23d St., NEW YORK, N. Y.

FOR SALE

CID'S CHERRY PRINCE. Dropped October 11, 1925. An excellent individual. Royally bred in prepotent lines for heavy production and approved breed type. His dam, Cid's Cherry Blossom, has a Register of Merit record of 13,576 pounds of milk and 646.09 pounds of butterfat. She is one of the best and highest testing daughters of The Imp. Cid, the sire of 46 tested cows.

His sire, Brampton's Patricia Prince, was a member of Meridale Farms' well-known show herd. He was by Viola's Bright Prince, a great breeding and show bull by Golden Maid's Prince, the sire of 60 tested daughters.

Cid's Cherry Prince is a great bargain. For price and pedigree address—

MERIDALE FARMS
A great breeding, testing and importing establishment.
MEREDITH Delaware County NEW YORK
P. A. DUTTON, MANAGER *Herd fully accredited—No. 158343*

After Winning 83 Championships and First Prizes
— In the Central States —
"The Oaklands" Jerseys went to Oklahoma State Fair and to the **Dairy Cattle Congress, Waterloo, Iowa**

GRAND CHAMPION BULL AT OKLAHOMA STATE FAIR—Blonde's Xenia Sultan. Two other First-Prize bulls—sons of our herd sire, "Forward." First Prize "Get of Sire"—offspring of Forward, P. 5701, H. C. First Prize Calf, Herd, First Aged Herd, First 2-Year-Old Cow.

PREMIER EXHIBITOR AT DAIRY CATTLE CONGRESS, Waterloo, Iowa. Junior Champion heifer—daughter of Oxford Sultan of Oaklands. Two First-Prize bulls, sons of Oxford Sultan of Oaklands. First Prize Get of Sire—Oxford Sultan of Oaklands. First prize young herd (bred by us), First Prize Dairy Herd.

A. H. GOSS, Pres.
GEORGE C. COOPER, Mgr.
THE OAKLANDS
P. O. BOX 396
Ann Arbor, Mich.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

You Would Not Think of Working a Sick Horse, But—

HOARD'S DAIRYMAN:—"How is your soil this year?" I asked a farmer a few days ago.

"Sick as a horse!" he replied, looking out over a field that was about ready for harvest.

It is my business to learn about soils and I went ahead and examined the soil of the field in question. His answer was right. That soil was sick as a horse—a whole lot sicker than any horse the farmer would be willing to work.

That soil had indigestion, bad respiration, faulty circulation, dropsy, halitosis, and it was lousy into the bargain. The straw and manure that had been plowed under the year before still lay in the ground, unchanged and undigested. There was no granulation or tilth to speak of and the only chance air had to get into the compact mass was through a crack here and there in the soil. The soil particles did not cling together in granules but slumped together in a general compact mass that had no power to raise water toward the surface. The same arrangement of the soil particles made the soil ready to be waterlogged by the next winter's rain. A freshly broken clod of it gave off a smell, half sour and half fetid; not at all the smell that a live, well aerated soil should have. And the field was full of weeds that had outgrown the crop—lousy with weeds!

That was an extreme case. It will take a long time and a lot of medicine to bring that soil back to health. It would have been a lot easier to cure that soil a few years ago and still easier to have begun preventive treatment before it became sick at all. The work the soil would have done as a healthy soil would have paid the cost of treatment many times over.

There are a lot of fields in Northwest Washington that are sick with this same sort of sickness and many more that are just coming down with it. You can tell them because they begin early to lose their power of production. All of our soils that "aren't doing as well as they used to" are affected. You may give them a stimulant—lay the whip to the sick horse—and get a few more season's work out of them, but if you do this instead of curing the sickness you lose in two ways; you cannot get a full season's work out of the sick soil and the sickness will grow worse all the faster.

If your soil is losing a bit of its power of production; if it is unable to fully digest manures and give you full returns on its feed; if its breath is bad; if it is losing tilth; if crops dry out with water in the subsoil; if it waterlogs and drains too slowly; or if weeds crowd more and more upon the crop, it is time to call the doctor. Or, if your soil is still in good health and produces a full crop without a whip, learn from the experience of others and begin preventive treatment before this inevitable sickness of hardworking and ageing soils begins.

This sickness of soils is called "soil acidity." It is prevented and cured by a single known remedy—limestone. All forms of lime quickly become the same as limestone in the soil so that it is always limestone that works the cure.

Soils that are still unaffected will continue to work forever in good health if you feed them properly and lime them occasionally. The soils that are not too far gone may be worked while they are being cured if you feed them well. But the soils that are in bad shape should be dosed heavily and turned into pasture for a few years and then, unless you deny them their condition powders and invite the return of disaster, they will again be able to serve you well and continue, so long as you feed them well and treat them kindly, to the end of time.

Washington. H. M. EAKIN.

Indiana Dairy Course

The Dairy Department at Purdue University will offer an eight weeks' dairy course, beginning January 16 and closing March 12, 1928. This course will take up the feeding, breeding, and management of dairy cattle; also the testing and marketing of dairy products.

For further information regarding this course, write Professor H. W. Gregory, head of the Dairy Department, Purdue University, W. Lafayette, Indiana.

New American Jersey Cattle Club Director

J. W. Ridgeway of Fort Worth, Texas, has recently been elected a director of the American Jersey Cattle Club to complete the unexpired term of the late J. Riley Green. Mr. Ridgeway, formerly head of the dairy department of the Texas A. & M. College, is now with the Mistletoe Creameries, owners of a large Jersey herd.

From toil he wins his spirits light,
From busy day the peaceful night;
Rich, from the very want of wealth,
In heaven's best treasures, peace and health.
—GRAY.

GUERNSEYS

The Place to Buy
Breed Improving
Guernsey Sires

is where that kind is bred. Visit our herd of Foremost Guernseys, or write for facts which prove we are breeding the kind of bulls that will increase production, improve type, vigor and reproducing ability.

The dams of our six herd bulls average 13,797 lbs. milk, 729 lbs. fat. Twenty-eight calves dropped since August 1st. Twenty-one cows due to calve before December 1st.

We need room. Your opportunity to buy bulls or bull calves below value.

EMMADINE FARM
Hopewell Junction (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Bulls
FOR SALE
The very best breeding. Accredited Herd. Write for information.
OTTO W. POST, Ensenore, N. Y.

BONNIE BRAE GUERNSEYS
ITCHEN KING 49803 AR is the Sire of King's Advocator, 126310, 1st prize and Junior Champion Bull at the N. Y. State Fair. Itchen King has two 800 lb. and one 700 lb. daughters. His Dam made over 800 lbs. fat and she has one daughter with a record of over 900 lbs. fat. We offer for sale Sons of Itchen King out of AR Dams. Priced at $250. and up.
BONNIE BRAE FARM, CLINTON, N. Y.

FOR SALE
Fifteen registered Guernsey heifers seven to twenty months old, a number bred, others open. $1900 for the lot F. O. B. cars, all papers furnished. Several registered bulls, all ages. Also offering twenty high grade, bred two-year-old heifers, some to freshen soon. $2000 buys them. Above stock is especially well bred, good size, good type, in good condition, well marked, and T. B. tested. Priced for quick sale.
H. R. LOBDELL, Mukwonago, Waukesha, Co., Wis.
On State Highway 14

Twenty years ago it was
"The Coming Breed
—and it's still coming!
Ask for
"The Story of the Guernsey"
THE AMERICAN GUERNSEY CATTLE CLUB
8 Grove St. Peterboro, N.

GUERNSEY BULLS FOR SALE
PRICE $600—A grandson of Langwater Holliston—Imported dam 10016 milk, 585 fat G. G., and 12343.5 milk 672.3 fat Class C (t milkings per day); age 14 months.
PRICE $600—A grandson of Yoeman's King of the May—Ty dam—finishing this month with about 750 lbs. fat and tests p sistently over 6%; age 1 year.
OTHER BULL CALVES from good producing dams at farme prices—$75 to $150. Herd federally accredited and all animals s subject to negative test for abortion.
ROCK SPRING FARM ROCKVILLE, M
Address communications to Wm. A. Hill, owner, 730 17th Street, Washington, D. C.; N. O. Terpening, Mgr.

FOUNDATION GUERNSEYS
FROM THE HOME OF
LANGWATER JUVIS
Outstanding son of Langwater Warrior
A NUMBER OF GOOD BULLS
FROM A. R. DAMS TO 719 LBS. FAT. REASONABLE!
MAY ROSE—GLENWOOD BREEDING
ELM FARM Deerfield, Illinois
28 miles north of Chicago, 1 mile east of Everett on 42A
LANG JUVI

6 Carloads of Grade Guerns
YEARLING HEIFERS, BRED AND OPEN
We are just now in a position to furnish 6 car loads of high grade G heifers, a part of them bred. These heifers come from one of the Guernsey sections of the country. They are healthy and are offered reasonable prices. Write today.
OSHKOSH, WISCONSIN REID MURRAY Union Stock Yards, CH

BOURNEDALE GUERNSE
We Offer For Sale
An excellent son of Maxim of Linda Vista, the only Guernsey sir have 2 class leader daughters. Dam of calf is Foremost Lassie, 506 fat in F., a daughter of Langwater Foremost. Bull dropped Sept. 1
OTHER GOOD BULLS FOR SALE
3 to 12 months old from A. R. dams—$250 to $750
A clean herd under federal supervision. Write for sale list.
BOURNEDALE FARM, H. F. Andrus, Owner, MILLERTON

Must Sell Fast
We have several Holl bred GUERNSEY BU —of all ages—that we sell before winter. If you want a good bull bred to sire producers, with individuality, write
D. G. TENNEY, 15 West Fourth Street, NEW YORK C

MARSH FARM GUERNSEYS
Founded upon CHERU combining modern sh with production. At th National Dairy Expos out of 78 championsh been awarded to cattle farm. There are now in the herd 40 cows with yearly records of 500 pounds of fat in to 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, ring records indicate Cherub blood as the really sure way. Let us advise you about your next sire.
MARSH FARM, WATERLOO, IC

Offering An Excellent Son of
CHERUB'S ROYAL LEADER of SHOREW
SHOREWOOD GUERNSEYS
our senior herd sire, out of Imp. Elizabeth of St. Croix fat Class A. This calf was dropped Feb., 1927, marked, well grown and has pleasing conformation. pedigree and detailed information. If you want TYP PRODUCTION, BUY LADYSMITH'S CHERUB BLOO
SHOREWOOD FARM, CRYSTAL BAY

D BULL

Can Improve Your Herd Unless He Has Type and Production Back of Him to Assure You of Improvement.

You Can't Go Wrong If Your Bull Comes From Fern-Dell

Guaranteed Right! . . . Priced Right!

WRITE FOR BULL SALES LIST

SEN'S FERN-DELL FARMS, A. W. FOX, Mgr. Green Bay, Wis.

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erd Sire Prospects FOR SALE

ite us if you want to buy a bull with persistent producers back im. We have some fine individuals to offer you; some of service-e age if you want to talk business.

Farmers' Prices!

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
RQUETTE MICHIGAN

GAIN BULLS *produce* CLASS LEADERS

OOKMEAD'S WHITE FACE sired ICE LEMAN OF THE RANCHO .625.8; Fat 618.7; Farmer's Class AA.

hite Face was sold sight unseen as a youngster

Write for Sales List

EAD FARM, 526 Land Title Bldg., PHILADELPHIA

NCREST FARMS

ACCREDITED
WALTER SMEDLEY, OWNER
HERD SIRES—

rian—A son of Ne Plus Ultra.
rook Ultra Noble—A grandson of Ne Ultra out of a 920-lb. cow.
id's May Royal—A son of Mixter May out of a 920-lb. daughter of Langwa-emonstrator.
st's Starlight's Royal Master—Grand-f Langwater Royal Master out of 630-lb. G daughter of Langwater Master Fred. ired by these bulls for sale. Address in-s to Media, Pennsylvania.

WM. P. SMEDLEY, Manager

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gains in Bull Calves

WO-CENT STAMP CAN SAVE YOU
= From $100.00 to $500.00 =

FOR SALES LIST—FINEST BLOOD

May Rose through King of the May, Secret, Langwater Cavalier; Bell-, France, Glenwoods. Greatest group sires in any herd. A. R. records up lbs. fat.

WAWA DAIRY FARMS,
32nd St., Philadelphia, Pa.

UERNSEY BULLS

AY ROSE GOLDEN SECRET and NE IS ULTRA breeding. Write for descrip- and prices. Dams are official tested. edited herd.

HER & MAHER, Devils Lake, No. Dak.

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rn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

ST ZIESING, Deerfield, Illinois.

HILLIER FARM GUERNSEYS

Federal Accredited

ve for sale grandsons of Langwater nan 21873 A. R.; also two grandsons of May Day 43520 A. R., 9 to 16 months. A. R. dams. Priced $150 to $250

& LAW, Box 304, Mankato, Minn.

DISSON FARM GUERNSEYS

e offering at attractive prices a few bulls sired by RADISSON'S GOLDEN LIST 91632, whose get was awarded rize at Dairy Cattle Congress in 1926. a son of GOLDEN CORONET OF JEAN JTH 81283, world's champion Guernsey is AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Hotel Radisson, MINNEAPOLIS, MINN.

GUERNSEYS FOR SALE

ade and Pure-bred Springers, both cows and in carload lots. Also a number of yearling and pure-bred bulls of serviceable age. In-nswered promptly. Visitors always welcome.

ISON CO. GUERNSEY BREEDERS' ASS'N.
alston, Sec'y., Box 266A, Fort Atkinson, Wis.

MESTEAD FARM GUERNSEYS

ell bull calves of various ages. Also and cows with A. R. breeding. Ac-d herd. Write to

ON BROS., APPLETON, WIS.

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

LINWOOD FARM GUERNSEY BULLS FOR SALE
Linwood's Lucky Strike, age 12 mos. Dam 675 lbs. fat.
Linwood's Successor, age 12 mos. Dam 515 lbs. fat.
Linwood's Merit, age 12 mos. Gr. D's. 566 & 740 lbs. fat.
Linwood's Charm, age 12 mos. Grandams 540 G and 740 lbs. fat.
Linwood's Best, age 11 mos. Dam 517 GG, Gr. D. 804 G.
Linwood's Regent, born April. Dam 707 lbs. fat.
Linwood's Actor, born Apr. Dam 744 C, grandam 804 G.
Linwood's Victor, born April. Dam 669 lbs. A.
Linwood's May King, born April. Dam 634 A, grandam 804 G.
Write for New Sale List
LINWOOD GUERNSEY FARM,
Homer Rundell, Livingston, Wisconsin

BUTTERGOLD GUERNSEYS

SERVICEABLE YOUNG SHOW BULLS

from tested dams, sired by National Grand Champion whose first four daughters now finishing tests will average over 600 lbs. fat, two with first calves, one with second. Clean stock.

TARR BROS., NEW AUBURN, WISCONSIN

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

A High Class Bull

A. R. DAM—PRICED TO SELL

CHERUB'S SPLENDOR OF CHIPPEWA is for sale. Born Aug. 15, '26. Growthy, good type. Sire: Proud Prince of the Prairie is a prize winning son of Cherub's Prince. Dam, a Glenwood cow with 415 lbs. fat in F. F. Priced right. Write today.

L. P. MARTINY, Chippewa Falls, Wis.

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75 to 150 High Grade Guernseys and Holsteins

We have for sale at all times from 75 to 150 high grade Guernseys and Holstein springers of all ages. T. B. tested. Sound and heavy producers. We buy and ship on order. Visit us or write. Prices reasonable. Satisfaction guaranteed.

LA CROSSE COUNTY DAIRY CATTLE CO.,
Raymond Knutson, Mgr., West Salem, Wis.

Registered Females

Foundation females are offered at very reasonable prices. If you want a few good heifers or cows, Glenwood bred, write us today. Our cows have A. R. records up to 933.80 lbs. butterfat. The herd is clean.

GEO. E. LARSON, AMHERST JCT., WIS.

"Luxerin"

We have three very typy, well grown young bulls about ready for service. Dams on test. One 13 months, May Rose sire, Glenwood dam. A real bull with a real pedigree.

B. F. SHERIDAN, Fond du Lac, Wis.

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

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200 GUERNSEYS

THE OLD RELIABLE

LA CROSSE COUNTY GUERNSEY BREEDERS' ASS'N

WILL SELL AT

West Salem, Wis., Wed., Nov. 30th

200 Registered and High Grade Guernseys

30 REGISTERED COWS and HEIFERS of the best families of the breed.

20 REGISTERED BULLS—Many from high record cows and old enough for service.

150 HIGH GRADE GUERNSEY COWS and HEIFERS. Fresh or close springers.

All from Federal Accredited Herds or just tested.

Send for Catalog and full particulars at once

H. W. GRISWOLD, Sale Manager, West Salem, Wis.

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 14) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (*In Waukesha Co. on Highway 61*) Lloyd L. Dewey, MUKWONAGO, WIS.

Guernsey Bulls at Farmers' Prices

Six months old show type, sired by the best son of the Famous World's Record Cow, Lone Pine Mollie Cowan A. R. No. 11278, who sold for $15,100 at Stout Dispersal Auction. Dams have A. R. records.

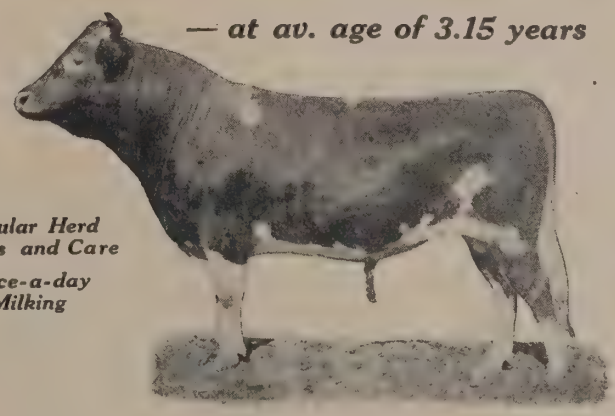
HAPPY HOLLOW FARM, A. M. Kailing, Prop., THIENSVILLE, WIS.

His First 20 A. R. Daughters average—434.7 lbs. fat 8989.11 lbs. milk

— at av. age of 3.15 years

— Regular Herd Rations and Care

— Twice-a-day Milking



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money. We have several nice ones on hand now — and they are priced to sell.

HERD ACCREDITED

Hoard's Dairyman Farm, Fort Atkinson, Wis.

National Dairy Show Down in Dixie

(Continued from page 1069)

looking cow that should carry quite a good udder when fresh.

Holger Larsen's Long Hollow Mercedes Butter Boy, a dry 4-year-old that has been a consistent winner all season, won again and was senior and grand champion as well, beating not only the aged cow but also Miss Lassie Ormsby, C. E. Griffith's 3-year-old, and a good 2-year-old owned by Paul Stewart of Iowa.

The Jefferson County Asylum won both yearling heifer classes with daughters of Dutchland Creamelle Denver Prince and one of Carnation's daughters of Sir Inka May headed the calves. The junior yearling was junior champion.

The get of Forum Patriarch that has been winning all fall was first again at Memphis. It includes a junior yearling bull, two good two-year-old heifers, and a junior yearling.

Four state herds were out, Wisconsin, Illinois, Iowa, and Michigan, placing in the order named.

The awards follow:

Bull 4 years or over—1 and 5, Elmwood on Sir Fobes Ormsby Hengerveld and De Kol Pabst Korndyke Star; 2, Carnation on Prince Cornucopia Tobe Pontiac; 3, Stewart on Tritomia Ormsby Pietertje; 4, Forum on Forum Patriarch. Bull 3 years, under 4—1, Femco on Blue Earth Duke Ormsby; 2, Griffith on Canary Paul Anna Homestead; 3, Rudolph on Tower Hill King; 4, Jones on Count Paul Calamity Veeman; 5, Fredmar on Fredmar Korndyke Lad. Bull 2 years, under 3—1, McDonald on King Homestead Piebe Lad; 2, Carnation on Prince Tobe Johanna Beets; 3, Buhl on Admiral Traverse Pride; 4, Chapman on Triune Ormsby Piebe 59th; 5, Logan on Butter Boy Prince Ormsby.

Cow 5 years or over—1, Mich. Ref. on Tulip Beauty; 2, Carnation on Noonsack Irma Segis; 3, Jefferson Co. Asy. on Clothilde Wayne Denver; 4, Logan on Lily Segis Cornucopia; 5. Buhl on Bess Ormsby Korndyke Jewel. Cow 4 years, under 5—1, Forum on Long Hollow Mercedes Butter Boy; 2, Stewart on Miss Pontiac Pietertje Ormsby; 3, Carnation on Walcowis Mooie Creamelle; 4, Elmwood on Oakwood Piebe Allie; 5, Griffith on Aaggie Buckeye Beauty 2nd. Cow 3 years, under 4—1, Griffith on Miss Lassie Ormsby; 2, Jefferson Co. Asy. on Johanna Pietertje Artis Creamelle; 3 and 5, Carnation on Canary Posch Dewdrop and Hazelwood Segis Pauline Heilo; 4 Chapman on Winnemaug Pauline Korndyke. Heifer 2 years, under 3—1, Stewart on Lucy Sweet Buttermaid; 2, Jeff. Co. Asy. on Inka Creamelle Colantha; 3, Carnation on Carnation Segis Inka; 4, Forum on Forum Patricia; 5, Wis. State Board of Control on Sedgland K. B. Madam Homestead.

Get of Sire—1 and 5, Forum on Forum Patriarch; 2, Carnation on Sir Inka May; 3, Stewart on Tritomia Pietertje Ormsby; 4, Jeff. Co. Asy. on Dutchland Creamelle Denver Prince. Produce of Cow—1, Carnation on Pet Hengerveld Cornucopia; 2, Christ & Braman on Star Johanna Pietertje; 3, Stewart on Daisy Calano Clothilde; 4 and 5, Forum on Drosky Madison Jennie and Forum Johanna Skylark. Young Herd—1, Carnation; 2, Jeff. Co. Asy.; 3 and 5, Forum; 4, Elmwood. Dairy Herd—1, Forum; 2, Carnation; 3, Elmwood; 4, Stewart; 5, Uni. of Ill. Proven Sire Class—1, Stewart on Tritomia Pietertje Ormsby. State Herd—1, Wisconsin; 2, Illinois; 3, Iowa; 4, Michigan.

Senior and grand champion bull—Sir Fobes Ormsby Hengerveld. Junior champion bull—DeCreamCo Calamity Posch.

Senior and grand champion cow—Long Hollow Mercedes Butter Boy. Junior champion cow—Inka Wayne Creamelle.

Feeding Experiments

The results of three feeding experiments with dairy cattle conducted by W. B. Nevens at the Illinois Station and published in Illinois Station Report are briefly reported:

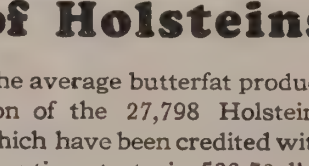
Thickly planted soy beans make best quality hay.—Hay from soy beans planted thickly was found to have less coarse stems, and smaller amounts of hay were refused than when the soy beans were not so thickly planted.

Legume hays fill lime needs of dairy cows.—Mineral supplements to rations including legume hays at the rate of 3 to 4 per cent of the concentrate mixture were found to be too laxative, and 1 to 2 per cent of mineral supplements appeared to be adequate. Mineral supplements to rations containing timothy hay and corn silage were ineffective in preventing a more rapid decline in milk production than occurred when alfalfa hay was fed. There appears to be no craving for lime by dairy cattle when receiving rations of legume hays and corn silage as roughage.

Silages from immature corn had low feeding value.—The large southern varieties of late maturing corn, containing about 22 per cent of dry matter, produced silage of good keeping qualities but of low feeding value and palatability. An early maturing, prolific type of corn gave as large yields in dry matter as the southern varieties. Acid determinations showed small differences in the silage from early and late maturing types, though an immature southern corn produced silage of very low palatability for sheep. This silage had a sharp and slightly bitter taste.

HOLSTEINS

Holstein Milk



Vitality!

The Production of Holsteins

The average butterfat production of the 27,798 Holsteins which have been credited with long-time tests is 533.72 lbs. for the average 331 producing days. For the 9,774 aged cows — average producing days 332 — the average butterfat production is 600.60.

Write for Holstein Literature

The Extension Service HOLSTEIN-FRIESIAN ASSOCIATION of AMERICA

230 E. Ohio St. CHICAGO

AN AREA TESTED COUNTY

The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Buyers are given every consideration in helping to locate and assemble their purchases, whether it be one or a carload. Can furnish you with 40 pure-bred cows and heifers bred to freshen this fall and early winter. A carload of bred, richly bred, grade heifers. 4 carload of springing and fresh highly bred grade cows. October and November freshening. Also a number of good pure-bred bulls 3 months to 1½ years old.

Send for bull list or write your wants for serviceable bulls. Sample—Bonair King Pontiac, born October 1, 1926, well marked, a good individual; Sire—Pabst Woodrest Pontiac 288286. Dam has 1178 lbs. butter in a year. Dam—Bonair Beauty Ormsby 4th 454150. Butter 7 days @ 3 years 20.50 lbs. Price $175.

W. L. Baird, Art Bennett at your service. Write or wire.

WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

DISPERSAL — 130 Registered and Accredited Holsteins—TUES., NOV. 15

3 aged cows that are the mothers and grandmothers of the entire herd.

1 cow 70 lbs. in 30 days, one 66 lbs., one 63 lbs.

TO BE SOLD AT NEUMEYER BARN

COUNCIL BLUFFS IOWA

C. T. EATON, BETHANY, MO.

WE CONSIGN

—TO THE—

U. S. NATIONAL SALE — Nov. 17-18

Watertown, Wisconsin

A SON OF SIR INKA MAY

Ready for service. From a 35-pound, 900-pound cow

SIR INKA MAY 11th

BORN AUGUST 19, 1926

His dam has made 35.83 pounds of butter in 7 days. Before that she ma 33.18 pounds of butter in 7 days—and 905.12 pounds of butter in a year.

Her other son sold at the National Sale a few years ago for $1500.00 at months of age. She has 3 splendid producing daughters.

Her dam is a 28-pound daughter of Sir Skylark Ormsby Hengerveld.

Her sire is from our grand old breeding cow, Inka Princess Mutual De K —a 33-pound cow with a 30-pound, 1000-pound daughter.

Remember These Facts! —

You will meet breeders without going far who have seen and admired a tried to purchase this bull, but we have held him in order to offer a ready s service Inka May bull at this sale.

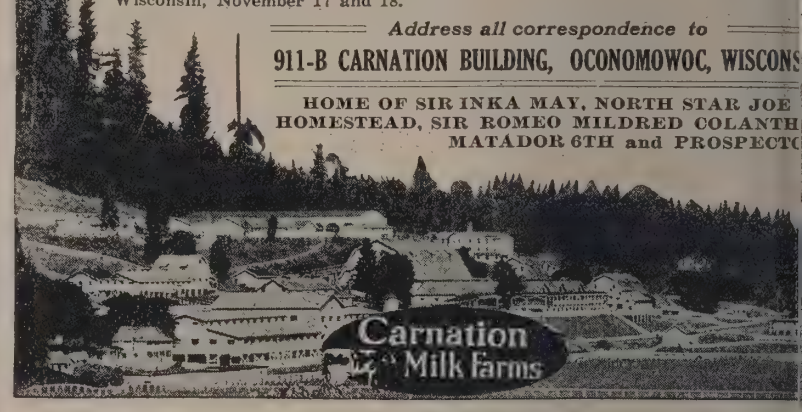
Just a year ago at the same sale in the same place at least 12 men we disappointed in not securing the Inka May bull we offered there. Since th every breeder has had a glimpse of the future of Sir Inka May by observi how the young sisters of this bull sold at the Minnesota Holstein Co. and Hol hock Sales. You know what his offspring are doing in the show ring.

The surest way and the quickest way to tie up your herd with Sir Inka M is to purchase Sir Inka May 11th at the U. S. National Sale at Watertow Wisconsin, November 17 and 18.

Address all correspondence to

911-B CARNATION BUILDING, OCONOMOWOC, WISCONS

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTH MATADOR 6TH and PROSPECTO



AUCTION — Nov. 16-1

FOND DU LAC, WISCONSIN

This is the Second Sale of O. G Clark & Co,, at Fond du Lac, Wi

500 Choice Grades HOLSTEINS and GUERNSEYS

50 REGISTERED BULLS HOLSTEINS and GUERNSEYS

There will be animals ranging in age from two-year-olds to mature cow Fresh cows and close springers will predominate in numbers.

The sale will open the morning of the 16th at 9 o'clock and will continue through the day and evening of the 16th and 17th

Write to O. G. CLARK, Retlaw Hotel, FOND DU LAC, WIS., for further particula

Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.

CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

NORRIS FARM *Is Offering* SEVERAL ABLE BULLS, ready fo this fall. Also YOUNGER CALVES. Write for particulars.

MUKWONAGO (Fully Accredited) WISC

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.

ST. CROIX INTERCOUNTY DAIRY EXCHANGE,

F. T. WILFORD, MGR., Hammond, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with

RANDOLPH HOLSTEIN ASSOCIATION,

S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

ORMSBYS and OL

One of the greatest herds in Wisco of the best herd sires in the Mid Just drop us a line and your bull tro look easy; we have a surprise for y stein bulls of type and production that will please.

F. H. BOYLE, OWNER, PEEBL L. F. Murphy, Manager.

YOUNG BUL

sired by Governor Fobes and from good year record dams for sale. Breeding, type. The herd is accredited. Write

SUMMIT FARM, John Zoberlin, PLYMOU

Come to Sheboygan County for Hls

We have choice grades and purebreds from. Write your wants to:

SHEBOYGAN COUNTY HOLSTEIN Frank Ubbelohde, Secy., Plymou

Healthy Holsteins

are in the market for grade or registered Hol- from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.
Dearborn, St., CHICAGO, ILL.

Cow Test Association

producer is dam of B340, born March 25th. made 49,942 lbs. milk and 1,600 lbs. fat in four sive years. Sire, a proven sire of producers. s 4-5 white and a good one. Price $125.

ock River Farms, Byron, Ill.

rmsby Bull For Sale

LEIGH ORMSBY CORNUCOPIA POSCH is onths' old calf with good type and the right ng. His dam is a 25-lb., 3-year-old daughter P. O. M. 41st, 638 lbs. butter in 305 days. His by Colony Posch Newman, 1123-lb. bull, and of the 41-lb. 4-year-old granddaughter of 37th. erd is clean. Write today.

THE W. T. RAWLEIGH CO.
, Rawleigh's Ideal Farm, Freeport, Ill.

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are offering BULL CALVES rich in by breeding from tested dams. These from six to eleven months old. Some d as low as $100.00. Write for pedigrees further information. Herd under federal vision.

HAM BROS., Arlington Heights, Ill.

— We Can Offer —

Few Choice Bulls of Ormsby Breeding

will be ready for fall service. They are individuals from good record dams. Also younger calves at bargain prices.

ELLWOOD & NELSON
LB, ILLINOIS

YDE PARK FARM

OS PARK, - ILLINOIS

Offers BULL CALVES

by an outstanding 35-lb. son of Mata- rom Fully Accredited Registered Yr. with leading cow testing association ls. $100.00 up for typy individuals.

A. CARROLL WILLIAM EDGAR
Owner Herdsman

igh Grade Holstein Springers

in the market for big production ese cows will please you. Tuberculin sted. Address

VER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

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istered COWS, HEIFERS and BULLS. y choice Calf Club CALVES. We have two s agents in the field all the time who can e care of all orders in fine shape. All in- ies are referred to our entire membership.

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ve for sale some excellent young bulls up to nths old. They are from good record dams of ia breeding. Most of them are by Lauderdale Star Champion a 1034 lb. grandson of Johanna r Champion. A few by K. P. O. P. 54. Their are reasonable. The herd is fully accredited.

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NG BROOK BESS BURKE 2ND—ORMS- reeding. All sold out of bulls over six ns of age. Herd under Federal Supervi- for tuberculosis, also blood tested for on.

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K. P. O. P. Bulls

you will need a new sire dur- the next year get in touch h us. We can offer you just at you want.

GROVE & ARNOLD, Norwalk, Iowa

ICEABLE 30-LB. BULL and BULL CALVES

O. P. breeding. Sons of Rival King Ormsby es, his dam world's champion in Class C. Federal Supervision. If you want show type, id production write

FERGUSON, LAURENS, IOWA.

JLL CALVES — HEIFERS

ve for sale some choice bull calves and d heifers at farmers prices. Sired by a 990- ndson of Iowana Sir Ollie and from daughters 40-lb. Homestead bull. Accredited herd. Write

HUGHES & SON, NEENAH, WIS.

IN NO OTHER HERD

Can There Be Found Five Cows With Records Equal to These Five Femco Cows

May Walker Ollie Homestead Milk	1,523.24 31,610.60
Grahamholm Co. Paul. Segis Milk	1,426.75 34,291.80
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Miss Mutual Rose De Kol Milk	1,260.50 26,551.80
Aurora Homestead Badger Milk	1,208.76 32,321.20

Eight other cows in the herd have records from 1,000 to 1,194 lbs. Femco Holsteins are producers.

A Few Choice Bulls For Sale

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

STEELE COUNTY HOLSTEINS

Are noted for their size, type and production. Purebreds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

Last Calf Advertised Was Sold to Nevada, But We Have Another Good One

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.

ST. OLAF COLLEGE FARMS, Northfield, Minn.

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

ABORTION FREE HOMESTEADS

We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.

T. B. under Federal Supervision.

MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager

TWO GOOD BULLS FOR SALE

Ollie-S, P. O. M, 37th Breeding

We have two typy young bulls for sale now. One is from a 26-lb. granddaughter of 37th and by a 968-lb. son of Iowana Sir Ollie. The other is from a 28-lb. granddaughter of 37th and by Sir Ollie Mooie Watson 7th. Show calves priced right. Write today or come to the farm.

DICMERE FARM
H. E. DICKINSON, Oconomowoc, Wis.

Milford Meadows

Calves from SIR TRIUNE PANSY are here and are everything we hoped for. To date we have 12 heifers and 5 bulls and all very much alike, straight and evenly marked. The dam of every calf will have a record.

Ask us about them.

W. W. KINYON, LAKE MILLS, WIS.

Come to Michigan for Holsteins

Better Make it Snappy — Winter Cometh !

What Shall I Ask Our Sales Managers to Quote You Upon ?

Write J. G. HAYS, Sec., MICHIGAN HOLSTEIN-FRIESIAN ASS'N, EAST LANSING, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

SERRADELLA FARM OFFERS — A 33-lb. Serviceable Colantha Bull

Sired by Sir Dutchland Colantha Denver whose dam is a 36-lb., 1300-lb. daughter of Colantha Johanna Lad. This young bull is from Serradella Kanaka Rosewood, 33.24-lb. 5-year-old that also has a good 305-day record made as a heifer. The bull is 2 years old, straight, and well grown. A bargain at $300.

SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan

A Yearling Show Bull

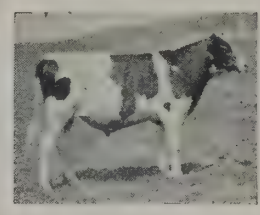
Light colored and well grown. A bull of real quality and excellent breeding. Born May 20, 1926. His sire is by a 37-lb. grandson of King of the Pontiacs and out of a 33-lb. cow. His dam is a 20-lb. Jr. 2-year-old daughter of a 31-lb. cow with 1,018 lbs. butter in 365 days.

Send for pedigree of Ear Tag No. 468

"THE MICHIGAN STATE HERDS"

BUREAU OF ANIMAL INDUSTRY, Dept. B, Lansing, Mich.

Decreamco Bess Burke Fobes Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

We have a few good young sons of Decreamco Bess Burke Fobes for sale.

THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

Buy Your Next Bull At Lakewood



Maplecrest Korndyke Hengerveld

GOOD BULLS

Priced to Sell!

We have for sale bull calves by Maplecrest Korndyke Hengerveld—century sire—from high producing, well bred dams.

Write us today for further information

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

AKONA HOLSTEIN FARM

BULL CALF born Aug. 31, 1927, dam 819 lbs. yearly record. Sire from a high record daughter of "37th" and a son of Sir P. O. M. from a 1,100-lb. dam. Price $125.

B. A. NORRIS, Anoka, Minn.

Jefferson County Holsteins

Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.

JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

Kow-Kare Conditions Cows for Freshening

It is well-known that most cow disorders have their origin in breeding troubles. The terrific strain of producing a healthy calf and coming through the freshening period calls for more than good food and comfortable quarters.

Let Kow-Kare be your aid when cows freshen. No investment is so certain to pay big returns. Instead of *expecting* trouble, you *prevent* it,—effectually and at slight cost. Kow-Kare invigorates the genital organs—makes them function as nature intended. Feed Kow-Kare two or three weeks before and after calving—a tablespoonful with the feed, and say good-bye to worries with freshening cows.

Treating Cow Disorders

For all cow ailments arising from weak digestive and genital organs—Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Lost Appetite, etc., Kow-Kare is a reliable home remedy. Full directions on each can.

For Healthy Udders

—use BAG BALM, the wonderful healing ointment. A great healer of the delicate tissues of udder and teats. Big 10-ounce can of this famous healer, only 60c.

Home-Mix Your Own Complete Mineral

With Kow-Kare you can easily mix your own complete mineral at a surprisingly low cost—a mixture of marvelous conditioning value. Simply mix 30 lbs. salt, 30 lbs. fine-ground lime, 30 lbs. steamed bone meal and four cans (large) Kow-Kare. For well under $6 per hundred you will have an unbeatable mineral. Use 80 lbs. of this mixture to a ton of grain.



Saves money—gets more milk from low-cost feeds

COWS on winter feed need a different type of care and handling than cows in pasture. Succulent, green feeds are turned into milk with a minimum strain and effort of the milk-making and digestive functions. The outdoor life induces health and vigor.

Barn-feeding conditions are a different story. The diet is heavier, richer, harder to digest. Fresh air and exercise are largely lacking—But the milk-yield must keep up. A slump means profits wiped out. The cow must be *forced* or the milk check disappoints.

Secret of Heavy Winter Yields

During the long winter months—when your cows are subjected to this unnatural strain of modern dairying—you can gear up the whole herd to new heights of production by the simple addition of small quantities of Kow-Kare to their low-cost feeds. This great product is a concentrated *regulator* of the digestion and assimilation of milk cows. It replaces the wear and tear on the over-worked organs of production.

Kow-Kare makes a reasonable forcing process safe and effective—helps the cow to get all the milk value from Nature's foods with safety to her health and vigor. No need to pay out all your income for rich and expensive concentrates which, at best, have only temporary effect on production.

Give Kow-Kare a real test this winter on the whole herd. For a few cents a month per cow you will reap a surprising milk crop from natural low-priced feeds. A tablespoonful of Kow-Kare with the feed one to two weeks in each month is all the average b needs. The benefits show in the milk pai inevitably. Health, vigor and freedom f disorders is your *bonus* for adopting Kow-Kare feeding practice that is standard in thousands of money-ma dairies.

Thirty Years of Success

For over thirty years Kow-Kare has been hel dairymen to make more money from their he both as an aid to greater yield, and in the pre tion and cure of cow disorders. Get your su from your feed dealer, general store or drug Large size $1.25; six cans for $6.25. Small 65c. If your dealer is not supplied, we will direct, postpaid.

DAIRY ASSOCIATION CO., I
Lyndonville, Vermont

(*Write today for our valuable free book "More Milk from the Cows you Have."*)

KOW-KARE regulates and condition

314 New Ag

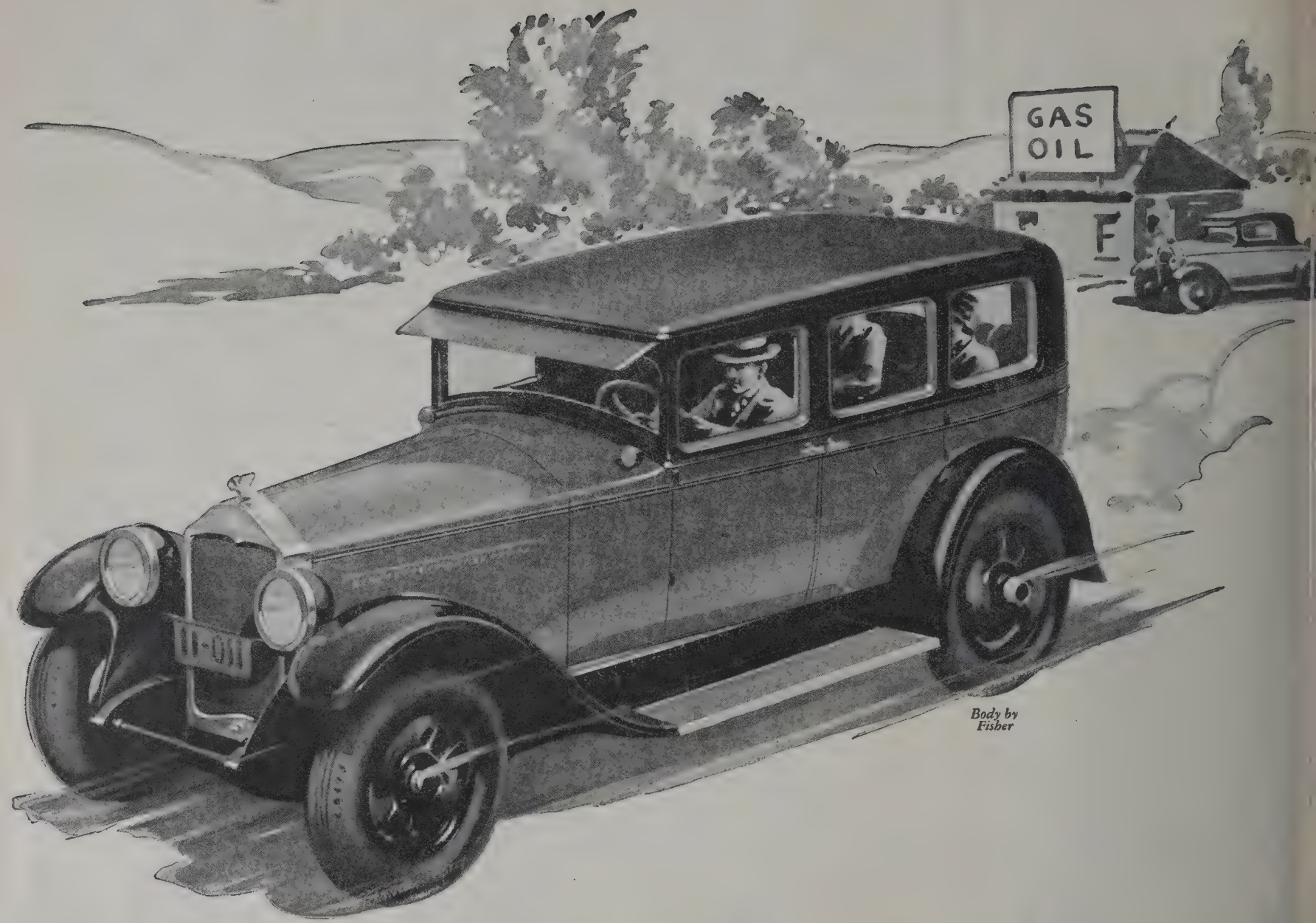
HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

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NOV 25 1927
UNIVERSITY OF ILLINOIS



Volume 72, No. 22 Fort Atkinson, Wisconsin November 25, 1927



You Need *Never* Change Your O
if You Own a Buick

Last year Buick said: "Change your oil only four times a year."

Buick tests at the great Proving Ground of General Motors at that time had shown that oil changes would *never* be necessary, with the Oil Filter to remove impurities, and with the Crankcase Ventilator, Thermostatic Circulation Control and Automatic Heat Control to prevent oil dilution.

Now more than a year has passed, and Buick owners in every section of the world —under every climatic condition—have also proved that you never need change your oil if you own a Buick—just add enough to maintain the proper level.

The trouble and expense of frequent oil changes no longer exist for Buick owners—replenishment and inspection of the Buick Oil Filter only are required.

This is but another of Buick's many contributions to the economy and efficiency of motor car operation . . . another instance of Buick's progressiveness . . . another indication of Buick's greater value.

BUICK MOTOR COMPANY, FLINT, MICHIGAN
Division of General Motors Corporation

BUICK *for* 1928

WHEN BETTER AUTOMOBILES ARE BUILT, BUICK WILL BUILD TH

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

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Semi-monthly

Three Years $1.00

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olume 72 FORT ATKINSON, WIS., NOVEMBER 25, 1927 Number 22

"MILK MAKES DIET FOOL PROOF"

UTHAI VINCENT WILCOX, WASHINGTON

ILK is the one food that makes the diet fool proof," said Dr. G. K. Abbott, the medical su-tendent of the Washington San-m and Hospital, the largest in-tion of its kind in the South At-c States. Dr. Abbott, has had experience in the supervision of nts in sanitariums in many parts he United States. His years of contact with the pa-s suffering from various ses, malnutrition, and y diets has made him an usiastic advocate of the of clean, safe milk.

e explained in a special view that the majority eople seem to insist on g foods with but little ishment. That is, they d not properly balance diet. For example, Dr. tt explained, "that y people enjoy eating kers and milk, yet the kers themselves have little real nourishment practically no vitamin ent. Common white flour kers alone would not ort life, yet with the the dish is made health-

. Abbott, himself a stu- of diet, and prescribing ous kinds daily, was emphatic. "There is hed rice, and white flour ucts of all sorts which ain a very limited unt of nourishment, yet average individual may ect his diet by taking ty of pure milk. Milk es the diet fool proof for unthinking eater, if he only take it in sufficient ities," the doctor de-ed.

Milk is the one perfect ," he continued. "Eggs ain almost all that milk ains, except the lime, containing lime plus the ntial vitamins can sus-life indefinitely."

r. Abbott told of patients would come to sanitari-which were in his ge, many of them suffer-from malnutrition be-e of failure to obey the of health. They had living on foods which lacked ntials for maintaining the body. his condition it would be neces-for them to go on a wholly milk taking milk every few hours.

fter many days of such an eating ram their digestive systems would ond; they would gain in weight strength, restored by the diet of milk. It took the one perfect to correct evils of careless living. The poor whites of the southern ntains are examples of the value milk," Dr. Abbott explained.

"During the winter months when there is only sow belly and corn bread and molasses to eat, scurvy breaks out and sometimes assumes alarming proportions. But medical science in watching these cases discovered that in the spring when these mountain whites could secure fresh milk from their cows the scurvy would quickly disappear.

Scurvy, it was explained, resulted from the loss of the essential vitamins. But milk containing these essentials in a generous measure restored the body balance when it was again obtained.

In a large number of experiments carried on by physicians and dietitians, animals were used in order to obtain reliable facts concerning the food value of milk. Dr. Abbott took from his files a number of photographs, graphically indicating the body-building power of a diet, including milk in generous proportions.

White rats were taken in one instance. One weighed 410 grams. It was fed for a specified period biscuits composed of butter, corn, and milk. In addition, a half pint of milk with a pinch of salt was a part of the ration. This rat grew healthy and large, fat and saucy, and full of fight.

Another rodent weighing exactly the same was fed corn, salt pork, water, but no milk. As a result it was stunted and small and scarcely grew at all. It lacked vitality and almost no ambition. It would have quickly succumbed in a battle with the milk-fed rat.

Dr. Abbott explained that the effect of milk on the rat was similar as that on children. For a child to obtain its proper growth there was need for an abundance of pure, clean milk. Without milk a child would be anemic and undernourished. Its bones would be lacking in the limes necessary, and found and supplied by a diet balanced with milk.

Another photograph which Dr. Abbott showed to his patients to impress lessons as to the right diet, had to do with an experiment conducted at the Elizabeth McCormick Memorial in Chicago.

"Two boys showing marked signs of malnutrition came to the Memorial. They had not been starved in the sense that food had been kept from them, but their food did not properly nourish them, which was evident from the illustration.

"After ten weeks of a diet which included simple food and a quart of milk a day, no one but a trained observer would know that they were the same boys. The vitamin element in the milk contributed greatly to the remarkable change in appearance, weight, and strength," Dr. Abbott said.

According to the experienced physician and surgeon who has made a special study of food and its relation to health, milk is an absolute necessity for growing and developing children. And for adults who wish to escape many of the diseases prevalent, milk is also a necessity. With milk eaten and used as a drink each day there will be far less danger of malnutrition, underweight, and a long train of diseases that follow an improper diet or one that lacks the absolutely essential vitamins.



Municipal Dairy in Russia

The city of Warsaw is planning to construct a large municipal dairy with a capacity of about 225,000 gallons of milk per day, reports Assistant Trade Commissioner L. J. Cochrane to the Department of Commerce. The cost of the proposed construction, including equipment, will amount to 3,500,000 zloty (about $400,000), of which 1,300,000 zloty will be used for buildings, 750,000 zloty for machinery and other equipment, 650,000 zloty for the establishment of public milk stations, etc., and 680,000 zloty for transportation equipment.

Aunt Ada's Axiom: Not only is it more blessed to give than to receive; but the givers really gain more than the receivers.

THE KANSAS STATE HERD

W. H. RIDDLE, MINNESOTA



MONROE COLEMAN, STATE HERD TESTER

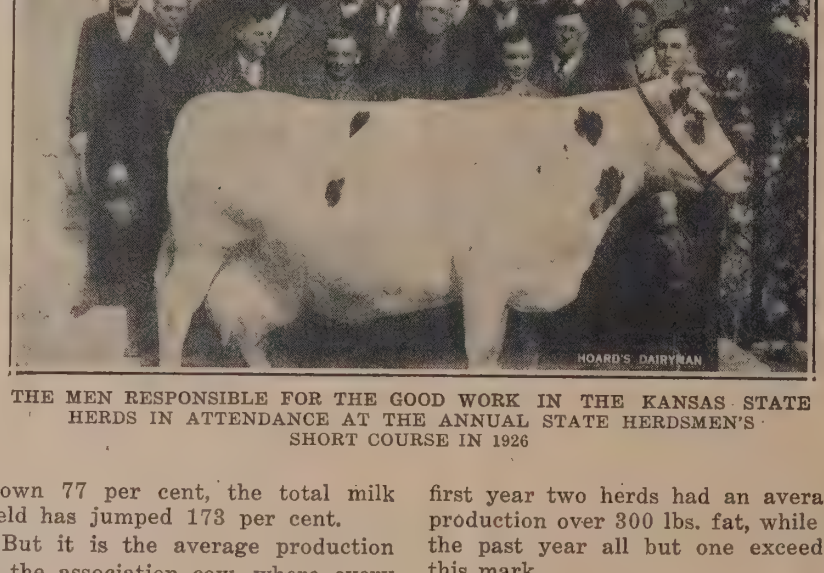
FIVE hundred and ninety-one cows averaging 9,837 lbs. milk, 333 lbs. fat in a year—that is the record of the Sunflower Cow Testing Association, otherwise known as the Kansas State Herds, for the past year. How many associations in the country can show as outstanding a record? Five years of continuous testing plus intelligent feeding and management have more than reaped their reward, and Kansas may well be proud of her institutional herds.

But let us go back and examine some of the facts responsible for such a phenomenal showing. It is a fascinating story of herd progress that will stand comparison with the best.

It was back in the year 1917 that the Kansas legislature, with a view to putting the state herds on a more efficient basis, saw fit to place them under the advisory supervision of the dairy department of the state agricultural college. The good results which have followed from this move are sufficient proof of its farsightedness. An extensive program of improvement was outlined with the cooperation of the State Board of Administration and the superintendents of the different institutions. Regular inspections were made by specialists from the college and every assistance given in matters of feeding and herd management.

However, it was not until the year 1922 that the first comprehensive evidence began to be available of the good results the work was effecting. For in the year previous the twelve herds had been organized as a cow test association and reliable records of production were now to be had in each herd. The Sunflower Association, as it is appropriately called, is now entering on the sixth year of its existence. A study of the several annual reports is an illuminating and convincing argument of the value of continued membership in such an organization. It is also interesting to note that Monroe Coleman, the tester in charge, has been with the work since its inception and without question a considerable measure of the success is due to his efforts and whole hearted interest.

In 1918 the twelve herds comprised a total of 697 head of cattle, of which nine per cent were registered individuals. The annual report for the year just closed shows a dairy cattle population of 1239 head—an increase of 77 per cent in eight years. In that time the number of pure-bred cattle had grown over 500 per cent and they now represent 35 per cent of the herds. Nowhere is the value of milk better realized than in the diets at the different institutions and its consumption is being steadily increased. This means more cows, but at the same time improved methods of feeding and herd management have more than helped in keeping production abreast of the demand. Witness the fact that since 1918, while the number of cattle has grown 77 per cent, the total milk yield has jumped 173 per cent.



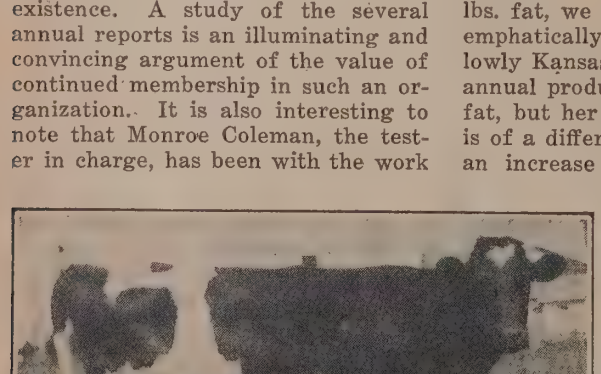
THE MEN RESPONSIBLE FOR THE GOOD WORK IN THE KANSAS STATE HERDS IN ATTENDANCE AT THE ANNUAL STATE HERDSMEN'S SHORT COURSE IN 1926

But it is the average production of the association cow, where every cow is tested, in which we are primarily interested. Total production signifies little, beyond indicating volume of output. Have five years of continued testing proven of any benefit to the state herds of Kansas? When we can show, as does the last annual summary of the association, 591 cows producing the remarkable average of 9,837 lbs. milk and 333 lbs. fat, we are rather apt to signify emphatically in the affirmative. The lowly Kansas cow is credited with an annual production of 126 lbs. butterfat, but her sister in the state herds is of a different class. How much of an increase does this high average represent? The figures in the first annual summary (1921-'22, the fiscal year runs from July 1 to June 30 of the following year), show that 476 cows averaged 6,726 lbs. milk, 240 lbs. fat. In other words, the butterfat production of the state herd cow has increased 38 per cent. In the same period the number of cows milked increased 24 per cent. That this splendid showing has not been the work of a few outstanding herds is fully evidenced, by the comparative production figures for the herds concerned, in the accompanying table:

Institution	Cows milked 1921—'22	Cows milked 1925—'26	Average production 1921—'22 milk	Average production 1921—'22 fat	Average production 1925—'26 milk	Average production 1925—'26 fat	Percentage increase 1921— %
			lbs.	lbs.	lbs.	lbs.	
Atchison	18	30	6,784	248	10,370	349	40.
Beloit	29	26	10,177	363	10,169	352	8.
Hutchinson	44	56	6,205	267	9,764	364	36.
Lansing	59	49	6,013	205	9,298	303	47.
Larned	61	88	5,356	202	8,961	310	53.
Norton	18	38	8,694	330	11,344	400	21.
Osawatomie	35	84	8,887	298	9,756	316	6
Parsons	40	37	7,933	279	10,868	376	34
Topeka Hospital	96	90	5,795	193	10,028	327	69
Kansas Vocational School	9	9	4,728	175	8,157	291	65.
Boys' School	27	39	6,840	240	10,892	349	45.
Winfield	40	45	6,406	227	8,743	301	24.

In two instances the percentage increase is not so marked because these herds had already attained a high level of production prior to the organization of the association. In its first year two herds had an average production over 300 lbs. fat, while in the past year all but one exceeded this mark.

Good feeding of good cows more than any other one factor has been responsible for the remarkable showing. A standard ration, largely home grown in character, and with alfalfa hay and silage as its basis, is fed. During the past fiscal year 5,818,109 lbs. milk containing 197,361 lbs. fat were produced. The cost of feed consumed by the cows milked during the year was $55,124.50. This represents an average feed cost of approximately 94 cents per 100 lbs. milk and 28 cents per pound fat, which would indicate rather conclusively that high production also means economical production. With plenty of help available, some of the herds have instituted three-time milking, which has had its effect on the production of the herds concerned:



GRADE AYRSHIRE, HIGH COW IN THE KANSAS STATE HERDS FOR THE PAST YEAR WITH A RECORD OF 23,542 LBS. MILK, 863 LBS. FAT
OWNED BY STATE INDUSTRIAL REFORMATORY

Summary of Production by Herds 1925—'26

Institution	Total production milk	Total production fat	Feed cost	Va
	lbs.	lbs.		
Atchison	312,140	10,522	$2,700.50	$ 8,1
Beloit	268,471	9,274	2,552.85	7,4
Hutchinson	537,022	20,051	4,585.90	15,3
Lansing	456,459	14,908	5,078.60	12,8
Larned	782,045	27,110	7,580.80	20,2
Norton	433,371	15,306	3,831.25	11,4
Osawatomie	820,539	26,588	7,855.45	21,4
Parsons	405,412	14,036	3,738.20	10,3
Topeka Hospital	907,561	29,606	9,454.65	24,0
Kansas Vocational School	74,230	2,654	581.95	1,7
Boys' School	422,631	13,565	3,341.85	11,9
Winfield	397,838	13,722	3,822.50	10,2

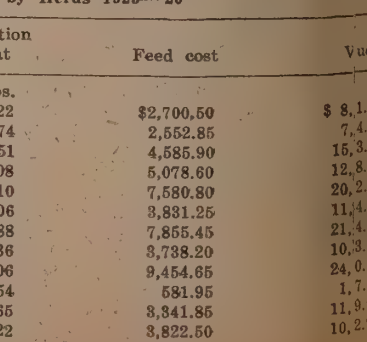
Where the practice is made, a ommended in bona fide cow te sociation work, of testing all co

a herd, each and every record h influence on the final herd av for the year. With this in view Kansas herds have made a con tious effort toward weeding ou inferior individual. Since three hundred ten cows have culled as unprofitable, with 73 carded the past year. At the time a determined effort has made to stamp out tuberculosis. milk can only be produced fron ease-free cows. Practically all are now on an accredited basis a fraction of one per cent rea during the past year.

One of the indirect though profitable results of continued ing is the determination of a ability to transmit production. have been proven in cow test a ation work through the produ records of their daughters, but number is all too few. The av dairyman does not stay with hi sociation long enough to realiz truth of this statement. On stance is now on record in the sas State Herds where a bull h creased the production of his d ters over that of their dams at a parable age by as much as 5 cent, while other sires have eff smaller but none the less substa increases. The sires, whose has been proven, are being ret in the larger herds or transferr other of the smaller to the adva of the state.

Each year the honor of posse the high cow in production is much sought after by the diff

(Continued on page 1121)



ONE OF THE PROVEN SIRES IN SE ICE IN THE KANSAS STATE HER OWNED BY OSAWATOMIE STATE HOSPI



Hunter of Kewaunee



The Beautiful Kewaunee Valley — Wagon Loads of Fish — Private Pickerel Pool — Spearing Muskellunge Through the Ice

RANSOM A. MOORE, WISCONSIN

S the country began to settle along the lake shore at Racine, grandfather went further north hunting season, until about he reached a point where the Ke-ee River came slowly into the lake. He swung his mackinaw into the river and began sailing up that beautiful stream. He had no difficulty as the water was often twenty or thirty feet deep.



NSOM A. MOORE

He continued about seven miles up the river, al-gh in his circling trip following river he had only gone about two s from the lake. The river began t shallow and the current strong-He landed his boat and a short nce above found the rapids. At oot of these rapids was an Indian ge. Through his knowledge of the an tongue, he learned that they in a wonderful hunting country. andfather purchased about 300 s of the land including the Indian ge. He conceived the idea of cut-the stately pine and making shin-olts. There were many sailing s on the lake and he soon made ngements with the captains of vessels to take his bolts to Mil-ee and Chicago, two thriving s. During the winter, camps were and a crew obtained. The shin-olts were put aboard scows and n down to the river. This seemed quite a business for a time.

1855 grandfather went to Ra- sold his property, and brought family back with him to Kewau- which was then just a little lum-g and fishing village.

re father grew to manhood and rother and himself married and ed in the neighborhood. Nearly whole county was a huge wilder-A few French families located ne river used the stream as their highway to the village. Several e Frenchmen worked in the mill ewaunee. They paddled up and n the river very quickly in their es. When the river froze over used their skates and when y snows were on they used their rshoes. The roads were merely roads and in the spring of the became mud wallows.



THE AUTHOR GOES A-FISHING

ee the two finned beauties which he ked. Picture taken at the author's in in Northern Wisconsin.

A short distance above grandfather's farm a grist mill and a saw mill were erected. During the early spring the pickerel and suckers would run up the river to spawn. In those days no one thought of putting fishways in the dams. The people owning the mill set aside certain days to raise the gate. The water would then gradually flow out of the pond and the following morning the gate would be closed. The fish settled in holes and bends of the river and were caught by the wagonload. I have seen the river for



THE MILL POND, GRIST MILL AND SAW MILL IN THE DISTANCE
On the farther bank of the pond is where I shot my first deer in 1870.

half a mile just filled with people securing fish.

These fish became a great source of food supply to the settlers in the neighboring country who came for miles on fish days. The grist mill had to run night and day because the settlers brought their grists with them and had them ground while they were fishing.

Practically every farmer in the county grew wheat for flour. It was interesting to see the miller and his assistants at work with long chisel-like hammers cutting the little grooves in the stones which revolved one above the other taking the bran off the wheat kernels and grinding the remainder into beautiful flour.

If the farmer was in a hurry, he could make an exchange as the miller knew how much bran, flour, and middlings the customer was entitled to from the amount of wheat delivered. Many of the farmers, however, insisted on having flour made from their own wheat. These were obliged to wait their turn patiently. No cash was ever paid for grinding but the miller took toll.

Barley was also ground between the heavy rocks, merely taking off its hull. It was then known as "pearl barley" and made a very appetizing dish. The mill ran all year.

An interesting incident happened at the saw mill on the other side of the river when I was a boy. Hearing my father say that they were replacing the old over-shot wheel with a turbine, I set out to see it. Men operating mills didn't like to have children around the machinery, so I had to use some ingenuity to get a look at this wheel. I knew that the wheel was under the floor on which they were cutting the logs. The sides of the mill were partly sheeted up. The floor had chutes through which the sawdust was dumped. Much of this sawdust did not go into the river but was banked up so that one had to get through it before he could get to the wheel.

On one occasion I waited very patiently in the lumber yard until the men were pulling up some logs into the mill with a large bull wheel. I dashed over the open space, dug a hole through the sawdust, and was soon down to the turbine wheel. To my astonishment I found that instead of revolving from top to bottom like the old wheel, it went around from right to left and was, as I thought, lying on its side instead of standing upright.

While admiring the wonderful power of this wheel, my attention was suddenly drawn to a big pickerel that swung around in the water and passed under the foam near the wheel. Soon another passed. It was the spring of the year and the height of the fishing season was on, but the pickerel seemed more wary than other fish and we only got a few of them in comparison with suckers and other rough fish. The pickerel was the earliest fish to come up to the dam, usually when the ice was just breaking up.

This, I felt, was a great discovery and I immediately got back through the sawdust and waited for a favorable time to get across to the lumber piles. I dashed across without being observed. It was a half mile to my home and it only took me a few minutes to get there.

I got a spear adjusted a short handle, took a large gunny sack, and returned to the mill. I crawled through the sawdust to the platform, leaving my gunny sack within reach, and was scarcely seated when along came a big pickerel. I speared him beautifully as I had become an expert even at that tender age of seven or eight years. By spearing the fish so that the center tine struck the spinal cord back of the head, the fish was paralyzed. I soon had the sack full but how was I going to get the fish home? I took out one large fish, about eight or ten pounds in weight, and buried the sack in the sawdust. I slid out cautiously and made my way home.

My people, of course, were astonished at such a beautiful fish and when I told them that I had a whole sackful, some even larger than this one, they were even more astonished. Because I didn't want my fishing ground known to others, father and I went for the fish after the mill had closed down, just a little after dark.

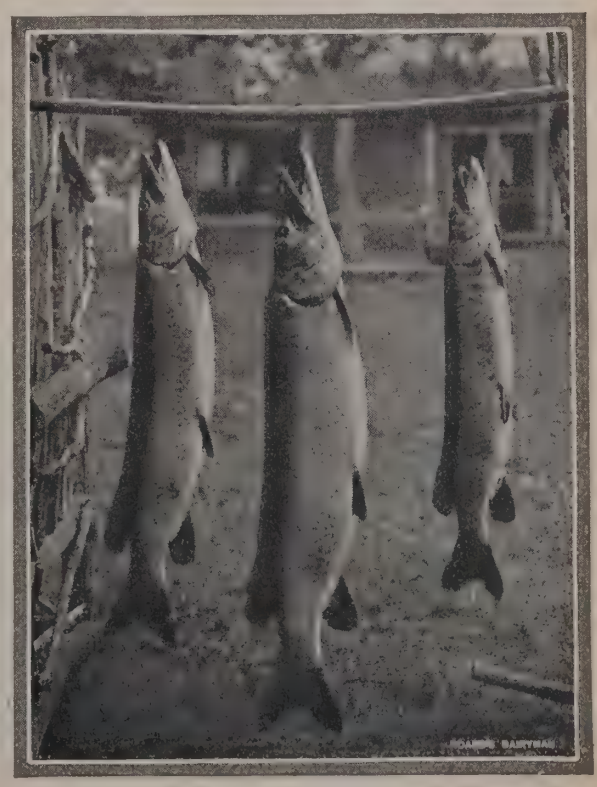
I continued spearing fish at this particular place for several springs. Later, the mill was changed and the fishing pool where I spent so many exciting, happy moments was ruined.

One of the very favorite ways of catching suckers was to use a flat bottom boat after the gate had been closed. The fish would rapidly drift into the bends. One could catch fish by the thousands with dip nets by standing on the stern of the boat.

We lived near at hand and always had full equipment for fishing. This was not true of many other settlers. Consequently in my younger days many boatloads of fish were disposed of among the settlers.

One of the favorite ways of putting up fish in those early days was to cut off the heads, slit them down the back, salt them down for one night, and then smoke them. The fire was al-

(Continued on page 1124)



THE MUSKELLUNGE

The bull dog of many Wisconsin lakes and rivers—one of Wisconsin's noted game fish.

Electricity For The Farmer—Power

E. R. MEACHAM, WISCONSIN

NO more than fifty years ago, animal power was the only aid to human labor on the farm. My father's lifetime has seen the sudden astounding application of power to the farmer's job. He carried pails of water up the hill from the farm spring; he cut the yellow grain with a curving cradle; he swung a flail on the dusty barn floor. First, windmills came to pump water for him; then steam and later gasoline began to take over jobs that he and horses had done alone before. And now electricity is offering him its power in the business of farming.

It is entering upon a job where the use of power has already grown to a stupendous amount. The Department of Agriculture estimates that farms are using 16,000,000,000 horse power hours a year. Four-fifths of this is for field work. The use of electricity for this has been purely experimental so far in this country, though Europe has plowed both by means of electric tractors, and by plows operated on steel cables. But the remaining fifth of this staggering total offers a present, practical use for electricity on the farm.

The motor which transforms the electric current coming over the wires into actual power is a very clean, compact power unit. It has very few parts to get out of order, only two bearings that demand occasional oiling, nothing to be affected by frost, and little vibration. It starts at the turn of a switch, whatever the weather; requires no fuel nor water; it may be started at any distance from the job. For short periods it can carry a 100% overload without harm. And it comes in all sizes from 1-50 to 500 horse power.

Another distinguishing characteristic of electric power is its susceptibility to automatic control. Switches that turn on or off with variation in pressure, temperature, or other changes in operating conditions make various electric machinery entirely automatic in its operation. The motor that drives an automatic water system is controlled by a switch of this sort. Out on a marsh near the University of Wisconsin, the drainage pump is started by a float when the water level reaches a certain height and stops when the water drops again.

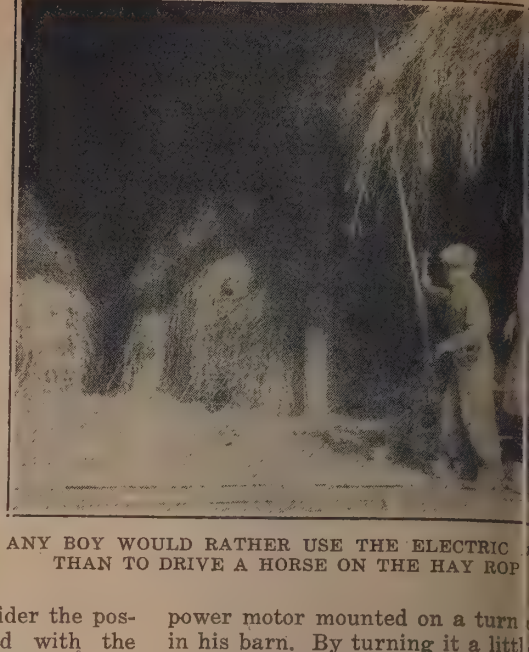
Professor E. A. Stewart of the University of Minnesota, an investigator of problems of rural electrification, recommends three types of motors for use on the average farm: 1, individual motors; 2, a small utility motor; 3, a large utility motor.

The daily use of a motor for some particular job demands that that motor be always set up and in readiness. A motor on the milking machine or the separator could scarcely be detached to do half a dozen other jobs. The time spent in replacing it before each milking would be too expensive. Those motors should be in readiness so turning a switch will start the machines. There are other light jobs, however, which come only occasionally where a motor can do the work at a great saving of time and strength. One small motor can often do half a dozen seasonal or periodic jobs. Perhaps it will run the churn twice a week, or turn the grindstone for sharpening knives during silo filling, the sausage grinder at butchering, and the fanning mill before spring seeding begins. The larger utility motor, probably five-horse power, will run the feed grinder, the concrete mixer, and the wood saw.

This introduction of electric power threatens to reverse the modern tendency toward the use of large units and a big crew of men to hurry through the job. It works in exactly the opposite direction. The smaller power units require fewer men for their operation and take a longer time at the job.

In commenting on this effect of electric power, Professor J. B. Davidson, head of the Agricultural Engineering Department at Ames, says:

"Electric power is very well adapted to light stationary work. To extend the use of electric power into the field of heavier stationary work is a much more difficult problem. To provide electric motors of the capacity of the average gas tractor would call for heavy expenditures for increased capacity in transmission lines and transformers. This excess capacity would be used for a very few days each year. I am willing to venture the opinion that the greatest progress will come through a reorganization of those operations requiring a larger motor. This would mean that the largest motor on any one farm would be kept down to a certain maximum by continuing the operation over a longer period of time. To suggest what might be done, consider the possibility of grinding feed with the small feed grinder supplied by a magazine bin. Not only may a large amount of grain be ground by a small grinder in this manner, but the work may be done at a time when the load on the line is at a minimum. The same kind of regulation could be applied to the pumping of water. In such operations as threshing and shelling, the use of a small motor may not be so easy, but with a crib or grain barn satisfactorily arranged, there is no reason why these operations could not be continued over a longer period, permitting the use of a small motor and a smaller crew."



ANY BOY WOULD RATHER USE THE ELECTRIC
THAN TO DRIVE A HORSE ON THE HAY ROP



BECAUSE IT CAN CARRY GREAT OVERLOADS FOR SHORT PERIODS, THE MOTOR IS WELL ADAPTED TO SAWING

At least two companies are mounting motors suitable for these occasional jobs on two-wheeled trucks that can be pushed from place to place like a wheelbarrow. They are fitted with pulleys of various sizes to provide the proper belt speed for different machines, and long, heavy, weatherproof cable to reach from the nearest electric outlet to the place where the work must be done. A starting switch at the end of another cord makes it possible to control the motor while operating the machine.

The utility motor is not always on wheels. Any motor can be mounted on a truck of the farmer's own making, or on a stone boat that can be dragged from one machine to another. Many farmers make a single motor do several jobs by setting it in such a way that it will run different machines from that one position. An Alabama farmer has arranged his layout so a single motor pumps his water, runs the milking machine, and grinds feed. Mr. W. J. Dougan, a Southern Wisconsin farmer who needs no introduction to readers of Hoard's Dairyman, has a 15-horse power motor mounted on a turn in his barn. By turning it a little way and then another, he can use fill his two silos, grind feed, hoist and elevate his grain into the bi

"I have had that motor for years," Mr. Dougan told me, "an never had a cent of expense on cept for the oil I squirt into the ings now and then."

Mr. George Stillmacher, near on, Wis., has his feed mill an bone grinder a few feet apart i granary. In the wintertime he es his portable motor between and runs both without changin motor. The bone grinder makes meal for the chickens on his own and those of his neighbors as Since bones grind best during th weather when they are thoro frozen, Mr. Stillmacher appre the fact that his motor need warming up, but starts whe presses a button.

During the latter part of Febr and March, Mr. Stillmacher us motor to drive his fanning mill. motor saves a man's time and d more uniform job. It also mak possible to use a sacker. This cu time for the job in two. It take than two kilowatt hours of curre clean and sack one hundred bu of grain.

During the winter months, grinding would keep a portable busy on most dairy farms. For w small mill the farmer can often with electricity more cheaply th can haul his grain to a neighb grist mill and hire it ground.

In the test Professor Davidso ferred to above, the reorganizati the whole job of grinding made automatic affair, saving conside man labor. A 6″ corn grinder w up over a bin into which the gr

(Continued on page 1119)



THIS HANDY MOTOR DRIVES THE BONE GRINDER, THE FEED MILL, AND THE ENERGY WHEEL FROM ONE POSITION



A SMALL MOTOR SPEEDS UP SHELLING AND SAVES A LOT OF WOR

Hiram on Death

t got to the barn this morn
give the pigs their share of corn
n mother came along and said
just got word Tom Bates was dead.
Bates was dead! How could it be
more than I could right well see;
he was strong as any ox
stood six feet in just his socks!
seems he's taken unawares
sittin' on the golden stairs
re his folks had got their breath
reamed his ailment might be death.
nehow can't believe it
I went and saw him set
rigid, on the gran'ry door
brot from town the day before.

nt outside and saw Old Sol
epin' o'er the calf-shed wall;
the breezes stir the trees
heard the lazy hum of bees.
ks I, the world ain't changed a whit
Tom Bates hurried out of it;
bble dropped into the sea
d ruffle it as much, by gee!
h makes us pretty much the same.
n't just a poor man's game;
rich man, too, becomes the slave
trades his jack-pot for a grave;
does the sun shine out less bright
ocks forget to crow at night;
beggar-lice refuse to stick
use a rich man turned the trick.

I've been thinkin' for a spell
ng as one must leave this shell
all his earthly goods behind
most of man must be the rind.
if a man's been average gay
cheered folks up along the way
part of him you can't erase
ettin' tombstones on his face.
other merits of the mind
rosh-dinged sure we leave behind
ve, altho our bodies sleep,
friends for long have ceased to weep
it now with my friend, Tom,
ill it be when I pass on;
rich, the poor, the great, and small
te alike for one and all!
pyrighted.) —I. A. KIMBLE.

loating Alfalfa Fields of ebraska"—The "Mighty Babylon of Today"

rom time immemorial man has erally chosen the land of the val- for his favorite hunting grounds food.

, as ancient historians tried to e the proper location on the map the "Garden of Eden" or the adise of Old," they generally guess it to be where the ancient rs—the Euphrates and Tigris— t in Asia.

braham left Ur in Chaldaea and of that land went Asshur and t Ninevah. And in the valley of Euphrates it was that Nabapolas- founded his empire and built the ity city of Babylon. There it was his son, Nebuchadnezzar built "Seventh Wonder" of the ancient s, "The Hanging Gardens of ylon."

e are told that the wonderful na from the many millions of ers in this ancient, magnificent en were so strong that they pene- ed the air for miles and miles. was my privilege to visit the derful alfalfa fields in the Platte ey between North Platte and rney on the Union Pacific Rail- some time ago.

was driving out of the town Co- they call this town "The Capital he Alfalfa Region," in the Platte ey. As I traveled through this ile valley with its thousands of s of alfalfa in bloom and as I in- d the sweet scent coming off e floating fields, I could not help think about what a wonderful en spot this Nebraska alfalfa really was.

thought about the ancient "Hang- Gardens of Babylon" that I have so much about and I realized we right here in Nebraska can unt it a million times with our y thousand miles of fertile val- land full to the brim with sweet ling alfalfa.

he "Hanging Gardens of Baby- were more or less artificial after and of no great significance to the multitude. That is where we have it over them.

We not alone have the "smell" but we know how to "bottle it up."

For after all we get all the "smell" we want we convert "Our Garden" product into "milk and honey" for countless thousands.

We claim this "milk and honey" is far more necessary to human existence and happiness than all the sweet aroma from all the "Gardens" you may find anywhere else on this wide, wide world.

We grant that history is correct; we admit that it may be true that the wonderful aroma of this ancient "Garden of Old" penetrated the air for miles. But I wish we could allow "Old Nebuchadnezzar" to have a good smell from "Our Garden," "Our Wonder of the World," "Our Wonderful Alfalfa Field," as it waves in its midsummer bloom.

Nebraska. OLE HANSON.

Ship's Doctor: "Hey there! What are you doing out there in the water?"

Cabin Boy: "I'm following your instructions, sir. You said to take the medicine in water, sir."



50,000 People Saw De Laval Separators Get Money From Skim-Milk

DURING the past year De Laval Agents in 17 states held hundreds of educational dairy meetings which were attended by more than 50,000 farmers and dairymen. One feature of these meetings was the "Skimming the Skim-Milk Demonstration" to show how much butter-fat the ordinary separator is losing.

Skim-milk from some separator in use in each community was obtained and run through a new De Laval under the complete observation of all in attendance. The cream recovered in this manner was then immediately sent to the local creamery or cream station, was weighed and tested, and a check received for it.

$78.00 Per Year Average Loss

In hundreds of such public tests the De Laval Separator never failed to recover butter-fat from the skim-milk. The amounts recovered varied in value from a few cents to over a dollar. The average results show that the separators from which De Lavals skimmed the skim-milk were losing butter-fat at the rate of $78.00 a year.

Many people were amazed at the separating losses revealed by these tests and asked for individual tests to be made in the same manner on their own separators at their homes. Any separator user can have such a test made and De Laval Agents will loan a new De Laval for such trial.

Trade in Your Old Separator on a New De Laval

The new De Lavals not only skim cleaner but also have other improvements and refinements. They are the best cream separators ever made and are the crowning achievement in nearly 50 years of separator manufacture and leadership.

With these new features and cleaner skimming you can't afford not to have a new De Laval — especially when you can get a liberal trade allowance on your old machine regardless of age or make. New De Lavals are also sold on easy terms or installments so that you can use them while they are paying for themselves.

See your De Laval Agent or send coupon for full information.

MAIL COUPON

THE DE LAVAL SEPARATOR CO., Dept. 3420
165 Broadway, New York
600 Jackson Blvd., Chicago
61 Beale St., San Francisco

Please send me, without obligation, full information on { Separator [] Milker [] check which

Name _____

Town _____

State_____R. F. D._____No. Cows_____

Liming Pays in Tennessee

In five series of experiments on representative soils in different sections of Tennessee, the average yield of alfalfa hay on limed soil was 3.13 tons per acre but on similar soil unlimed the yield was only 1.16 tons per acre. These results were secured the first season after seeding.

In eleven experiments with red clover the average yield of field cured hay on limed soil was 2.31 tons per acre, whereas similar soil unlimed gave only 1.48 tons per acre.

In twelve series with corn the average yield per acre on limed soil was 36.5 bushels but where no lime was applied it was only 30.8 bushels. In Knox County, plots which received six tons of manure per acre every two years gave a total of 279 bushels of corn per acre for eight years of continuous cropping. In the same period and under the same conditions, except that an application of two tons per acre of ground limestone was made at the outset, adjoining plots produced at the rate of a total of 350 bushels per acre for the 8 years. The increase for the 2 tons limestone was 71 bus. corn.

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Appreciative of the enthusiasm with which the farmers of America have received my No-Buckle Harness, thereby creating a growing demand which has again compelled me to enlarge my factory, I wish to give every farmer in America a fine calendar. It is a beautiful work of art in three colors, the creation of one of the best American artists.

This fine calendar sent free upon receipt of the coupon below. If you desire my big harness catalogue, check it also. Wishing you a prosperous 1928. 6-28

Sincerely, James M. Walsh Co.

Mail Coupon Today

James M. Walsh Co.
123 Wisconsin Ave., Dept. 130
Milwaukee, Wis.

Please send me at once without cost
☐ Fine Art Calendar
☐ Walsh Harness Catalogue

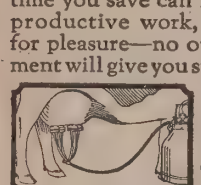
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Banish the *Never-Ending Grind of* Hand Milking

YOUR grandfather had to milk his cows by hand. But you don't—any more than you have to drive to town with an ox team. Isn't it time to banish forever the drudgery of hand milking? Don't be the last to give up the old way. Join up with the thousands of farmers who now milk their herds easier, quicker, better and more safely with the Burrell Milker. The time you save can be used for other productive work, for leisure, and for pleasure—no other farm investment will give you such large returns.



The Burrell also eliminates hand stripping—*It Milks the Cows Clean.* That's why you'll finally come to the Burrell.

Single Tube System

D. H. BURRELL & CO. INC.
10 Albany St., Little Falls, N. Y.

You Need This Book

Every cow owner needs it—whether he is now milking by hand or machine. It's not a mere catalog, but a 32-page profusely illustrated book which is a guide in both selecting and using a milking machine—backed by 67 years' experiment and experience. You owe this book to yourself. It's *free.* Send for it now.



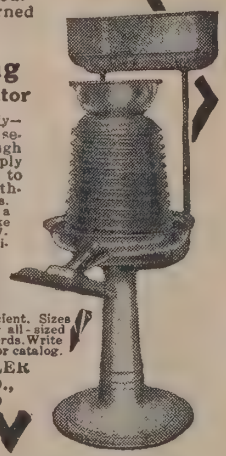
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CANTON, OHIO
successors to
Chas. Skidd Mfg. Co.
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New Dairy Scales

Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound
Guaranteed Accurate

Made to comply with Departments of Weights and Measures. Large 7-inch Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail. Order through any leading supply house, specify "Pelouze." If they haven't it order direct.

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No. D. 60 $5.50
No. D. 120 $6.50 Prepaid

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232-242 East Ohio Street, Chicago.

Dairy Herd Improvement Associations



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk	Ass'n. Report Ave. fat	High Herd Average Breed	High Herd Average No. of cows	High Herd Average Ave. milk	High Herd Average Ave. fat	Owner
				Lbs.	Lbs.			Lbs.	Lbs.	
Ore.	Coquille Valley	Sept.	886	407	24.9	G. J.	30	678	35.5	H. P. Clausen
"	Melowest 1	"	648	647	27.3	G. H.	9	812	38.3	R. G. Rooke
"	Melowest 2	"	623	694	29.1	G. J.	21	812	38.2	C. McCulloch
Wash.	King Co.	"	661	707	27.9	G. J.	18	865	45.4	Owen Bros.
Vt.	Lamoille Valley	Oct.	461	377	17.5	J.	4	635	33.8	W. C. Hadley
Minn.	St. Louis Co. 1*	"	315	580	23.3	G. G.	21	757	32.7	C. Christoferson
"	Lyon Co.	"	445	389	14.8	H.	9	769	26.4	R. Nicholson
"	Watonwan Co.*	"	402	414	17.0	R. H.	10	1357	40.5	F. Rentz
Ind.	Boone	Sept.	326	451	22.0	G. G.	10	729	38.1	F. Walker
Mich.	Osceola-Reed City*	Sept.	234	434	24.6	G. H.	9	800	33.4	A. E. Madole
"	Van Buren*	Oct.	265	565	23.1	G.	8	704	33.7	G. Fane
Wis.	Union-Waup. Co.*	Oct.	334	413	16.1	G.	5	448	26.1	P. Kielpinski
"	Genesee-Eagle	"	498	517	20.8	G. H.	16	1029	37.5	L. Andofer
"	Algoma*	"	468	462	25.2	G.	20	709	35.2	J. J. Blahnik
"	Thiens.-Lakefield*	"	403	506	20.6	G.	14	569	29.3	Wilde Bros.
"	Centerville	"	475	361	15.8	H.		808	30.5	Woestman Bros.
"	Merton-Lisbon	"	478	535	21.0	G. H.	9	912	30.4	E. H. Hardy
"	Milton	"	601	452	15.9	G. H.	51	830	29.8	H. C. Yale
"	Denmark*	"	439	563	21.1	G. H.	7	1079	39.7	R. Christensen
"	Beloit	"	512	503	18.2	J.-H.	12	835	33.5	F. Johnson
"	Ced.-Grafton	"	296	554	20.4	R. H.	10	1024	37.4	H. Bielefeld
"	Barron	"	492	472	20.8	G.	25	580	30.0	J. Glezendanner
"	Spring Valley*	"	391	449	17.7	H.-G.	16	785	26.2	E. Carlson
"	Chetek*	"	497	483	19.2	G. G.	18	552	29.1	A. Stoneberg
Colo.	Johnstown	"	232	605	23.3	H.	14	858	31.8	A. Cross
Tenn.	Hamilton Co.	"	657	463	22.6	J.	28	525	30.1	Bird Bros.
"	Knox Co.	"	593	449	21.6	R. H.	26	860	28.5	Johnson Bible Col.

*Retest rules followed.

Value of Sweet Clover Demonstrated

HOARD'S DAIRYMAN:—The value of sweet clover is well known throughout the Henry County Association of Illinois. Six of the members have successfully used it as pasture with very good results. One member carried 15 head on twelve acres for four months. The cows seemed not to care for much grain and held up in production. They produced butterfat at a cost of 9 cents per pound.

Another member had twenty cows on bluegrass pasture and was apparently furnishing enough feed for the cows. He supplemented the pasture with a good grain ration. In August while on the bluegrass he had three cows to freshen. In September he turned the cows on a spring seeding of sweet clover, the grain ration remaining the same and there were no cows fresh. The average production increased four pounds, while the association average fell for the month.

The use of sweet clover as a hay crop has been successfully tried by one member. This member cut the spring seeding late in the fall, cured it well and put it in the barn. The cows were fed the sweet clover hay, silage, and a balanced grain ration. They ate approximately ten pounds per head daily. During the time of feeding the sweet clover hay the cows were dehorned. There were no bad effects and the owner said the cows bled no more than usual. He fed all the sweet clover hay and then shifted to alfalfa hay. He found the alfalfa hay to be more palatable but records on the herd show there was not any increase in production. This man prefers alfalfa to sweet clover because it is more palatable, but has no objection to sweet clover hay.

Eighty per cent of the members of the association have a seeding of sweet clover for use as pasture next year.

JESSE L. BARNES, Tester.

What Sold Him

HOARD'S DAIRYMAN:—"I'll take him." This was the statement made by a bull buyer to one of the breeders in the Long Prairie Association of Minnesota. He came near not buying a bull from this breeder because he could get another bull $25 cheaper, but when shown the records on the dam of this bull he decided to take him in preference to the one offered him for $25 less money but out of an untested dam. He was wise in his decision. Certainly a bull out of a 400-lb. dam is worth many times more than one out of an untested dam.

Life's journey on the dairy farm is too short to be made in company with an inferior sire. Let us assume that the sire in question produces daughters who average only ten pounds of fat a year more than those of the one out of an untested dam, that this dairyman raises only five of them and then keeps each one six years. There would be a difference of 300 lbs. fat, which at 40 cents a pound would be worth $120. These are conservative figures.

Let us build for the future when buying a sire and see a little further ahead than the initial cost. Let the records guide us.

B. J. ROSENQUIST, Tester.

Cost of Keep and Profits

In his annual report of the Sioux Falls Association of South Dakota, Ben Nelson publishes the following records of two cows in the same herd:

	Cow 1	Cow 2
Silage and dry roughage	$ 24.83	$ 22.58
Grain	36.41	33.92
Pasture	6.60	6.60
Labor	20.00	20.00
Depreciation on cow per year	8.00	5.00
Interest on cow investment	7.20	4.80
Interest on barn investment	2.66	2.66
Depreciation on barn per cow, per year	1.60	1.60
Insurance on barn	.40	.40
Insurance on cow	.40	.30
General expenses (veterinary, bedding, etc.)	5.00	5.00
Total expenses	$113.10	$102.86
Lbs. of butterfat produced	370.9	140.1
Lbs. of milk produced	10,914	3,948
Per cent butterfat	3.4	3.6
Ave. price of butterfat	.40½	.42½
Value of butterfat	$150.01	$59.57
Value of skimmilk	26.25	9.50
Value of calf	8.00	5.00
Value of manure	12.00	12.00
Total value	$196.26	$86.07
Profit	83.16	
Expenses not including feed cost	45.26	39.76
Values not including butterfat	46.25	26.50
Profit	.99	
Loss		13.26

Mr. Nelson adds to this the following comment: "Cow No. 2 was dry during the late summer months, a time when the price of butterfat down. This accounts for the d ence in the average price of butte Under average conditions the val butterfat above feed cost should resent the net profit. Other in should be sufficient to cover all expenses, but in the case of poor ducers it does not."

The Sun is Bright Tod

HOARD'S DAIRYMAN:—A far was overheard to remark rece "If we only knew in 1920 wha know now about feeding, culling production we could have ma killing with fat at 82 cents a po

It did not come amiss to re this farmer that the golden o tunity lies in the present and a and not in the past. He lost no in signing up in the Chetek I Herd Improvement Associatio Wisconsin. Now he sees things new light, for he has the evidenc each individual cow. Each one pears to him in a new light and on an individual personality. He authentic information on whic eliminate the undesirable cows a correct the shortcomings in his r ods of feeding and herd manage

What he has done any cow mi farmer can do. There are cour opportunities in this "Grand Old ger State" (and any other stat do as this farmer did.

Bury the past. Look alive. in the present and for the fu Play this game of dairying for al are worth and you will find no for misgivings of the past. The beginning you can make is to j dairy herd improvement associa

C. F. HINDAL, Test

An Association Recor

The Fort Atkinson associatio been operating continually for a ten years. It was the first associ in the United States to adopt testing Rules" to apply on abno testing cows and herds. It wa first C. T. A. to carry on the Improvement Plan of testing in connection with the regular C. T work. The members were first i purchasing of a Monroe Calcul Machine for Ormond Kimball, tester. As a result, he has e lished more speed and accuracy his work and is able to give mo his time to other activities of int to his members.

This association has also e lished a record for sending 110 and daughter records on the y summary strips to the Bureau Dairy Industry. Thirty-eight d ent sires were represented yieldi proven sires to the group and ea these 8 bulls have 5 or more and daughter comparisons. Of thi complishment the Bureau of I Industry writes:

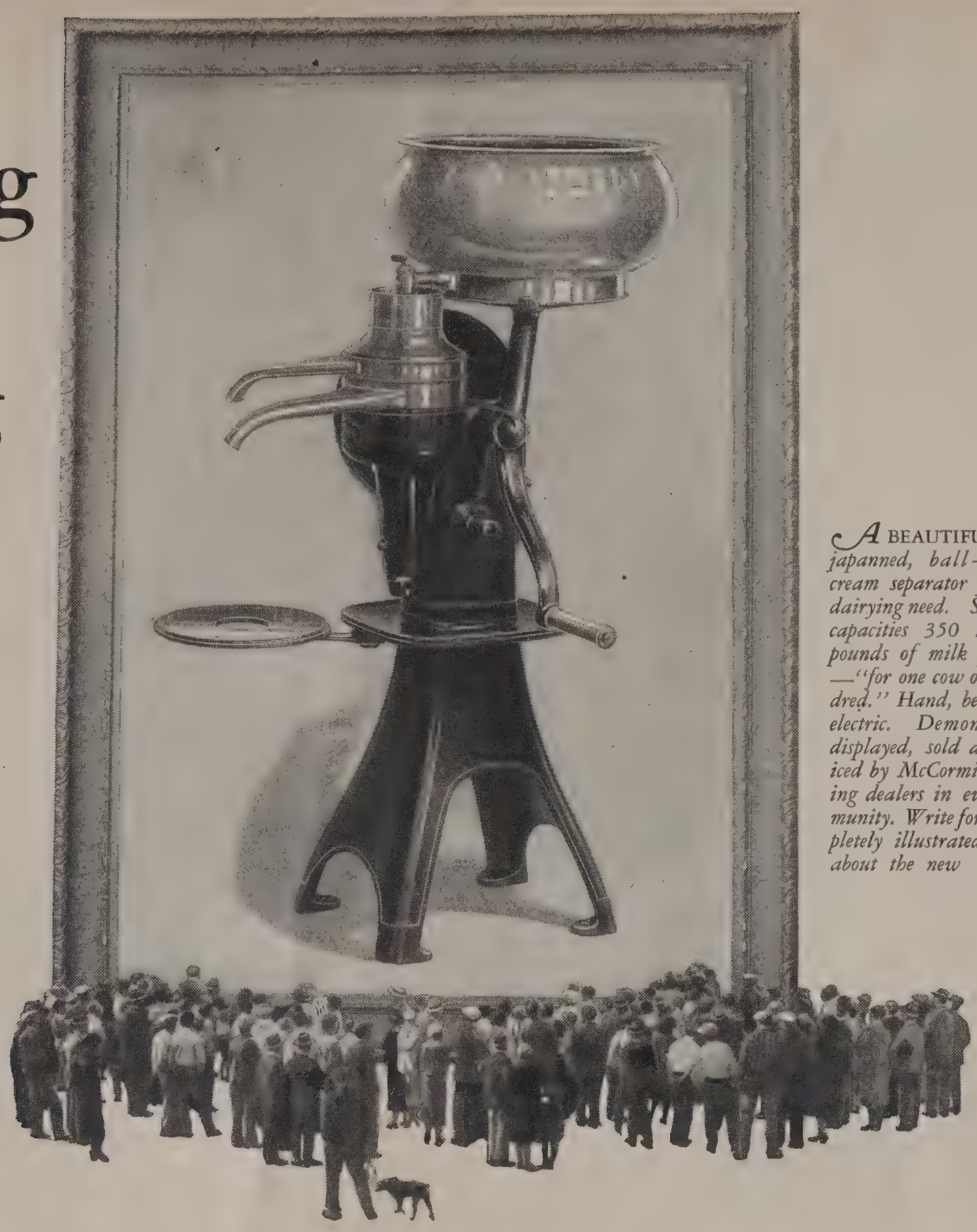
"In going over the records of Fort Atkinson C. T. A. we were tremely pleased to find there were dam and daughter records a them. We think this about co tutes a record so far. In fact, t were 30 different sires represente the strips and unless some of have already been listed, there be eight proved sires amongt group, each having five or more and daughter comparisons."—*W* consin Monthly News Letter.

Annual Association Reports

State	Association	Year ending	Total cow years	Ass'n Ave. Milk	Ass'n Ave. Fat	Cows culled	300-pound Cows	300-pound Herds	Fat records High cow	Fat records High herd	Tester
				Lbs.	Lbs.				Lbs.	Lbs.	
Ill.	Moultrie*	Mar.	212	6,996	339	37	35	20	590	470	P. J. Smit
Mich.	Missaukee Co.*	"	279	6,566	275			11	529	400	J. Goodall
Wash.	King Co.	"		8,720	335	113		19	669	426	H. Dempse
Mo.	Jackson 1	Aug.	149	8,096	330		68	9	444	363	C. W. McI
"	Jackson 2	"	817	8,690	315		390	9	611	392	C. W. McI
Mich.	No. Newaygo				280			9	525	352	J. C. Whit
Vt.	Cambridge	Apr.	266	5,634	217		19	1	518	369	
"	Cen. Lamoille	"	210	6,640	264		38	4	570	312	

*Retest rules followed.

Announcing Our New Ball-Bearing Cream Separators!



A BEAUTIFUL *black-japanned, ball-bearing cream separator for every dairying need. Six sizes, capacities 350 to 1500 pounds of milk per hour —"for one cow or a hundred." Hand, belted, and electric. Demonstrated, displayed, sold and serviced by McCormick-Deering dealers in every community. Write for the completely illustrated booklet about the new machine.*

The NEW McCORMICK-DEERING

THE Harvester Company is proud to announce a distinctly modern line of cream separators, new in design, improved throughout, which we believe is absolutely qualified to render a new all-around satisfaction not to be had from any other separator.

Every one of the six sizes of the new McCormick-Deering now has *high-grade ball bearings at all high-speed points.*

To make the machine as durable and pleasing as it is possible to achieve, the celebrated process of exterior finishing called *japanning* has been employed in the new McCormick-Deering. You will certainly admire the *hard, brilliant, mirror-like lustre* produced by many coats of japan finish requiring eighteen hours of baking at high temperatures.

These are features of *easy running, durability, and beauty.* The New McCormick-Deering has many other features and details of design that combine to make it *a most attractive and thoroughly efficient cream separating machine.*

Let the machine *prove itself* before your eyes, and before you buy. The McCormick-Deering dealer will gladly give you a complete demonstration without obligation, on your farm or at his store.

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JAY BEE Humdinger
CRUSHER GRINDER PULVERIZER

For fine, fast, uniform grinding of every kind of feed, biggest capacity, lowest grinding cost per ton, absolute dependability at all times, freedom from breakage and costly repairs, you can't beat the **"JAY BEE."**

Not 1c for Repairs in 5 Years

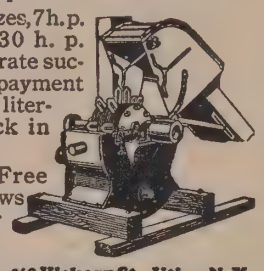
Mount Meadow Farm, Gadsden, Ala., writes: "We have never spent 1c for repairs nor have we had a shut-down for one minute with our **'JAY BEE'** in 5 years. We grind practically everything and got baling wire, nails and the like into the mill which have failed to damage the mill one bit.

"Has Never Failed Me"

S. Shipman, Guide Rock, Nebr., writes: "I have ground more than 15,000 bushels of corn and at least 400 tons of hay and fodder, and haven't spent a dime on my **HUMDINGER** yet. One sure thing, when you are feeding full feed, a breakdown and waiting for repairs costs lots of money. My **HUMDINGER** has never failed me yet."

Free Feeding Booklet

Nothing to wear dull or break. Grinds the feed cool. Over 7,500 in use. The best mill—cheapest when work is done. 3 sizes, 7 h.p. to 30 h. p. Fordson will operate successfully. Easy payment plan. Descriptive literature free. Stock in principal cities.



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Never!—No, Never!—have you seen anything just like it. Farmers clear across the continent are talking about the great Surge Milker and its wonderful new milking method. It is making records for breeders who never dared use a machine before. And they all say it is the easiest machine to clean they have ever seen.

Write today—NOW—for the NEW Surge Catalog telling all about this great wonder. This book is FREE. You need it. It contains a lot of information worth real money to you. Write for it—NOW.

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New* Finger Pull *milk bottle cap



A dandy new low cost bottle cap that is sanitary. Easily removed with fingers. Protects both milk and bottle. Makes new friends; holds the old ones. Adds to the popularity of your product. Try them on your trade and note the quick response. Write us for **free samples** and prices. We also make the superior "Midwest" Standard Disc Caps.

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SANITARY-EASY PULL

You need a Vest Pocket Herd Book

Operates Modern Milk Factory

MR. and Mrs. T. Ed. Kjos of Minnesota are making good in the milk business on the farm, although both were born and raised in town. Mr. Kjos got some experience as a boy, going out for work on farms in summer. He attended the Minnesota School of Agriculture and graduated from there in 1913. His wife finished school the same year from a course in nursing and a year later they started out farming together. They have been in the milk business only two years. Before that their cream went to the local creamery. They sell around 300 quarts milk and 50 pints cream daily.

Mr. Kjos says there is a great deal of work in connection with his business but that it is a great pleasure in pleasing people and increasing business, as is shown in the following article written by "An Appreciative Patron:"

"Every morning I find a package of food at my door. It is the most healthful of all kinds. It comes in a clean glass container. It is a white fluid. Its name is milk.

"Being of a curious frame of mind I decided one day to go through a milk factory. I had been through a flour mill and seen how wheat was cleaned, ground, and turned into snow white flour. I knew about other foods I ate. I had read about government food inspectors, but all these things were made in large factories out of town. I wondered about our milk factories here at home.

"So I decided to run out to Kjos' farm and take a look around. I found Ed. Kjos on the job, but he wasn't sitting under a cow on a three-legged stool as I expected. Instead I found him busy with motors, machines, etc., like any other factory. The barn was lighted by electricity; the cows were being milked by electricity; the cream separated by electricity; bottles washed by electricity. Ah, ha, here was a modern factory indeed! I must look this over carefully.

" 'What's that man cleaning that cow for?' I remarked.

" 'We curry and clean the cows every day,' replied Ed. 'To provide milk that will be clean and stay sweet and good a long time everything must be kept clean. We wash the udders of every cow before each milking.'

" 'Where are the milk pails?' I inquired. 'We don't need them any more,' was the answer. 'The open pail and hand milking caught the dirt and gave the milk a bad flavor from exposure to barn odor, so we installed a sanitary milking machine which draws the milk from the cows, carrying it to closed cans which we carry out of the barn at once. We take the machine apart and sterilize it with boiling water and an antiseptic solution after each milking.'

"I watched him unfasten the milk container, pour the milk through a strainer into a large can. With that he started for the door.

" 'Where are you going,' I called.

" 'To the dairy building; come along,' he replied. "Following along we came to a small building not far away. The opening of the door revealed a dazzling white, well lighted room.

"The milk was now poured into a vat through a strainer consisting of eight thicknesses of clean gauze, from which it ran over the cooler. A constant stream of cold water was running through the cooler so the milk was quickly cooled and ran into a large white porcelain vat.

" 'What's that for?' I inquired. 'It looks something like Louis Kierland's pop bottling machine.' 'That's to bottle the milk,' said Ed. 'We can fill a dozen bottles at one time so it goes pretty fast. After every milking we run boiling water through it and once a day take it apart, clean the parts, and rinse in an antiseptic solution more powerful than carbolic acid but harmless to people, odorless, and tasteless.'

" 'There's one thing I can't understand,' I said, 'and that is how you get the bottles clean. My wife always washes out the bottles before setting them out but it's impossible to do a good job.'

" 'That's easy,' laughed Ed. 'See that motor over there with the brush attached to it, and the large vat below? That does the work in no time. After washing we rinse with antiseptic and then boiling water.'

" 'Where do you get all the boiling water?' I inquired.

" 'There is my heating plant in the corner,' he responded. 'I ge water pressure from a large rese outside. The water is piped i the milk cooler, water heater, use plenty of it.'

" 'So I notice,' I replied as I l around.

"The woodwork was all enameled and the floor concrete.

" 'I'll bet the state inspector the looks of this,' I remarked.

" 'Well,' responded Ed. modes don't want to brag too much my place, but you know he dro here twice a year unexpectedly he told me that although not as as some, I had as nice and cle place as any in the state.'

" 'That's fine,' I said. 'Bef go I want to say I appreciate ting milk from a place that is so clean and sanitary.'

" 'Thanks,' was the response. you came out to look things Visitors are always welcome any and any time. I wish every p would come out and see for hi just how we run things.'

"I left, thinking to myself that I knew why Kjos' cream kept so long and the milk was al sweet and clean and tasted so g



INTERIOR OF MR. KJOS' DAIRY HOUSE SHOWING VAT FOR WASHING MILK BOTTLES AND THE PLANT IN THE CORNER FOR HEATING WATER



ANOTHER VIEW OF MR. KJOS' DAIRY HOUSE SHOWING WHERE THE MILK IS COOLED AND BOTTLED

Mr. Kjos takes great pride in keeping everything neat and clean.

Fly Salt

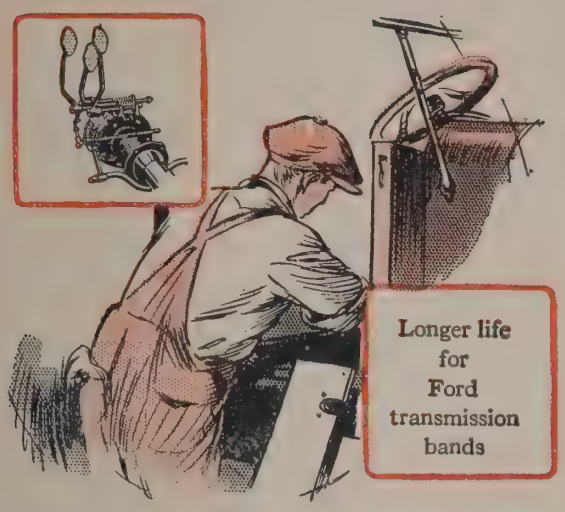
A salt mixture termed "fly s containing 9.77% free sulphur, been sold extensively throughou Middle West, under the represe tion that when fed to cattle, en sulphur was excreted with the spiration to prevent flies from b the cattle, thereby resulting in g er gains to beef cattle and preve losses in milk flow from fly attac

Two experiments were carrie by the Kansas State Agricul College—one at the Hays St with a herd of 20 high grade H ford yearlings against a compa herd kept under the same condi fed common salt; the other with dairy cattle at the Kansas Agr tural Experiment Station fed the salt" against animals fed con salt which was sulphur free.

The gain in weight in the lings in 156 days was approxim equal and the dairy cattle fed "fly salt" showed a very simila cline in milk flow to the check mals. The salt was wholly ineffe as a fly repellent, for animals fed "fly salt" were tormented to the extent as those fed common salt. fly salt cost six times that of the mon salt, and was not relished b animals.

Aunt Ada's Axiom: Remember we wouldn't know what happine if we didn't have some sorrow f contrast.

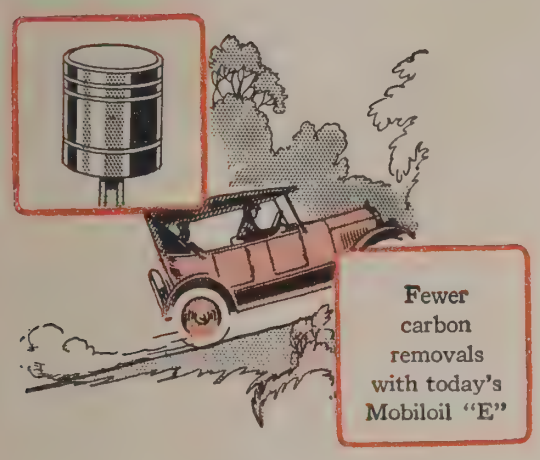
A scientific achievement!
New Ford economies–New Ford smoothness



The achievement of the Mobiloil engineers in producing the improved Mobiloil "E" does not lie in any *one* characteristic of this finer Ford lubricant, but in its ability to cut operating costs in so *many* directions.

With the improved Mobiloil "E" in your Ford crankcase you insure smooth starts and smooth stops. And more—you definitely extend the life of your transmission bands. The improved Mobiloil "E" provides this new margin of safety in driving your Ford.

Still more mileage between carbon removals with today's Mobiloil "E"



In any car carbon is a costly menace. Carbon accumulation cuts power. It jumps gasoline consumption. Oil consumption, too. And carbon removal jobs are a real item in operating expenses.

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Mobiloil "E" makes no claim to be a cheap oil. It costs a few cents more per quart than ordinary oil. But Mobiloil "E" gives you lower cost per mile and per year. *That* is what counts. Thrifty Ford owners never say that Mobiloil "E" is high-priced. They have had too much experience with the oil itself. Mobiloil "E" contains an extra margin of safety to meet every lubricating need of the Ford engine, the Ford clutch and the Ford transmission.

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The year around use Mobiloil "E" in your Ford car and truck. In your Fordson tractor use Mobiloil "BB" in summer and Mobiloil "A" in winter. The nearby Mobiloil dealer will give you a substantial discount on barrel and half-barrel orders of Mobiloil.

YOUR guide—if your car is not listed below see any Mobiloil dealer for the complete Chart. It recommends the correct grades for all cars, trucks and tractors. And remember that . . .

609

automotive manufacturers approve it!

The grades of Gargoyle Mobiloil, indicated below, are Mobiloil "E," Mobiloil Arctic ("Arc."), Mobiloil "A," Mobiloil "BB," and Mobiloil "B."

NAMES OF PASSENGER CARS	1927		1926		1925		1924	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buick	A	Arc	A	Arc	A	Arc	A	Arc
Cadillac	BB	Arc	BB	Arc	A	Arc	A	Arc
Chandler Sp. 6	A	A	....	..	...	..	....	..
" other mods.	A	Arc	A	Arc	A	Arc	A	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chrysler 60, 70, 80	A	A	A	A	A	A	A	A
" other mods	A	Arc	A	Arc	A	Arc	....	..
Dodge Bros. 4-cyl.	A	Arc	A	Arc	A	Arc	A	Arc
Essex	A	Arc	A	Arc	A	Arc	A	Arc
Ford	E	E	E	E	E	E	E	E
Franklin	BB	BB	BB	BB	BB	BB	BB	BB
Hudson	A	Arc	A	Arc	A	Arc	A	Arc
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc
Jewett	....	..	A	Arc	A	Arc	A	Arc
Maxwell	....	..	....	.	A	Arc	A	Arc
Nash	A	Arc	A	Arc	A	Arc	Arc	Arc
Oakland	A	Arc	A	Arc	A	Arc	A	Arc
Oldsmobile	A	Arc	A	Arc	A	Arc	A	Arc
Overland	A	Arc	A	Arc	A	Arc	A	Arc
Packard 6	A	Arc	A	Arc	A	Arc	A	A
" 8	A	Arc	A	Arc	A	Arc	A	Arc
Paige	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc
Star	A	Arc	A	Arc	A	Arc	Arc	Arc
Studebaker	A	Arc	A	Arc	A	Arc	A	Arc
Velie	A	Arc	A	Arc	A	Arc	A	Arc
Willys-Knight 4	....	....	B	Arc	B	Arc	B	Arc
" " 6	A	Arc	A	Arc	A	Arc	....	....

GARGOYLE

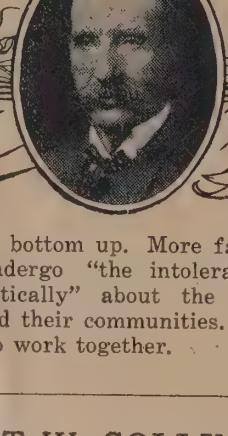
Mobiloil "E"
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EDITORIAL COMMENT



THIRTY-SEVEN Illinois dairy farmers owning 733 cows were members of a county herd improvement association and co-operated with the Illinois College of Agriculture in keeping dairy cost records. It was found that it cost on the average $164.72 to keep a cow for a year and $2.08 to produce 100 lbs. of milk.

The men who belong to this dairy improvement association are evidently producing milk at lower cost than the average dairy farmer. A great many cows would find their way to the butcher if their owners kept a record of what they are doing. A great many acres, too, would pass into disuse if the owners would keep track of the returns and the cost to operate them.

THE Bureau of Dairy Industry has shown by the tabulation of 70 records that the average error due to testing one day in two months was 3.8 per cent. The greatest error was 12½ per cent. For small herds the Bureau recommends one day testing in two months. This makes it possible for one tester to take care of 50 or more herds and makes the expense of testing so small that no one milking cows can afford to not have a record of each cow. We can hear some say that the error is too great when testing is done once in two months. This can be said—that we can conceive of nothing that would develop the dairy industry faster if every dairy farmer knew within ten per cent what each of his cows produced. Such knowledge would revolutionize the dairy industry.

AGRICULTURE REQUIRES THINKING

"Unless I misread the mind of the farmer he is tired of being deluged with oratory and deluded with quack remedies that remedy nothing. He is tired of schemes for farm relief that relieve nothing save the tension of criticism during a presidential campaign. He is tired of credit schemes that do little more than help him go into debt more easily, when what he needs is a development that will help him get out of debt. He is tired of hastily trumped-up co-operative schemes that take his time and money for a season and then go on the rocks from poor business management or petty internal wire pulling.

"But if the farmer is to escape from this sickening cycle of insincere promises and ineffective programs he must undergo the intolerable fatigue of thinking realistically about the issues of agriculture."

These statements are taken from an address delivered by Dr. Glenn Frank before the Wisconsin Farm Congress. We do not believe the thinking farmer is particularly tired of being deluged with oratory and deluded with quack remedies that remedy nothing." He is paying little or no attention to them. It is not uncommon to find that the successful farmer fully understands the real purpose of certain men and comprehends also how little they have done or can do.

President Frank, however, hits at the heart of the agricultural problem when he says, in substance, that the "farmer must undergo the intolerable fatigue of thinking realistically about the real issues of agriculture." We have many times stated that the farm problem will be solved by those engaged in farming. We have urged the formation of local co-operative organizations, not that we believe organization alone will place agriculture upon a proper basis. It is the foundation, however, upon which an agricultural program must be built. In organizing local co-operative enterprises, leadership is developed and the members are taught what must be done to build communities. If every farm community directed itself to doing the things within its power the firmest foundation would be laid for building a sensible and remunerative system of farming. We are wasting time when we attempt to improve agricultural conditions by building from the top down. We must build from the bottom up. More farmers must be willing to undergo "the intolerable fatigue of thinking realistically" about the agriculture of their farms and their communities. They must also learn how to work together.

HERBERT W. COLLINGWOOD

Herbert W. Collingwood, for forty-two years editor of the Rural New Yorker, is dead. He was born at Plymouth, Mass., in 1857; graduated from the Michigan College of Agriculture in 1883; and married Lulie D. Sullivan in 1888. For two years he was editor of the Southern Live Stock Journal published at Starkville, Miss., and in 1885 he became editor of the Rural New Yorker.

Mr. Collingwood was a noted editor and author. He devoted himself principally to editing the Rural New Yorker, but he also wrote several books of more than ordinary merit outside the field of agriculture. Hope Farm Notes were perhaps his one great accomplishment, for in them there was such a human touch and a homely philosophy that his readers were fascinated and their interests captivated.

A thread of sincerity runs through all Mr. Collingwood's writings and he gained the confidence and good will of those who read his editorial page. His readers knew his first interest was in farm life and in the things which would improve it. It requires a man of character and understanding to direct the editorial policy of a paper that holds the confidence and respect of its readers steadfast for a period of forty-two years. Papers and magazines are published for various purposes—some to please and entertain; others for advertising purposes, propaganda, and the like; and still others to give accurate information and wise counsel.

The kind of journalism Mr. Collingwood chose to follow was that giving sound information on the best farm practices and wise counsel. He may not always have been right in his conclusions and advice, but his readers knew that whatever he wrote or spoke expressed his honest opinion. In his death farmers have lost a good friend and a capable counselor.

FEED FOR PROFIT

The proper feeding of dairy cows is essential to profitable returns. Much feed is wasted because cows do not receive the right kind of feeds and the result is low production at heavy expense. If the cow's ration lacks in protein she is unable to produce milk to her full capacity and invariably she wastes carbohydrates, heat-making elements. For example, a cow given all the timothy, corn, and oats that she can consume will not receive enough nourishment to produce profitable flows of milk. A ration made of these feeds lacks in protein and results in wasting feeds and low milk production.

The dairy cow must have an adequate supply of protein for that is one of the essentials needed in the making of milk. The casein of milk is largely protein and anyone who has made cottage cheese knows that this is a large and important part of milk. If the cow cannot get enough protein to make her maximum quantity of casein she is limited in her fat production.

One of the chief causes of low production and unprofitable returns in dairying may be attributed to cows receiving an inadequate supply of protein. Every dairy farmer should check his rations and make sure that each cow is receiving all the protein she can handle economically. In making a mixture of feed it is well to have it made of four or five ingredients, and more will do no harm. In using a variety of feeds the danger is avoided of feeding an incomplete protein, that is, a protein lacking in some element. No single grain feed has a complete protein, and for this reason it is necessary to use several feeds in order to make a mixture that is sure to be right.

WHY FOLLOW BLIND LEADERSHIP

"Plan a meeting to help milk producers themselves by improving the economy of their duction and the quality of their product an many places you won't get a corporal's guard to hear the speakers or take part in the discuss But advertise a meeting to lambast distribu and consumers of dairy products and you get a hall in town big enough to hold 'em."

These are the words of a well known educ in the dairy industry. He was discussing the culty in arousing producers of milk in some tions to the needs of giving attention to the fu mental factors in the conduct of their busines

Why do we laugh at the other fellow when policeman calls him down for driving on the wr side of the road and scowl when our own atten is called to driving without a license?

Why do we clap our hands when some polit spellbinder figuratively and with scathing denu ation takes the hide off of capital, transportat and finance for their alleged efforts to reduce a culture to economic serfdom and stay away f the meeting called for the purpose of helping u clean up our own back yard with respect to org zation, co-operation, and a much needed elim tion of scrub cows?

Why do we follow poorly informed and o blind leadership, shutting our eyes to what most successful dairymen in our community doing to beat down the menace of fear by sub tuting faith in nature's benevolence and in t own mental and physical skill?

Why do we cry over spilled milk and refus help catch the cow?

The answer is found first in our unwillingnes assume all of the responsibility necessary the successful conduct of all our business. want good prices for the crops we feed our c but we don't want to walk across the road to h someone suggest that there is a weak place in way these crops are fed or that some of registered cows would earn more money if sent the butcher.

In the second place we have become the victi of soaking up altogether too much sympathy f those who would lead us out of the alleged da ness of agricultural despondency by promising to throw a monkey wrench into the wheels of other fellow's business and to anoint our own e linquencies with the salve of political sophis All of which gets us nowhere and nothing. the meantime the wheels of progress have b turning for those who know how to turn th Their number is legion. They do their work qu ly, always seeking after helpful information wh ever it may be found. They are the "corpor guard" at meetings called for the purpose of fi ing out how they may help themselves individu or collectively, and they bear the brunt of init ing, testing, and disseminating improved meth many of our readers are numbered among then

In every community are farmers who light th own lantern and hold it aloft that they might stumble in the surrounding haze of discont Let us look around and imitate their good wo In many counties are groups of farmers do something collectively better than it could possi be done individually. Let us sit around the ta with them and find out why and how they succ and then go home and imitate their good wor In every state one may find successful co-operat marketing agencies, not a few of which h reached gigantic proportions. Let us profit their experience and follow their example.

We hold to the opinion that progress is the result of advancement by a comparatively few individuals whose accomplishments become guide posts for the rest of us to follow as imi tors. Those who would solve our delinquen with political palaver have had their day. Let continue to save ourselves by learning more ab the good works of men whose advancement worth imitating.

A Calf Ration

hat do you think of a mixture of 25 lbs. bran, s. oats, and 10 lbs. linseed meal as feed for ing calves that are getting skimmilk?
hat is there in ropes that are tied around s of twine that calves like? Is there anything such ropes could be soaked in so that calves not suck them?
oodville, Wis. R. O.

skimmilk is fed liberally, say from 12 to 15 ds per head daily, and the calves are receiving me hay, the mixture proposed is rather high otein for economy and best growth. We would er, if available, a mixture of 100 lbs. of ground , 100 lbs. ground corn or barley, 50 lbs. bran, 25 lbs. linseed meal. Under ordinary condi-, the regular herd ration for milk production es a good calf ration. If legume hay such as r or alfalfa is not fed, the present feed mix- is a good one.

e do not know of any special reason why the s tied around sacks of twine should be appetiz- to calves, other than the general foolish appe- of young animals or possibly the fact that appetite is depraved owing to the absence of in minerals in the feed that they are now re- ng. If the calves have access to good legume that is grown on an acid-free soil, and are oth- se properly fed, we wouldn't ascribe it to a de- ed appetite. The best course of procedure d be to remove the temptation from the calves, we anticipate that if these ropes were soaked reosote oil, it would probably render them dis- ful to the calves.

Simple Rules for Feeding Cows

n you give me some simple, general rule for ing rations for my cows? I do not seem to find or else do not have the required inclination to these out on paper with a pencil. I do not it being too old to learn, but then—well, you the universal human failing of wanting to do ing the easiest way if it will bring results.
inois. G. N.

here what might be termed standard feeds are lable, it is possible to make rations after sim- ules that give satisfactory results.

good practice is to feed all the good roughage will eat because it is usually the cheapest ce of nutrients. Furthermore, the cow's di- ve apparatus is made to handle large quanti- of roughage. The cow of ancient times got ing but roughage.

gume hay, if not constituting all the rough- is the most important part of any combina- of roughages. Silage and a legume hay fed to limit of appetite is the best and most simple with respect to feeding roughage. This will sually about one pound hay and three pounds e daily per 100 lbs. live weight of the cow.

ain mixtures are made according to the hage or combination of roughages they are to fed with, paying particular attention to the in content of such mixtures. A combination of e and legume hay requires a grain mixture will yield about 12 per cent of digestible pro- Where the legume is alfalfa hay, the per- age of digestible protein need not be over 12 cent, and could be as low as 10 per cent, and erly balance the ration. Silage and red clover require a little more than 12 per cent of di- ble protein in the mixture. Silage and mixed in which not more than 50 per cent is legume require a mixture yielding between 15 and 17 cent of digestible protein; silage and non-le- e hay require a mixture yielding from 18 to er cent of digestible protein.

ow can such mixtures be made without actual- guring them out?

mong the carbonaceous feeds we have several ones such as corn, oats, barley, grain sor- n, and hominy feed. Among the high protein s we have linseed and cottonseed meals, gluten gluten meal, and ground soy beans and soy meal. Among the light, bulky feeds of medi- rotein content we have bran.

mixture yielding about 12 per cent of digesti- rotein can be made of 300 lbs. each of any two he carbonaceous feeds, 100 lbs. bran, and 50 each of any two of the high protein feeds.

mixture yielding 16 per cent digestible pro- can be made of 200 lbs. each of any two car- ceous feeds, 100 lbs. bran, and 150 lbs. each of two high protein feeds.

mixture yielding between 18 to 20 per cent stible protein can be made of 150 lbs. each of two carbonaceous feeds, 100 lbs. bran, and 200 each of any two high protein feeds.

feeding the grain mixture a simple rule to w is to feed those breeds whose per cent of butterfat is 4% or less at a rate of 1 lb. of the mixture to each 3½ to 4 lbs. of milk produced; and to breeds whose test is higher, at a rate of 1 lb. of the mixture to each 2¾ to 3¼ lbs. of milk produced. This will vary somewhat according to the quality of the roughage as it affects palatability and according to the likes and dislikes of individual cows.

Milk Prices According to Test

What is the difference in cost of producing high and low testing milk? Based on cost of production, how much should I receive per hundred for milk testing 4.7 per cent when $2.40 is paid for 3.5 per cent milk?
Jefferson, Wis. B. C. P.

While local custom and trade conditions largely determine the price differential paid for milk of different tests, there is no question that it costs more to produce high testing milk and there is a considerable amount of evidence on which to base a reasonable estimate as to the relative costs of producing milk of various tests. Professor Gaines and his associates at the Illinois Agricultural Experiment Station have given this subject careful investigation, and their conclusions are given in the following table showing the price differential per point in test that a farmer should secure to equalize the cost of producing high and low test milk:

	Base fat percentage		
	3.0	3.5	4.0
Base price per hundred	Price differential per hundred which is proportional to feed cost		
	Cts.	Cts.	Cts.
$1.00	1.77	1.62	1.50
1.10	1.94	1.79	1.65
1.20	2.12	1.95	1.80
1.30	2.30	2.11	1.95
1.40	2.47	2.27	2.10
1.50	2.65	2.44	2.25
1.60	2.83	2.60	2.40
1.70	3.00	2.76	2.55
1.80	3.18	2.92	2.70
1.90	3.36	3.08	2.85
2.00	3.53	3.25	3.00
2.10	3.71	3.41	3.15
2.20	3.89	3.57	3.30
2.30	4.06	3.73	3.45
2.40	4.24	3.90	3.60
2.50	4.42	4.06	3.75
2.60	4.59	4.22	3.90
2.70	4.77	4.38	4.05
2.80	4.95	4.55	4.20
2.90	5.12	4.71	4.35
3.00	5.30	4.87	4.50
3.10	5.48	5.03	4.65
3.20	5.65	5.19	4.80
3.30	5.83	5.36	4.95
3.40	6.01	5.52	5.10
3.50	6.18	5.68	5.25
3.60	6.36	5.84	5.40
3.70	6.54	6.01	5.55
3.80	6.71	6.17	5.70
3.90	6.89	6.33	5.85

The "base price per hundred" and the "base fat percentage" referred to above are the terms usually used in stating milk prices; as, $2.40 a hundred for 3.5 per cent milk—$2.40 is the base price and 3.5 is the base fat percentage. The "price differential" is the amount added or deducted for each "point" (one-tenth of one per cent) in test above or below the base fat percentage; as, if 4 cents is allowed per point test, then 4 cents is the price differential. The amount given under the heading, "price differential per hundred which is proportional to feed cost," is the amount that should be paid per point test if two farmers are to get back the same relative costs of production for milk of different tests. If $2.00 a hundred is the base price of 3 per cent milk, the table shows that the price allowed per point test in each 100 pounds milk should be 3.53 cents if the producers of high and low testing milk are to get equal justice on the basis of relative costs of production. If the price per point test is less than 3.53, it is favorable to low testing milk; if more than 3.53 cents, it is favorable to high testing milk.

In answer to the specific question in the inquiry above: If the base price is $2.40 a hundred for 3.5 per cent milk, the "price differential" (allowance per point test) should be 3.9 cents according to the table when consideration is given to the feed cost of milk production. If the milk tests 4.7 per cent, it is 12 points higher than the 3.5 base fat percentage, and the farmer should receive 46.8 cents (3.9 x 12) more per hundred than for 3.5 per cent milk, or a total of $2.868 a hundred.

To make the use of the table more clear, we might assume that the base price was $2.40 a hundred for *4 per cent milk.* In this case the allowance per point test as given in the table would be 3.6 cents. If the milk sold tested 4.7 per cent, it would be 7 points higher than the base fat percentage and the farmer in this case would receive 25.2 cents (3.6 x 7) more per hundred than for 4 per cent milk. In like manner, a farmer producing 3.5 per cent milk would receive 18 cents (3.6 x 5) less per hundred than the base price of $2.40 for 4 per cent milk.

The table given above is the result of rather complex mathematical computations and it is difficult to make a short and simple explanation. For those interested in this phase of the subject, we suggest writing Professor W. L. Gaines at Urbana, Illinois, for bulletins giving the technical data and evidence on which the conclusions are based. Without further explanation we give the formula by which the above table was computed and with the use of which other computations as to price differentials may be made for other base milk prices and other base fat percentages, as follows: The price differential is found by multiplying the base price by the quotient resulting from the division of 0.1 by the sum of the base fat per cent plus 2.66. Therefore, if the base price is set at $2.40 for 3.5 per cent milk, the price differential per point test would be found as follows: 3.5 plus 2.66 equals 6.16; 0.1 divided by 6.16 equals 0.01623; $2.40 multiplied by 0.01623 equals 3.895 cents, which is practically the 3.9 cents as given in the above table.

While only the factor of cost of feed is taken into consideration in the computations resulting in the above table, it is assumed that the other costs of milk production for labor, return on investment, etc., are practically the same for high or low testing cows. We believe this assumption is well taken. It should be understood also that no attempt has been made to compute the cost of producing a hundred pounds of milk. All the table pretends to show is the allowance per point test that should be made to equalize the cost of producing high and low testing milk after the base price and base fat percentage have been set.

It is interesting to note that not only do the allowances shown per point test do substantial justice on the basis of relative costs of production of various tests, but the investigators also show that the food value of milk when measured by its energy content is subject to the same proportional variations as given in the table. In other words, if the consumer pays at the rate of $3.90 a hundred for 3.5 per cent milk, he can well afford to pay $4.22 a hundred for 4 per cent milk on the basis of its food value as measured by its energy. There is some question as to whether this is the correct measure of food value when energy alone is considered and no consideration is given to the other values of milk, such as protein, minerals, vitamins, etc.

Storing Apples

Kindly inform me regarding the best way of keeping apples over winter. Would you advise pitting?
Detroit, Mich. R. S.

It is difficult to state what is the best method to follow without knowing some of the conditions. Taking it for granted that there is a basement, we would advise against "pitting" as a desirable method of storing fruit. Apples can be kept successfully in pits but they are practically unavailable for use during the winter. A room in the cellar, preferably without a floor, which has an outside window so as to aid in keeping the desired temperature and which can be kept at a temperature of from 32° to 40°, would make it possible to store apples and keep them in first class condition during the entire winter. Sometimes apples in storage in cellars shrivel. This is due to insufficient moisture in the atmosphere. This difficulty is easily overcome by occasionally putting a quantity of water on the floor. If the floor is of earth there will be less difficulty from the insufficient atmospheric moisture than if the floor is of cement or wood. The same method, however, can be used in overcoming the difficulty in either of the conditions.

Another method is to set a tub of water in the fruit cellar. This not only assists in keeping the atmospheric moisture conditions right but also has a tendency to prevent the temperature from falling below the freezing point of the fruit. In cellars in which there is no furnace it may be necessary in very cold weather to take precautions about the temperature falling below the freezing point of the fruit. The temperature can go three or four degrees below the freezing point of water without injury to the fruit. If the temperature is falling too low, one method of preventing the occurrence of injurious temperatures is the use of water as previously suggested. Spraying of water on the floor will also help. A lighted lantern may be used. As a rule, however, this special precaution will not be found necessary in the ordinary cellar.

Dairymen

YOU can *now* get a Hinman Milker in a PORTABLE GAS ENGINE UNIT. Power and milker complete in one compact, simple little machine.

Uses the same Hinman System—*proved right by 19 years of success in every good dairy county!*

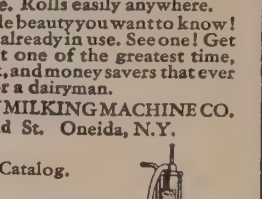
Real simplicity that does better work and costs less to buy and operate. Milks three hours on one quart of gas. Takes little space. Rolls easily anywhere.

It's a little beauty you want to know! Hundreds already in use. See one! Get facts about one of the greatest time, hard-work, and money savers that ever worked for a dairyman.

HINMAN MILKING MACHINE CO.
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CHEAPER POWER



Sizes 2 to 30 H-P.

Witte Super-Hopper All Fuel Engines

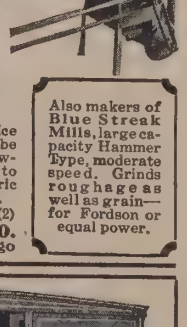
Deliver power far in excess of rating on the cheapest fuels with new All-Fuel carburetor which is a proven money saver. Removable die cast bearings, alloy steel construction, hot spot cylinder head, complete with WICO Magneto and new (Pat. applied for) tripper. Scrap your old engine—pay a little down on a new WITTE—let the engine earn the balance. Send for my EASY PAYMENT PLAN on engines, log and tree saws, 3-in-1 saw rigs and pumpers. ED. H. WITTE, *Pres.*

WITTE ENGINE WORKS
1648 Witte Bldg., KANSAS CITY, MO.
1648 Empire Bldg., PITTSBURGH, PA.

WRITE TODAY FOR NEW ENGINE BOOK **FREE**

Only $38.75 for Latest HAMMER TYPE **FEED MILL**

Run by 2 H.P. Electric Motor or 2½ H.P. Gasoline Engine. Grinds 35 bushel shelled corn per hour. Runs slow — grinds fast. No burrs to replace. Nails, bolts and wire can't damage it. Screens changed without stopping mill.



PRATER MILL

Does best grinding, is lowest in first cost and operating cost — is durable and simple. Endorsed by Electric Power Companies. Can be started fully loaded without causing line disturbance.

Made in Three Sizes
Capacities 35 to 85 bushel shelled corn per hour

2 H.P., price $38.75; 3 H.P., price $44.25; 5 H.P., price $65. Can be furnished equipped with Fan Blower and pipe for elevating feed up to 40 ft. Also complete with Electric Motor, mounted as unit with Mill.

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Also makers of Blue Streak Mills, large capacity Hammer Type, moderate speed. Grinds roughage as well as grain—for Fordson or equal power.

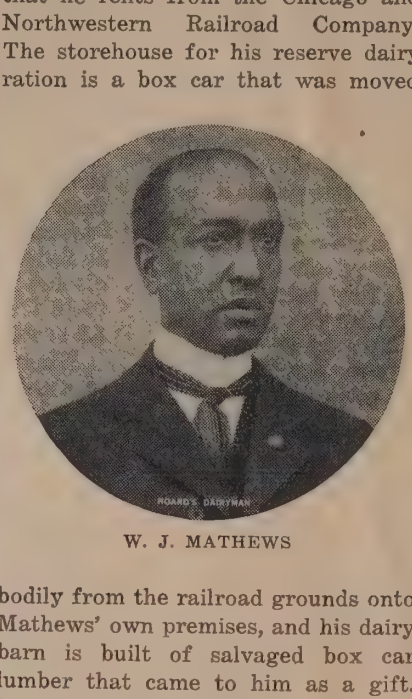
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FROM DINING CAR TO DAIRY

GEORGE R. HARRISON, IOWA

WILLIAM J. Mathews, a colored dairyman of Harrison County, Iowa, pastures pure-bred Holstein cows on bluegrass land that he rents from the Chicago and Northwestern Railroad Company. The storehouse for his reserve dairy ration is a box car that was moved



W. J. MATHEWS

bodily from the railroad grounds onto Mathews' own premises, and his dairy barn is built of salvaged box car lumber that came to him as a gift. Thereby hangs a tale.

In the earlier days Mathews was a dining car waiter for the company working for $25 a month. He was promoted to be a dining car conductor and after a while resigned to become the leading dairyman of Missouri Valley, a railroad junction city of 5000 population. At one time Mathews was milking 30 pure-bred and registered Holsteins while supplying the railroad dining cars and part of the city.

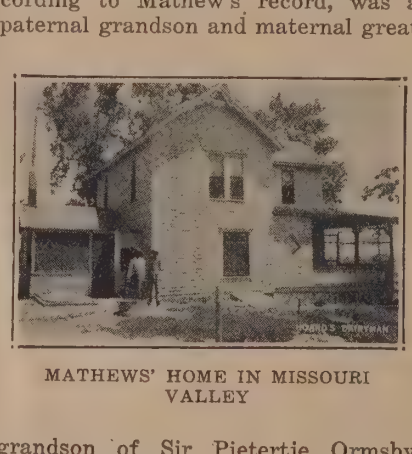
It is remarkable what this man Mathews achieved. He came out of the east where his only environment was that of crowded cities. He had never dreamed of turning dairy farmer for he knew nothing whatever about cows. But he went into the dining car service with a run between Missouri Valley and Sioux City and there saw the difficulty in procuring quality milk and cream for the dining car tables. Then it was that the dreams came. Why couldn't he have some cows of his own and supply milk and cream to his car?

The railroad passed through a district of wonderful fertility but this fertility had scarcely any area devoted to dairying. It was turned almost entirely to raising corn and alfalfa for fat cattle and hogs. Cows kept for milk were common stock. Milk that was delivered to the dining car service would not keep any length of time and it had other faults. Mathews believed that he could overcome these if he had the milk production in his own hands.

He began to seek out men whom he knew to have dairy knowledge. One of these was the head of a creamery company in Sioux City. From this man he obtained much valuable information. His advisor told him where to get literature on the subject and soon afterwards Mathews became a subscriber to the regular dairy publications. Then one day Mathews bought his first cow, a pure-bred Jersey, for the price of $150, and the man from whom he bought was willing to take his note. The railroad company knew nothing about his venture at that time. Mathews' family was growing so most of the milk from this cow had to remain at home, but it was this first Jersey that gave practice in milking. He had never milked before and neither had his wife, but they soon learned.

However, this cow did not satisfy Mathews because her volume of production was not up to his expectations so he bought a Holstein, a Mercedes cow, from Charles Holmes of Iowa. Again Mathews was a little disappointed. He had been reading and understood what production ought to be. But a friend who looked over this cow's pedigree advised him to keep her and try the effect of good feeding. So Mathews started a ration of ground hominy, ground alfalfa, and alfalfa hay while having her milked three times a day. She advanced from her daily production of 50 pounds right after freshening, up to 85 pounds a day. Mathews was satisfied at last.

The cow soon paid for herself so he gave his note for more Holsteins from Holmes, and another group of cows was then bought. He bought good bulls. This he said the dairy papers taught him as they had other things. His first herd sire was Hope Cornucopia Johanna Lad the Fifth, and the pedigree, still in Mathews' possession, states that "his ancestry represents the most extraordinary producers of the breed, many of his dams having held world records." A later bull was Sir Henry Ormsby Pontiac who, according to Mathew's record, was a paternal grandson and maternal great



MATHEWS' HOME IN MISSOURI VALLEY

grandson of Sir Pietertje Ormsby Mercedes, famous for the work of his daughter, twelve of them having averaged 1153.83 pounds butter from 25,286.10 pounds milk. And this bull's dam was a paternal granddaughter of King Segis Pontiac, sometimes called the "marvel of all sires" because he had fourteen 1000-pound daughters. That is evidence enough to show that Mathews, the dining car conductor, had learned the lesson of quality in good breeding.

He studied also good methods of feeding and gave his cows the best of care at home. He weighed the milk of every cow quite regularly or, when he had to be on the dining car run, his family did it for him. Mathews at that time had the only real dairy cows around Missouri Valley. He was the first producer there to grind the ration and, so far as known, he was the first dairyman in Harrison County to install a milking machine. That was about 12 years ago and the milker is still operating.

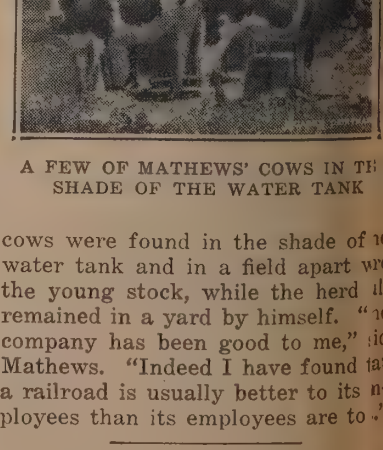
The railroad company was still not aware apparently of their waiter's outside occupation, for Mathews put the milk and cream through a friend in Sioux City and drew his pay through the same indirect course. But one day the purchasing agent for the service entered Mathews' car. "Everything going all right?" he asked, and Mathews' pride could not contain itself. He led the way to the ice box to show some poultry of his own raising and he praised the excellency of the milk and cream that his own Holstein cows had provided. The secret that he revealed bro him a reprimand from the agent the warning that discipline w come from headquarters. Two w afterward the dining car superint ent appeared. "You should not told the purchasing agent anyt about it," he said "but we've g all fixed up. Now go ahead and nish all the good produce you After that Mathews' milk and cr were put directly on the diner Missouri Valley. All the time he selling also to Missouri Valley dents.

Finally the route of the dining was extended to Omaha. This w necessitate Mathews moving his dence if he kept his position on car, so he resigned and went r heavily into the dairy work. W at first the company gave him concession on one car, now it off him concessions on four or Mathews was prospering and for livery in Missouri Valley he was ing a high priced motor truck. believes now that it is not always to show outside signs of prosp because he says it invites too n competition. Others began to attention to dairying of the be sort until now there are eleven da men with milk routes in the little and Mathews' herd, as a result, been reduced to fifteen animals.

But the cows still pay, althoug sells only to the cream market feeds the skimmilk to poultry hogs. He gave up the concession the diners because the company sired more cream than he could ply and they would have this all f one source.

Since Mathews began dairying has paid for a home and several in the city and forty acres of alf land three miles distant. He past his cows on the railroad land, pa a low rental, and has plenty of land for corn crop also. He has one daughter through college in Louis, another is there at preser son is preparing for the higher cation, just having finished school, while four others remain the city schools, the only col children enrolled. Mathews is e worth $10,000.

Down along the Chicago Northwestern tracks some of



A FEW OF MATHEWS' COWS IN TH SHADE OF THE WATER TANK

cows were found in the shade of water tank and in a field apart w the young stock, while the herd remained in a yard by himself. " company has been good to me," Mathews. "Indeed I have found a railroad is usually better to its ployees than its employees are to

Only When Wet

Slater: Does your roof leak w it rains?

Happy-go-lucky: Sure! You would expect it to leak in dry weat would you?—Good Hardware.



H. W. NORTON, JR.

n response to a request by Malcolm H. dner, Supt. of A. R., that he be re- ed of his present duties, the board of ctors of the Holstein-Friesian Ass'n. merica, meeting at the National Dairy w, appointed H. W. Norton, Jr., of higan, assistant superintendent of Ad- ced Registry. He will assume his new ition about Jan. 1 and on June 1 will me superintendent of Advanced Reg- y, Mr. Gardner becoming Superinten- t Emeritus at that time.

Ir. Norton, a graduate of Michigan Ag- ltural College, has had a Holstein herd owell, Mich. He has been chief of the eau of Animal Industry in Michigan e its inception in 1921 and as such has charge of the state institution herds. is a director of the Holstein-Friesian ociation of America.

ilk Must Be Made Safe

OARD'S DAIRYMAN:—The annual ing of the International Associa- of Dairy and Milk Inspectors in Toronto, Oct. 24—26, brought her public health officials, in- tors, professors, and dairy scien- from the United States to the ber of around 75. In addition a le of dozen Canadians interested ne same line of endeavor swelled total to 100 or over.

ne keynote of the meeting, as one nt expect, was that milk for hu- consumption must be made e" from a health standpoint. Ad- ses and discussions, conclusions experiences bore directly upon big and important question of guarding the milk supply and inating all possibility of disease g communicated to man through most wholesome and valuable of s—milk. The factors empha- l may be summarized as follows: roper pasteurization of milk is ssary to insure its safety from ase.

uberculosis-free cows are essential aintaining a healthy milk supply. ecause cows are "tuberculosis- " does not make pasteurization ecessary. It is needed to prevent spread of such diseases as typhoid scarlet fever, septic sore throat, diphtheria.

is more difficult to secure proper eurization of milk in the smaller es than in the larger ones.

he meeting expressed itself in fa- of compulsory pasteurization of for human consumption.

asteurizing appliances should be ked up frequently to prevent laxi- n the operation.

asteurizing or heating the milk its digestive qualities. Only one min is injured by heating to 145 rees for 30 minutes. This injury he milk for children can be obvi- l by adding a little orange juice to child's diet.

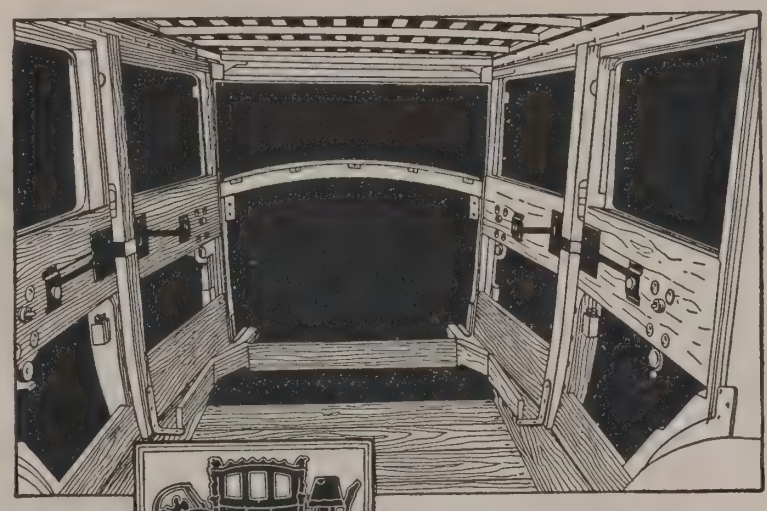
Strength plus Resiliency

THE framework of all Fisher Bodies—like the framework of all quality bodies without exception—is made of wood, powerfully braced with malleable iron and steel braces.—*To supply Fisher with sufficient lumber for body manufacture, approximately 160 acres of timber land, equal to a quarter-section*—most of it hardwood—are cleared every working day.—The framework consists of a strong foundation and a super-structure. Wood is necessary, because it is the only material which combines the necessary *resiliency* with the necessary *strength*. Resiliency is necessary, because an automobile body is subjected to road shocks, strains and stresses. Wood, and wood only, will stand up satisfactorily. Wood, and only wood, will deaden the noise and absorb the shocks. There are no stronger bodies built than those which Fisher builds—and none which stand up better or longer.

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Composite Construction—All Fisher Bodies are of composite wood and steel construction, which affords flexibility, durability and greater strength. The wood reinforces the steel and the steel reinforces the wood.

Lumber—The lumber for Fisher Bodies is carefully selected and seasoned, and subjected to many close inspections, both before and after being cut for building into a body.



A Fisher Body framework from the interior. Note the sturdy construction, in which the finest of hardwoods are used.

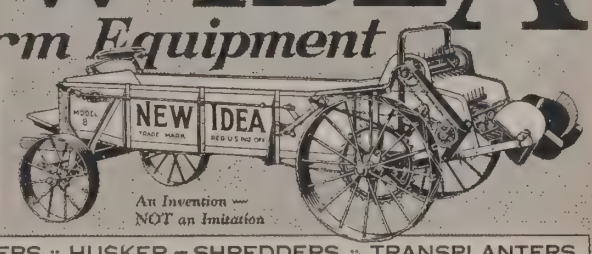
Body by FISHER

Certified milk produced in strict accordance with the regulation governing its production is safe, though there was a hint or two from some of the members that even milk marketed as certified should be pasteurized. It developed in the discussion on this question that a very great deal of the milk marketed as "certified" is produced under somewhat lax regulations in many places. Hence the need for pasteurization.

In many eastern centers at certain seasons of the year, owing to a scarcity of milk, consumers are dependent upon the concentrated product. Hence the recommendation of the meeting that milk for condensing or powder purposes should come under the same regulations as to production that "raw" milk for human consumption does. Here, again, the information was given out that many concerns, more particularly smaller plants, scattered here and there all over the country, did not produce condensed or powdered milk under satisfactory conditions, considered from a public health standpoint.

NEW IDEA
Farm Equipment

For nearly thirty years the undisputed leader! The original and genuine wide-spreading spreader. Sales and service everywhere. Write for catalog.



An Invention — NOT an Imitation

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THE NEW IDEA SPREADER COMPANY, Est. 1899 Coldwater, Ohio, U. S. A.
BRANCHES: Harrisburg, Pa., Syracuse, N. Y., Columbus, O., Indianapolis, Ind., Madison, Wis., Jackson, Mich., Minneapolis, Minn., Omaha, Neb., Kansas City, Mo., Moline, Ill., Nashville, Tenn., Oakland, Cal.

The use of chlorine compounds in water for cleaning dairy utensils of all kinds was recommended as being more effective than hot water or even steam, especially on dairy farms where hot water, and more particularly steam, is not always available.

Where milk is pasteurized and marketed under well regulated sanitary and other conditions, the producer receives a larger return for his product than where no such regulations exist.

In that part of the United States east of Pittsburg the population of cities and towns is increasing at the rate of one million annually, without any corresponding increase in the number of cows to supply milk for human consumption. Professor Ira V. Hiscock, New Haven, Conn., was elected president and Ivan C. Weld, Washington, D. C., was elected secretary.

Ontario. J. W. WHEATON.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Nov. 29-30—National Creamery Buttermakers' Association, Nicollet Hotel, Minneapolis, Minn.

Dec. 1—Annual meeting National Dairy Council, Palmer House, Chicago, Ill.

Jan. 17, 1928—Annual convention of The Milk Council, Inc., 228 No. La Salle St., Chicago, Ill. Secretary M. O. Maughan.

Correction

In reporting the National Dairy Show at Memphis in the November 10 issue we said that Iowa State College won the college students' judging contest at both the Waterloo Dairy Cattle Congress and the National Dairy Show last year. The statement is inaccurate. Iowa State won both contests two years ago and not last year.

Brown (gazing for first time at city's heavy traffic)—"Jee-rusalem, Hiram, they sure are back with their hauling, ain't they?"—Wall Street Journal.

Breeders of Brown Swiss Cattle Hold Annual Meeting

The annual meeting of the Brown Swiss Cattle Breeders' Association of America was held at Beloit, Wis., November 3, 1927.

According to the report of Ira Inman, secretary, the following registrations and transfers for the fiscal year were made: Bulls registered during the year, 1,777; cows registered during the year, 2,589; total number of registrations, 4,366; bulls tranferred during the year, 2,017; cows transferred during the year, 2,290; total number of transfers, 4,307; new members received, 78; cows entered on test during the year, 124; cows qualifying during the year, 66; cows now on test, 102.

At a meeting of the Board of Directors the following motion was offered by J. Frank Zoller and passed that all Brown Swiss animals to be exhibited at fairs where Brown Swiss specials are given, with the exception of calf club calves, must be tattooed and certificates of registry, accompanied by tattoo numbers, must be sent to the office of the secretary of the Brown Swiss Cattle Breeders' Association before being exhibited.

Franklin Invented Rods

Wise Benjamin Franklin wrote to two of his friends of the Royal Society of London in 1750, and suggested that damage by lightning to buildings and other objects upon the surface of the earth might be prevented by the erection upon their summits of sharp



A barn protected against lightning, weather, and fire not only with sheet steel roofs well grounded but added "points" on the ridge of the roof and on the ventilator.

pointed iron rods, the lower ends of which should be extended into the ground.

Two years later, in 1752, Franklin performed his well known kite experiment. In the summer of 1753, three years after he wrote his London friends, he put up on his home the first lightning rod ever erected. Franklin's confidence in the protection of his lightning rod was such that he persuaded several of his friends to allow him to erect similar rods on their houses that he might have a better opportunity to observe their effects.

Thoroughgoing and methodical as he was, Franklin left an account of his observations in what now seems quaint language. Luckily for mankind it was the silent discharge or "brush lightning" that lighted up his staircase "as with sunshine so that one might see to pick up a pin." Had a heavy bolt come down his rod, these observations from Franklin's work might not have been written:

"In Philadelphia I had a rod fixed to the top of my chimney and extending about 9 feet (2.74 m) above it. From the foot of this rod a wire (the thickness of a goose quill) came through a covered glass tube in the roof and down through the well of the staircase; the lower end connected with the iron spear of a pump. On the staircase opposite my chamber door the wire was divided; the ends separated about 6 inches (15.25 cm) a little bell on each end; and between the bells a little brass ball suspended by a silk thread, to play between and strike the bells when clouds passed with electricity in them. After having drawn sparks and charged bottles from the bell of the upper wire I was one night awakened by loud cracks from bell to bell, and while the fire passed sometimes in very large quick cracks from bell to bell, and sometimes in a continued dense white stream, seemingly as large as my finger; whereby the whole staircase was enlightened as with sunshine, so that one might see to pick up a pin."

Some folks in France, England, and America were kindly disposed to Franklin's new device, but the Royal Society of London looked upon it coldly and many religious orders in these countries regarded Franklin as an infidel proposing to interfere with a divine instrument for the punishment of sinners. During the same time, the ringing of bells was recommended by some of the clergy as helpful to breaking up thunderstorms and warding off lightning strokes. In many instances progressive folks who had erected lightning rods were to have them torn down later by their angry neighbors, imagining the rods responsible for crop failures, earthquakes and other evidences of what seemed to them to be divine displeasure.

Franklin invented the lightning rod 175 years ago. It took a century for the superstitions held by civilized people to die down. Then people swung the other way, becoming credulous and looking upon lightning protection as something magical, knowledge of which was held by a favored few. So came the "lightning rod man," a synonym for "swindler," to prey upon this credulity. His fraudulent operations gave rise to a deep prejudice of 40 years' standing.

It is also worth recalling that Benjamin Franklin, early in the year of his famous kite experiment when he proved the similarity between electricity and lightning, called together a group of prominent Philadelphians and organized the first fire insurance company of America. It has a long, quaint name implying care and plenty of time to write it in those early days. Its official name is the "Philadelphia Contributionship for the Insurance of Houses from Loss by Fire." It has come to be known as the Philadelphia Contributionship and is for the benefit of all the contributors or members. It is a mutual company writing perpetual policies.—DR. C. E. DRAYER, Sheet Steel Trade Extension Committee.

Do Dairymen Study?

Over two million people, young and old, in the United States studied correspondence courses at home last year. Investigation shows that the majority of these people live in the rural communities and small towns. Statistics also show that each succeeding year more and more people select suitable correspondence courses for systematic home-study during their spare moments. It is also a known fact that these self-educated people succeed where others fail.

With that in mind, the North Dakota State College at Fargo has been offering, during the past two years, a number of practical farm courses by mail. This service has proven so popular and successful that the college has started out on its third year of this work with new subjects as well as the original courses which have been revised and enlarged.

Two courses in dairying will be available this year. Due to the unusual popularity of these two subjects, special preparation is being made at the state institution to take care of the large anticipated enrolln Last year people from all over United States took advantage of special service and almost ever who completed either one of the ry courses has enrolled in ano course. Those former students the best boosters. They write to t friends who live even in other st recommending these subjects their spare time in winter.

These courses are free except fo cost of the postage and paper u Each course is divided into twelve signments including explanations questions. Free state and fed bulletins are used for text bo Students are required to answer q tions in writing. Upon completio a course a Certificate of Comple is awarded.

Further information regarding service and different courses off may be obtained by writing to Department of Correspond Courses, State College Station, F go, N. D.—T. W. THORDARSON, rector.

The First Cattle in Amer

HOARD'S DAIRYMAN:—I read some interest the report of an add delivered by Colonel R. M. Little Iowa, which appears in your issu February 25 entitled "The First tle in America."

It is not clear whether Col Littler in using the term "Amer includes the whole continent of N America or only that lesser part occupied by the United States. means the United States terri only, what he says about the firs troduction of cattle is probably rect, although I wonder if he is q sure that none of the cattle brou to this side of the Atlantic by Spaniards did not precede the c brought to Virginia. On the o hand, if Colonel Littler meant continent of North America, I t the liberty of pointing out that first cattle were brought to Port R al, now Annapolis, Nova Scotia 1606. The post was established De Monts in 1604 but in 1606 P rincourt brought the first cows to settlement. This was probably n permanent introduction because settlement was destroyed by an pedition from Virginia, under Ar in 1613, and if these pirates spa any of the cattle the Indians in probability did not overlook th That being so, the first permanent troduction of cows into Canada made by Champlain at Quebec 1608 or 1609. It is from these tle, supplemented by a further portation in 1660, that the registe pure-bred French-Canadian cow descended.

Canada. J. A. RUDDICK

Short Courses in Dairy Manufacturing

Four short courses of two we each in dairy manufacturing will be given by the Kansas State Agri tural College, starting January 2 These courses will be of special in est to ice cream makers, butterm ers, milk plant operators, and oth connected with plants which ma facture dairy products.

Anyone desiring further infor tion in reference to the courses shou write to the Department of Da Husbandry, Kansas State Agric tural College, Manhattan, Kansas.

Dorothy: "Mamma, why hasn't pa any hair?"

Mother: "Because he thinks so much, dear."

Dorothy: "Why have you so mu mamma?"

Mother: "Because—go away and your lessons!"

ne Handy Compact
nit on Wheels

uaranteed
0 Years

Wheel it in and Start Milking

No Installation—No Pipelines—No Pulsators
No Vacuum Tanks—No Complex Teat Cups
No Valves—No Separate Pails





Mr. Dairyman! *You can't imagine* what this simple, *easily cleaned* milker will mean to you until you've used it on *your* cows. The free trial will convince you. And that awful milking problem is solved. DON'T MISS THIS chance for a free trial *while this offer lasts.*

Read what Chas. H. Lien, R. No. 3, St. Cloud, Minn. says:—"The Page is easier on the cows than hand milking and gets much cleaner milk. It is a wonderful machine, simple in construction, and easy to operate. The page will do anything any milking machine will do and it costs a great deal less." And Mr. Henry Kosab, Fairmont, Minn., writes us:—"The Page Gas Milker is cheap to operate. It cleans itself after each milking. It is the most sanitary machine and it is easy on cows. I will never go back to hand milking again."

Arnold Boiwahn, R. No. 3, Box 6, Norwalk, Wis. says: "The Page is sure easy to operate. The cows like it better than hand milking."

s Engine,
ectric or
and Power

No C. O. D. to Us

At Last!

he milking machine problem has been ved—yes, *solved!*—and we'll prove it to ir entire satisfaction on YOUR OWN va, in your own barn, *before you pay us cent.* And, *if* you are not more than sat- ed, you just send the milker back at *our ense.* But we know you, like other dairy- n using this great milker, will be DE- GHTED and we back this machine with *10 YEAR GUARANTEE.*

lo Installation

t wheel any model—gas, electric or hand wer—into your barn and start milking. THING TO INSTALL. No pipelines, tanks. It's all in one handy, compact unit n wheels. Comes complete—ready to use.

nd It's So Simple

pipe lines to freeze up or bother with. pulsators or vacuum tanks, No compli- ed teat cups. (Our FREE booklet ex- ins all these improvements and many ers.) No extra pails. No valves. NO ORE MILKING MACHINE WORRIES. sy to take apart. Visible milk flow. otor or gas engine models can be pumped by hand if wer is off. It's so simple. A child can operate or move it.

So Easy to Clean

pipe lines to clean. No rubber lined teat cups to wash. extra parts to bother with. No pails to wash—you milk ht into YOUR OWN shipping can. It is a boon to house- ves. So few parts—and it almost cleans itself by pump- g a little water through it. Absolutely SANITARY.

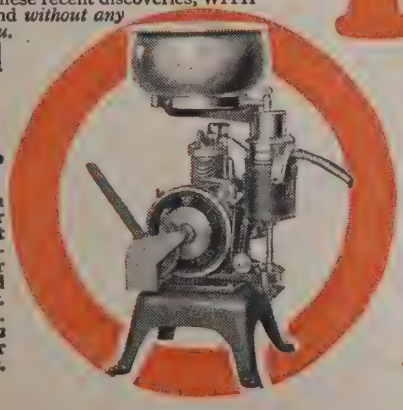
The Cows Like It

r positive break in vacuum is better for the teats and der Many dairymen write us their cows take to this lker immediately. Others say they actually get more milk.

rice Low—*Upkeep Very Small*

d so few parts of this perfected simple milker allow a rprisingly low price and 8 months to pay. And, too, e upkeep is exceptionally small—almost negligible. st mail the coupon—*we want to tell you more about this ly marvelous milker*—and we will send you an illus- ted booklet explaining these recent discoveries, WITH JR COMPLIMENTS—and *without any ligation whatsoeve: to you.*

A Wonderful Cream Separator



ne Page Separator, with gine or electric power UILT-IN. The closest immer by far, of all sepa- tors The larger, heavier wl with more discs and *ilt-in power is the secret.* lso special foot starter. ou may get enough *extra* tter fat profits to pay for e Page in a year or less. end coupon NOW.

and that $5 only

AFTER Free Trial

Yes, Mr. Dairyman, this new Improved Milker has given such remarkable satisfaction to other dairymen that we will gladly ship it to you and let you see for yourself what it will mean to you *before you pay us one cent.* Just wheel it into your barn and try it on YOUR OWN cows—*nothing to install.* It comes complete and ready to use. No expense, no bother. Try it *thoroughly.* Then, if you are not more—yes, MORE than DELIGHTED, just send it back at OUR expense without argument, or fuss, or any ill feeling. That is our offer. But if you find this milker is all or more than we have said and if *you* are thoroughly satisfied (you and *you only* to be the judge) then you may send us $5 and you can have

8 Months to Pay

on this SPECIAL "direct to dairyman" offer (good only if you have not yet seen a salesman or agent in your territory). We will ship *DIRECT* TO YOU and allow you our *SPECIAL ROCK-BOTTOM PRICE.*

What Other Dairymen Say!

Thousands of dairymen write us like this:

"Can milk 6 cows and strip them in 15 minutes. Cows like it better than hand milking. Easy to keep clean. My wife can use it just as good as I can."—Geo. Miller, R. 3, La Salle, Ill.

"My 13 year old boy milks 16 cows. It has saved me hiring an extra man. Less trouble to care for than our separator. The milk is clean which is impossible by hand."—Chas. T. Branham, R. 4, Tuscola, Ill.

"I have never had one minute's trouble with my Page milker. Does the work. Never freezes up in cold weather like pipe line machines." Edward R. Hayes, Woodson, Ill.

Free Book!

On Milking

Let us send you this free illustrated book explaining the latest discoveries in machine milkers. It shows why no dairyman can afford to be without a milker and helps to select the proper milker for YOUR OWN purpose. It's full of important facts—an education in Milking Machines. This wonderful illustrated book is sent with our compliments and obligates you in NO way whatever. Mail coupon today—right NOW *while these books last.*

Special Farmer Agent Offer

Burton Page Co., Dept. 101
400 N. Michigan Ave., Chicago

Please send me your free booklet containing the facts on milking machines and full details of your free trial, easy payment offer on the Portable Page Milkers.

*Name*_____

*Address*_____

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Do you want our separator offer?_____

Would you like to be a FARMER AGENT?_____

A COMPACT UNIT



for Washing and Sterilizing Bottles

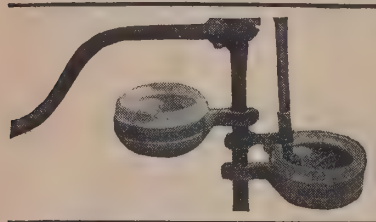
A REAL TIME and LABOR SAVER

BUILD up the reputation of your product by delivering only in bottles which have been washed and sterilized in your own dairy. It pays.

And do it with the No. 9 Fort Atkinson Washer and Sterilizer shown above. Everything is handy. Without moving a step the operator stands at the machine and cleans 500 bottles or more per hour. Only one handling of each bottle. Rinsing and sterilizing practically automatic.

This is just one of the many *CP* aids to profitable dairying. We specialize in milk house equipment. Write headquarters about your problems. 320-page catalogue FREE.

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Healthy Cows and Highest Possible Production

are assured by letting them regulate their salt and water supply themselves.

Our special glazed stoneware salt and mineral feeders, and sanitary waterbowls are permanent, practical, and an ornament to the finest barn. Fully guaranteed. 30 days' approval. Price: Salt Feeder, $2.25; Waterbowl with frost and leak proof valve, $3.25. Give diameter of wood or steel post. Pamphlet free. Salesmen wanted.

IDEAL SALT FEEDER COMPANY Morristown, Minnesota

$20.00 for your Old Separator

Greatest Sharples in 46 Years

Send coupon below today for full details of our startling offer. No matter what make of separator you now own, we'll give you $20 allowance in exchange for

The NEW Sharples

The greatest Sharples separator in 46 years of business! Wonderful improvements make this new Tubular model easily the most serviceable of all cream separators. Hip low supply can. Ball bearing. Self-balancing, suspended Tubular bowl. **No Discs!** Easy to clean; so easy to turn. Highest skimming efficiency—larger cream checks. Now ***direct from factory on 30 days trial*** at **lowest prices** ever made.

Free Catalog *Send Coupon*

Stop losing cream with a worn-out separator. Wonderful opportunity now to get the best of all separators on a liberal trade-in offer direct from factory. Find out about the amazing *NEW* Sharples. Catalog and full details sent free and without obligation. Send coupon below *now*.

Sharples Separator Co. 5978 Sharples Bldg., Chicago, Ill.

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Now direct from factory on 30 days trial—your word decides. AND at new lowest prices. Send coupon **now** for full details of our amazing offer.

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Please send me absolutely free and without obligation your catalog and description of the New Sharples Cream Separator and full details of your 30-day trial offer.

*Name*_____

*Address*_____

*Town*_____ *State*_____

A Vest Pocket Herd Book is a good investment

Seasonable Live Stock Note

INQUIRIES on feeding cows have been coming in in increasing numbers by which we know that field activities have been put away for the winter. Dairymen do not, as a rule, take time to seek information about feeding live stock when there is a rush to plant, cultivate, or harvest crops. Furthermore, pasture grass, when abundant and succulent, compensates for the deficiencies in other feeds much as does milk in human nutrition. There is, therefore, as a rule, less need during the summer for dairymen to be concerned about having their rations just right though by no means do we imply that there are no feeding problems during the summer.

Regularity Helps Fill the Milk Pail

An inquiry from a southern subscriber has suggested an important part of good cow management. This dairyman found it necessary to move his cows to makeshift quarters under none too good weather conditions while a barn was being repaired. The cows dropped quite noticeably in production. Preceding this, however, they had experienced a shortage of feed due to drought and this had a part in reducing their production. The owner set about to repair the damage but was not able to bring them back fully to their previous production even though he improved both the quality and quantity of their rations. Cows respond to regularity in housing and feeding and he who violates this part of their management must expect to subtract the consequences from what might have been satisfactory.

Look Well to Quality of Roughage

Milk production is cheapest when capable cows consume large quantities of good roughage properly supplemented with the right amount and quality of concentrates. Not all roughage is good enough, however, to tempt cows to eat their fill of it in which circumstance production if maintained is more at the expense of the higher priced concentrates. To avoid this it is necessary to know when cows are letting down on the amount of roughage consumed as also how to improve the palatable character of such feed. One way to maintain normal consumption of roughage is to offer a variety of it. Failing in variety one can frequently make roughage acceptable to cows by cutting or grinding it and mixing in some feeding molasses.

Warm Up the Tank Heaters

It is a time of year when more than casual attention should be given to the water offered cows. Milk is approximately 87 per cent water which comes from the feed and from the drinking water. To produce large quantities of milk cows must drink large quantities of water as well as eat large quantities of feed. We sometimes pay so much attention to the feed that we forget the water. The vendor of ice cream and soft drinks at a fair fears a cold turn of the weather more than anything else which is another way of saying that hot drinks go better in cold weather and cold drinks go better in hot weather. Why give the dairy cow a cold place to drink ice water?

Feeding the Self-feeder

The self-feeder is a fine piece of equipment in the hog lot but it is not automatic in its service. Of greatest importance in their operation are that they must be supplied with feed and they must be kept free from anything that hinders their operation. The coming of cold weather has a tendency to clog the feeders more than in warm weather. Mud, snow, sleet, and rain followed by low temperature may more or less stop the of feed. Furthermore, 'tis very hu to shun filling the feeders when ten or fifteen below.

Protect Pregnant Sows

A common mistake in the man ment of pregnant sows is to a them to run with that part of herd being fattened for market. things occur under such circ stance that are not to the best in ests of the future generation of In the first place, the ration for tening hogs is not the best one pregnant sows in addition to w the sows become too fat; in the se place, the fat hogs have a habi piling up at night, a thing not so for pregnant sows.

Inspect the Ventilators

In our efforts to keep pigs warm must not forget the importance good air and the conditions that fect its supply. We are reminde an experience related by a speci in swine disease control work was called hastily by a farmer to him discover what had caused a den over-night death of what had parently been healthy hogs the previous. The mortality was h the owner could think of nothing poison. The specialist got all facts together and from them fin convinced the owner that his l had died of suffocation brought al by the piling of hogs on a cold, night in a hog house that was cl too tightly the previous evening. is an extreme case; we use it posely to drive home the import of ventilation in hog houses.

A Cheap Source of Protein

In wintering the breeding her cheap source of protein is desir The feeding of alfalfa or clover not only materially lowers the cost but it also keeps the sows in breeding condition. The use of h hay compels the sows to stay on t feet longer than they would if fe exclusive grain ration. In additio the hay, from one to one and half pounds of grain should be for each 100 pounds live weight.

Profitable Market Weight

Consumers do not want heavy fat cuts of pork. It is unwise to duce and offer for sale a food pro not in keen demand by consumers reasonable degree of finish is ne sary to make a firm carcass and atable meat but it is a poor polic feed hogs to the finish demanded or fifteen years ago. All of w has an economic bearing on h weight at which hogs are most p itably marketed. With the tren consumer demand, there is more profit in marketing hogs at wei between 175 and 210 lbs. than heavier weights.

Some Chickens Do Not Choose to Roost in the Chicken House

The writer well remembers an nual event of his boyhood days. came usually in November and prompted by the first cold snap the season. It consisted in gathe up all the chickens that did choose to roost in the building called a chicken house and pla them therein. Along in March we a few eggs and by April all the were cackling but the price was d to 15 cents a dozen or thereabou

There are more good poultry hou now than then but we doubt if ch ens have learned to come out of trees of their own accord. This late reminder that winter eggs for higher prices if one has the e It is November. The cold side tree is not a good hen roost.

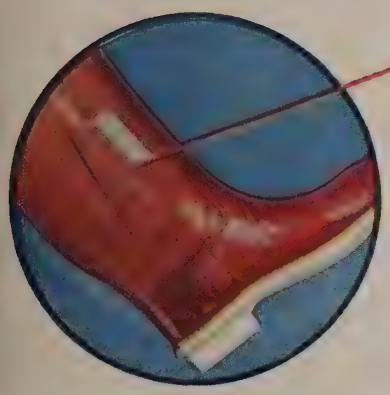


In the dairy barn—*and everywhere the farm job takes you—these "U.S." Blue Ribbon boots will keep you dry-shod and comfortable. And they are as husky as they look!*

Farm tested . .

This "U.S." Blue Ribbon Boot *stands the hardest wear . .*

"U.S." Blue Ribbon Boots
come in red or black—sturdy gray soles—knee to hip lengths



Stretches five times its length!

If you cut a strip of rubber from a "U.S." Blue Ribbon boot or overshoe—you'd find it would stretch more than 5 times its length! This rubber stays flexible and waterproof—long after ordinary rubber would crack or break

75 YEARS of experience in boot-making by the largest rubber manufacturer in the world—that goes into every "U.S." Blue Ribbon boot. This boot is *built* to stand every farm test.

It's just as husky as it looks—extra strong, every inch of it. You can't kick through that thick, oversize sole—it's as tough as the tread of a tire.

And the uppers — they are made of the finest rubber — rubber so elastic that you can stretch a strip of it more than five times its own length! No wonder, where inferior rubber splits and cracks, "U.S." Blue Ribbon boots stand up!

And at every vital point where wear is hardest, from 4 to 11 separate layers of tough rubber and fabric are anchored in behind that strong surface—to give *extra* strength. Only "U.S." Blue Ribbon boots and overshoes have so many!

* * *

We know you will like the plus farm value in "U.S." Blue Ribbon boots and overshoes.

Every pair is built by master workmen—and built *right*. They fit better, look better, wear better. Get a pair and notice the difference.

United States Rubber Company

The "U.S." Blue Ribbon Walrus
slips right on over your shoes. Its smooth rubber surface washes clean like a boot. Made either red or black—4 or 5 buckles



"U.S." *Blue Ribbon*

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ATWATER KENT RADIO



Let's go to the city tonight

WE ALL need a change. Let's go to the city tonight. We'll listen to the dinner music at a big hotel; then a concert for a while. A violinist who makes a fortune every time he appears will play for us. A male quartet will sing the songs of long ago.



An adventurer, just back from strange lands. A comedian with some new jokes. The new fashions reported for women. Dance music for those who like it—



Pretty expensive, if the family actually did go. But think of it! Just a half-turn of the Atwater Kent ONE Dial brings your choice of the worth-while diversions of the great cities—right in your own comfortable home, with your own comfortable bed awaiting you when you've had enough.

Things to amuse when you're tired, to soothe if you're out of sorts, to help you in your work, to keep youngsters happy at home and the old folks entertained.



Why is it that almost every good dealer advises you to buy Atwater Kent Radio? He could make more money on others. He could tempt you with lower prices. He could sell you sets costing three or four times as much.

But he knows that Atwater Kent Radio will give you *everything* and will never fail you. He knows you will be *satisfied*—as more than a million Atwater Kent owners have been satisfied.



ATWATER KENT MANUFACTURING COMPANY, *A. Atwater Kent, President*

4769 Wissahickon Avenue
Philadelphia, Pa.

Write for illustrated booklet of Atwater Kent Radio

Prices slightly higher from the Rockies West, and in Canada

ONE Dial Receivers Licensed under U. S. Patent 1,014,002





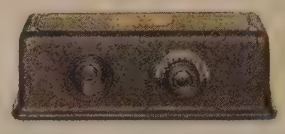
MODEL E RADIO SPEAKER. The result of nearly three years' laboratory work. Faithfully covers the entire range of musical tones, from the lowest to the highest register. With 9 feet of flexible cord. $30

MODEL H RADIO SPEAKER. Entirely of metal. Crystalline-finished in two shades of brown. With 9 feet of flexible cord. $21

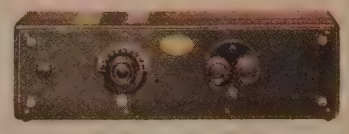




MODEL 30, six-tube, ONE Dial Receiver. Solid mahogany cabinet; gold name plate, power supply switch and vernier knob. $80



MODEL 35, six-tube, ONE Dial Receiver. Crystalline-finished cabinet; gold ship-model name plate, decorative rosettes and power supply switch. $65



MODEL 33, six-tube, ONE Dial Receiver. Antenna adjustment device. Unusual selectivity. Solid mahogany cabinet; gold name plate, power supply switch and vernier knob. $90

MILK STOOL PHILOSOPHY

J. J. SPRENGER, MINNESOTA

OME one jokingly said that farmers are like hens in that they are always scratching and working get a full crop. While this is some- it of a play on words, yet it sug- ts a thought well worth consider-

here is a universal longing for a onse and remuneration for work hfully performed and since our k, as farmers, is remunerated di- ly by nature, with mostly but one season in the year, we have been n a special kind of a hope borne expectation and zeal to carry us ugh the lean parts of the year. are buoyed and spurred on during rge part of the time by this hope, realization of which seems within very grasp, and produces a fasci- ion the like of which only a farm- can know. It gets us up early in morning and keeps us at our task the night, yet makes us happy in expectation of that bountiful crop. ut so seldom in life do the things actually realize and the things we estly feel that we have a right to ect, harmonize. For this reason we n have the blues just at the time n nature has planned to make it time of rejoicing. This has ever n so. The writer can well remem- those old days when these things e first brought home to him. In se days folks had the foolish (?) a that boys should be brought up work and so no matter how young were and no matter if the boys in cities were going to school, our es in the fall of the year were h the old horse-power threshing hine, the hum of which could be rd for miles in the early morning a time much earlier than the ris- generation likes to rise.

ut we boys were there and our rs as well, because we all helped ghbors thresh, expecting help in rn, and what was more we were always given the easiest (?) job which was keeping the straw away from the little stub of a straw carrier where the dirt and dust like huge clouds of smoke were thrown in for good measure. There we would work while the sweat and sometimes the tears made furrows down our grimy faces, and yet those things did not hurt us but some of the things said by our elders down on the stacks did.

You see every time the machine would have to stop to repair a belt or so, someone generally called out to the farmer for whom we were threshing, "Well, Jim, are you finding out how rich you are?" to which we would hear the answer that farming was a regular dog's life, that he would get about enough to pay interest and taxes and if there was any left the hired man would get the rest.

Usually we boys said nothing but we thought a lot, and then we would envy the one of our boy friends who could go away to school in the big city so he could get a city job where they got big pay and little work.

But the outcome of all this was so different from what we expected. Every one of these grumblers gradually became the owner of a splendid farm with stock and equipment. Each had a nice home to live in and out of these homes there came forth boys and girls which were a credit to any community, while our boy friend of whom we were so envious never became the owner of even the roof over his head, never had a loving family to be proud of. I asked him once when I was visiting him, "Why don't you get married and have something to live for?" (You see out in God's country we were accustomed to think that when we got married that was the end of our troubles) and they generally did end, only I don't know which end. Our friend could see only the wrong end and could not appreciate the blessings of family life.

ie Milk Council Organized

he Milk Council, Inc., is now existence. Offices have been ned in the Builders' Building, cker Drive at La Salle Street, cago, Illinois, and work is already er way.

rganized for education and re- rch, and also for the promotion of roved trade practices, The Milk ncil undoubtedly has a bright fu- . There is a big field ahead for cational work, for the public does half realize the great food and lth value of milk.

he Chicago milk dealers are back- The Milk Council, Inc., and work already commenced in Chicago.

he president of The Milk Council, ., is Dr. F. D. Walmsley, vice-pres- t of Borden's Farm Products npany. The chairman of the board Vm. Wanzer. Other important of- rs include F. H. Kullman, presi- t of the International Association of Milk Dealers; Chas. Wieland, president of the Wieland Dairy Company; Frank Bobrytzke, president of Forest Glen National Milk Company; and Peter Christiansen, president of Christiansen Bros. Dairy of Chicago.

The Milk Council, Inc., has secured the services of M. O. Maughan, for the past eight years secretary of the National Dairy Council and well known to our many readers and to the entire dairy industry. Mr. Maughan will serve as executive secretary and will devote his entire time to this important work.

Farm Relief

The average farmer of today has at his disposal two really dependable sources of farm relief. These are economical production and orderly marketing. A great many men will go broke waiting for farm relief legislation and many others will make the mistake of depending entirely on cooperative marketing to make them prosper when their surest relief is through cutting their cost of production. One of the chief reasons that this is their surest relief is because the cost of production problem is one that the individual man can tackle right on his own farm; whereas the other methods depend on the action of farm leaders and on farmers in general.

Wisconsin. E. V. RYALL.

Uncle Ab says that most farmers lose more from their own carelessness and neglect than they do from poor markets.



How many Cows do You Need

— to make a good living?

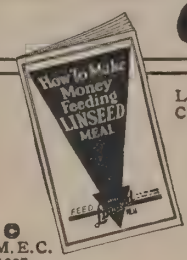
That's a live question today. And more than ever before, the answer depends on feeding for highest profits *per head.*

A dairyman in Jones County, Iowa, cut his herd from 20 cows to 13 and made 50% more money the third year! You too can make more money with less work and worry, by following modern feeding methods. Improve your stock — but first learn how to feed better animals profitably. Mail the coupon for big free booklet containing practical, tested rations for dairy cows and other farm animals.

The Universal Protein Feed

Linseed MEAL

Mail the coupon for free booklet of tested rations.



LINSEED MEAL EDUCATIONAL COMMITTEE Fine Arts Bldg. Milwaukee, Wisconsin

Send free booklet No.T-110 "How to Make Money Feeding Linseed Meal."

Name .....

Address .....

L.M.E.C. 1927

Sell Your Surplus Cows, Poultry and Other Live Stock with an Ad on Our Special Opportunities Page

$16.15 (cash f. o. b. factory) ***buys***

weight protection

for every farm


Arrow-tip Beam won't bend


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The Church Supper

The men like to make fun of our church suppers. They say, "What's the use in working yourselves to death cooking and fixing? You never make anything at it. Why, if you would just count the cost of what you women take over there to the church and give that much in cash you would be money ahead and save all that work." And so on, they go—and they are about right, too. But where's the fun in life if we get too sensible and practical? Church suppers are a lot of fun and if everyone will turn out and help they can be made as good as a party. There is something so lively about all the bustle of getting ready and so heartening about the smell of the food that no wonder the men like to go. And they do go. No matter how they talk you couldn't keep them away.

I've helped at many and many a church supper and if you live in a community where you have a large variety of "customers" I believe about the best thing you can do is take some popular dish and standardize it and make it so good that everyone will look forward to having it at every one of your church suppers.

One church I know of specializes in chicken pie; a woman in the church knows how to make the crust so that it is just about perfect and she never fails with it. People come for miles around just to get that pie. Another church has a standard cold slaw; it is shaved fine on a kraut knife and is seasoned marvelously with sour cream, onion, pimento, and celery. The supper this church likes best to serve is Virginia baked ham, scalloped potatoes, slaw, rolls, coffee, and apple pie. When they feel especially gay they put a little ice cream on top of the pie. Sometimes they have meat loaf in place of the ham and they find this about the most practical and easiest to serve of any meat they can have.

I agree with the men. When you consider the women's time and labor and what they contribute in food, there is probably no sound economy in the church supper, but ignoring these, as most churches do, it is a pretty good way to get some cash in the treasury because there is fun along with the work.—LUCY THOMPSON.

Eat a Good Breakfast

"Start the day right. Eat a good breakfast." So read the slogan over the home economics booth of the University of Wisconsin at the 1927 Wisconsin State Fair. The booth went on to explain and demonstrate that a good breakfast *builds* healthy teeth and bones, strong muscles, healthy nerves, red blood, healthy tissues and *insures* strength, growth, and health.

What is a good breakfast for a boy or girl? The following were shown as examples of this: (1) Shredded wheat biscuit with fresh peaches, whole milk, and sugar; graham bread and butter, a soft cooked egg, and milk to drink. (2) Prunes, dark farina with whole milk and sugar, bran date muffins and butter, a scrambled egg, cocoa.

What is a good breakfast for a pre-school child? Orange juice, oatmeal, with egg yolk and raisins cooked in milk and served with sugar and whole milk, white bread toast, and a glass of warm milk.



Avis June Mayer, daughter of Professor and Mrs. Mayer of Purdue University, receiving her daily bath. Mrs. Mayer uses her kitchen tea cart for the table and it is easily moved about into the warmest room and the warmest corner of the room while baby receives her bath. When not in use this cart can be folded into a small package and stored away in a small space. It is covered with baked enamel so that water does not hurt it.

Superstition

When I had threshers a friend of mine from the city helped me. I asked my husband how many men there would be for dinner and he, counting them up, replied, "Thirteen." So I set my table accordingly. When my friend found out the number of places that were laid she was very much distressed. She insisted that it would never do for thirteen to sit down at the table at once; I must either lay another place and sit down with them or put part of them at another small table. I thought at first she was only joking and treated the subject likewise, but I soon found that she was very much in earnest. To her mind it was inviting some very dire calamity down on the heads of my thirteen innocent men if I sat them all down at once at one table. She said it might not happen while they were eating but something would happen to one of them before long. Now this friend is a woman of good education, intelligence, and breeding, and yet she absolutely believed in this old superstition.

I said to her, "Now listen to me. Just who or what could bring about this calamity?" Well, she really did not know but it would happen anyway. Then I said, "In my mind and belief the only thing or being that could cause such a thing to happen is the Lord. And I am equally certain that it makes no difference to Him whether twelve or thirteen or a hundred people all sit down at one table to eat. In fact, it seems almost an insult to Him to even consider that He might sink so low as to visit His wrath upon someone merely because thirteen sat down together. I think the Lord has something else to do than count the number at a table and take exception to the same." She agreed with me, but still thought I'd better set another table for part of them. At this juncture my husband appeared and said that one man had failed to arrive and so there would only be twelve, which quite relieved my friend.

Recently another friend said to me, "My little girl has had two of the narrowest escapes in accidents. The first one, she was run over by a car and not hurt, and now today she fell between the wheels of a wagon and was only scratched a little. But I am worried nearly to death wondering what the third accident will be. You know they always say three things of that sort run together, and three times and out."

"Well, for goodness sake," I replied. "You are searching for trouble. Why, you are looking at the wrong side of that problem entirely. Instead of worrying about her next accident, you ought to be concentrating upon how lucky she has been in the last two. That child must be born lucky." I knew this would relieve her.

And she replied, "Why I never thought of that, I guess you are right."

Another lady whom I know persists in worrying over every bad dream that she has, and insists that harm has fallen to whomever she has dreamed of.

Why, oh, why, will people in this day and age of enlightenment, education, and broad thinking stick to these relics of the dark ages and persist in believing that if they walk under a ladder, or break a mirror, or see a black cat in their path it will bring them seven years of bad luck? They are living lives of dread, and are fettered by fear. The tragic part is not what they themselves are bringing upon themselves by worry, but what they are fastening upon their children in teaching them these same ignorant superstitions. They can never do their children more harm than this, and once established it is something that will not be easily erased. If anyone should have had good luck from superstitions I should have had the summer that I found 147 four-leaf clovers, but instead bad luck seemed to hound me the whole year.

I have a poem framed on "Luck" by Max O'Rell and hanging over my desk; these are the words:

"Luck means rising at six o'clock in the morning.
Living on a dollar a day if you earn two.
Minding your own business and not meddling with other people's.
Luck means appointments you have never failed to keep,
The trains you have never failed to catch.
Luck means trusting in God and your own resources."

Superstitions may be all well and good for Hallowe'en and the Yuletide and certainly do add much to the

(Continued on next page)

Send for Our Fall and Winter Fashion Magazine

You simply must have a copy of our Fall and Winter Fashion Magazine, for it contains too many good things for you to miss. All the new fall and early winter styles of course, and then there are pages of novelties for the masquerade. Articles about health and beauty and reducing safely, and pages showing correct hats, fancy needle work, special lingerie, etc.

While you have the matter in mind send 10c for your copy to our Fashion Department, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 902—Grace and Dignity. Pattern in sizes 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. The 36-inch size requires 4 yards of 54-inch material with ⅜ yard of 6 inch contrasting.

No. 906—One-Piece Dress. Pattern in sizes 16, 18, 20 years, 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 2⅞ yards of 40-inch material with ½ yard of 40-inch black and ¼ yard of white contrasting material.

No. 912—For Classroom. Pattern in sizes 8, 10, 12, and 14 years. The 8-year size requires 1⅞ yards of 40-inch material with ½ yard of 36-inch contrasting.

No. 3182—For Classroom. Pattern in sizes 6, 8, 10, 12, and 14 years. The 8-year size requires 2 yards of 40-inch material with 1¾ yards of binding.

No. 3189—Youthful Afternoon Mode. Pattern in sizes 16, 18 years, 36, 38, 40, 42, 44 inches bust measure. The 36-inch size requires 2⅞ yards of 40-inch material with ½ yard of 40-inch contrasting.

No. 3195—Printed Velvet. Pattern in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 3½ yards of 40-inch material with ⅝ yard of 40-inch contrasting.

No. 2051—Attractive Apron. Designed in sizes small, medium, and large. The medium size takes 2 yards of 36-inch material.

How to Order Patterns

Enclose 10c in stamps or coins (wrap carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pattern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

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Aunt Ada's axiom: The hardest part of most unpleasant jobs is making up our minds to get at them.



EMAND BAYER

BAYER

ASPIRIN

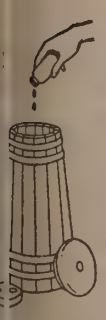
he whole world knows Aspirin as effective antidote for pain. *But it's as important to know that there nly one genuine Bayer Aspirin.* The ne Bayer is on every tablet, and on box. If it says Bayer, it's genuine; if it doesn't it is not! Headaches dispelled by Bayer Aspirin. So are ls, and the pain that goes with m; even neuralgia, neuritis, and umatism promptly relieved. Get er—at any drugstore—with prov. directions.

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merriment of a party but when it comes to every-day living, superstitions need to be uprooted and their room given to common sense.—ETHEL MORRISON—MARSDEN.

Are You Overworking Your Children?

"James, Mary, Jack, hurry now, get your clothes changed and get at your chores." The boys have the feeding to do, water to pump, swill to carry to the hogs, wood to get,—all these must be done by milking time. They are only eleven and thirteen but they must milk five or six cows every evening besides the other chores, eat their supper, then get their lessons before bedtime. Mary must gather the eggs, feed the hens, help with supper, do the dishes, perhaps sprinkle the clothes before going to her lessons.

Why shouldn't they work and work like beavers nights and mornings and all day Saturday? They go to school all week and sit still most of the time and play the rest, while you are at home hard at work.

Yes, they do just that, but what are they doing while they are sitting in school and we are working? They are working just as hard as we, perhaps harder, yet when night comes we are so tired they must just do the chores and let us rest.

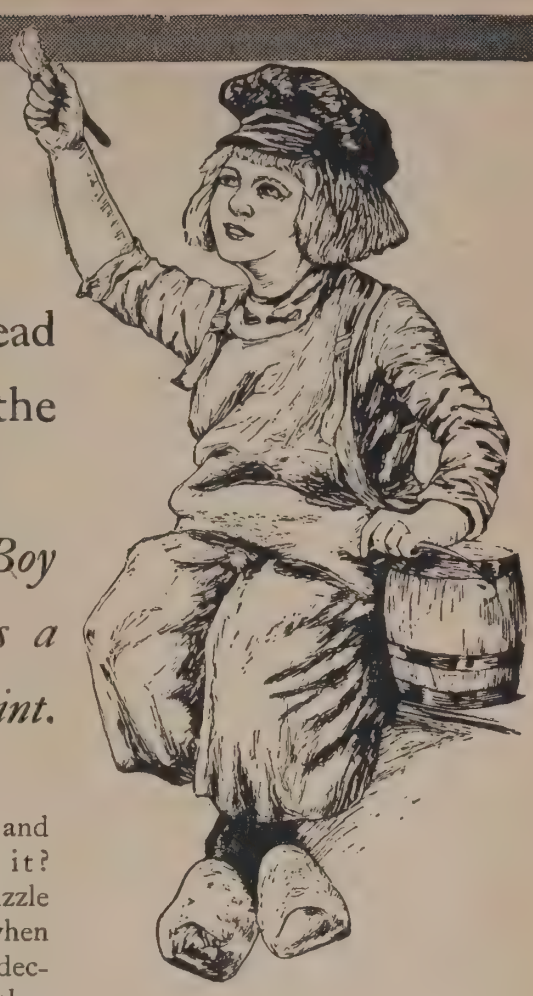
There is a close, indefinable bond between our mind and body. Hard physical labor tires not only our body but also our mind and mental effort fatigues the body as well as the mind. You know if you have spent a day at hard labor, cleaning house, washing, sewing, canning, or gardening, we just simply cannot concentrate, not even on a story. We say we are too tired or too sleepy even to eat. Studying for children tires the mind and it tires the body.

You have heard the expression, "A change of occupation is the best kind of rest." To a certain extent this is true but it must not be carried too far. Fatigue, no matter how caused, —it can be caused even by play you know—produces in the body a fatigue poison which the body readily eliminates if given time but which wreaks permanent injury unless the system has proper rest.

Children should be trained in helpfulness about the home; they should share in the work of the home. It is essential to their education and to the development of character and an appreciation of the benefits of their home. When we give them work to do with these purposes in view we are working for their interests. When we put everything on them we possibly can just to get it done, in an effort to "get ahead," we far too often unknowingly cause them injuries from which they never recover, and the pity of it is that neither we nor they realize it until in later years when it is too late.

When children are in school they use their vitality in two directions. They are studying and they are growing and they must have proper hours of sleep and rest or their health or mental development or perhaps both will suffer. We see a hard working child keep up with his studies but he is weak and aenemic looking, or we see him growing rapidly but not making much progress in his studies.

A child from seven to nine should have eleven hours' sleep; from ten to thirteen, ten hours; and for adolesents, at least nine hours. Are your children getting it? If they cannot do the chores, get their lessons, and get their proper rest, what will you do about it? Do you want the work done badly enough to sacrifice their health or mental development for it?



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DUTCH BOY WHITE-LEAD

Frank is having to take his grade over again this year. He declares if he fails he will not go another year. His mother says he has so much work to do that by the time he starts on his lessons his mind is asleep, he doesn't know why he can't get his lessons. Soon his self-confidence will be killed; he will be a "don't care," a "bad boy," or drop out of school, dwarfed and stunted in his mental equipment for life. Who will be to blame? He is a fine, manly chap now, earnestly desirous of keeping up with his class but I have seen others go the way he is headed, ruined just because too much work was put on them during their school days and their parents say, "We just can't understand why Hugh or Elmer should do the way they have; we tried so hard to raise them right."

It is not always the school child of whom too much is expected in home work. The boy or girl who is working in town, teaching, clerking, or doing stenography is often expected to do several hours' work at home. When this is regularly expected and demanded it will overtax their strength and either their work or their health will suffer. The girl who is expected to do the family and ofttimes the neighborhood shopping during her lunch hour or after work needs some consideration but rarely gets it.—GRACE GORDON.

My Way of Cooking Beef Better

I had always hesitated to cook beef as often as pork since it was usually so tough and unpalatable, but since I have learned a new method of cooking I serve beef quite often, knowing that it will be tender and delicious and relished by us all.

In cooking I take each slice and pound thoroughly, incorporating as much flour into the meat as possible. I then place in a skillet containing a little grease, salting and peppering each piece separately and fry until nicely browned on each side. I then pour over it enough sweet milk to entirely cover the meat and place in the oven until all the milk has boiled away and the meat is again frying. Lift the meat and stir in two heaping tablespoons of flour and stir until nicely browned; then add milk, salt, and pepper when I soon have the most delectable, thick gravy which I serve with mashed potatoes.—(MRS.) R. LUCAS.

He Agreed

"Should wives be paid wages?" asks a writer in a recent article in a magazine.

"Certainly!" says a married man of our acquaintance. "What do you think I send my wife out to work for?"—Exc.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

What To Do At Club Meetings

HAVE you ever wondered what you could do at your club meetings to make them interesting, worth while, and different? If you have, then here are some suggestions. On the other hand, you may have had success with other ideas at your meetings that we have not mentioned here. We wish you would tell us about them.

There's nothing better to pep up the bunch than songs and yells. It's usually a good plan to have some singing and yelling right after the meeting is called to order by the president! Does your club have a cheer leader? If not, why not elect one? Have you a song and a yell that's all your own, about your particular club? Why not offer a prize for the best club song and for the best club yell? This prize can come out of the treasury if some kind-hearted person doesn't see fit to offer it. The cheer and song leader should put lots of pep and enthusiasm into his, or her, work. Let's see how loud the club can yell, and how well they can sing. Are the girls better singers than the boys?

Do you review the club emblem at your club meetings? This ritual may be used:

President: We will now review the club emblem. What do the 4-H's represent?

Club answers in unison: The equal training of head, heart, hands, and health.

President: For what is the head trained?

Club: To think, plan, and reason.

President: For what is the heart trained?

Club: To be kind, true, and sympathetic.

President: For what are the hands trained?

Club: To be useful, skillful, and serviceable.

President: For what is the health trained?

Club:—To resist disease, to make for efficiency, and to enjoy life.

How do you answer roll call in your club? Do the members simply say "Here" or Present," and let it go at that? It adds variety and interest to have the club member stand when his or her name is called and make a short report such as "one thing I have learned in club work." A different response can be used at every club meeting. Here are a few ways in which roll call can be answered, and others will probably occur to you: 1, name one great sire of your favorite breed; 2, name one great dam of your favorite breed; 3, the weight of your calf at the beginning of the project; 4, names and records of both sire and dam of your calf; 5, average daily gain in weight of your calf; 6, one health rule I need to observe; 7, what I am feeding my calf; 8, troubles I have had thus far with my project.

After the minutes of the previous meeting have been read by the secretary, the treasurer's report may be given; then comes the regular business session.

A part of every club meeting should be devoted to gaining useful information. Talks, discussions, and demonstrations can be used in presenting subject matter. Here are a few topics. 1, the uses of rope; 2, making a rope halter; 3, feeding and care of the calf; 4, selection of the calf; 5, how I cared for my project—reports by prize winning club members; 6, what an outsider thinks of your club—a talk by a farmer; 7, some common diseases and troubles calf club members should know about; 8, weaning the calf; 9, how to judge a dairy cow; 10, showing the calf; 11, fitting the calf for the show ring.

Have you ever tried outlining the club programs several months in advance? For example, let us take a dairy calf club. We might outline the season's program something like this. First meeting—selecting the dairy calf; second meeting—feeding and care of the dairy calf; third meeting—making a rope halter and leading the calf; fourth meeting—fitting the calf for the show ring; fifth meeting—showmanship or how to show a calf.

Such a schedule might be built up by going into more detail on feeding the cow for production; keeping records on the herd; the value of the pure-bred sire, etc.

Ask me another! Have you played the "question game" at your club meetings? State Club Leader W. P. Mortenson has prepared a set of "yes" and "no" questions for Wyoming club members. Pass the paper and pencils and let's see who scores the highest.

1. Do dairy cows need more care and attention than beef cows? 2. Are there more Ayrshire cows than Holsteins in Wyoming? (Use your own state.) 3. Did the Holstein-Friesian originate in America? 4. Is the Holstein the largest of dairy breeds? 5. Do Jerseys usually have pink muzzles? 6. Should newborn calves have cool milk? 7. Should a young calf be fed once a day only? 8. Is it a good practice to feed the calf from a dirty pail? 9. Should a calf be allowed to eat a little grain as soon as it will take it? 10. Is sunlight good for a young calf? 11. If you were going to show your calf at the fair should you feed it irregularly? 12. Is time spent in teaching a dairy calf to lead wasted? 13. If you want to teach a calf to lead would you start training it before it is 6 months old? 14. Should a calf be brushed? 15. If a calf is washed should it be turned out in the sun and wind right away? 16. When in the show ring should you always stand on the right side of your calf? 17. Is time spent judging dairy cattle wasted? 18. Are small dairy cows preferred?

The question box—do some members of the club have questions to ask, about their projects or about the topic under discussion? Perhaps some of the other members can answer the questions either from experience or knowledge. The leader or some parent may be able to answer if other members can't.

Have you invited outside speakers to your club meetings? One meeting might profitably be devoted to a discussion of finance. Invite a banker to tell you some interesting things about money, wise spending, saving, borr ing, etc. The editor of your l paper might give an interesting on reporting the news. A promir business man might speak on g citizenship. Of course there teachers, clergymen, farmers, pare who could be called on.

One or more meetings can be voted to history such as the hist of breeds—dairy cattle, pigs, poul sheep, corn, or whatever projects members are conducting. Club m bers can look up their own mate and make reports. The history club work is a topic that might be cussed at one meeting.

Why not have a debate? First a subject, then pick two teams, t pick the judges. Three memb usually constitute a team. You have two on a side or the argume may be carried on by one on e side. It is best to have three juc but you can get along with two or if necessary. Each speaker should allowed ten minutes to present arguments; the affirmative usu speaks first and then alternates the negative in speaking. E speaker should be allowed two m utes for rebuttal after all the speeches have been made. If theri more than one judge, have each vote separately on a slip of pa which team he picks for the winn Some questions which might be bated are:

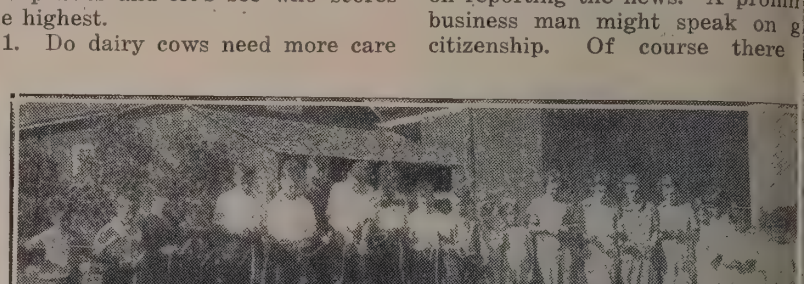
Resolved: 1. That it is more pr able to cultivate a small farm t one of 200 acres or more. 2. That tractor is more valuable on the fa than the horse. 3. That the c stove has done more for man t the plow. (Girls versus boys.) 4. Ta all dairy cattle should be tested tuberculosis. 5. That it is more p fitable to grow legume hay than m legume hay. 6. That diversified fa ing is more profitable than the sin crop system.

One meeting a year can be devc to a tour. The object of this trip is to show how other club members t care of their projects and also to e cate in the better ways of farm This tour may be a local one, visit the homes and projects of sev club members or it may go int neighboring county. Stops at farms of big breeders might be cluded.

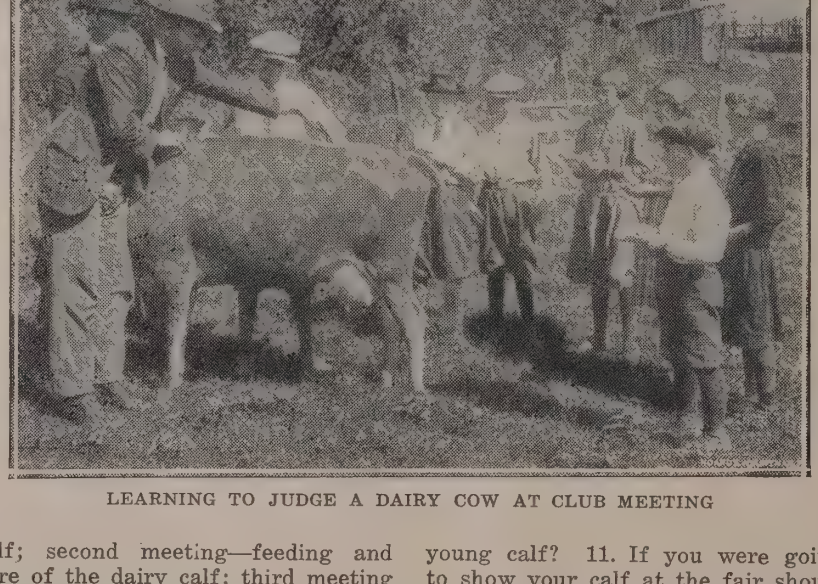
A picnic for club members their parents might be arranged one of the summer meetings. Gar and contests make the picnic m lively.

If there is dramatic talent in club, plays can be worked up to vantage.

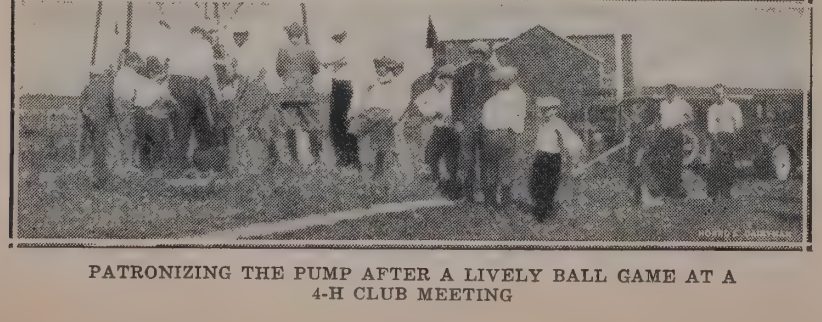
Holiday programs offer an opp tunity for variation and originali Special programs can be built arou Thanksgiving, Christmas, Linco



CLUB MEMBERS DOING ROPE WORK AT ONE OF THEIR MEETINGS



LEARNING TO JUDGE A DAIRY COW AT CLUB MEETING



PATRONIZING THE PUMP AFTER A LIVELY BALL GAME AT A 4-H CLUB MEETING

thday, Washington's Birthday, bor Day, Fourth of July, Decora- n Day.

Have you ever tried holding joint etings with other clubs? This kes a very good way to get ac- inted and to exchange talent.

he club pledge should be given in son by the members some time ing the club meetings. The nation- 4-H club pledge is: I pledge my d to clearer thinking, my heart to ater loyalty, my hands to larger rice, and my health to better liv- for my club, my community, and country.

o you have a club round-up, or an ievement day in either your com- nity or your county every year? rs set aside for these events play a and important part in club work any districts.

may be possible for you to have ries or lantern slides on some cs in which your club members interested. Perhaps your county nt or the agricultural teacher in a rby high school has a machine for ries and lantern slides and would glad to entertain at one of your meetings. It's worth trying, 't you think?

ow about initiation of new mem- s? That's something else you can t club meetings. There should be erious initiation ceremony as well "stunt." The National Commit- on Boys' and Girls' Club Work prepared an initiation service that good one. This is included in the Handy Book which also gives gs, games, and many worth while suggestions.

Our Review Column

regular feature of the junior department, ewing the contents of Hoard's Dairyman he previous issue. Let's talk it over.]

Did you read Hoard's Dairyman's ort of the National Dairy Show n in Dixie? That was only one he several interesting and instruc- features in the November 10th e.

low does barley compare with n for dairy cows? A feeding trial ently conducted at the Michigan te College demonstrates that bar- may be substituted for corn in the in mixture fed the dairy cow. The position of barley and corn is y similar. Corn is somewhat rich- in fat but there is an advantage crude protein in barley. (See e 1037.)

low does Frank Barfknecht feed c to his calves? This Wisconsin ner feeds about 5 lbs. of whole c a day to his baby calves. The nd two weeks the feed is increased lbs. a day. The third two weeks get half whole milk and half milk. The calves are fed skim- c until a year of age. (See page 8.)

What grain mixture is fed the d? 200 lbs. corn, 200 lbs. oats, lbs. bran, 100 lbs. gluten, 50 lbs. meal fed with first quality alfalfa and plenty of corn silage.

What is needed for successful ning? 1, a farm growing legumes, d pasture, and grains; 2, cows ducing 5,000 lbs. or more of milk; quipment for high quality produc- ; 4, equipment for economical keting. (See page 1040.)

lame some causes of bad flavor odor in milk. 1, poor physical dition of the animal; 2, odors ab- ed after milking; 3, biological nges in the milk; 4, highly flav- l feeds. (See page 1048.)

low can those due to highly flav- l feeds be controlled? Off flavors n feed come through the body of cow and not through the air of milking barn. Milk will be com- atively free from feed flavors if king is done an hour after feeding, especially with the following feeds: corn silage, legume silage, green alfalfa, turnips, and cabbage.

How many herds are on the honor roll? More than 6,000 dairy herds are now included in the National Herd Honor Roll, an increase of 1,000 herds over last year. These herds have all produced at least 300 lbs. of butterfat per cow per year. (See page 1053.)

How can unpalatable roughage be improved? By putting it through a feed cutter or grinder and then moistening it with thinned feeding molasses. Aside from its feeding value, the molasses, which is nearly equal to ground corn, gives a flavor relished by cows. (See page 1063.)

Junior Letters

A National Club Winner

Hoard's Dairyman Juniors:—I received the creed, pin, and fob some time ago. I think that the creed is a fine one. I am enclosing a picture of my registered Jersey heifer. Her name is Surville Sultan's Beauty. I purchased her in March, 1926, when she was two weeks old and enrolled in the 4-H club. I fed her



MILLARD BLAKESLEE AND HIS CHAMPION JERSEY

whole milk for the first few weeks, gradually changing to skimmilk. The grain ration consisted of equal parts of ground oats, bran, meal, and 10% linseed meal. When fitting her for the show ring I added a little more linseed meal.

I weighed her every month and she gained two pounds a day. I groomed her every day. I showed her at the Onondago County picnic and she won first prize. That entitled me to a free trip to the 1926 New York State Fair. When I showed her there she won first prize and championship of the Jersey breed. This entitled me to a trip to the National Dairy Show which was held in Detroit in October.

My county club agent, F. E. Heinzelman, his wife, three other boys, and myself went by automobile from Syracuse, N. Y. I sent my calf by train. On our way out we stopped at Niagara Falls which was a great sight to me. When I showed my calf at Detroit she copped first prize again. She won, altogether, about $120 in prize money. I had a fine time at the Dairy Show.

We have a 4-H club. It is named "The Beaver Lake 4-H Club." We hold meetings twice a month. There are eleven members in our club. Seven of us attended the Junior Field Days at Ithaca, where we all had a fine time.

I like club work and it has taught me many things. If you keep up with the 4-H spirit you are bound to come through on top. My address is Baldwinsville, N. Y.

Millard L. Blakeslee.

A Thanksgiving Poem

Hoard's Dairyman Juniors:—I am glad to be one of your new juniors. I am 10 years old. My birthday is the 12th of April. I am in the 5th grade in school. Here is a Thanksgiving poem I made up last year:

WHAT I'M THANKFUL FOR

I'm thankful for good things to eat,
For pumpkin pies and turkey meat;
For flowers that are red, yellow, and blue,
And for good friends so true.

I'm thankful that my dear Heavenly Father
Has kept me through the night,
For my dear mother and father,
And for the sun so bright.

I'm thankful for Thanksgiving Day,
When everybody is so gay;
For the pies and cakes
That mother bakes.

If any of the juniors wish to write to me, my address is R. 3, Black Creek, Wis.

Dorothy Miller.

My Calf Club Experiences

Hoard's Dairyman Juniors:—My father gave me a little Holstein calf this year for me to try to win a prize. I gave her oats, skimmilk, clover, alfalfa, and water. She was fed twice a day. The amount of oats fed per day was 1 to 2 lbs. She drank 14 lbs. of milk and ate about 8 lbs. of hay. She recognized my voice as soon as I said, "Rosie." She knew that I had something for her. Sometimes I had oats or milk. She liked to drink milk very much. I washed her every week. She was almost all white. When I washed her she was as white as snow.

When fair came I won first prize on the first day and second prize on the second day. I was very much pleased. I won $16.

I was secretary and treasurer of the Vulcan Calf Club. Peter Breclaw was the president, and Stanley Baciak the vice-president. We had five meetings. They were held at the farm of Jacob Paluch. One day we had a picnic after the meeting. The members of the calf club enjoyed it very much.

I am going to have a calf for the next fair, too. My address is Vulcan, Mich.

Joan Paluch.

Going Up in Club Work

Hoard's Dairyman Juniors:—I live in Eau Claire County in Western Wisconsin. I am 13 years old and live on a farm of 560 acres. We have Holstein-Friesian cattle. This summer we had 47 milk cows, 21 two-year-old heifers, 19 heifer calves, and 10 horses; hogs and poultry, also.

I belong to a club called the Pleasant Valley—Brunswick Club. I have been in the calf club for three years. I exhibited my calves at the county fair in 1925 and in 1926. The first year I received third place and the second year first place. I have a grade senior Holstein-Friesian calf this year. I was on a demonstration team this year and won second place in the county.

I enjoy reading the junior page. I would like very much to hear from some of my junior friends. My address is Box 86, Route 6, Eau Claire, Wis. Edward Wittwer, Jr.

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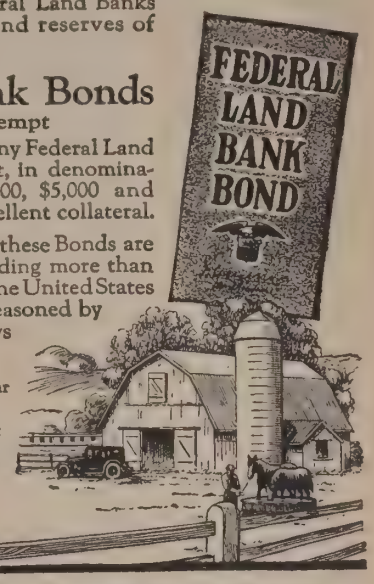
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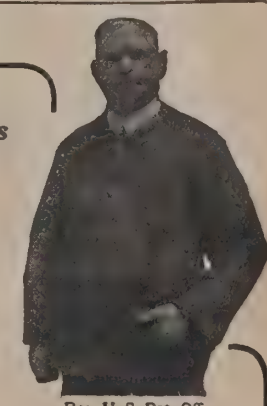
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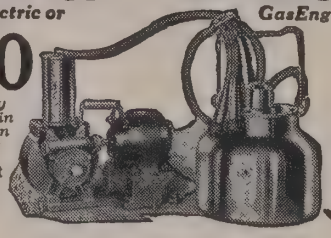
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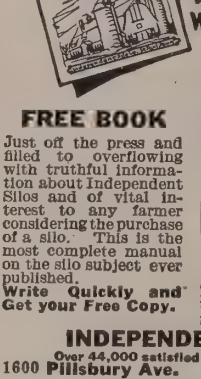
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DAIRY MARKET NEWS

Wisconsin October Condensery Prices

Forty-seven condenseries reported to the Wisconsin Department of Markets the prices paid in October per hundred pounds milk delivered at their factories. Reduced to a common 3.5 per cent test basis, these prices ranged from $2.10 to $2.50, the average being $2.24.

Seventeen factories sent delayed reports for September, the average being $2.24. This is seven cents above the previously reported average of $2.17 for 46 factories.

October Foreign Butter

The following table of foreign butter prices gives the average weekly quotations as published by the U. S. Dept. of Agriculture:

Market	Oct. 1927	Sept. 1927	Oct. 1926
	Cts.	Cts.	Cts.
New York	48.4	46.5	46.9
Chicago	46.2	45.0	45.9
Copenhagen	39.6	39.5	36.0
Berlin	41.3	40.5	36.1
London			
Danish	42.1	41.5	38.9
Dutch	42.3*	40.5*	36.1
New Zealand	38.6	38.9	31.5
Australian	38.1	38.0	31.0
Argentine	36.3*	37.2	32.7
Siberian	34.0		27.9

*Unsalted.

October Cheese

The wholesale price of cheese on the Wisconsin Boards averaged 26.8 cents for October, an increase of 1½ cents over September and over three cents above October a year ago. These advancing prices have permitted a no inconsiderable amount of Canadian cheese to break over the five cents a pound tariff wall. Prices broke two cents at the end of the first week in November, and trading was reported as slow.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during October:

	Oct. 1927	Sept. 1927	Oct. 1926
	lbs.	lbs.	lbs.
Twins	26.3	24.7	23.0
Single Daisies	26.8	25.3	23.6
Longhorns	27.0	25.8	23.8
Square Prints	27.7	26.2	25.0
*Receipts since Jan. 1	179,029	161,065	165,463
*Receipts for month	17,964	20,396	18,172
*Storage end of month	13,132	14,170	21,255

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted.)

Cheese production for the first nine months of the year totaled 326,867,000 lbs., a decrease of over 26 million pounds from last year. Net imports were 52,262,000 lbs., an increase of eight million pounds over last year. Storage holdings of American cheese were 65,434,000 lbs., a decrease of twelve million pounds from last year but other cheese types increased nearly two million pounds. This brings the total estimated trade output to 366,076,000 lbs., a decrease of 3.4% in apparent consumption as compared with the same nine months of last year.

Wisconsin September Butter

Wisconsin co-operative creameries paid producers a net price of 51.5 cents a pound for butterfat in September according to reports from 69 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 46 cents a pound for butter, making a spread of 5.5 cents between the price received for butter and the p paid for fat.

The range in prices paid for fat was 47 to 55 cents, with the price received butter ranging from 43.4 to 46.9 cents. overrun ranged from 21.9 to 25.2 per cent. ceipts of fat averaged 26,226 lbs. per crean

The Feed Market Situati

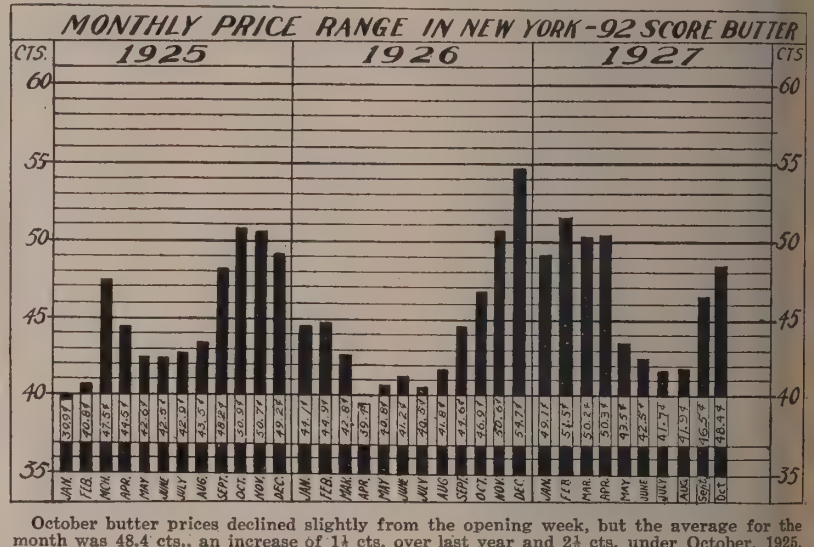
(By The Grain, Hay, and Feed Ma News Service, Bureau of Agricultural nomics, U. S. Department of Agriculture.

Following a period of declining prices in October, largely because of the unusu good pasturage, feed prices turned up early in November when rains and c weather overspread a wide area. Quotat at this writing (Nov. 9) are about the s as or slightly higher than two weeks ago.

Production of wheat feeds for Septe was the smallest for that month since The domestic output of wheat feeds for three months, July—September, totaled a 1,286,700 tons against 1,399,300 tons a year Imports for this period were also smaller, flecting in part the delayed movement Canadian wheat to market, and totaled 4 tons compared with 54,736 tons for t months in 1926.

Linseed meal quotations have been irr lar during the past two weeks but are fractionally higher than at the beginnin the period. Minneapolis mills were experi ing difficulty in moving their output and t the price declined to a low point of ar $44.50 a ton. Somewhere around this large amounts of meal were sold and pl then turned upward.

Exports of linseed cake and meal in tember totaled 26,492 tons compared 24,129 tons last year. This brings the for the season September—August to 324



October butter prices declined slightly from the opening week, but the average for the month was 48.4 cts., an increase of 1½ cts. over last year and 2½ cts. under October, 1925.

over three cents above October a year ago. These advancing prices have permitted a no inconsiderable amount of Canadian cheese to break over the five cents a pound tariff wall. Prices broke two cents at the end of the first week in November, and trading was reported as slow.

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tons in 1926—27 compared with 294,527 last year. These are the largest exports in cent years with the exception of the 3378 tons exported in 1924—25.

Cottonseed Meal Also Higher

Cottonseed meal shared in the increa feeding demand and prices worked gene higher with mills not pressing sales. Dem however, was becoming slightly less activ the higher levels. The cotton crop is fore on November 1 at 12,842,000 bales comp with nearly 18,000,000 bales last year. would indicate that only a little over thirds as much cottonseed cake and mea likely to be available this year as from year's record harvest. Export demand a been fairly active and exports for the first months of the season total 41,428 tons ag 48,873 tons for these months in 1926.

Gluten feed quotations are practi steady. Production continues heavy t gluten feed manufacturers grinding a 8,613,000 bushels during October comp with 7,057,000 bushels a year ago. Late in tober a number of resellers at Buffalo willing to accept 50c a ton under mill qu tions for this feed but with the increased mand this discount has disappeared althou few independent mills and resellers were offering liberally on the November basis. Corn Products Company was offering for December shipment at 50c a ton prem over the November quotations. Offering Chicago were liberal but seemed to be re absorbed. Demand was good and no accu lation of stocks was reported.

Hominy feed prices declined sharply la October in sympathy with the weakness corn markets but have shown an upward t in the past few days.

Alfalfa meal was also slightly firmer, ticularly as reports indicate that the grind in some of the important producing areas have been restricted by weather conditions. supply of best quality green meal contin hardly equal to current requirements bec of the limited amounts of hay suitable for meal. This is largely due to the unusual r in a number of the irrigated sections. O

of the lower grades of meal, however, been fully equal to current needs.

inkage prices have moved up and down are now on the same level as some time with 60% digester tankage quoted at $70 n in carlots at the principal markets.

Quoted Nov. 9

andard spring wheat bran: $28 Minneapo- $31.50 Buffalo, $35 Philadelphia, $30.75 ago. Hard winter wheat bran: $27 Oma- $27.50 Kansas City. Soft winter wheat : $35 Philadelphia, $32 Cincinnati, $29.75 Louis.

andard wheat middlings: $31.50 Buffalo, 25 Chicago, $29 Minneapolis. Soft wheat llings: $34.75 St. Louis. Gray shorts: Omaha, $32 Kansas City.

ttonseed meal (43%): $49 Philadelphia, Cincinnati, $46 Chicago, $45.50 Kansas $39 Fort Worth.

nseed meal (34%): $46 Buffalo, $50.50 innati, $47.50 Chicago, $45.50 Minneapolis, 0 Omaha.

uten feed: $39 Buffalo. White hominy : $35.50 Buffalo. Alfalfa meal: $25.50 Louis, $23 Omaha, and $22.50 Kansas City.

October Butter

tter averaged 48.4 cents in October on New York market. This is an increase of ly two cents over September and 1.5 over October of a year ago, but is 2.5 under the October average in 1925. The et held firm at 48 cents for the first two s of November, with the promise of some nces.

ily quotations from the U. S. Department Agriculture show the following average esale prices on 92-score butter (extras) our of the principal markets, together receipts and storages:

	Oct. 1927	Sept. 1927	Oct. 1926
	Lbs.	Lbs.	Lbs.
ago	46.2	45.0	45.9
York	48.4	46.5	46.9
on	47.8	46.2	46.6
delphia	49.4	47.5	47.9
eipts for month	37,244	41,277	36,119
eipts since Jan. 1	502,014	464,770	490,855
age (end of mo.)	55,549	68,090	54,116

n thousands of pounds at the four markets —000 omitted).

nety-score butter averaged 43.7 cents for ber in Chicago, with centralized butter at market selling for 43.5 cents. Jobbers' s on extras sold to retailers averaged 48.7 in Chicago, a spread of 2.5 cents above lesale.

eamery butter production for the first months of the year was 1,187,877,000 lbs., ncrease of 18 million pounds over last Net imports were 4,004,000 lbs., an in- e of nearly four million pounds over a ago. Storage holdings were 147,412,000 on October 1, 22 million pounds greater last year. This makes an estimated trade t of 1,558,276,000 lbs. for the first nine hs of the year, a decrease of two per cent the same period of last year.

Milwaukee October Milk

e Milwaukee Co-operative Milk Producers unce the following prices for the month ctober:

r the portion sold as fluid milk, $3.00 cwt.; and for the portion manufactured, per cwt. These prices apply to 3.5 per milk delivered f. o. b. city, four cents be added or subtracted for each one-tenth e per cent variation in test. Eighty-five five-tenths per cent of the total receipts sold as fluid.

Sheffield October Price

e cash price for October, 1927, paid ield producers for three per cent, Grade ilk in the 201—210-mile zone is $2.81 per red pounds, with the usual freight and rfat differentials. This is equivalent to for 3.5 milk and is an increase of 8c undred over September, 1927, and an in- e of 21c per hundred over October, 1926. W. HALLIDAY, Secretary.

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For Sale—2 Registered Holstein cows, 2 open heifers, 1 heifer calf and 1 yearling bull. All foundation stuff. W. A. DICKINSON, Ogilvie, Minnesota.

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For Sale—Seventeen head pure-bred Holstein cows and fresh heifers; K. P. O. P. breeding. Also ten bred yearlings. ASHTON K. SMITH, Cedar, Minn.

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

Herd Sire: 37th and Fobes breeding. Also young bulls. J. F. SCHMIDT, Randolph, Wis. 21-2

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

60 Choice Holstein and Guernsey springers. Also registered heifers, bred and open. Tested. F. B. GREEN, Evansville, Wisconsin. 20-6

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

For Sale—50 high grade Holstein and Guernsey springers, reasonably priced. JOHN PETERSON & SON, Scandinavia, Wis. 19-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernseys—Having sold the farm I offer four bred heifers and four open heifers at $150.00 each for the lot. Will also sell the seven purebred cows. A fine foundation lot. F. J. GLANVILLE, Lancaster, Wisconsin. 22-2

A good herd of Guernseys—20 cows, 1 bull, some calves. T. B. tested. Free from disease. Priced reasonable. C. J. FRIES, Ogdensburg, Wis. 22-3

For Sale—Four year old registered Guernsey cow. Her sire's dam 3 A. R. records average nearly 700 lbs. Bred September to sire whose 6 nearest dams average 731 lbs. fat. LINWOOD FARM, Livingston, Wisconsin. 21-2

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

For Sale—Registered Guernsey bulls from A. R. dams. Photo and pedigree on request. L. MARKLE, Barrington, Ill.

Registered Guernseys—Granddaughters of Langwater Demonstrator and Cherub's Prince. Herd Accredited. FAR VIEW FARMS, Brodhead, Wis. 21-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

Registered Guernsey Bulls. Serviceable. FRANK KLEMM, Baraboo, Wis. 19-5

Jersey bulls sired by son of Sophie's Emily, world's champion producer. Dams records up to 520 lbs. GUY WALKER, Fennimore, Wisconsin. 20-3

Jerseys—Noble, Owl breeding, $60. SAMUEL SCHLABACH, Shanesville, Ohio. 21-3

For Sale—25 head Jersey heifers, extra good natives. J. H. BAIRD, Washington, Iowa.

Brown Swiss Bull, 18 months old. Price $150. M. DELANEY, Rock Rapids, Iowa.

LIVE STOCK WANTED

Wanted to buy a few cars of dairy cows or heifers. For rent, place to make good with cows. Cheap feed. Cheese factory market. Can sell farm on payments. FRANK McCARTER, Box 119, Bayard, Nebraska.

Wanted—Prices on two-year-old grade heifers showing with calf, Guernseys or Holsteins. J. B. ALLEN, Mitchell, South Dakota.

EXCHANGE

Wanted to exchange foundation herd of well bred Angus cattle for foundation herd of Guernseys. SANFORD & RICH, Mocksville, N. C. 21-3

Wanted—Gray Percheron mares for Registered Holsteins. ROY HARRIMAN, Appleton, Wis. 21-2

VETERINARY REMEDIES

Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 85 cents for one cow, $2.90 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 17-*

POULTRY

Blue Ribbon, Giant, Mammoth Bronze Turkeys. Utility and show birds. None better, None cheaper, quality considered. TURKEY FARM, Cumberland, Wisconsin. 22-3

Single Comb White Leghorn yearling hens. Priced low. Large or small lots. JOHN HASS, Bettendorf, Iowa. 18-5

DOGS

Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

For Sale—Pups and brood matrons. Registered Police, Fox Terriers, Spitz, Bulls, and Collies. Satisfaction guaranteed. Males, spayed females. WILBUR DAY, Brighton, Iowa.

Police Pups—Pedigreed, imported strain. Whelped June 25th. Males twenty-five, females fifteen dollars. LEONARD'S, College Corner, Ohio.

Hundred Hunting Hounds cheap. Supply catalogue. KASKASKENNELS, AW87, Herrick, Ill. 21-2

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

MACHINERY

Two Single Unit, Universal Milker. Late improved Pulsator. Seventy pound aluminum pails. Pump large enough for five single units. Piping and equipment for twenty cows. Fine condition. Price $150. FRED BLECKE, Luckey, Ohio.

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

Sharples rebuilt separators for sale. Cheap all sizes first class condition. MILLER-LENFESTEY SUPPLY CO., Tampa, Fla. 20-3

DeLaval Milker, almost new, complete for 40 cows. Includes new engine. Original price $700.00. Will take $475.00. C. P. DAVIS, St. Charles, Ill. 22-2

Double Unit, Pine Tree Milker, with complete equipment for 26 cows. Very cheap if purchased at once. Address BOX 571, care Hoard's Dairyman.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 19-4

For Sale—Two double unit Burrell milkers, in good working order. LAURENCE WOLFF, Little Cedar, Ia.

De Laval Milker, complete, used one year; reasonable. J. F. SCHURMAN, Webster, So. Dak.

DAIRY SUPPLIES

Strainer Pads—Guaranteed Milk Filtering Pads, direct from manufacturer. $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., 36 Frelinghuysen Ave., Battle Creek, Mich. 14-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Muncie, Ind. 21-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

PRINTING

We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

HAY

Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for Sale. Write for delivered prices. We ship subject to inspection on arrival and guarantee our weights. JOHN DEVLIN HAY CO., Inc., 192 N. Clark St., Chicago, Illinois. 21-*

Alfalfa and Clover Hay for Sale—Ask for delivered prices. HARRY GATES COMPANY, Jackson, Michigan. 17-*

Shippers inspected graded hay; dairy alfalfa, clover, timothy, prairie and straw. CALLIARI BROTHERS, Green Bay, Wis. 19-6

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-*

Alfalfa and Prairie, delivered prices. SUTTIE-PECKHAM CO., Omaha, Nebr. 19-6

Hay and straw for sale—Any kind in carloads. GEO. L. FREDERICK, Beaver Dam, Wis. 19-4

Black Hills Alfalfa hay for sale. ALFRED SWALLOW, Box Elder, South Dakota. 22-2

Alfalfa hay—car lots for sale. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 22-*

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

AGENTS WANTED

Agents—We start you in business and help you succeed. No capital or experience needed. Spare or full time. You can earn $50-$100 weekly. Write MADISON CORPORATION, 564 Broadway, New York. 18-11

Send name, address on postcard. Free introductory copy Salesology Magazine; contains 1000 money making opportunities offered by big reliable firms; no obligation. SALESOLOGY MAGAZINE, Desk B 289, 500 No. Dearborn, Chicago. 21-2

TOBACCO

Natural Leaf Tobacco—Best grade, guaranteed, 5 pounds chewing $1.00, 12 pounds $2.00; 12 pounds smoking $1.50, pipe free. Pay when received. VALLEY FARMERS, Murray, Kentucky. 20-4

Homespun Tobacco—Guaranteed, good flavor, Chewing, 5 pounds, $1; 10, $1.75. Smoking, 5 pounds, 75c; 10, $1.25. Pay when received. FARMERS UNION, Mayfield, Kentucky. 21-4

Tobacco: Kentucky Sweetleaf. Mellow; aged. Smoking 15 pounds $1.65; chewing $2.25. Pay when received. ERNEST CHOATE, Wingo, Ky. 22-4

ROCK PHOSPHATES

Our finely ground raw rock phosphate greatly increases yields of small grain and hay crops. Cheaper than acid phosphate. Write for literature and prices. ROBIN JONES PHOSPHATE COMPANY, 572 Bennie Dillon Building, Nashville, Tennessee. 20-*

MISCELLANEOUS

If your auto radiator leaks, I guarantee my new compound will fix it or money refunded. Generous can $1.00 postpaid. R. BUTLER, Horicon, Wisconsin.

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

FARMS FOR SALE

The Dairyman in the Ozark region of Southern Missouri and Northern Arkansas operates with 9 or 10 month's open grazing on clean rolling pastures—pure fresh streams of mountain spring water—fine grained clay soil producing a wealth of grass. Mild and healthful climate, average winter temperature 41.6, average summer temperature 78.9. Proximity to the great markets of St. Louis, Kansas City and Memphis makes quick delivery and good prices. Prosperous growing communities, good schools and fine hard surfaced roads. Land can still be bought or farms rented at reasonable prices, insuring good profits for the dairyman. Write for more information about this land of great opportunity. FRISCO RAILWAY, 880 Frisco Bldg., St. Louis, Missouri. 20-Spl

For Sale—A grade A dairy farm complete. Modern dairy barn and covered barn yard. Cement everywhere, a 3½ hour milk route, fully equipped dairy house. Frigid air cooler water system, lights and water everywhere. Regular milk selling at 10—11 and 12c per quart, this milk selling at 15 and 17c quart, ½ pints at 5c. Located 1½ miles from center of town of 9000 and 32 miles from town of 100,000. 20 cows, 1 herd sire, 50 chickens, two large coops. Located in the finest dairy country in the U. S. Write for description, location, pictures, price and terms. Only prospective buyers need apply. A real place for a man and two boys. Possession at once. Address BOX 577, care Hoard's Dairyman, Ft. Atkinson, Wis.

274 Acre Equipped tractor farm overlooking beautiful valley. Close village, short drive city; 135 acres tillage, abundantly watered pasture for 40 head, timberlot and fruit; good 9-room home, furnace, electricity; big cement basement barn, piped spring water. Sacrifice at $8000 & 16 cows, 8 heifers, bull, 3 horses, hens, tractor and equipment, farm & dairy tools, hay, buckwheat, oats, potatoes, millet, etc. included; part cash. Details page 8 illustrated fall bargain catalog. Free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

Dairy Farm—320 acres Jefferson County, Kansas, 3 miles market, town 500, good high school, good road, 40 miles Kansas City, mostly hard surface, balance completed soon. Land high state cultivation, all smooth, gently rolling, well watered. Blue grass pasture, alfalfa, corn, oats produce well. All kinds fruit, large dwelling, water and electric lights, 3 good barns, 2 silos. Good milk market, condensery. Financed long time loan, priced at great sacrifice by owner. Address BOX 558, care Hoard's Dairyman. 21-2

Land in North Dakota—$5,200 is the average income per farm in North Dakota this year. Mixed farming has brought a good crop of wheat, corn, alfalfa, livestock, poultry, honey. Come to North Dakota now while acreage is still cheap and before diversified farming doubles land values. Congenial neighbors, splendid schools and churches, good roads and railroad facilities. Write for details. GREATER NORTH DAKOTA ASSN., Dept. 6, Fargo, N. D. 22-2

Dairying Opportunities—Bargain priced farms in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon suitable for intensive dairying from standpoint markets, climate and feed crops. Free literature and settlement service. Write mentioning state. H. W. BYERLY, 117 Northern Pacific Railway, St. Paul, Minn. 19-4

Owner killed and wife wants to sell or rent farm. Three-fourths mile from town, church and school. Fully equipped except cattle. ANNA J. BROCKETT, Spooner, Wisconsin.

One of southern Michigan's best 80 acre dairy farms will be sacrificed for quick sale. In Eaton county twenty miles from Lansing. Write BOX 987, Kalamazoo, Michigan.

For Sale—By owner, forty-five acres near Spokane, on graveled road. Thirty-five acres in cultivation, balance pasture. RALPH C. GREEN, Clarkston, Wash.

Virginia Dairy Farm—178 acres, fertile soil, all necessary buildings, good milk market. Write for information. J. L. LEE, Norge, Virginia.

Dairy farms, 160 and 302 opposite, on highway, near Ottawa, Kansas. Terms. REV. STUCKER, Owner, Ottawa, Kansas.

FARMS WANTED

Want 160 to 300 acres improved and fully equipped WALT MILLER, Carpenter Bldg., Milwaukee.

Wanted—Fully equipped dairy farm for my Chicago garage flat building. P. B. JOHNSON, Zion, Illinois.

FOR RENT

Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

Model Large Dairy Barns, alfalfa and corn farm, without stock. WILFRED EPES, Blackstone, Va. 20-3

WANT TO RENT

Swiss Dairyman who doesn't need any financial help, looking for 160 acre farm. Must have good buildings and fences. Farm close to big city preferred. Best references. Address BOX 576, care Hoard's Dairyman.

DAIRIES

Fifty Cow Dairy South Florida. Also ten thousand acre cattle ranch. J. M. WILLSON, Kissimmee, Florida. 22-4

DAIRYMAN WANTED

Young man with few hundred dollars to carry on fine Florida farm of aged man who must retire. No triflers. Great chance for right man Address BOX 566, care Hoard's Dairyman.

TESTERS WANTED

Testers Wanted December first—For one year in 12 Dairy Herd Improvement Associations with salary $900 and up. Prefer single men over 21 years, having Short Course or Assistant Herdsman training. Tell age, practical experience in dairy cattle feeding, school training, and operating a Babcock tester first letter and 2 references. Write or apply in person to A. J. CRAMER, Dairy Records Office, Madison, Wisconsin.

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*

Wanted—One experienced tester Dec. 1st. DAIRY EXTENSION DEPARTMENT, Blacksburg, Virginia.

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

Coupon Milk Tickets, Score Cards, Tags, Route-books, Statements, etc. E. F. WILKE & CO., 2424 N. Francisco Ave., Chicago, Ill. 22-2

BUY FROM OUR ADVERTISERS



Advertising in this department is 8c per wo Remit in advance.

HELP WANTED

Wanted—Single, steady man for general farm dairy work. Dry hand milker. $50 per month board. In northern Illinois. Address BOX 575, Hoard's Dairyman.

Herdsmen wanted to take charge of modern barn and dairy. Must be good feeder and sup care of dairy. Herd about sixty. Address BOX 557, care Hoard's Dairyman.

Wanted—Single man immediately, experienced, pendable. Modern dairy. Write full particu MOREHOUSE MILK FARM, Lafayette, Indian

Wanted—A middle aged man to care for small by the year. Address BOX 578, care Hoard's D man.

POSITIONS WANTED

Wanted—Position as working manager of large farm. College training with lifetime in practical f ing and in above capacity. Would consider a h productive farm, modernly equipped on share Land must be all tillable. Available on or b March 1st, 1928. Married. References as to acter and ability. Address BOX 565, care Ho Dairyman.

Position Wanted by married man, no childre general manager on a large dairy farm or would sider either dairy or farm separate. Have had time experience in both. I am American, Prote 31 years old, do not use tobacco or have any bad habits. Can furnish best of reference. for work at once. A. F. FOSTER, Chesterfield.

Married farm manager, age 38, two children, sires position near good grade school. College ing, competent in all branches of farm, dairy pure-bred livestock work. Five years in present tion. References from present and past emplo State salary and living conditions. Address BOX care Hoard's Dairyman.

American farm superintendent now employed o acre farm would take full charge of large place good market for high grade milk. Can make fied milk and manage all departments of farm to advantage. Experienced in growing and mark fruit and vegetables. Address BOX 569, care Ho Dairyman.

Farm Manager, proven exceptional ability, oper position. Life-time experience. College trai Dairying specialist. Certified milk. Very succes Profits guaranteed. Know how. Share or percen salary basis. Will invest. Highest references. COLE, 310 New Hancock Street, Wilkes-Barre, P sylvania.

Clean, steady, sober, single man, age 40, A-1 hand and machine milker, wants change to dairy house work, or work on up-to-date poultry p western states preferred. State all particulars in ing wages in first letter. Address BOX 562, Hoard's Dairyman.

Wanted—Position as farm superintendent. Life perience in dairying, farming and general stock ing. Experience practical and scientific. Mar Small family. Scotch. Good references. Only class position considered. JAMES M. KING, A Virginia.

Farm manager, married, lifetime experience f ing, dairying, breeding and feeding cattle, de responsible position on modern dairy or stock f Good references. Address BOX 572, care Ho Dairyman.

Situation Wanted—Married man, no children, 28, capable, experienced, desires position as herds assistant herdsman, or operating farm where dai is main feature. College graduate. Good refere BOX 263, Fairmont, Minn.

Position wanted as cow man, good milker, life perience, single, middle aged. Have experienc poultry, State wages. Go anywhere. JOE BAL Manteno, Illinois.

Married farm foreman-manager wants position mediately. Life experience. Good tractor and man. References. FRED CARLSON, R. 3, Aur Minn.

Wanted Position—On dairy farm. Single man, lander, 27. Can take charge of any herdsman tion. Expert milker. Best of references. Ad BOX 573, care Hoard's Dairyman.

Wanted—To work on Modern farm in Southern consin by experienced single young man. Age 24 liquor or tobacco. HENRY SILLMAN, Ladysm Wisconsin.

Herdsman Position or work in dairy barn. perienced in A. R. O. work, certified. A. 1 fe and calf raiser. 8 years last place. Very best re ences. Address BOX 574, care Hoard's Dairyma

As Herdsman or test cow man. Years of exper in feeding and caring for test cows, rearing and veloping young stock. Single, reference. Ad BOX 568, care Hoard's Dairyman.

Position wanted on dairy farm. 10 years experie Married. J. M. VAUGHAN, 404 Clyman St., W town, Wis.

Retail Dairies—Working managers position, bot and distribution desired. 28, single, thoroughly perienced. Address BOX, 570, care Hoard's Dairy

WANTED!
A Livestock Man

—in each community to establish and supervise advanced feeding methods recommended by Agricultural Stations. Must know livestock; no other experience necessary. We give individual instruction and training gratis. Appointments at good pay for part or all time now being made. Write, stating age, experience, present occupation and references. This may be a position of great importance to you. Write TODAY.

GOOD PAY

MURPHY PRODUCTS CO.
DEPT. 100
BURLINGTON WISCONSIN

SALE ANNOUNCEMENTS

Nov. 30—Guernseys. La Crosse Co. Guernsey Breeders' Sale at West Salem, Wis. H. V Griswold, Sale Mgr.
Dec. 2—Holstein Dispersal. Broomfield Cattle Co., Broomfield, Colo.
May 17, 1928—National Guernsey Sale, Hinsdale, Ill.
May 18, 1928—Illinois State Guernsey Sale, Hinsdale, Ill.
May 23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florha Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
May 24-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herri —Merryman Sales Co., Mgrs.
May 26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hop well Junction, New York.
June 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.



Swine

Feeding Oats and Corn to Pigs on Pasture

t threshing time on a good many as in the major swine growing ion of the country, the corn sup- is likely to be nearly if not entire- epleted and for a time thereafter ll grains, particularly oats, com- e the main part of pig rations. As n as corn is matured sufficiently feeding, it again becomes the ma- feed, frequently the only cereal n. Oats and corn, therefore, with ey to a limited extent, constitute basal part of pig rations over a e area.

he Minnesota Experiment Station recently reported the results of a ing experiment, the purpose of ch was to find out the most satis- ory proportion of feeding oats and to growing pigs on pasture.

our lots of pigs averaging about lbs. were fed a 3 per cent grain al- nce (about three-fourths of a feed or 3 lbs. of grain for each lbs. live weight) on rape pasture. addition a complex mineral mix- was self-fed. Enough tankage fed each lot to properly balance rations with respect to protein. ions were hand-fed twice daily for eding period of 120 days.

he grains fed each lot were as fol- s: Lot I had shelled corn; Lot II led corn two-thirds and whole one-third; Lot III shelled corn whole oats one-half each; Lot IV led corn one-third and whole oats -thirds. In addition, as already ed, each lot had tankage minerals rape pasture.

he average daily gains were .87 .81 lb., .74 lb., and .71 lb. respec- ly for the four lots.

he total feed required for 100 lbs. in the different lots was 373 lbs. lbs., 430 lbs., and 439 lbs. respec- ly.

he feed cost of 100 lbs. gain was 6, $7.06, $7.40, and $7.18 respec- ly for the different lots.

he feed prices applied were $1.00 bushel for corn; oats, $.45 a hel; tankage, $70 a ton; minerals, 0 per hundred. A uniform pas- charge of 25 cents a pig a month made.

When oats is fed as in this ex- ment, the price a bushel should less than one-half that of corn if to be as cheap as corn.

mparing Three Breeds of Swine

he Minnesota Station makes a gress report on a swine feeding eriment, the purpose of which is compare the relative merits of e breeds of swine as to efficiency onverting feeds into meat as also quality of meat produced.

lot each of Yorkshire, Poland na, and Duroc Jersey pigs averag- about 50 lbs. each were fed the ne kind of ration.

he feeding plan followed was to w the pigs during the summer on bluegrass pasture, feeding a 3 per cent allowance of grain. The feeds used were shelled corn and ground barley in equal amounts supplemented by a mixture of 100 parts middlings, 10 parts linseed meal, and tankage 5 parts. In addition 2 to 2.5 lbs. of buttermilk to each pound of other feeds was fed.

To finish these pigs a full allowance of corn, barley, and buttermilk was fed the last six weeks.

The Yorkshires gained 1.07 lbs. per head daily, the Poland Chinas, 1.16 lbs., and the Duroc Jerseys, 1.14 lbs.

The feed cost of 100 lbs. gain was $6.60 for the Yorkshires, $6.23 for the Poland Chinas, and $6.32 for the Duroc Jerseys.

No considerable differences were found in the dressing percentages as also nothing outstanding as to differences in quality of meat as revealed by curing and cooking tests.

Reducing The Cost of Protein Supplement

The Minnesota Experiment Station has reported the results of another swine feeding experiment, the purpose of which was to determine if cereal grains might be supplemented more cheaply in dry lot feeding than with tankage as the only supplement.

Skimmilk or buttermilk usually has proved to be the most satisfactory of the common protein supplements but tankage, linseed meal, and alfalfa meal have given good results. Except in the case of the milk by-products, the feeds mentioned are incomplete proteins. Some of the essential parts of proteins are lacking and accordingly a limit is placed on the ability of pigs to gain rapidly. Since in different protein supplements there are shortages of various kinds, combinations of these feeds, if properly made, should form a complete and satisfactory supply of protein for pig development.

Four lots of pigs were each self-fed shelled corn and a mineral mixture composed of 30 parts spent bone black, 30 parts pulverized limestone, 15 parts common salt, 15 parts charcoal, 7 parts Glauber's salt, 2.97 parts iron oxide, and .03 part potassium iodide. In addition to this Lot I was self-fed tankage, Lot II a mixture of 9 parts tankage and one part alfalfa meal, Lot III a mixture of one part tankage and one part linseed meal; Lot IV a mixture of 4.5 parts tankage, 4.5 parts linseed meal, and one part alfalfa meal. The feeding period was for 105 days.

The average daily gains were 1 lb., 1.25 lbs., 1.3 lbs., and 1.32 lbs. respectively per head for the different lots.

The feed required for 100 lbs. gain was 414, 377, 377, and 374 lbs. respectively.

The feed cost of 100 lbs. gain was $8.32, $7.54, $7.45, and $7.29 respectively. The pigs that received 4.5 parts tankage, 4.5 parts linseed meal, and one part alfalfa meal as a supplement to corn made the largest daily gain at the lowest feed cost per 100 lbs. The gain cost over $1 a hundred more than where tankage alone was fed as a supplement.

The prices applied for feeds were $1 per bushel for corn, $70 per ton for tankage, $45 per ton for linseed meal, $18.50 per ton for alfalfa meal, and $3 per hundred for minerals.

Construction and Use of Self-feeders

Frequently we have inquiries concerning the construction of self-feeders for swine. These indicate that such feeders have become a part of the standard equipment on many farms and well they might because of the saving of labor in feeding hogs.

The Illinois Station has put out a new bulletin, "Construction of Self-Feeders and Their Use in Pork Production," and it is a good one. The illustrations showing how self-feeders may be constructed are numerous and easily understood. The Illinois Experiment Station is at Urbana; the number of the circular is 319.

Feeding Alfalfa Hay

Alfalfa hay as a winter feed for pregnant sows and gilts deserves considerably more attention than it receives, according to the results of carefully controlled experiments.

The Nebraska Station reports feeding some sows averaging 345 lbs. on December 25 for a period of 70 days on a ration consisting of shelled corn and alfalfa hay fed in rack. The corn was fed at the rate of one per cent of the live weight of the sows and they therefore received daily one pound of corn for each 100 lbs. live weight. The sows had free access to the alfalfa hay. They averaged to gain 32 lbs. each in the 70-day period and farrowed pigs that weighed 2.3 lbs. each at birth.

The Iowa Station reports feeding a pen of 5 bred gilts through the winter on an average daily feed consumption of 3.74 lbs. corn and 1.11 lbs. alfalfa hay fed in rack. The gilts gained .63 lb. each daily, farrowed an average of 7.6 pigs that weighed 2.29 lbs. each at birth, and were 89.47 per cent strong at birth.

College Bred

"Papa," said the small son, "what do they mean by college bred? Is it different from any other kind of bread?"

"My son," said the father, "it is a four years' loaf."



J. S. Caldwell, Vinton, Iowa, let the hogs follow the plow to clean up the grub worms in a well-fenced 10-acre clover pasture when he broke it up for corn. His crop ran 60 bushels to the acre at $1.10, a total of $660.00. On his other ten his fence was poor. Grubs got all but 150 bushels—a total loss of 45 bushels per acre that could have been saved with a hog-tight fence. "You can borrow $1,000 at 7%, put it into fence and make money", says Mr. Caldwell. We claim

RED BRAND FENCE

"Galvannealed"–Copper Bearing

is the best investment any farmer can make. A great many have proved this true. They know, from experience, that hogging down, pasturing after harvest and crop rotation will pay for RED BRAND FENCE in from 1 to 3 years. They know, too, that this real good, copper-bearing steel with its extra heavy zinc "galvannealed" coating keeps rust out; that these two things make RED BRAND cost less by lasting longer. Its stiff stays, well-crimped line wires, can't-slip knots, help keep it straight, trim, hog-tight and bull-proof. The fence that will last the longest is the cheapest fence to buy.

What has been your experience with or without good fence? We will pay $5 or more for each letter that we use. Write for details, catalog and 3 interesting booklets that tell how others have made more money with hog-tight fences.



Always look for the Red Brand (top wire)

Keystone Steel and Wire Co.
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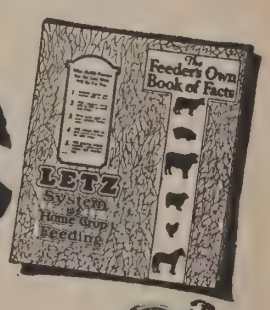


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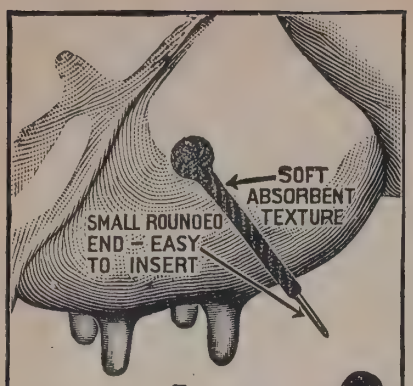
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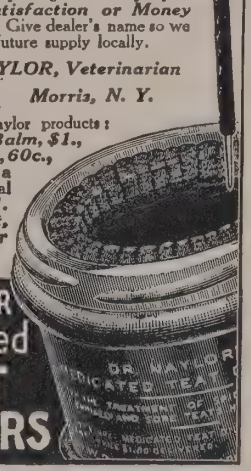
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Extensive experiments the past two years have demonstrated that sterility in cows may be overcome simply by feeding a ration of SPROUTED OATS such as is produced in Grain Sprouters for poultry. Sterility is often caused by functional disorders and a correct dietary overcomes this barrenness. Vitamin E has been found to have a powerful effect on the reproduction organs of animals and this fifth Vitamin is found in bountiful quantities in properly sprouted oats. For further information on this subject as well as on MAMMOTH GRAIN SPROUTERS address

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FREE How to turn losses Cows Calves Poultry Pigs into Profits

Tells how to deal with

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Abortion is caused by germ infections of several kinds. What these germs are; how they are spread, and what can be done to prevent it; also how to control it where disease is present, are things you should know. The book tells these things.

Calf Scours

is also a germ infection. It is easily prevented and controlled by feeding B-K in the drinking water. B-K corrects stomach acids, helps destroy the infection and restores normal condition of stomach and bowels. The book explains this, also how to remove

Retained Afterbirth

with a warm water solution of B-K, using only a small rubber hose, funnel and a pail or pitcher. Releases adhesions and reduces inflammation, so the afterbirth comes, naturally without force. B-K contains no poison nor acid—is safe, dependable and cheap. Buy a jug at your dealers and follow the simple directions. Money back if not satisfied.

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VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Swelling of the Brisket

A reader wants to know why the brisket of one of his cows is badly swollen, yet is not hot, red, or sore. He states that he had a cow in the same condition several years ago and that she died despite treatment; also that he had seen other cows with swollen briskets that did not die or show much inconvenience from the condition.

This is an interesting inquiry in that it refers to two different conditions and emphasizes the importance of making a correct diagnosis. The cow in question is in all probability affected with traumatic pericarditis or heart disease, caused by a swallowed wire, nail, or other sharp object transfixing the wall of the stomach, the diaphragm, and sac of the heart. We are of that opinion for the reason that our correspondent mentions that the cow is sick, listless, and weak, in addition to showing the swollen condition of the brisket. That being the case we think it likely that he will be able to hear a splashing or sloshing sound of liquid when he places his ear against the chest wall, just behind the elbow on the left side of the body. No such sound is heard in the ordinary cases of swollen brisket which are not associated with sickness or much inconvenience of any kind. In severe cases of traumatic pericarditis one sometimes may hear the splashing sound at a little distance and the cow is so weak that she may fall and die when made to run. She is also emaciated, harsh in hair, and has lost much of her appetite and does not yield much milk.

This heart disease is occasionally curable if it can be detected by the veterinarian before the animal has become seriously affected. It is possible for him to remove the offending wire or nail by cutting into the paunch and introducing his hand and arm, or he may also have to cut through the chest wall and tap the sac of the heart for removal of a large quantity of foul smelling fluid. At the same time it is barely possible that he may be able to locate and remove the foreign body that has caused the disease. Prevention is all-important by keeping sharp objects away from cows, so far as that proves possible. The cow referred to by our correspondent may not be too far advanced in the disease to recover, when surgically treated.

The other cows mentioned, that had swollen briskets but were not sick or much inconvenienced, no doubt had bruised the parts upon the manger or floor in such a way as to have caused serum to exude into the tissues. That condition is called "hygroma" and it is exactly the same as the like soft swelling or serous abscess or sac so often seen on a cow's knee. Treatment consists in moving the cow into a pen and then bathing the swelling persistently with cold water and vinegar and applying tincture of iodine daily. That may prove remedial if done at the outset of the condition, for the fluid may be resorbed; but in old, standing cases it is necessary for the veterinarian to liberate the fluid by lancing under asceptic conditions. He will then remove clots of blood or fibrin, syringe out the cavity, inject tincture of iodine, and pack the cavity with a strip of sterilized gauze or a rope of teased oakum saturated with an antiseptic solution, and instruct the owner or attendant how to give appropriate after-treatment.

Pink Eye

About two months ago I noticed water running from the eye of a yearling steer and later the other eye was running. Some time after a heifer started the same way and now three heifers and two cows are affected. It shows an eyeball first blue and then white and later pink. Now one heifer seems to be almost blind.

Savage, Mont. I. L. L.

The cattle are affected with contagious keratitis, commonly called "pink eye." It is caused by a specific germ and quickly spreads to all animals in the herd. Move affected cattle into a partially darkened stable and supply a laxative diet. Treat by bathing affected eyes 2 or 3 times daily with a solution of one tablespoonful of boric acid in one quart of boiling water, used cold. Apply it each time with a fresh swab of sterilized cotton. In the evening put a little bit of yellow oxide of mercury ointment (ophthalmic) in the inner corner of each affected eye and also apply it to the eyelids. If there is a heavy discharge from an eye wet the eyeball twice daily with a 15 per cent solution of argyrol after using the boric acid solution and when the discharge abates use the ophthalmic ointment until the disease subsides.

Purulent Mastitis

I've had trouble with my young Holstein cow ever since I've had her (6 mos.). The party that I got her of let her udder rise. Now half of her udder continues to swell up and burst and run pus for three or four weeks, then heals up and begins to swell again and in three or four weeks will burst again.

Gulfport, Miss. J. A. M.

Isolate the cow and then cleanse, disinfect, and whitewash the stall she has occupied including the floor and gutter. Her udder is incurably affected with strepococci mastitis (garget) and her milk is unfit for use by people or animals. Catch the milk in a vessel containing a disinfecting solution and then throw it out in a place from which cows are excluded. The infection is readily carried from cow to cow by the milker's hands or may be contracted by the teats coming in contact with a floor or ground upon which purulent milk has been allowed to fall. Dry off the remaining milk secretion and fit the cow for the butcher, if you think that will pay. Rub a mixture of equal quantities of carbolized oil, camphorated oil, and compound soap liniment into the udder once or twice daily during the drying off process. Have the affected cow attended to by a person who does not milk other cows.

Holding Up of Milk

I have in my charge what would be a very fine Jersey cow but she has short teats and is a very hard and slow milker. She has formed the habit of holding up a part of her milk about every other milking and sometimes twice out of three milkings. Do you think her being hard to milk would cause her to form this habit? She is gentle and a very nice cow to handle, having no bad habits except this. I do not think the trouble is caused by excitement.

Greensboro, Ala. J. R. S.

We do not believe that a cow has the power of willfully "holding up" her milk as milk secretion is controlled by the sympathetic nerve system and not by the voluntary nerves, although both systems are intimately associated. The holding up of milk is

Dog-lovers use Glover's

for every dog ailment. Backed by a half century's successful results. Sold by Druggists, Pet Shops and Sporting Goods Stores.

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Lyndonville, Vermont



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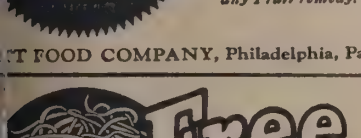
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Powerful, economical—from wood saw to churn. Makes car easy to crank. Fits any model; no holes to drill; attach in few minutes; does not affect steering. **Will not overheat.**

FREE Send name today for free literature on this latest, guaranteed improved power. Try it 15 days on your Ford at our risk.

E-Z POWER MFG. CO., Box 96, Atchison, Kansas

Electricity for the Farmer—Power

(Continued from page 1094)

feed could be discharged. It was fed from a magazine bin over the hopper. By reducing the speed of the grinder, they found they could run it with a one horse power motor. A clock started the grinding and stopped it unless the supply of grain in the bin was exhausted before the time for stopping came. In that case a valve in the bin opened the starting switch.

Grinding plate clearance inches	Power consumption test 6" feed grinder kilowatts used	Corn ground per kilowatt hour
Idle	0.17	0
0.21	1.04	365
0.195	1.04	356
0.1811	1.04	350

One Wisconsin farmer who is grinding with electricity installed a small burr mill on a post support so that it could be fed by a spout from a bin upstairs, and discharge into a sack at the foot of the post. A neighbor down the road has a burr mill fitted with a large hopper. There is plenty of room for the ground feed under the mill so it can run for considerable periods without attention. Still a third farmer grinds with a small hammer mill. It is supported above a concrete stall in the barn and fed from an upstairs bin by a spout fitted with a slide. The ground feed discharges into the stall which is boxed to retain the dust.

Tests on these mills showed the following current consumption for grinding:

Size	Ave. h. p. required	Size of motor	Repairs (sets burrs)	Used daily during grinding season	Kw. hrs. per mo. during grinding season
				Lbs.	
6" burrs	3	5 h. p.	4	300	18
6" burrs	1–1½	2 h. p.	2	150	35
Small hammer	5	5 h. p.	None	250	12

Further tests were made with new and dulled burrs. The new ones ground 100 lbs. of oats with .2 kilowatt hours of current; the dull took 4.75 kilowatt hours for the same amount; that is twenty-four times as much.

Material	Grinding Kilowatt hours of current per 100 lbs. ground
Corn, shelled	0.25
Corn, ear	1.00
Oats	1.00
Rye and wheat	.50
Hay	1.10
Bone	1.10

Sawing is another winter job for the portable motor. When the wood pile is ready and the saw set up, the motor can be pushed over and belted directly to the saw. One fine, frosty morning when the thermometer stood at fourteen degrees below, a test run was made on a Wisconsin farm where a 5-horse power motor was running a 28" cord wood saw. A cord of mixed green wood was cut into 12" lengths, three cuts to a stick, in twenty-four minutes, and with a current consumption of 1.2 kilowatt hours. The saw kept three men busy.

The buck saw and the cross cut are following the scythe and cradle into history. Iron muscles are beginning to shoulder their jobs.

Relation Between Horses a Man Uses and Value of the Crop He Produces

	Horses per worker	Value of production per worker
Italy	.19	$ 45.00
France	.37	90.00
Germany	.55	119.00
United Kingdom	.88	126.00
United States	2.05	292.00
Alabama	.81	112.00
New York	1.69	250.00
Iowa	3.86	595.00
Nebraska	4.71	910.00

—U. S. D. A. Survey.



10% more milk

Doubles your profit

Noted dairy experts say that in the average herd one-tenth more milk will *double* the net profit. It costs no more, for instance, to house, feed and care for a good milker than a poor milker. After actual expenses are met every quart of milk is net profit. What other effort on the farm will pay you so handsomely as intensive milk-production?

Let Kow-Kare work for you this winter. Use it—as thousands of other money-making dairies are doing—to systematically regulate and condition your cows so that they are able to turn their food into big milk yields. A few cents per month per cow pays for all the Kow-Kare needed—a mere fraction of your certain returns.

For cows about to freshen, give a tablespoonful of Kow-Kare at feedings for two or three weeks before and after calving. It builds vigor to stand the strain of calf-birth, and to resist disease.

Barrenness, Retained Afterbirth, Abortion, Bunches, Scours, Lost Appetite, etc., are all successfully treated with Kow-Kare. Full directions on each can. Feed dealers, general stores and druggists have Kow-Kare. Large size $1.25; 6 cans for $6.25. Small size 65c. Send for booklet, "More Milk from the Cows You Have."

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The regular conditioning of cows with Kow-Kare calls for only a tablespoonful in the feed one to two weeks each month—depending on the general vigor and productiveness of the individual cow. Give this plan a trial this winter on the whole herd. It costs so little and does so much you cannot help but profit by it.

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Home-Mix Your Own COMPLETE MINERAL
With Kow-Kare you can easily mix your own complete mineral at a surprisingly low cost—a mixture of recognized conditioning value. Simply mix 30 lbs. salt, 30 lbs. fine-ground lime, 30 lbs. steamed bone meal and four cans (large) Kow-Kare. For well under $6 per hundred you will have an unbeatable mineral. Use 80 lbs. of this mixture to a ton of grain.





How to Know Blood Diseases in Your Herd



Barrenness or Sterility, Slinking of Calves, Retained Afterbirth, Goiters in Calves, Scours in Calves, Infected Sire, Shortage of Milk.

If your herd is afflicted with any of these ailments you will know they are not doing their best. You can stop these losses at small expense.

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[Advertisement]
Starts Hens Laying

Here's a New Way to Get Eggs in Winter. Costs Nothing to Try

A letter from Miss Dama Wright, Vernonia, Ore., has a real idea for chicken raisers who are not getting plenty of eggs. She says:
"Late in October, our fifteen hens were not laying at all. I started giving them Don Sung, and for ten days they still didn't lay. But on the eleventh day they laid thirteen eggs, and it is wonderful what Don Sung has done for our egg basket."
Don Sung, the Chinese egg laying tablets which Miss Wright used, are opening the eyes of chicken raisers all over America. The tablets can be obtained from the Burrell-Dugger Co., 316 Postal Station Bldg., Indianapolis, Ind. Poultry raisers whose hens are not laying well should send 50 cents for a trial package (or $1 for the extra large size, holding three times as much). Don Sung is positively guaranteed to do the work or money promptly refunded, so it costs nothing to try. Right now is the time to start giving Don Sung to your hens, so you will have a good supply of fresh eggs all winter.

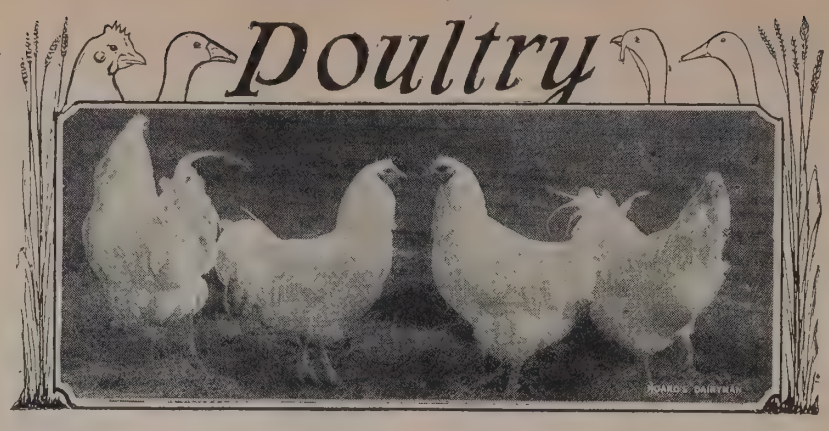
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No single invention in poultrydom has so largely increased egg production and the profits from a flock of hens as has the famous original
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GRAIN SPROUTER
Our W. H. Monroe invented the first grain sprouter and we are its largest manufacturers and make five kinds to meet every need and climate, the DOUBLE QUICKS, EGGETTERS, SECTIONALS, MAMMOTH and ELECTRICS, and all sizes from 8 qt. to 15 bu. Ask for "SPROUTED OATS—MORE EGGS," the most valuable and complete catalog on sprouted oats and sprouters ever offered.
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MICHIGAN ACCREDITED CHICKS (We Ship C. O. D.)
Buy your early hatched chicks in Michigan. First hatch January 15. Also booking orders now for spring delivery at special discount. Send for catalog and prices.
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Boys and girls! Join the Juniors and get the emblems of our club, watch fob, or necklace, pin and creed. Easy to join—costs nothing. Write for application.



Supplements to a Ration

A ration for egg production must be complete. It should supply material in sufficient amount to maintain body weight and permit heavy production without seriously depleting the body reserve.

The last years have brought forth many new ideas in connection with nutrition. We have in part, at least, discontinued a discussion on feeding that is based solely on protein, fat, carbohydrates, etc., as was formerly the case. In addition to these, one must give attention to vitamins and minerals.

The old idea still persists in the minds of a great many poultry keepers that limestone grit should be supplied merely to assist in grinding the feed. Last week I saw one of many houses that was all fixed up with a nice box of gravel, stones, and other forms of false teeth for the flock.

Results from the Wisconsin Experiment Station show the following results with various forms of mineral additions. (Cir. 141)

	Eggs laid		
Mineral feed	4th test	5th test	6th test
Oyster shell (coarse)	884	761	1,364
Oyster shell (pulverized)	587	590	1,056
Clam shell (coarse)	780	619	1,255
Dry bone	450	587	814
Lime rock	515	472	846
Lime rock and potassium iodide	532	358	714
Calcium carbonate and potassium iodide	622	513	853
Calcium carbonate	439	493	745
Calcium phosphate		475	735
No mineral addition	210	388	693

One will note that the best results were obtained in each test when a coarse oyster shell was used. The contrast, however, was slight as compared with coarse clam shell and very great when compared with a finely ground or pulverized oyster shell. From this one can conclude that coarse oyster shell must be used even though a grit is supplied. The grit should, in addition, be a limestone grit.

Another misconception often encountered is that the production of soft shelled eggs comes as a result of no oyster shell. This table also tends to disprove that belief since the check pen receiving no mineral addition produced fewer eggs than the pens receiving calcium carbonate, which is oyster shell.

Soft shelled eggs may be caused by injury to a hen such as that occasioned by falling from a roost or due to fright. In such instances the egg slips past that portion of the oviduct where shell secretion normally is completed without sufficient time for complete deposit.

Hens that are extremely fat may lay soft shelled eggs and in other instances it may be a regular practice. Paper shell eggs are of course due to a vitamin deficiency.

When a flock is placed on a ration deficient in calcium carbonate, the hen will apparently deplete her body reserve and will then produce at a rate and level which the supply makes possible. A hen will not intentionally produce an egg and neglect to put on a covering if there is material from which to make the shell.

Coarse oyster shell is rather low in price and because an average hen will only consume about 3½ pounds per year, a flock owner is often led to believe that its addition to a ration is not urgent. It is or should be just as much a part of the ration as the grain, mash, or other ingredients.

Calcium chloride is common salt. The addition of this to the ration, rather than placing in a hopper, is advised. There is a possibility of an excess of salt causing a heavy mortality by poisoning.

Usually fine salt at the rate of 1% in the mash is sufficient. This means one pound per hundred pounds of mash mixture. Fine salt can be more evenly distributed and will avoid any one bird obtaining an excess. Recent work seems to show that larger amounts may be fed without seriously affecting the flock, but this amou apparently ample.

The necessity of feeding bone i pendent upon the source and am of animal protein feed. When scrap or a meat and bone meal is ed to the mash at the rate of tw per cent, it is probably unnecessar feed any bone which is, of course, cium phosphate. There will usu be enough carried in the other f When a mash is mixed with a low per cent or milk is used as source of animal protein, the add of five per cent of bone is advis

The exact amount which is requ even for chicks is not definitely es lished but the amount given wil sufficient.

The final supplement to a ratio all heavy producing flocks in northern states is cod liver oil. material is so relatively new as a p try feed that a great deal of misun standing about its uses and the to use is evident.

One controversy always enc tered is in respect to the use o fined or crude oil. This usually m the light or dark colored oil. I in this case it is impossible to definite recommendations. For a age purposes one will find or sh find that the light colored oil cont both A and D vitamins while the colored oil contains D with onl possibility of A. It is possible obtain the A from other source that an oil containing only D ma used. That is the vitamin desired required for successful winter r agement. The D vitamin makes gr er calcium assimilation or diges possible. The action is similar to obtained when the flock is expose direct sunlight.

The only assurance that one ha obtaining value in making a cod oil purchased is through the reliab of the concern dealt with. presence or absence of vitamin oil is determined by a physiolog test which means feeding to ani in a controlled ration. A chem test will not determine value.

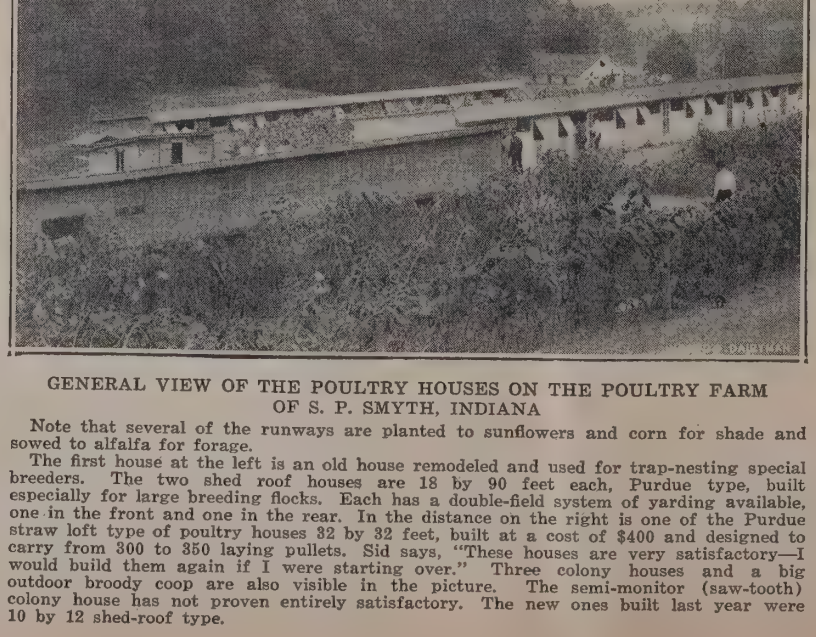
The only other alternate for liver oil or meal is direct sunlight fact, the sunlight should be obta by open windows whenever possib

Oil is usually fed to laying hen a preventive for paralysis, p shell texture, low production, and eating rather than a corrective a these troubles appear.

The usual recommendation is per cent added to the dry mash. also fed as one pint per hundred l weekly in moist mash, milk, or t scratch feed. The way in which fed is of minor importance. Feed a reliable oil that contains the ne sary vitamins is of greatest imp tance.

Another reason for oil feeding a been advanced lately as a theory that some believe that feeding t material rather early in the fall early hatched stock will tend to p vent the false molt. The reason be of this lies in the fact that cod li oil feeding apparently keeps the fe in better physical condition, allw production to continue, and helps p vent molt.

There is always a tendency to o state any proposition and this ha part been true of cod liver oil. S people have maintained that feed this material prevented or contro worms in poultry as well as dise This is a fishy statement without definite proof. There are certain v for oil but it should not be conside as a cure-all for everything.—J. B. HAYES.



GENERAL VIEW OF THE POULTRY HOUSES ON THE POULTRY FARM OF S. P. SMYTH, INDIANA

Note that several of the runways are planted to sunflowers and corn for shade and sowed to alfalfa for forage.

The first house at the left is an old house remodeled and used for trap-nesting special breeders. The two shed roof houses are 18 by 90 feet each, Purdue type, built especially for large breeding flocks. Each has a double-field system of yarding available, one in the front and one in the rear. In the distance on the right is one of the Purdue straw loft type of poultry houses 32 by 32 feet, built at a cost of $400 and designed to carry from 300 to 350 laying pullets. Sid says, "These houses are very satisfactory—I would build them again if I were starting over." Three colony houses and a big outdoor broody coop are also visible in the picture. The semi-monitor (saw-tooth) colony house has not proven entirely satisfactory. The new ones built last year were 10 by 12 shed-roof type.

"Chicken, suh," said the old Ne sage, "is the usefulest animal der You can eat dem before dey is b and after dey is dade."

The Kansas State Herds

(Continued from page 1092)

ls. It so happens for the past il year that the only institutional l maintaining Ayrshires claims honor with a production of 19,- lbs. milk and 739.4 lbs. fat in days. This cow a grade by the , has recently finished a complete ation with a record of 23,542 lbs. and 863 lbs. fat that ranks with highest of her breed. This cow milked four times a day as were y of the other high individuals. ains are spared in the state herds roducing a winner and the com- tion runs keen every year. Uni- ly high production has been at- ed. For the past year, the rec- show 347 or 55% of the cows in ss of the 300-lb. fat mark, while ndividuals had over 500 lbs. fat to credit. It is interesting to note for the first year of the work 1—'22) only 26% produced more 300 lbs. fat.

ot the least important feature of state herd work in Kansas is the ual short course held for the state lsmen at the college. All insti- ons are ably represented, and last year saw several of the superintendents and a member of the State Board of Administration in attendance. In addition to the regular program of lectures, the problems met with in the different herds are discussed and plans made for the year's work. It affords the men in charge of the herds an opportunity of getting together and has undoubtedly proven a big asset in promoting a livelier interest and desire to do better on the part of those responsible for the welfare of the herds at each institution.

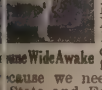
AYRSHIRES

eptional Ayrshire Opportunity

orn, June 3, 1927. Color: White with a few red spots. Sire: Penshurst Rising Star, 20922, 260, with 38 daughters having 52 records aver- 10,900 lbs. milk, 440 lbs. fat, 4.04%, winners of ch Cups, 1 Gold Medal, 1 Association Cup and r Medals. Dam Reba Ayr, 54053, a large typy th a big udder and long well placed teats. She has or three-year-old record of 9,405 lbs. milk, 381 at; Mature, 11,115 lbs. milk, 429 lbs. fat. Six World's Champions in six years

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Dropped March 27, 1927, solid light fawn, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

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No. 1—SYBIL'S COMET—A real Star. A Jan., 1927, solid colored bull calf. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Granddaughter (double)—Sybils Gamboge.
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CID'S CHERRY PRINCE. Dropped October 11, 1925. An excellent individual. Royally bred in prepotent lines for heavy production and approved breed type. His dam, Cid's Cherry Blossom, has a Register of Merit record of 13,576 pounds of milk and 646.09 pounds of butterfat. She is one of the best and highest testing daughters of The Imp. Cid, the sire of 46 tested cows.

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Cid's Cherry Prince is a great bargain. For price and pedigree address—

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remarked J. Frederick Gormley, well known artist, cattle judge and sportsman, as he carefully inspected the udder of White Dorothy, the second prize aged Ayrshire cow at the National Dairy Show.

"Every time I crawl under an Ayrshire, I am amazed at the wonderful udders that have been bred on these cattle. Such teats! Such quality, and oh the balance and shape! Never saw anything like it," added Gormley enthusiastically as he regained his feet.

You will agree with Gormley if you will just note the udders on the Ayrshires owned by breeders near you. But after all the udder is only one of the many reasons why the Ayrshire is so popular.

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THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Wisconsin State Guernsey Sale

Wisconsin Guernsey men are making a strong effort to have an annual sale that will attract Guernsey folks from near and far. The first of these sales was held November third at Waukesha; 78 animals changed hands. Most of the animals were mighty good ones and a credit to any sale ring. In many instances animals sold a bit below their value but the consignors bore the burden cheerfully. This spirit insures future successes.

The average of the sale was $291, a very creditable figure when all factors are considered. The top individual was Shoreland Katina, a seven-year-old A. R. cow from the Stevens herd. She was purchased by Mrs. Chauncey McCormick, Illinois, for $1,000. Mrs. McCormick also paid $850 for Marna's Jewel of Sun Set View, a six-year-old cow consigned by Pflughoeft.

W. A. Erbach bought Corwin Ultimas Ivan, the highest priced male, for $500. He was consigned by Rueping. The bull calf, Juvis Altimas, from the Mills herd, was second high. R. D. McLean bought him for $415.

The three largest buyers were Fort Dodge Creamery, Iowa, eight head; R. D. McLean, Michigan, nine head; and W. T. Acker, Pennsylvania, six head.

Benjamin and Love cried the sale.

Animals bringing $250 or more are:

R. D. McLean, Michigan	
Willalvin's Royal Pearline	$300
Mary Reynolds of Fern Hill	400
Ella Goldendale	305
Janet of Prospect	390
Estella's Lady	550
Royal's Christie of Blowmedown	440
Juvis Altimas	415
Shoreland Primrose	335
W. T. Acker, Pennsylvania	
Glorious Princess 2d	$700
Cherub's Dairymaid of Hartwig Farm	280
Mourine's Morn of Loberg Glen	400
Lois Ann	575
John Kiesling, Wisconsin	
Maple Lawn Murnie	$250
Lady Jenny's Milkmaid	265
Ft. Dodge Creamery Co., Iowa	
Gipinda of Kreemy Dale	$400
Olney's Beauty 4th	370
Quaint of Birchwood	310
Cherub's Ollie of Gordondale	255
Fair View Beda	400
Gladys of Clover Daily	250
Hipple Home Farm, Illinois	
Glen of Fern Hill	$335
Dr. Mayle, Wisconsin	
Autocrat's Morning Glory	$280
R. Soquet, Wisconsin	
Bob's Susan	$400
Chas. Knight, Ohio	
Amy of Willow Lane	$425
Fair View Violet	375
Gertie of Waldwic	300
L. C. Erdman, Wisconsin	
Golden Pollyanna of Gordondale	$265
Earl Hopkins, Wisconsin	
Chequamegon Dairymaid's Fern	$275
Gavin McKerrow, Wisconsin	
Silkie's Danny of Fern Dell	$340
Canary's Fairchild of the Wern	250
A. H. Schmiege, Wisconsin	
Cherub's Maude of Chippewa	$290
A. O. Roberts, Wisconsin	
Dairydette's Cherub of Chippewa	$290
Mrs. C. McCormick, Illinois	
Marna's Jewel of Sun Set View	$850
Shoreland Katina	1,000
J. H. Kaiser, Iowa	
Corium Ladock's Fancy	$385
Wm. A. Erbach, Wisconsin	
Corium Ultima's Ivan	$500
D. M. Laney, Wisconsin	
Buttercup's Promoter of Ravine	$325
R. W. Krobitzsch, California	
Luxerin Coquette	$435
A. C. Kleinhaus, Wisconsin	
Shoreland Bonny Lad	$365
L. L. Angevine, Illinois	
Meadow Lawn Hope	$260

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ITCHEN KING 49803 AR is the Sire of King's Advocator, 126310, 1st prize and Junior Champion Bull at the N. Y. State Fair. Itchen King has two 800 lb. and one 700 lb. daughters. His Dam made over 800 lbs. fat and she has one daughter with a record of over 900 lbs. fat. We offer for sale Sons of Itchen King out of AR Dams. Priced at $250. and up.
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To avoid inbreeding we offer for sale RAINB FISHERMAN OF WOODEND 81150—Age 5 Sire: Langwater Fisherman 21873 A. R. Dam man's Mixter Rainbow 73217 A. R. Record milk—623.58 fat (Class C) and out of a daug Langwater Demonstrator. Guaranteed a breede particulars write. Bull calves of this breedi sale, out of A. R. dams.
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MAY ROSE GOLDEN SECRET and NE US ULTRA breeding. Write for descrip- ns and prices. Dams are official tested. redited herd.

HER & MAHER, Devils Lake, No. Dak.

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re offering at attractive prices a few bulls sired by RADISSON'S GOLDEN LIST 91632, whose get was awarded rize at Dairy Cattle Congress in 1926. a son of GOLDEN CORONET OF JEAN UTH 81283, world's champion Guernsey ss AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Hotel Radisson, MINNEAPOLIS, MINN.

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lorn Hill Farm Guernseys



Have several high class Guernsey bulls at reasonable prices. May Rose and Glenwood breeding. Dams have records up to 700 lbs. of fat. Write for sales list to

IST ZIESING, Deerfield, Illinois.

FOR SALE

registered Guernsey heifers seven to twenty old, a number bred, others open. $1900 for F. O. B. cars, all papers furnished. Several d bulls, all ages. Also offering twenty high bred two-year-old heifers, some to freshen soon. uys them. Above stock is especially well bred. ze, good type, in good condition, well marked. B. tested. Priced for quick sale.

LOBDELL, Mukwonago, Waukesha, Co., Wis.
On State Highway 14

HIGH QUALITY
DAIRY COWS

pringing and Fresh — ALL BREEDS

EID MURRAY, Oshkosh, Wis.

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

LINWOOD FARM GUERNSEY BULLS FOR SALE
Linwood's Lucky Strike, age 12 mos. Dam 675 lbs. fat.
Linwood's Successor, age 12 mos. Dam 515 lbs. fat.
Linwood's Merit, age 12 mos. Gr. D's. 566 & 740 lbs. fat.
Linwood's Charm, age 12 mos. Grandams 540 G and 740 lbs. fat.
Linwood's Best, age 11 mos. Dam 517 GG, Gr. D. 804 G.
Linwood's Regent, born April. Dam 707 lbs. fat.
Linwood's Actor, born Apr. Dam 744 C, grandam 804 G.
Linwood's Victor, born April. Dam 669 lbs. A.
Linwood's May King, born April. Dam 634 A, grandam 804 G. Write for New Sale List
LINWOOD GUERNSEY FARM,
Homer Rundell, Livingston, Wisconsin

BUTTERGOLD GUERNSEYS

SERVICEABLE YOUNG SHOW BULLS from tested dams, sired by National Grand Champion whose first four daughters now finishing tests will average over 600 lbs. fat, two with first calves, one with second. Clean stock.

TARR BROS., NEW AUBURN, WISCONSIN

FOR SALE — Yearling Purebred GUERNSEY BULL

Also several young bull calves. Dams with records exceeding 500 lbs. Prices and particulars on request. Address

EDWIN EVANS,
INGERSOLL-TILDEN FARMS, Delavan, Wis.

Serviceable Show Bull

FROM CLASS LEADER DAM

Am offering DAIRYDETTE'S CHERUB OF CHIPPEWA for sale. Born Feb. 20, 1926. A good show prospect. Dam has 697 lbs. fat in E. E., eighth in her class, first in Wisconsin. Sire, a prize winning son of Cherub's Prince. Write today for detailed information.

L. P. MARTINY, Chippewa Falls, Wis.

BULLS

A son and grandson of Ivy Queen 41970, her record 16,186.70 lbs. milk, 933.80 lbs. butterfat. Also others.

GEO. E. LARSON,
Amherst Jct., Wisconsin.

"Luxerin"

We have three very typy, well grown young bulls about ready for service. Dams on test. One 13 months, May Rose sire, Glenwood dam. A real bull with a real pedigree.

B. F. SHERIDAN, Fond du Lac, Wis.

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

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Will sell bull calves of various ages. Also heifers and cows with A. R. breeding. Accredited herd. Write to

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GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

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J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

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200 GUERNSEYS

THE OLD RELIABLE

LA CROSSE COUNTY GUERNSEY BREEDERS' ASS'N

WILL SELL AT

West Salem, Wis., Wed., Nov. 30th

200 Registered and High Grade Guernseys

30 REGISTERED COWS and HEIFERS of the best families of the breed.

20 REGISTERED BULLS—Many from high record cows and old enough for service.

150 HIGH GRADE GUERNSEY COWS and HEIFERS. Fresh or close springers.

All from Federal Accredited Herds or just tested.

Send for Catalog and full particulars at once

H. W. GRISWOLD, Sale Manager, West Salem, Wis.

CORIUM GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. - - - FOND DU LAC, WISCONSIN

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OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

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Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

Guernsey Bulls at Farmers' Prices

Serviceable show type, sired by the best son of the Famous World's Record Cow, Lone Pine Mollie Cowan A. R. No. 11278, who sold for $15,100 at Stout Dispersal Auction. Dams have A. R. records.

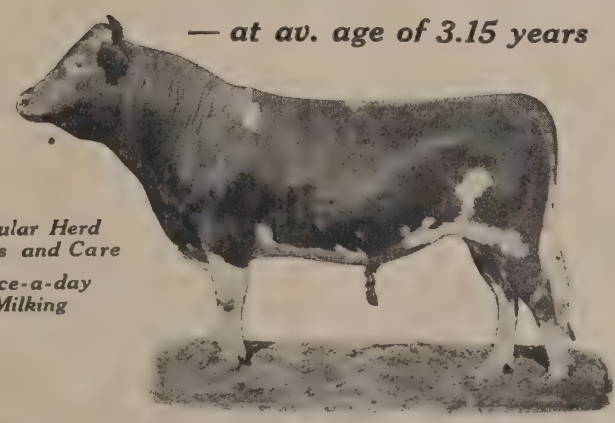
HAPPY HOLLOW FARM, A. M. Kailing, Prop., THIENSVILLE, WIS.

His First 20 A. R. Daughters average—434.7 lbs. fat 8989.11 lbs. milk

— at av. age of 3.15 years

— Regular Herd Rations and Care

— Twice-a-day Milking



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.32 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money. We have several nice ones on hand now — and they are priced to sell.

HERD ACCREDITED

Hoard's Dairyman Farm, Fort Atkinson, Wis.

Hunter of Kewaunee

(Continued from page 1093)

ways built of hardwood and usually in a square box or a big hogshead with poles across the top. The fish were strung on hardwood sticks and were hung crosswise of these poles. One had to watch the fire so that it wouldn't burn the fish and keep it down to a point where some smoke would roll up against the fish. Fish prepared in this way could be kept several months. Occasionally fish were salted down in half barrels for winter use. The Kewaunee River was a great source of food for the early settlers.

The muskellunge inhabited the Kewaunee River. Unlike the red-horse, suckers, and pickerel it did not go up the rapids, but came to the foot of the rapids and fed on small fish, going down to deep water during the day and coming up in the evening.

For spearing, we used a flat bottom boat. In the bow of the boat we set an arrangement known as a jack made by the village blacksmith from iron or steel where we built a pine pitch fire which lighted the river for several rods on either side of the boat. One person poled in the stern while the other fellow stood in the bow with a three-tine steel spear. Two-tine and five-tine spears were used but the finest, in my estimation, was the three-tine.

The muskellunge are very wary fish. As soon as disturbed by the light, they dash for deeper water. After several months' practice, I was able to throw the spear fifty or sixty feet with almost the precision of firing a rifle.

In the winter we caught muskellunge with a decoy fish whittled out of a little block of pine. Little pearl buttons represented the eyes, and fins were made of tin. Enough lead was run into a groove in the bottom of the block to sink it. A cord was tied to a staple. A spear having a four-foot handle attached to a strong cord was used.

Then a little light-roof house about six feet square was built to place over a hole, about two feet across, in the ice. Old carpets or rugs were put down so that one could be comfortable. With the tin fins turned just right, the decoy made a downward glide. The tail was adjusted so that the fish made a circle. A little rod about two feet long was attached to the end of the string. By making a circular motion the decoy glided around in the water very naturally.

As a rule, the muskellunge hesitated a little before coming for the bait. Very seldom could you raise him the first time. He usually came somewhat deep in the water, then you raised the decoy with the left hand while the right hand held the spear. As the decoy raised, the muskellunge usually passed on but came back within a minute or so, higher up, making a daring attempt to catch the fish. If the decoy made any unnatural move, the deception was detected immediately. When he was within a couple of feet of the surface, he was in good striking distance. With one swift move the spear was driven into the fish. Very often two or even three muskellunge were caught in an afternoon. However, like hunting and fishing one might fish faithfully for an entire day and not even see a fish.

The white man learned to catch muskellunge with a decoy from the Indian. The Indian was very adept but never had a comfortable house. He usually used a blanket or deer hides supported by bent sticks. Indians were fond of fish but, strange to say, they did not get so they could cook fish that were appetizing to white men.

(To be continued)

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For bedding, most convenient, serviceable and sanitary. Write for special, delivered prices.
Jagerson Fuel Company, Neenah, Wis.

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With patented Rib Point and Double Bar Lock. They are superior to others. Cost no more. Attached in one operation. They are guaranteed.
WRITE FOR FREE SAMPLES.
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The Next Big Sale Opportunity!
BROOMFIELD RANCH and CATTLE COMPANY'S
DISPERSAL SALE!
Quality - Breeding



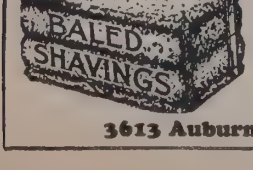
"CARNATION KING WALKER"
Senior Herd Sire, Son of the $106,000 Bull—To Be Sold
75 PUREBRED HOLSTEINS
Every animal to be sold without reserve or protection; tuberculin tested and selling with retest privilege. Not a single reactor in ten years of breeding.
Offering real opportunities in foundation cows, well bred Ormsby heifers and a choice of bulls of all ages, including the Junior Herd Sire, "Broomfield Champion Walker," the three-year-old son of "Carnation King Walker," and from the dam, Olive De Cola Champion, who had an average daily milk production of 106 lbs. for 90 days with an average test of 4.7.
Dec. 2 — Broomfield, Colo.
For Sale Catalogue Write
R. E. HAEGER, Algonquin, Ill.
WM. HENDRIX, Herdsman Broomfield, Colo.

High Grade Holstein Springers
If in the market for big production these cows will please you. Tuberculin tested. Address
RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

Young Bulls For Sale
FROM AN ACCREDITED HERD
We have for sale some excellent young bulls up to 10 months old. They are from good record dams of Colantha breeding. Most of them are by Lauderdale North Star Champion a 1034 lb. grandson of Johanna Bonheur Champion. A few by K. P. O. P. 54. Their prices are reasonable. The herd is fully accredited.
OSBORNDALE FARM, DERBY, CONN.
WALDO S. KELLOGG, Owner

WE OFFER SOME
SPLENDID HEIFER CALVES
from High Producing Dams sired by Matador Pietertje Prospect, our senior sire. Sir Segis Letta—a son of Matador Segis Ormsby from a 1,000-lb. 2-year-old is our Junior Sire.
BRACH HOLSTEIN FARM,
R. F. D. No. 2, Franksville, Wis.

Jefferson County Holsteins
Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.
JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.



BALED SHAVINGS
For bedding, keeps floors dry and warm. Prompt shipment everywhere. Write us for prices.
FRANK MILLER & SONS
"The Sawdust Millers"
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SIR ROMEO MILDRED COLANTHA

We have a Few Very Nice Sons of Sir Romeo Mildred Colantha to Offer

Never defeated in the show ring, the All-American Champion bull, Sir Romeo Mildred Colantha has demonstrated in 1927 what may be expected of him in the future.
His first young sons and daughters have been shown by Carnation Farms all over the United States, winning highest honors at the leading shows. At one show his get defeated even the get of Sir Inka May. One of his sons was Junior Champion at State Fairs in Iowa, Kansas, Oklahoma and Arkansas. One of his sons won 6 firsts and a second, another son won 2 firsts and 3 seconds.
AND THESE ARE HIS FIRST OFFSPRING
The Secretary of the Holstein-Friesian Association of America is using a son of Sir Romeo Mildred Colantha on his herd.
Send at Once for Full Information Concerning Sons of Sir Romeo Mildred Colantha Now for Sale
Address all correspondence to
1111-B CARNATION BUILDING, OCONOMOWOC, WISCONSIN
HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR
Carnation Milk Farms

Clover Lawn Ormsby Fobes
Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

NORRIS FARM *Is Offering* SEVERAL DE ABLE BULLS, ready for se this fall. Also YOUNGER CALVES. Write for particulars.
MUKWONAGO (Fully Accredited) WISCON

AN AREA TESTED COUNTY
The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Buyers are given every consideration in helping to locate and assemble their purchases, whether it be one or a carload. Can furnish you with 40 pure-bred cows and heifers bred to freshen this fall and early winter. A carload of bred, richly bred, grade heifers. 4 carload of springing and fresh highly bred grade cows. October and November freshening. Also a number of good pure-bred bulls 3 months to 1½ years old.
Send for bull list or write your wants for serviceable bulls. Sample—Bonair King Pontiac, born October 1, 1926, well marked, a good individual; Sire—Pabst Woodrest Pontiac 288286. Dam has 1178 lbs. butter in a year. Dam—Bonair Beauty Ormsby 4th 454150. Butter 7 days @ 3 years 20.50 lbs. Price $175.
W. L. Baird, Art Bennett at your service. Write or wire.
WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

75 to 150 High Grade Holsteins and Guernseys
We have for sale at all times from 75 to 150 high grade Guernseys and Holstein springers of all ages. T. B. tested. Sound and heavy producers. We buy and ship on order. Visit us or write. Prices reasonable. Satisfaction guaranteed.
LA CROSSE COUNTY DAIRY CATTLE CO.,
Raymond Knutson, Mgr., West Salem, Wis.

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association
can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

ABORTION FREE HOMESTE
We usually have some well bred bull from fine blood lines for sale. Place orders early.
T. B. under Federal Supervision.
MILWAUKEE COUNTY INSTITUTIONS
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager,

TWO GOOD BULLS FOR S
Ollie-S, P. O. M, 37th Breedin
We have two typy young bulls for sale One is from a 26-lb. granddaughter of and by a 968-lb. son of Iowana Sir Ollie other is from a 28-lb. granddaughter of and by Sir Ollie Mooie Watson 7th. calves priced right. Write today or co the farm.
DICMERE FARM
H. E. DICKINSON, Oconomowoc,

MILFORD MEADO
KING BESS BURKE ORMSBY—MARA AAGGIE—SIR TRIUNE PANSY
A combination of bulls whose individualit production will improve your herd. calves carrying the blood of all of the sale.
"A Record on Every Dam."
W. W. KINYON, MGR., Lake Mills

ORMSBYS and OLL
One of the greatest herds in Wisconsin of the best herd sires in the Middle Just drop us a line and your bull trouble look easy; we have a surprise for you. stein bulls of type and production at that will please.
F. H. BOYLE, OWNER, PEEBLES,
L. F. Murphy, Manager.

YOUNG BULL
sired by Governor Fobes and from good year record dams for sale. Breeding, prod type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYMOUTH,

Come to Sheboygan County for Hols
We have choice grades and purebreds to from. Write your wants to
SHEBOYGAN COUNTY HOLSTEIN A
Frank Ubbelohde, Secy., Plymouth,

Holstein Milk



Vitality!

The Production of Holsteins

e average butterfat produc- of the 27,798 Holsteins ich have been credited with g-time tests is 533.72 lbs. the average 331 producing s. For the 9,774 aged rs — average producing s 332 — the average but- at production is 600.60.

Write for Holstein Literature

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LINOIS HOLSTEIN-FRIESIAN ASSN.
earborn, St., CHICAGO, ILL.

AGAIN THIS FALL

sold out of serviceable bulls. Those who ir stock must speak for them early. Re- les to former customers take many of lls. May we describe some of the ers now on hand?

k River Farms, Byron, Ill.

33-lb. 900-lb. BULL

he Type and Production Kind

IGH ORMSBY JOE POSCH is for sale. Born , 1927. A splendid calf with both type and Dam a 33-lb. cow with 2 records over 900 a year. Sire a son of the world's champion r-old. Pietertje Ormsby Mercedes Frisby. (She 41 lbs. in 7 days as a 4-year-old.) Price is le. Write

HE W. T. RAWLEIGH CO., OWNERS
's Ideal Farm, Freeport, Ill.

lo Creek Farm Holsteins

e offering **BULL CALVES** rich in breeding from tested dams. These om six to eleven months old. Some as low as $100.00. Write for pedigrees rther information. Herd under federal ision.

AM BROS., Arlington Heights, Ill.

— We Can Offer —

Few Choice Bulls of Ormsby Breeding

ill be ready for fall service. They are ndividuals from good record dams. Also younger calves at bargain prices.

ELLWOOD & NELSON
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DE PARK FARM

S PARK, - ILLINOIS

Offers BULL CALVES

by an outstanding 35-lb. son of Mata- om Fully Accredited Registered Yr. with leading cow testing association s. $100.00 up for typy individuals.

A. CARROLL, Owner — WILLIAM EDGAR, Herdsman

Buy from Hoard's Dairyman ad- tisers and tell them you saw ir ad in Hoard's Dairyman.

IN NO OTHER HERD

Can There Be Found Five Cows With Records Equal to These Five Femco Cows

May Walker Ollie Homestead	1,523.24
Milk	31,610.60
Grahamholm Co. Paul. Segis	1,426.75
Milk	34,291.80
Grahamholm Col. Segis Maid	1,316.60
Milk	33,545.60
Miss Mutual Rose De Kol	1,260.50
Milk	26,551.80
Aurora Homestead Badger	1,208.76
Milk	32,321.20

Eight other cows in the herd have records from 1,000 to 1,194 lbs. Femco Holsteins are producers.

A Few Choice Bulls For Sale

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

STEELE COUNTY HOLSTEINS

Are noted for their size, type and production. Purebreds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

Last Calf Advertised Was Sold to Nevada, But We Have Another Good One

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.

ST. OLAF COLLEGE FARMS, Northfield, Minn.

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by **KING PEITERTJE MERCEDES ORMSBY**, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

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NELS PARSON, SALES SEC.,
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OHIO HOLSTEINS

Registered **COWS, HEIFERS** and **BULLS.** Very choice Calf Club **CALVES.** We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

HOLSTEIN BULLS FOR SALE

SPRING BROOK BESS BURKE 2ND—ORMSBY breeding. All sold out of bulls over six months of age. Herd under Federal Supervision for tuberculosis, also blood tested for abortion.

WINTERTHUR FARMS. Winterthur, Del.

K. P. O. P. Bulls

If you will need a new sire during the next year get in touch with us. We can offer you just what you want.

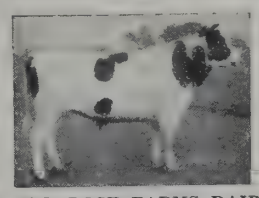
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Come to Michigan for Holsteins

Better Make it Snappy — Winter Cometh !

What Shall I Ask Our Sales Managers to Quote You Upon ?

Write J. G. HAYS, Sec., MICHIGAN HOLSTEIN-FRIESIAN ASS'N, EAST LANSING, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

A Serviceable Colantha Bull

GOOD TYPE A. R. DAM

We have for sale a showy young bull by Sir Dutchland Colantha Denver, 36 lb. 1300 lb. grandson of Colantha Johanna Lad. He is from Serradella Canary Butler Boy 22 lb. jr. 3 year old with 616 lbs. butter in 305 days. Born June 1926. Price $200. Write today.

SERRADELLA FARM, (Federal Accredited Herd) Oscoda, Mich.

The Blue Ribbon Cow at Memphis

Tulip Beauty 438524 Owned by the Michigan Reformatory **First Prize Cow Nat. Dairy Show at Memphis**

Tulip Beauty is a Michigan bred cow and traces directly to two of the sires famous in Michigan State Herds, Hengerveld DeKol and Pontiac Butter Boy, also to a third famous Michigan bred sire, Sarcastic Lad. During the past year the Michigan Reformatory herd of 52 cows averaged 15,023 lbs. milk and 501.4 lbs. fat in C. T. A.

Michigan State Herds—Bred for Production

BUREAU OF ANIMAL INDUSTRY, Dept. B, Lansing, Mich.

Use a Bull Sired by Ambassador Fobes



"Ambassador" is by S. P. O. M. 37th and out of that great foundation cow, Wisconsin Fobes. His sons and daughters have good type. His daughters' records prove him a sire of production.

We have for sale a few young sons of Ambassador Fobes. They are from good record dams that have both individuality and breeding.

Write or, better still, come to the farm.

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Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



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Our Junior herd sire is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis, with 4 records over 30 lbs. and with 950 lbs. butter in a year.

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Dam, **LASHBROOK JUNE WALKER ORMSBY,** an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of **Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.**

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A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

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K. P. O. P. breeding. Sons of Rival King Ormsby Mercedes, his dam world's champion in Class C. Under Federal Supervision. If you want show type, size and production write

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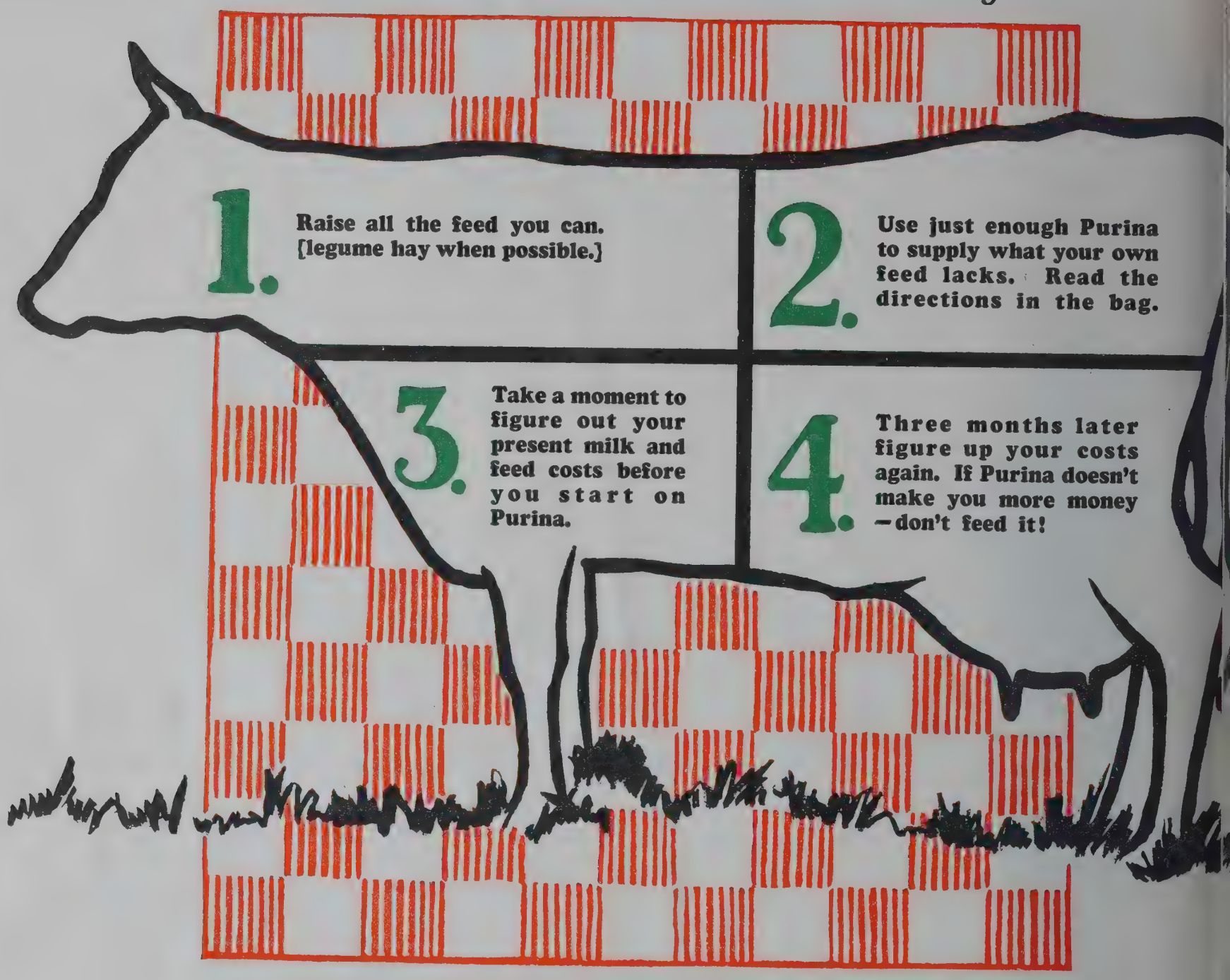
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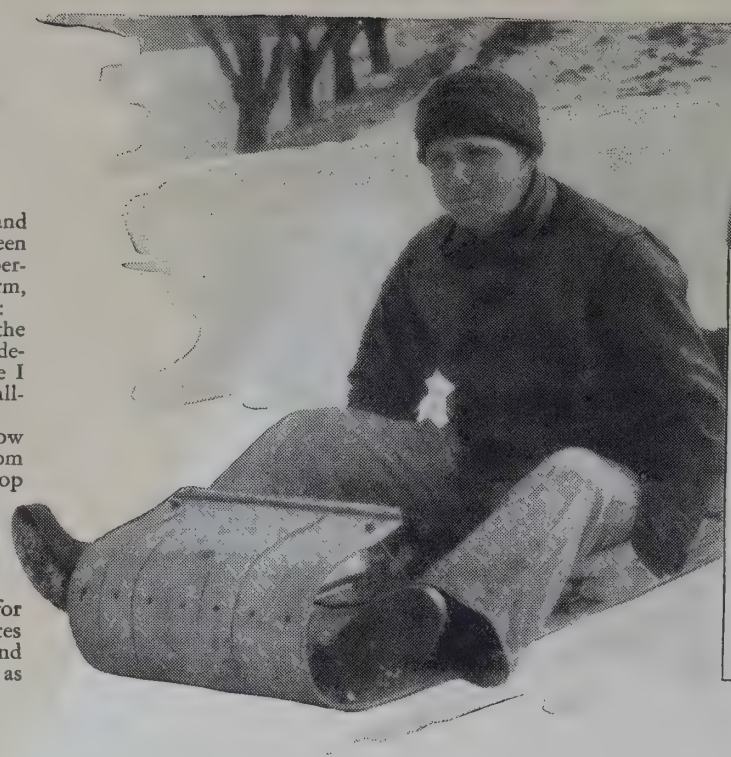
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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING



Volume 72, No. 23 Fort Atkinson, Wisconsin December 10, 1927



Ball-Band footwear also includes many styles of rubbers and galoshes for dress wear. Trim fit, smart line and long wear are built into every item—and the Red Ball is on every one.



"You can't beat them for wear"

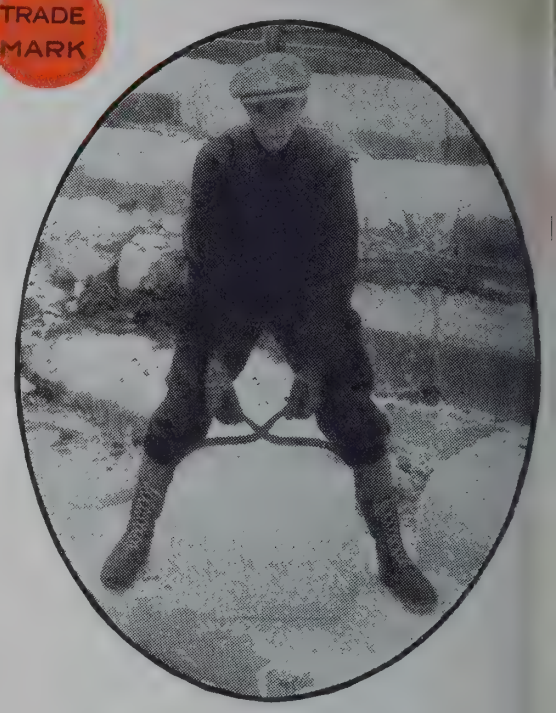
"I have worn Ball-Band rubber and woolen footwear for about eighteen years now," says Samuel J. Millar, Superintendent of the big Briarcombe Farm, at Winona, Minnesota. He goes on:

"I first made the acquaintance of the rubbers with the little Red Ball trademark down in Pennsylvania, where I learned how much punishment Ball-Band boots will stand.

"My stock of Ball-Band rubbers now includes practically everything from light rubbers for dress wear to high top boots for hunting and fishing. For all-'round farm work I wear the heavy rubbers over my shoes. You can't beat them for wear."

Briarcombe Farm is widely known for its registered Guernsey cows and for the beautiful landscaping of its 476 acres of rolling, fertile land. Mr. Millar and his men find time for play, as well as work, as the photograph shows.

TRADE MARK



In midland Minnesota . . . on Vermont's mountain farms . . . and on the plains of Kansas . . .

Through winter's cold and wet their FEET are WARM and DRY

There's a big difference in climates in this country, just as there is a big difference in the work that men do. But these men—and millions like them—know that Ball-Band footwear stands the gaff, regardless of work or weather.

In snow and slush, in rain and mud, these rubbers and boots keep the feet warm and dry, month in and month out.

And in Ball-Band footwear you get good fit, whether it is in rubber boots worn over socks, or arctics and rubbers worn over shoes.

Good fit means foot comfort and, as every farmer knows, farm work in bad weather is much easier if the feet are not pinched or cramped or rubbed at any point.

You can make sure of getting fit, comfort and more days' wear if you ask your dealer for Ball-Band rubber footwear. Be sure you see the Red Ball trade-mark.

MISHAWAKA
RUBBER & WOOLEN MFG. CO.
313 Water Street, Mishawaka, Indiana

"Warm in the coldest weather"

Five years ago G. J. Perkins and his son, Charles H. Perkins, started a milk route in Brattleboro, Vermont. It is a town of only about 2000 homes, and four other dairies were already in operation. Today they boast the largest route in town, delivering over 500 quarts of milk daily. In this way they market the dairy products of a herd of 70 cows, all registered, and all maintained on their 265-acre farm.

Like his father before him, Mr. Charles Perkins, whose photograph is shown, wears only Ball-Band footwear. He has on one of the leather top rubbers. "I like it," he says, "because its rubber shoe part is just high enough to keep my feet dry at most of the work I do, and its high leather top enables me to wear a Ball-Band wool sock underneath that keeps my feet warm in the coldest below-zero weather.

"Most of our men wear Ball-Band footwear, too. I believe there is just as much difference in rubber footwear as there is between blooded and scrub bulls. For instance, one of the boys paraded a new pair of things before me not long ago that looked like my Ball-Band footwear. He boasted of the money he had saved in buying them instead of Ball-Band. They are already worn out and mine are just broken in."

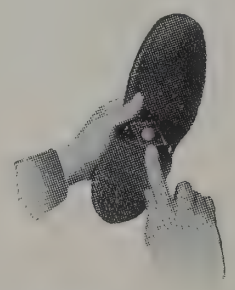


"Fitted perfectly"

"Every Red Ball article I ever had, fitted perfectly and kept its shape. My rubbers do not rot or crack—only wear will destroy them, and they stand that for a long, long time."

This is the opinion of Anton Jacobsen, one of the best known farmers around Atchison, Kansas. Mr. Jacobsen combines a 94-acre dairy farm with chicken raising. He has 25 Holstein cows and 500 White Leghorns. Explaining further, he says:

"I've worn footwear with the Red Ball trade-mark for twenty years or more. I've worn many a pair of four-buckle cloth arctics for three winters and a pair of Ball-Band boots will last me for years. The rubbers that I have on are what I wear around the barn when the ground is frozen, or go to town in."



BALL-BAND

BOOTS · LIGHT RUBBERS · HEAVY RUBBERS
ARCTICS · GALOSHES · SPORT AND
WORK SHOES · WOOL BOOTS AND SOCKS

Look for the Red Ball



If you like your shoes and rubbers combined, Ball-Band makes several styles of leather-top rubbers. (See cut on extreme left.) The rubber and arctic shown are two popular styles for winter wear.

sifying Pure-bred Sires

Minnesota Holstein Breeders' tion, co-operating through the il County Holstein Breeders' tion, is undertaking a piece k in classifying the pure-bred service in the herds through- ertail County, which will mean h to the Holstein industry as dvanced Registry work did t was started through the Hol- riesian Association of America.

rtail County, since organizing ears ago, has been one of the ctive county Holstein associa- n the country. This organiza- the present time has a reputa- placing the largest number of red sires in the sire campaign county in the United States. have also been very active in velopment of the county mana- n, the promotion of boys' and alf club work, the eradication erculosis, the organization of sting associations, and in gener- licity on Holsteins. Much has written regarding classification pure-bred Holstein sires and s, and the Ottertail County rs decided that it was time to lking and start something that be done in a practcal way.

the request of the Ottertail y Holstein Breeders' Associa- committee was appointed by oard of Directors of the State in Breeders' Association to co- e with the county association in ping a practical plan that would to both grade and pure-bred The men on this committee W. S. Moscrip, V. S. Culver, Hansen, and John B. Irwin.

plan, as developed, is applica- both grade and pure-bred herds he purpose of this undertaking e briefly classified as follows: 1. fying pure-bred sires according e production and type of their ing. 2. Classifying the cows, if reeders so desire, according to 3. Giving breeders advice and stions on their breeding opera- This plan will discover the bulls of the breed through their and the type and production of daughters; it will continue in e the outstanding sires of the in as many herds as possible; t will enable breeders to secure ervice of pure-bred Holstein sires not only rate good as individuals have proven their value through type and production of their ring.

the work of classifying sires, no are classified unless they rate good, very good, or excellent. In the work, the advisors found the plan of sub-dividing each one e above classes into a minus and rating gave a better general idea e exact rating of the sires as well males, so that in reality, instead aving the four ratings, there d be twelve ratings.

e work in the classifying or rat- of sires has been completed in rtail County, a total of 13 sires 7 herds being classified.

llowing is the official classifica- schedule that determined the ification or rating of the sires in county project. In presenting classification the sires are divid- nto three divisions, and for the enience of the readers we are ar- ing this classification in reverse r to show the gradual progress he type and production of the ring are indicated.

sion C. Bulls, One Year and Over

ss 3. Bull, one year old; fair individual untested dam.

ss 2. Bull, one year old; fair individual A. R. dam, or very good individual from ted dam.

ss 1. Bull, one year old; good individual from A. R. dam, or good or excellent individual from untested dam.

Division B

Class 3. Type: Fair individual from untested dam; not less than 8 offspring, grade or pure-bred, 50% of which must rate good, very good, or excellent.

Class 2. Type: Fair individual from A. R. dam, or good individual from untested dam; not less than 10 daughters in milk, 50 per cent of which must have A. R. or cow testing association records of not less than 300 lbs. fat; and 50 per cent of all offspring must rate good, very good, or excellent.

Class 1. Type: Fair, good, very good, excellent. Records of dam: if any. Offspring: Not less than 10 daughters in milk, 50 per cent of which must have A. R. or cow testing association records of not less than 350 lbs. fat, and 50 per cent of all offspring must rate good, very good, or excellent.

Division A

Class 3. Type: Fair, good, very good, excellent. Records of dam: if any. Offspring: Not less than 10 daughters in milk, 50 per cent of which must have records of 25 per cent above A. R. requirements, and 60 per cent of all offspring must rate good, very good, or excellent.

Class 2. Type: fair, good, very good, excellent. Records of dam: if any. Offspring: Not less than 10 daughters in milk, 50 per cent of which must have records 40 per cent above A. R. requirements, and 60 per cent of all offspring must rate good, very good, or excellent.

Class 1. Type: Fair, good, very good, excellent. Records of dam: if any. Offspring: Not less than 10 daughters in milk, 50 per cent of which must have records 60 per cent above A. R. requirements. Not less than 20 daughters in milk, 50 per cent of which must have records 55 per cent above A. R. requirements: Not less than 30 daughters in milk, 50 per cent of which must have records 50 per cent above A. R. requirements; and 60 per cent of all offspring must rate good, very good, or excellent.

ROBERT GEIGER, Sec.,
Minnesota Holstein Breeders' Asso.

Effect of Sunlight on Calves

T. W. Gullickson and C. H. Eckles make the following report in the Journal of Dairy Science:

Four heifer calves were placed on an experiment at from 3 to 7 days of age. Two were confined in a completely dark well-ventilated box stall and allowed in the open only at night. The other two were allowed to run out of doors during the day and confined only at night. The ration for all animals was identical, the grain portion consisting of corn meal, corn gluten feed, wheat bran, and linseed oil meal, 3:1:1:1, and timothy hay of fair to poor quality forming the roughage. The animals were weighed every 10 days and the height at the top of the withers measured every 30 days during the 2-year period.

The animals in both lots continued normal in all outward respects during the test. All heifers came in heat when less than a year of age. The two in the "sunlight" group were accidentally bred at the first heat period. One dropped a normal full-time calf, and the other a small, slightly deformed calf, with both eyes present but blind. This condition was not thought to be due to the ration. One heifer in the "no sunlight" group was bred at about 16 months of age and dropped a normal calf. The other heifer of this group was found to have malformed reproductive organs which prevented conception but did not hinder oestrum.

From these data it is concluded that the absence of sunlight was without effect upon calves kept in darkness from the age of one week to two years. Normal reproduction also occurred.

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And You'll Find it Superior to Sixes of Other Makes Costing Hundreds of Dollars More

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2. 7-bearing Crankshaft
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9. Special Engine Manifolding
10. Exclusive Type of Cylinder Head and Combustion Chamber
11. Silchrome Valves
12. Oil Filter
13. Air Cleaner
14. Thermostatic Heat Control
15. Manifold Heat Control
16. Cellular Type Radiator
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18. Rubber Engine Mountings
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29. Headlamp Control on Steering Wheel
30. Narrow Corner Pillars
31. Adjustable Steering Wheel
32. Cadet Visor
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4-door Sedan	1245
Landau Sedan	1295

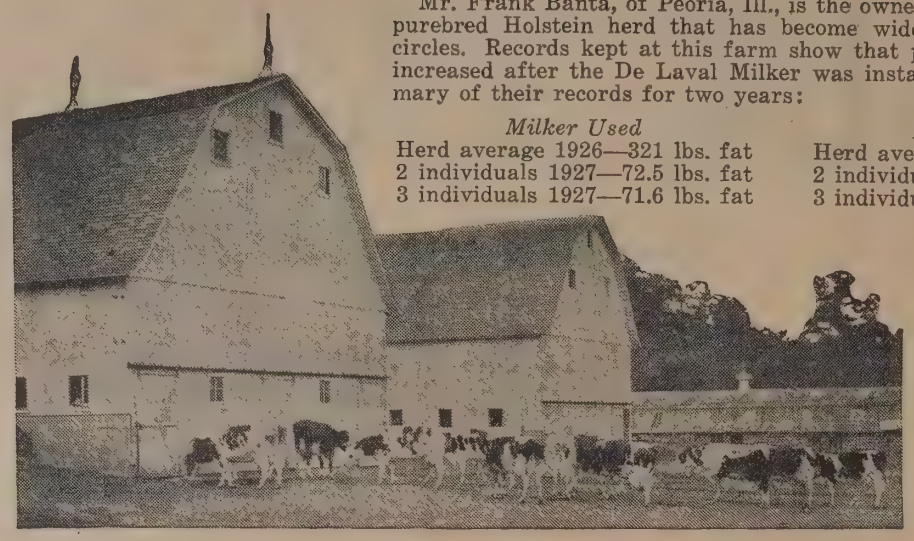
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The New "52" Five body styles $725 to $875

The Illustrious New "72" Seven body styles $1495 to $1745

Imperial "80" Eleven body styles $2495 to $3495



Mr. Frank Banta, of Peoria, Ill., is the owner of a highly developed purebred Holstein herd that has become widely known in Holstein circles. Records kept at this farm show that production was greatly increased after the De Laval Milker was installed. Below is a summary of their records for two years:

Milker Used	*Hand Milking*
Herd average 1926—321 lbs. fat	Herd average 1925—245 lbs. fat
2 individuals 1927—72.5 lbs. fat	2 individuals 1926—56.3 lbs. fat
3 individuals 1927—71.6 lbs. fat	3 individuals 1926—41.2 lbs. fat

Breeders and Dairymen Find the Solution of the Milking Problem in the De Laval!

THE milking problem is many sided, but from whatever angle it is viewed the De Laval Milker offers itself as the practical and desirable solution.

If production is your problem hundreds of breeders of fine cows will tell you that the De Laval Milker helps the cow achieve her maximum production, by means of its uniform, gentle action. They will tell you that its gentle action helps keep teats and udders in the pink of condition and that its dependability totally eliminates the endangering of production records through careless milking or changes in speed and action, as is often the case in hand milking.

If you are endeavoring to solve the problem of producing cleaner milk there are hundreds of De Laval users producing Grade A and Certified milk who will tell you that it is easy with the De Laval. Its sanitary features are exclusively De Laval and are added assurance of consistently low bacteria counts. Best of all, the De Laval Milker is easy to cleanse and keep sweet and clean.

If the saving of time and labor is your goal the De Laval is again the solution to your problem, for one man with the De Laval Milker can do the milking in the same time, in a better manner and with greater ease, than can two or three men milking by hand. It gives you more time for recreation, more time for other work, and makes dairying more pleasant and more profitable.

Write for complete information, or if you prefer, ask to have a De Laval representative call.

De Laval Milker

The De Laval Separator Company

New York 165 Broadway — **Chicago** 600 Jackson Blvd. — **San Francisco** 61 Beale Street

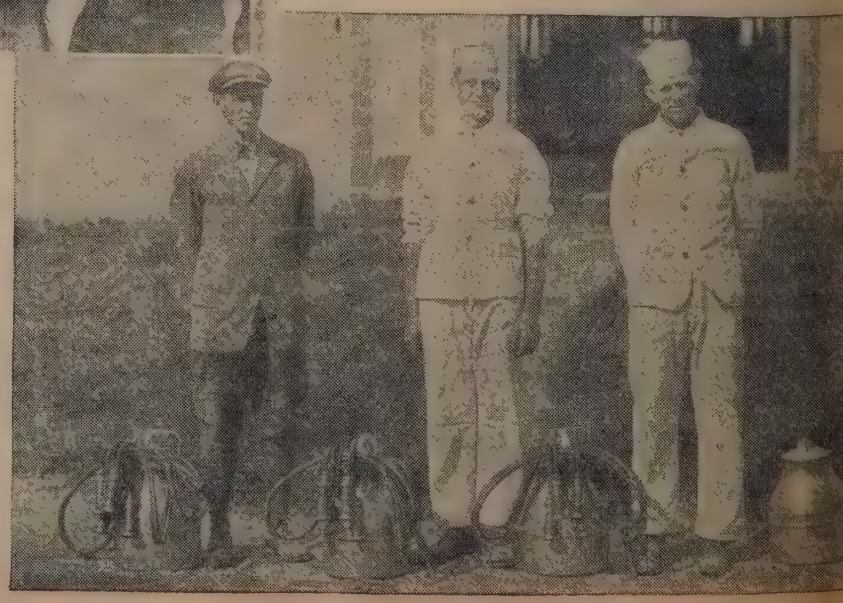
Right: Mr. George Campbell, owner of the Cleburne Jersey Farm at Spring Hill, Tenn., and his highly developed purebred Jerseys are widely known. A De Laval Milker is used exclusively and is regarded as a necessity where better milking is required.

Below: The splendid purebred Ayrshires kept at Locust Farm, Warwick, R. I., owned by Mr. E. H. Parsons, are well known for type and production. A De Laval Milker is used with marked success.



Fair Weather Farm, owned by C. S. Fayerweather, is the home of a fine purebred Guernsey herd that is rapidly reaching a high point of development. Several outstanding records have been made by individuals of this herd recently. Fair Weather Compiegne has just completed her record in Class DDD with 10,483 lbs. of milk and 575.2 lbs. of butter-fat. When this record becomes official she should be a Class Leader taking second place and champion of her class in New York State.





HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

ed at Fort Atkinson, as second class matter.

Semi-monthly

Three Years $1.00

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olume 72 FORT ATKINSON, WIS., DECEMBER 10, 1927 Number 23

FITTING THE FEED TO THE COW

A YEAR ago, beginning October 25, we published a series of nine articles on the feeding of dairy . Inasmuch as December marks beginning of several months of nuous winter feeding, we are ishing a brief summary of that s in two short articles.

n most dairy farms quite a large of the crops grown are marketed ugh dairy cows. The kinds of s grown and the way these are e have a lot to do with their ulti- value when marketed airy products.

costs money to maintain s whether they produce or much. Because of this it is important that attention be given to ling out cows not capable making a fair return for r and feeds used for r needs. The dairy herd rovement association will to eliminate this over- l cost of maintaining nterfeit cows.

uite often it is not the lt of the cow that she s to increase the values the feeds given her. metimes she is underfed, n though the feeds used of desirable kind and portion.

f cows are to return good es for the feeds they con- ue, a wage for labor, ething with which to pay other costs and a profit des, they must have the t kinds of materials to k with; their rations st be balanced according their needs.

he dairy cow uses more gh feeds and gives a ater return for them than other farm animal. The ryman who realizes this sets his farm in order to produce e quantities of the best roughage thereby built a substantial foun- ion for his feeding practice.

s a rule, the most economical pro- tion is from a ration the rough- part of which is a succulent feed a legume hay. Good roughage uld be fed to the limit of appetite. he effect of growing legumes on fertility of the soil has long been wn. This value is indirectly re- ted in the milk check because it kes possible growing more rough- on a given acreage, thereby en- ing a dairyman to feed cows he al- dy has better or he may increase herd and still feed good cows all y will eat of good roughage.

A good cow cannot do her best on d roughage alone.

The two most important functions a grain mixture are: (1) to sup- the additional nutrients required t are not supplied in the rough- e; and (2) to supply these nutri- ents in such proportion as will meet the requirements for a balanced ration. In addition to these the grain mixture should be palatable; it should be made of a variety of feeds; and it should not disturb the normal digestive process.

The two most common errors in feeding grain to cows are: (1) underfeeding of quantity; (2) underfeeding of protein.

A combination of silage and alfalfa or soy bean hay requires a grain mixture yielding about 11 per cent digestible protein; one of silage and clover hay, 12 to 14 per cent; one of silage and mixed hay, 15 to 17%; and one of silage and non-legume hay requires a mixture yielding from 18 to 20% digestible protein.

How can such mixtures be made without actually figuring them out on paper?

In order to get variety and with it palatability it is advisable to include in any mixture two carbonaceous feeds, two high protein feeds, and one bulky, medium protein feed. Carbonaceous feeds commonly grown on farms or available in the local market are: corn, grain sorghums such as kafir, barley, oats, and hominy feed. High protein feeds of standard quality and usually available are: linseed meal, cottonseed meal, gluten meal, gluten feed, soy bean meal, and ground soy beans. The most popular bulky, medium protein feed is wheat bran.

In addition to these are ready mixed feeds offered by the various manufacturers and made to fit the various needs of dairy farmers. In buying mixed feeds it is important to make the feed fit the roughage available.

The proportions of different concentrates for mixtures suitable to be fed with different roughages or their combinations are as follows:

Roughage combination	Carbonaceous feed	Bran	High Protein feed
	Lbs.	Lbs.	Lbs.
Silage and alfalfa hay	600	100	100
Silage and soy bean hay	600	100	100
Silage and clover hay	500	100	200
Silage and mixed hay	450	100	250
Silage and non-legume hay	350	100	350
Alfalfa or soy bean hay	600	100	50
Clover hay	600	100	100
Mixed hay	450	100	250
Non-legume hay	350	100	350

The table above is only an approximation and should be used with some discrimination. The amount of carbonaceous feed indicated in each case should be supplied from two such feeds in approximately equal amounts; it is desirable that the amount of high protein feed indicated also be supplied from two such feeds. For example, the mixture for silage and alfalfa hay calls for 600 lbs. of carbonaceous feed, 100 lbs. medium protein, bulky feed, such as bran, and 100 lbs. of high protein feed. The mixture might be made of 300 lbs. each of ground corn and oats, 100 lbs. of bran, and 50 lbs. each of cottonseed meal and gluten feed.

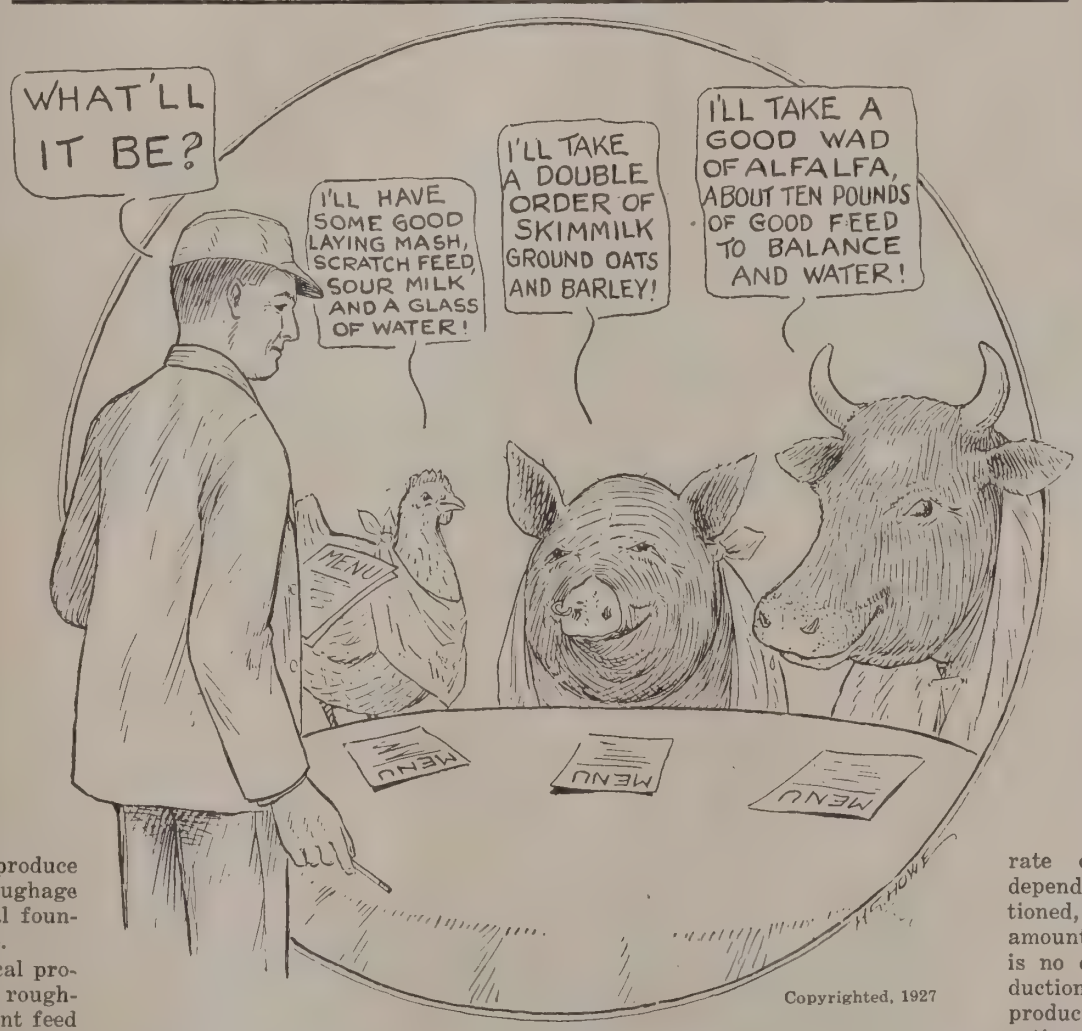
It is not advisable to use corn, hominy feed, gluten feed, and gluten meal all in the same mixture because all are from only one source, corn. Furthermore, all are heavy feeds and 100 lbs. of bran is not enough to give such a mixture the desired bulk.

After one has provided good roughage and has made or bought a concentrates mixture suitable to be fed with it, the rate of feeding the mixture is of considerable importance. The rule in most common practice is to feed grain to Holsteins, Ayrshires, and Brown Swiss at a rate of 1 lb. for each 3½ to 4 lbs. of milk produced and to Jerseys and Guernseys at a rate of 1 lb. for each 2¾ to 3¼ lbs. of milk produced. These rates will vary somewhat with the quality of roughage offered and with the likes and dislikes of the individual cows. A very good practice is to start in feeding grain at a rate of 1 to 4 or 1 to 3¼, depending on the breed, as mentioned, and gradually increase the amount until such times as there is no corresponding increase in production. This finds the maximum production obtainable with a given ration under given conditions. Maximum production is not always the most economical production but as a rule it is. By trying out the quantity of grain fed in the above manner one avoids both over- and underfeeding, a very important factor in the economy of production.

We have tried to make the suggestions in this article as simple and as practical as possible. We urge such of our subscribers as are interested in improving their rations to compare their present rations and feeding with the suggestions made. If, on comparison, it appears that improvement can be made, we urge that a trial and comparison be made

(Continued on page 1171)

IF THEY COULD ORDER



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LOVE OF FARM LIFE BRINGS SUCCESS

D. Q. GRABILL, WISCONSIN

IVER Storstad began with the stumps and brush, left by a big lumber company, in 1917, to make a successful dairy farm near Brainard, Minnesota. Today he has a home anyone would be proud to own and happy to live in.

Iver was born in Norway with a love of the country in him. So when he came to America at the age of 21, landing at Fargo, North Dakota, he immediately got a job on a big farm. He knew just a little English, but quickly picked up more. Because of his industry, his willingness to use his head, he became the farm manager. It didn't take him long to absorb American ways, while keeping the many benefits he had from living in the old country.

When one of the big railroads was making extensions out through the West, Iver was attracted to construction work and became a foreman From this he went to the work of a locomotive carpenter, building engine cabs, in the Northern Pacific shops at Brainard, Minn., for nearly fifteen years. But the old love of the farm kept pulling him back to the soil.

So finally he left the shops for good, so he says, and bought 40 acres of stumps. It didn't look very encouraging. But Iver knew his health would be better out of doors than in the shops. His wife did her part and helped him to succeed.

"I always wanted to get out and build up a real dairy farm, making clean milk and selling it at a reasonable price. I didn't like the kind of milk we used to buy in town and thought we would be doing something really worth while if we could help other folks to have the kind of milk they ought to use.

"That was my ambition when we moved out here among the stumps. I have bought some more land since then, so we now own 86 acres of which 40 are cleared and under plow. In 1918 I began dairying with just four grade cows. Right now we are milking 23 cows but usually have a few more than that. They are all high grades. It does not pay to keep and work with a poor cow."

The Storstads are proud of their farm, so have given it a name, "Greenwood Dairy." They have made the name stand for quality in Brainard. There is a demand for all the milk the Greenwood Dairy produces. But there is no delivery to the homes. Each day Iver takes his bottles of milk into town, leaving them at five grocery stores and two bakeries, and receives 8 cents a quart. He has no deliveries, no trouble with collections.

The barn and the dairy house are kept clean enough for inspection at all times. We know this is true, because no one at the Greenwood Dairy was expecting us the day we visited there. And we only wish we could always be sure of getting milk from a barn and milk house we knew to be just as clean as this one. A lot more milk would be used under such improved conditions.

The barn was scored not long ago by a representative of the Live Stock Sanitary Board at 96, which is very high. The score card used conformed very closely to the requirements of certified milk barns.

"I had some rather hard, dirty competition to begin with," says Iver, "but I had faith folks would eventually turn to a product they knew was produced under the right conditions and properly taken care of."



THE OLD BARN IN WHICH IVER STORSTAD BEGAN TO DAIRY

As soon as the milk is drawn it is cooled, this being made possible by the use of ice. There is a good sized ice house near the dairy. Mrs. Storstad takes all the care of the utensils and helps with the bottling of the milk. In fact all the work on the farm is done by Mr. and Mrs. Storstad and their twelve-year-old boy. Of course, he only helps such time as he is not in school.

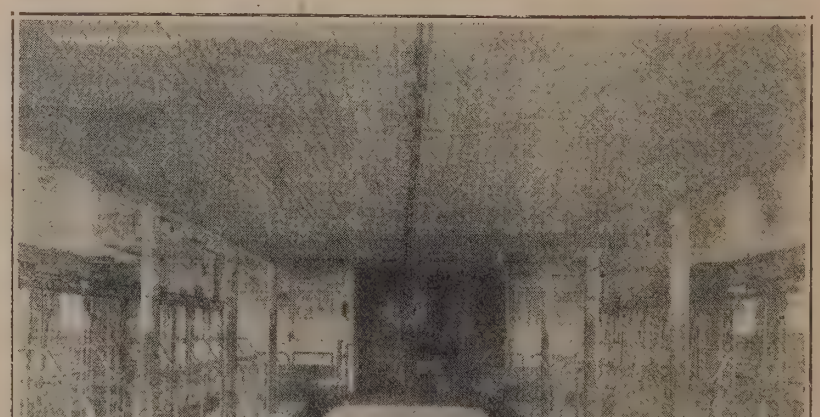
Iver is a believer in using machinery and equipment wherever possible to take the place of human hands. He finds it isn't so much of a chore to do all the milking himself with a good milking machine. His carrier saves a lot of time in cleaning out the barn, in fact the young son does most of this work and does not object with such mechanical assistance.

"The drinking cups are a mighty fine thing," says Iver, "for they not only make the cows do better, but they certainly do save a lot of labor. They never take any time to care for, except once in a while to clean out. I hire no help, so have to use every way to keep down my labor."

The barn is 86x74 feet in size, completely equipped and ventilated with a modern system. "I received quite a lot of help in planning my barn from the company supplying the equipment and the system of ventilation." An 80-ton silo stands in one corner. Iver has no trouble raising all the silage he needs and could easily duce more. No doubt he will a dairy grows.



THE STORSTADS HAVE REASON TO BE PROUD OF THEIR "GREENWOOD DAIRY" FARM



INTERIOR OF THE NEW BARN WHICH IS COMPLETELY EQUIPPED AND SCORED 96 BY THE LIVE STOCK SANITARY BOARD

We noticed a popular make of tor standing near and asked found this practical. He said: "Y is practical for certain forms of But my soil here is not very h It is what you would call a sandy loam. I find I can plow with horses than with the tract can't plow over 4½ inches deep the tractor and I do not plow same depth two years in succe One year I may want to plow inches deep and about six inche next year. I can do that in this soil with horses, but not with tractor. But there is a lot of around the farm I use the tr for."

Iver has adopted a very good tion of crops for his land and cli He raises corn one or two years, ally one; then oats, clover, or al The second crop of clover he al turns under. He has plenty of nure from his herd, which he use erally on his land, so it is alwa good condition to produce well fact, most of our visit took while Iver was loading manure the spreader to take to the field likes to take it out every day, b course there are some seasons o year when this is not practical.

We were a bit pe al when we asked I he was making any ey. He did not he nor qualify his saying: "I certainl making some mone I have told you I only cows that can duce. I try to rai much feed as I ca the acre, and feed care for the cow they have a chan pay me well. And do.

"But to make m on the farm you ne do some things be work. You have g have a good wr desk and use it. I you must keep re and count costs on what you are d

"I have been back to Norway once since coming to this countr want to go over again before lo noticed one thing we can think good advantage in this country. we talk about how many acre have, how much of this or tha are putting in. In the old cou they try, instead, to see how they can raise on an acre.

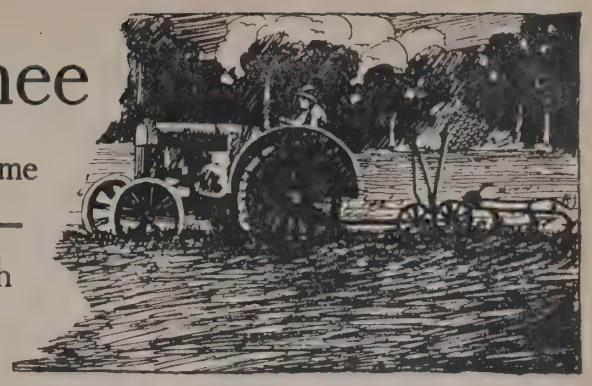
"Until we get right down to th this country we won't improve farming much. That is the only w see that we can get hold of farm prosperity a lot of folks are ing to find. It is right here al time, if they could only see it. trouble is most of us can't see a portunity when it is right in fro us; then we think the govern ought to come along and do magical thing for us."

Iver was able to see a real op tunity nine years ago. He has n lost his vision nor his enthusiasm. dairy is not as large as some, but just as clean, just as good as any er in the country. He is sellin present 250 quarts of milk a da 8c a quart. For his cream he 50c a quart. And contrary to the lief of many, Iver says he can m money raising calves big enough veal. All of which adds to his inc

(Continued on page 1178)



Hunter of Kewaunee



Kewaunee Gold Rush—Lake Captains Become Stock Buyers—Packing Furs to Green Bay—Matches and Early Lights—The Sugar Bush

RANSOM A. MOORE, WISCONSIN

KEWAUNEE, Wisconsin, was brought forcibly to the attention of the United States in 6 because some one found mineral embling gold there. Lands were bought and sold at fabulous prices. A single eighty acres entered from the government in September, 1836, was later sold to Solomon P. Chase by Morgan L. Martin for $38,000. However, the bubbles soon st and the wilderness surrounding waunee was not even disturbed.



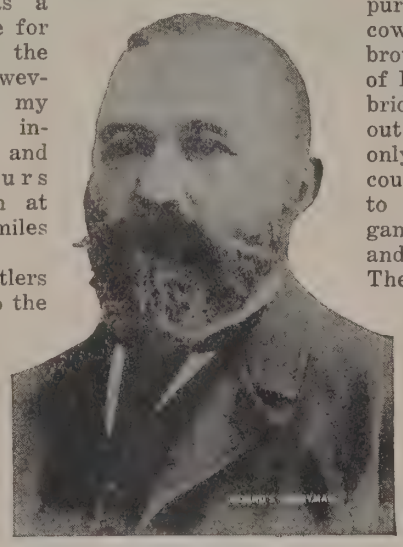
ANSOM A. MOORE

n 1837 a lumber mill was built on Kewaunee River, practically on spot where I was born. This mill not prove to be a success and the perty reverted to its former own- Joshua Hathaway, who finally got Mr. Valk, of Cook County, Illinois, erested in the property, and he ved in to continue the work of ving the lumber July, 1843. On the ole, this first settlement in Kewau- County was practically a failure. was not until 1853 that my grand- her purchased this particular tract land and remnants of the old mill n are still visible. No efforts were de to reestablish this colony as the ber business proved to be a fail-, but in later years a better dam was found about a half mile fur- r up the river and a substantial m with a much better flowage is ll in existence, and a grist mill has en operated by the W. Syke Com- ny for the past quarter of a cen- y.

From a little write-up on Kewaunee quote the following:

"From 1853 to 1858, B. R. White, mes R. Slauson, Joseph and Seth oore, George Grimmer, John Metz-, Charles Brandes, Joseph Walend- Joseph Duvall, Valentine Hoffman, talis Miller, Patrick J. Roonery, arles Deda, Alfred Vibber, Fred Jo- nnes, Charles W. Dikeman, Wojta ransky, John Lutgen, Frederick hne, John Wrabetz, and many oth- came in and settled, and Kewau- began to make visible progress. waunee, however, did not become village until about April 30, 1873, the late R. L. Wing was elected t president of the Board. The city Kewaunee was incorporated April 1883, and V. Mashek was elected first mayor."

The Seth and Joseph Moore re- red to were my Uncle Joseph and my father. Of course they came in 1853, together with my grandfather and a year or two later my grandfather's family moved from Racine to Kewaunee. It was a rather hard struggle for the family during the first few years. However, my father and my grandfather were inveterate hunters and trappers and furs brought ready cash at Green Bay thirty miles to the westward.



HON. V. MASHEK, KEWAUNEE'S FIRST MAYOR

The early settlers clung pretty close to the rivers which were used as the highway for a good many years until roads could be put through. Slauson Grimmer and Company, together with a Mr. Taylor, built a sawmill at the mouth of the river and were also instrumental in helping to put in a bridge pier. This ran out into the lake for sixty or eighty rods. It was constructed by driving poles into the sand and planking over so that teams could draw material for loading the vessels. Previous to that many settlers made timber slides down which they shot their cord wood and ties to the beach. Vessels coming from the South picked them up in small boats or lighters. The mills attracted many settlers.



RESIDENCE OF HONORABLE V. MASHEK

As the early settlers cleared their land, they felt the need of live stock. They secured them through the sailing vessel crews who would agree to bring back cows and heifers. After unloading the vessels, the captain or mate went out into the country around Milwaukee and Racine and purchased the necessary cows. When they were brought up to the village of Kewaunee, before the bridge piers were built out into the Lake, the only way the cattle could be put ashore was to push them off the gang plank into the lake and drive them to shore. The cattle were marked so that every settler secured the animals purchased for him. Later, after roads began to be cut through the forests, considerable stock was driven up.

I have a vivid picture of seeing the various kinds of butter corded up on the counters of the grocery stores. The store keepers took butter, eggs, or anything the farmers produced in return for sugar, coffee, and other necessities. The butter was of all grades and colors. Some was put in prints, some in long rolls, often four or five pounds in a single roll. Some was almost as white as milk and some was a red-yellow. Butter sold at from eight to ten cents a pound, and I think it was the most expensive butter ever put on the market. It had all flavors as well as colors, and would not be eaten now by the consuming public.

For many years it was a rare thing to see a domesticated animal butchered in Kewaunee County. Settlers were so eager to get stock that they would do almost anything to secure it. However, it was all scrub stock. Feed was plentiful and hay could be secured very easily from marshes and waste places. The farmers did no systematic dairying nor did they know what it would cost to produce a pound of butter. The manufacture of cheese was not thought of except in a crude way.

The scarcity of money in the early days was felt by most settlers. The policy of the mills was to create trade for their stores. So if you labored for them, you received what was known as a due bill—a document showing that a certain amount was due the bearer in trade at the stores. This practice lead my father to devote a portion of his time to trapping for furs. It was in this way that I became a student of the forests and streams, and an inveterate hunter and trapper.

I felt that a complete knowledge of the ways and habits of the wild animals made one a master of the animal. Even at the age of ten my father and I would carry our furs to Green Bay, a city founded by the early French settlers largely to secure the Indian trade in furs. We found it much easier to take the Indian trails for a portion of the way, sliding swiftly through the forest, carrying our packs of furs and getting to Green Bay usually by noon. It was about thirty-one miles from home to Green Bay and it seemed no more hardship to go this thirty-one miles at the time when I was nine or ten years old than it is now to get up at my home and go a mile and a half to the office.

There was one settler who lived about ten miles to the east of Green Bay and we aimed to get to his place on the return so that we could easily reach home early the next morning to start the day's work.

No one ever thought of becoming wealthy and the first desire was to get sufficient to eat, drink, and wear, and if one was comfortable he seemed to be happy. The people had very few wants, and these could usually be supplied.

All people practiced rigid economy. After the introduction of matches, a person hesitated before striking a match for lighting a candle. Usually there was a supply of splints which could be put into the stove or fireplace and a light secured. Kerosene was such a price that the people did not burn lamps more than thirty or forty minutes any one evening.

My earliest recollections are of oil lights. Usually a saucer or cup was filled with bear or raccoon oil. A crude wick made of a stone wrapped in cloth burned very nicely.

Some ingenious person brought

(Continued on page 1177)



GENERAL VIEW OF THE CITY OF KEWAUNEE



JOSHUA HATHAWAY, KEWAUNEE PIONEER

Pacific International Live Stock Exposition

F. L. BALLARD, OREGON



AYRSHIRE BULL, CAVALIER'S FOX TROT
Owned by Fairfield Farm, Kansas



SENIOR AND GRAND CHAMPIONS AT 1927 PACIFIC INTERNATIONAL
HOLSTEIN BULL, HARRY WALDORF OF CEREALIA
Owned by J. C. Chamberlin, Washington



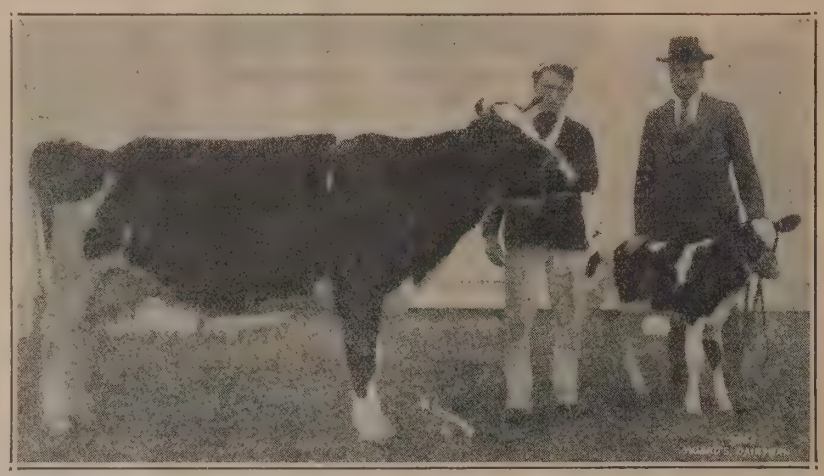
JERSEY COW, BRAMPTON SNOW PRIDE
Owned by F. R. Bain, California

IT is in no way belittling the Pacific International Live Stock Exposition to call it Plummer's show. Broad in its scope and excellent in its quality, it is nevertheless a reflection of the personality of O. M. Plummer, long its manager. Dynamic and always optimistic and an idealist is Manager Plummer. Progressive, optimistic, and substantially sound is his show. Time was not so many years ago when this exposition was a small affair, housed in windswept tents staked out in the winter mud of North Portland. Now instead of a show representative of the Northwest it may almost be said to be an affair truly national in its character.

Many conditions contributed to make this year's exposition set a new mark. An unusually prosperous year in the agricultural regions of the Northwest was a factor. Splendid winter weather conditions was another. Continued support by the Oregon legislature and the state of Idaho are factors. As to the weather, unusual conditions for the time of year enabled the turnstiles to click a total attendance of well over a hundred thousand to equal the mark of last year, a record up to that time. No frost had been experienced in Portland and the coast region, and with the exception of one rainy day, a succession of Indian summer days stimulated attendance from long motor distances. To the many eastern visitors the flowering streets of Portland were a surprise and a delight.

The usual number of meetings were held during the show. Owing to the illness of President E. A. Stuart, the annual meeting of the Pacific International and election of officers were indefinitely postponed. There were, however, the usual business meetings of the Holstein, Jersey, Guernsey, and Brown Swiss breeders, as well as meetings of the beef cattle, sheep, and horse men.

The annual meeting of the western branch of the American Dairy Science Association, of which Professor F. W. Atkeson of the University of Idaho was chairman, was held October 30—31. The usual dairy products display held under the auspices of this association was again a feature. A visitor of note who had a prominent place on the program was Dr. George E. Holm of the U. S. Bureau of Dairy Industry.



WALTER ANDREGG OF OREGON AND THE HOLLYWOOD CALF HE WON
The calf is held by Earl Cooper of the Holstein-Friesian Ass'n. of America. A calf is awarded annually by Harold Stimson of Hollywood Farm, Washington, on basis of animal, 25%; herdsmanship, 25%; showmanship, 25%; record book, 25%.

Following this meeting the Oregon State Buttermakers' Association held their annual convention.

Land Products Show

The Land Products Show was in every way up to its usual standard. The number of county booths was limited this year to twelve, in order that space might be available for general displays and competitions. All were from Oregon. In the county contests Jackson County, Oregon, took first place by a single blue ribbon owing to the excellence of its display of fruit. Washington County, Oregon, took second place with a very excellent exhibit that brought out the diversified nature of farming of the county. Particularly strong was the Washington County exhibit of Burbank potatoes.

In the field of dairying it was shown that Idaho in 1926 produced 36,600,000 lbs. fat, an increase from 17,600,000 lbs. in 1917. Of special interest in the exhibit was the display of Grimm alfalfa seed, of which product Idaho is the leading producer both as to yield and quality, and the display of Great Northern field beans which are one of the important cash crops of the state.

Students' Judging Contests

As usual, an important feature of the show was the student dairy judging contest. College teams from five Pacific Coast institutions engaged in competition in the judging of cattle and in dairy products. In both competitions, the young men from the University of British Columbia won first place. The dairy cattle judging team coached by Professor H. M. King scored 3,555 points and, although no members of the team w high men, the general average exceptional. Second place was wo the University of Idaho with a t only three points less than the ner's. Washington State College third with 3,466 points, Universit California was fourth, and Ore Agricultural College fifth.

Highest scoring individual jud all breeds and classes, was J. Newell, Washington State College W. McKay, University of British lumbia, and R. E. Brooke, his t mate, were second and third.

In the Smith—Hughes live s judging there were 52 teams in contest representing five st Washington contributed 22 te There were 288 participants. F place was won by the Corvallis, team, with the Bozeman, Mont., t second and Redmond, Ore., th Sherman Smith of the Bozeman t was high point winner. The men posing the winning Corvallis t were Clinton Smith, Otto Oetjan, Howard Gibson.

Boys' and Girls' Club Exhibi

More than 400 boys and girls, resenting the best talent of the a cultural and home economics club Montana, Utah, Nevada, Id Washington, Oregon, and Califor attended the exposition and par pated in the activities of Camp Pl mer. Approximately 250 exhibits live stock were made by the members whose participation ma a forward step in every phase of show with the exception of the d department. It is doubtful if the ex it of the dairy stock by the club m bers was quite equal to former ye

This year Washington took trophy, with Oregon second and ho, winners last year, third.

The Dairy Cattle

A return to form of the Jersey hibit, a return with a vengeance

(Continued on page 1168)



WINNERS IN HEALTH CONTEST
Left to right: Dr. C. U. Moore, judge; Reed Rigtrub, Utah winner in boys' division; Lucy Case, coach; Emma May Everett, Idaho winner; Manager O. M. Plummer.



CORVALLIS, OREGON, TEAM, WINNER IN SMITH—HUGHES LIVE STOCK JUDGING CONTEST
Left to right: Clinton Smith, Otto Oetjan, Howard Gibson, Martin Shreiber, coach.

orn Improvement In Various States

H. H. BIGGAR, NEBRASKA

HAT is being done in various states to make for better corn and higher acre yields? A around the circle discloses fine lines of investigations in ess; an honest endeavor to v all possible light on corn prob- Some of the high points only be handled in this article.

Indiana, Dr. G. N. Hoffer states his investigations that many soils are deficient in one or more e essential plant foods. When symptoms of malnutrition are erly interpreted and the nutri- deficiencies corrected, increased s of corn are obtained. These ctions can be made by proper izers, correcting the soil reac- the drainage relation, and in ways.

. Hoffer has discovered methods sting cornstalks to determine the ent needs. The stalks selected esting should represent a majori- f those in the field and should ears well along in maturity. The s are split open lengthwise, and test solutions are used. Tests nade for nitrate in the stalk, for ssium, and for iron with the solu- . The reactions to these tests, in ection also with physical appear- of the corn plant and its parts, the necessary information.

Illinois, work along corn im- ement lines is being carried on at experiment station at Urbana also at Bloomington. The work oomington is under J. R. Holbert e U. S. Department of Agricul- Mr. Holbert co-operates also the experiment station. In Illi- the work in general has been ; corn disease lines. Inbreeding crossbreeding have been and are used in the development of ns resistant to disease and high ield. The Illinois investigators that the greatest improvement be expected to accrue not from ical selection of the ears alone, also from continuous practice of selection and selection on the germinator, always beginning with a strain which has possibilities for improvement.

One of the lines of work which Mr. Holbert has been carrying on is the investigation as to the leaning and lodging of corn plants. All corn growers are familiar with the fact that in any field there are big differences in the fall with regard to the plants being upright, leaning, or completely fallen over. Mr. Holbert in this work has been making use of a pulling machine which shows the differences in the pulling resistance of various plants. He has found that where corn follows corn consecutively for several years, the percentage of leaning stalks is greater than where it follows virgin sod or a leguminous crop. There was an increase in the percentage of leaning stalks where corn was infected with diplodia. Erect strains of corn plants were found to have about twice the root systems of plants which were leaning or lodged.



EAR-TO-ROW BREEDING IN OHIO. WEIGHING THE YIELDS FROM EACH ROW

At the Wisconsin Station, B. D. Leith of the Agronomy Department has been carrying on some interesting work with regard to developing corns for the more northern regions. He studied the problem of germination at 42 degrees F. and selected out lines germinating under such temperature conditions. Field selections have also been made from individual plants showing the greatest resistance to cold weather. Mr. Leith states that thousands of acres of cold-resistant corn, developed through selection, are now being grown in the northern and central portions of the state and that the behavior of this corn is superior to the ordinary varieties grown. The selection work was done with the well known Golden Glow corn.



A VIGOROUS ROW, THE RESULT OF BREEDING FOR RESISTANCE TO DISEASE

At the Virginia Experiment Station, Agronomist T. K. Wolfe has been doing some interesting work in the crossing of varieties. In a cross made between Boone County White and the earlier variety, Silver King, a hybrid was developed which yielded seven bushels more than the former and 10 bushels more than the latter. A strain, V. P. I. Prolific, represents a cross between Cocke's Prolific and Virginia White Dent, which yields more than either of the parent varieties.

In Nebraska, the investigational work with corn by T. A. Kiesselbach, plant breeder at the experiment station, has been along many lines. The most thorough work undertaken anywhere in the study of freezing injury to seed corn has been made here. The tests show that there is a direct rela-

(Continued on page 1177)

Obtaining Money From Intermediate Credit Banks

EDWY. B. REID, WASHINGTON

OW does a dairyman, when he needs money to purchase cows, a bull, or young stock, go t it to get the money from the mediate Credit Bank?" I recent- ked J. A. Rickert, vice-president general manager of the bank at Paul, which serves the states of esota, Wisconsin, North Dakota, Michigan, a good dairy territory. t this question to Mr. Rickert in- l of some managers of the other n banks because his bank now the largest number of agencies counting with it and also the st number of rediscounts.

hat's a simple matter," he re- . "If you are going to ask as questions as that I'll be glad to the 'ask me another' game with all the afternoon. All any dairy- living in these states has to do write to the Federal Intermedi- Credit Bank, St. Paul, Minn., tell- is that he wants to get a loan on lairy stock which he now owns or which he wishes to purchase, we will put him in touch with ocal lending agencies which re- unt their dairy and other agri- ral paper with us. There are t 120 such lending agencies in esota, Wisconsin, and North Da- so the dairyman should not find it difficult to get in touch with one or more nearby. You know we've already lent about $21,000,000 through these agencies and we now have outstanding about $6,600,000. These represent loans on dairy cattle, beef and range cattle, sheep, and general agriculture.

"Many farmers have the idea that we lend directly to farmers. That is a wrong impression. We don't. The Intermediate Credit Banks lend directly to farmers' co-operative marketing organizations. There are not so many of those but that we can deal with them directly, but it would be physically impossible for a bank located in any one city to be able to pass upon the collateral offered by individual farmers over four states. Besides, the law would not permit it. So we advance the money to agricultural credit corporations, live stock loan companies, and in some instances banks. These are all in a position to look up the farmer and his collateral and pass judgment upon the loan. We, in turn, give close attention to the personnel and financial condition of the agencies which offer us the farmers' paper and ask us to advance them the money on it. So the farmers, whether they are dairymen, feeders, or general farmers, get the Intermediate Credit Banks' money, and usually at lower rates of interest and for a longer period than they can obtain it elsewhere."

The other day I travelled about the country adjacent to the Twin Cities talking with dairymen who had obtained loans which had been rediscounted with the Intermediate Credit Bank of St. Paul. To a man, I found them well satisfied with their loans and feeling that they had done a good stroke of business. Not all, of course, had borrowed to buy more stock, although that seemed to be the main reason for borrowing. Where the farmers had the feed or pasture, the additional stock were gradually paying for themselves, where mature cows had been purchased; young stock was being grown at a minimum of expense.

I found that one dairy credit corporation has more than a million dollars loaned to farmers of Minnesota and that three-fourths of it is on dairy cattle. This one agency says it expects to have out four or five million dollars in the next few years and I have no doubt of its ability to serve the farmers of the state to that extent. Other agricultural credit agencies will likely expand in proportion, for there seems to be an increasing pressure for country banks to put their money into industrial securities of one kind and another, and the city banks don't want to bother with "barnyard stuff." The Federal Intermediate Credit Banks, however, are so constructed as to be able to take all of the sound more than six months' agricultural paper that is offered to them. It is for these and other reasons that we may expect to see this type of lending agency become an increasing factor in financing farming.

The practices followed in making loans on dairy cattle vary somewhat with the different agencies, but in a general way they follow the same lines. In some instances a farmer or dairyman wishes to borrow the full purchase price of several head of cows. If he has other collateral than the new cows, so as to afford the credit corporation the desired protection, he may frequently borrow the entire purchase price. Of course, the lender also looks to the man's farming ability, financial statement, and

(Continued on page 1176)

SWEDISH COW TESTING ASSOCIATIONS

Guy A. Peterson, Wisconsin, and Ivar Johansson, Sweden

THE cow testing association idea, which was born in Denmark in 1895, was brought to Sweden in 1898 by that leader in the field of animal nutrition, Nils Hansson. The first of its kind in America was organized in Michigan in 1906. Sweden, therefore, has an eight-year lead on the United States in the adoption of this splendid type of dairy improvement. She now has about 10 per cent of her cows in testing associations. This compares with 20 per cent in Denmark and less than four per cent in the typical dairy sections of the United States. In some of the dairy counties in Southern Sweden, however, as high as a third of the cows are being tested. On the other hand, very little is being done in this respect in sections where dairying is not on a high plane.

In 1924 Swedish cow testing associations received $40,000 government aid, approximately $4.50 for each herd on test or 22 cents per cow. Of this sum, the national government provides one-third and the counties two-thirds. In the smaller, new associations of 250 cows, the government pays practically all the costs of testing. The large associations after three years are practically self-supporting. The net cost to members runs from 50 cents to a dollar per cow per year, but under special conditions it may be more or less.

Sweden, like Denmark, is a dairy country, the main difference between the two being that Denmark has a much larger number of cattle in proportion to her population than has Sweden. Each country has between 2.6 and 2.7 million cattle. Denmark, however, has only 15,000 square miles of territory while Sweden has nearly 174,000, or about three times the area of Wisconsin. Though but 14 per cent of her land is tillable, the large forest plantings bring her percentage of productive acreage up to 64 per cent. This compares to 69 per cent arable land in Denmark, and 33 per cent in the United States. Sweden has 6 million inhabitants while Denmark has but 2.8 million. That makes the number of cattle per 1,000 inhabitants in Denmark 793, United States 620, and Sweden 436.

Because of Sweden's large industrial population her butter export is small compared to that of Denmark, but the average production per cow in the testing associations is about the same in the two countries.

Sweden has only dairy breeds but Denmark has some Shorthorns, though the number is small. Some 25 years ago there were a few Shorthorns in Sweden but, as they were mainly of the beef type, they were found to be such poor milk producers that there is now not a single pure-bred herd left. About 50 per cent of Sweden's pure-bred cows are Ayrshires, this being by far the most popular breed in that country. These Ayrshires differ a great deal from those in America and England, for in reality the breed is not a pure Scottish Ayrshire, but a Swedish one with much Ayrshire blood in it. It was founded in the period between 1845 and 1900. The farmers like the breed the way it is, so it is not probable that they will want to change to the more generally recognized Ayrshire type. The cows are medium size, hardy, with good milk producing capacity and they are quite uniform in conformation and color—chestnut red with white markings.

The black and white Swedish breed of Holsteins, founded on imported cattle from Holland and Friesland, are second in numbers. They occupy the best farming districts in the South. In addition there are three native breeds; namely, the White Polled, which is a mountain breed prevalent in the North; the red and white, a breed somewhat heavier than Ayrshires, carrying considerable Shorthorn blood, kept mainly on the larger farms in central Sweden; and the Red Polled breed, which is of less importance.

Why Not in These United States?

In Sweden, no bull can be sold for breeding purposes at any official sale or awarded government prizes unless he has back of him complete production records for all females in his ancestry for three generations.

To gain registry in pure-bred associations, each animal must be backed by a production record. An Ayrshire female cannot be registered until she is at least three years of age and has given indication that she will produce 242.5 lbs. fat in a three-year average. A more complete and detailed discussion of the Swedish registry rules will appear in a later issue of Hoard's Dairyman.

Organization of Cow Testing Associations

Sweden is divided into 24 counties or "lan," each of which is a unit itself as far as the supervision of t cow testing work is concerned, associations do not cross county lin Counties that have 30 or more as ciations employ a college trained m to supervise the testing. When the are less than that number the sup vision is carried out by the cour adviser in dairying, a man who serv in much the same capacity as d the county agent in America. M Swedish counties have such an viser. The supervisor visits ea tester at least once a year, and special reasons are reported makes extra inspections.

Each association has a preside and secretary-treasurer. The offic employ the tester, but he must approved by the county supervis The minimum educational requi ments for a tester are: a first ha knowledge of farm practice, at le 5 months' theoretical training in agricultural school, and, in additi a six weeks' course in testing.

In 1924 there were 565 cow test ing associations in Sweden, wit 8,713 herds containing 185,026 cow on test. This is 10.6 per cent o the 1,750,000 cows in Sweden The average production of a cows in the associations was 7,09 pounds milk, 3.54 per cent fat, 25 pounds fat.

In the county of Malmohus Sweden, one-third of the cow pop ulation is on test, their averag production being 295 pounds fat.

Rules Given by Agricultural Boa

The general rules for the cow te ing work are given by the board agriculture. Save for minor diff ences in some counties the work carried out in the same way all ov the country. According to these ru the tester has the following duti

1. Weigh the feed given to the mi ing cows each testing day and figu it into feed units. All production based on feed units reduced to t equivalent of 2.2 lbs. barley.
2. Give the dairyman advice feeding in accordance with the p duction of the cows.
3. Weigh and test the milk fr each individual cow.
4. Mark the new born calves the ear with their mother's sta number, or see that the owner ma them in the right way.
5. Keep a record of the testing sults obtained.
6. Send a report to the county pervisor when the testing year

(Continued on page 1172)



HOLSTEIN BULL OWNED BY BULL ASSOCIATION AT SINBURGE. NOTE THATCHED ROOF IN BACKGROUND



A YOUNG SWEDISH BOY RESTING BESIDE A TYPICAL FARM PUMP AFTER A FRUITLESS FISHING TRIP



A TYPICAL SWEDISH AYRSHIRE COW AND A TYPICAL FARMER OF SOUTHERN SWEDEN. PRODUCTION RECORDS ARE REQUIRED



A PRIZE WINNING SWEDISH HOLSTEIN COW. MOST OF THE HOLSTEINS ARE ON THE RICH, FLAT LANDS OF THE SOUTHERN PART

Cow Mothers Pigs

HOARD'S DAIRYMAN:—Two little gs, left motherless last spring, now gularly milk "Evey," a Jersey cow the farm of Mr. Albert Griffin, onnecticut.

The mother of these little pigs died hen they were only two days old.



JERSEY COW, EVEY

an attempt to save them, Mr. Grif- rigged up a nursing bottle for em, but after a few days they re- sed to take any milk from it. They oked well and did not seem hungry. e was frankly puzzled.

The next day he watched them ore closely. It was then that he st discovered them milking the rsey cow.

Today the pigs and "Evey," their dopted mother, are the closest of iends.

Massachusetts. J. H. FRANDSEN.

Bull Associations

The ultimate goal of the bull asso- ation is better cows.

The co-operative dairy bull associa- on is a farmers' organization whose ief purpose is the breeding of bet- r dairy cows through the joint own- ship, use, and systematic exchange prepotent pure-bred dairy bulls of gh-producing ancestry.

The first bull association in the nited States was organized in Mich- an in 1908. There are now 248 bull sociations in 33 states.

A study of the records of the ughters of bull association bulls owed an average yearly mature oduction of 8,071 pounds milk and 2 pounds fat. In milk production e daughters excelled the dams by .5 per cent and in butterfat produc- on by 14.4 per cent.

Some of the sires are very out- anding. One sire was mated with ws having an average yearly milk oduction of 9,300 pounds and an av- age yearly butterfat production of 7 pounds, yet his seven daughters om these cows excelled their dams 57 per cent in milk production and 44 per cent in production of but- rfat.

In many localities the banks are lping to finance the purchase of tter dairy sires. One bank helped finance the purchase of bulls for vo bull associations.

Through the system of transferring lls from block to block, the bull as- ciation makes it possible to keep all oved bulls as long as they live or e fit for service.

The state agricultural colleges and e Bureau of Dairy Industry of the nited States Department of Agri- lture will furnish information re- rding the organization of bull as- ciations.

In answer to the question, who ould join a bull association, every airyman is a prospective member. he bull association is adapted to very locality and to dairy herds of l sizes.

The typical bull association con- sts of five blocks to each of which he bull is assigned. All the bulls are wned by the association.

In a bull association the bulls must ll be of the same breed.

Much progress has been made by selecting bulls on the records of their dams and grandams. The most rapid progress can not come until dairy sires are selected on the production records of their daughters.—Farmers' Bulletin 1532.



FARMALL Plowing and Belt Work Simply Can't Be Surpassed!

THERE is enthusiasm for the work of the FARMALL wherever this perfected tractor appears. On all crops, on all jobs in field and barnyard, it shows the power farmer *something new in handling and efficiency.*

Plowing is one of its strongest suits. The FARMALL owner goes out to tackle that once-dreaded job with interest and good humor. He has learned that FARMALL and its plow will move handily and rapidly over the fields and leave well-turned furrows behind, in ideal shape for the operations and the crops to follow.

On belt work it is the same. We have dozens of positive letters from owners. D. M. Hastings of Atlanta, Ga., writes, "You deserve a pat on the back for the FARMALL. Please do not thank me for this as it is well deserved." He has used his FARMALL on every kind of work including many belt jobs.

Remember that the Harvester engineers devoted several years to working out this *all-purpose, all-crop, all-year design.* They tried out thoroughly *every* type of design. When FARMALL was *right for all drawbar, belt and power take-off work* they offered it to the farmer. The FARMALL is *the one all-purpose tractor that plants and cultivates, too.* It is the feature of power farming today.

Begin by asking the McCormick-Deering dealer where you can see a FARMALL *on the job*

INTERNATIONAL HARVESTER COMPANY
of America
(Incorporated)
606 So. Michigan Ave. Chicago, Illinois

. . . And next spring your FARMALL will be all ready to go at the PLANTING and CULTIVATING jobs. It's that kind of a tractor!



Some Farm Essentials

HOARD'S DAIRYMAN:—It takes more than mere acres of land to make a modern farm. The land is fundamental but there are other essential elements. Millions of dollars are invested in farm buildings for the accommodation and shelter of the farm families, their stock, machinery, and products. Without these buildings there would be little food available for the support of the nation. The buildings if brought together would require an area equivalent to the space occupied by New York City, Chicago, Philadelphia, and Detroit.

Statistics are important signals in farm operation. They vary in kind and cost from unofficial surveys to the most elaborate cost-accounting studies, but all show the dangerous condition of agriculture in which occupation a third of our people are engaged.

Facilities for replenishing the fuel, feed, and water supplies required for family and live stock use are established on over six million farms. The bins and buckets used in this connection are great in number. Water tanks by the million are in use winter and summer. In many localities expensive dipping tanks are maintained. Artesian wells and extensive conduits are numerous.

The costs of providing such essential facilities, of keeping them in repair, and of enlarging or replacing them from time to time are among the principal items of expenditure by the farmers. It costs not less than a third of a billion dollars a year to keep buildings in repair, still more to keep up the supply of farm machinery, while the upkeep of soil fertility would no doubt cost a yet larger figure, but it is not being done.

The farmers must continue to make large expenditures for the upkeep and modernization of their property to keep in advance of the ever growing demands for food and clothing. Consequently the earning power of the farms must always be such that the money needed in maintaining agriculture will always be steadily forthcoming from creditors and investor operations. This means that the support must come out of the revenues ultimately. The benefits to the public of good agriculture depend largely upon farms.

Constructive criticisms concerning farm incomes are invited.

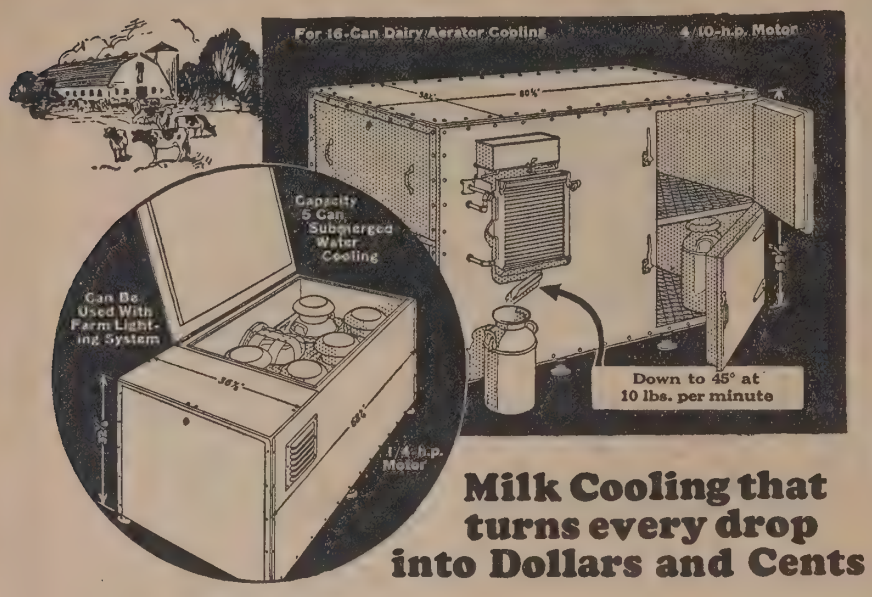
Wisconsin. B. H. HIBBARD.

Another Holstein Produces 1000 Lbs. Fat

The latest 1000-lb. butterfat producer is Bess Finderne Mooie Fayne a 7-year-old Holstein owned by the Fred F. Field Holstein Trustees, Massachusetts. Her 365-day record recently reported by Superintendent Gardner is 27,843.2 lbs. milk, 1,007 lbs. fat (1,258.76 lbs. butter.) She is the 115th Holstein cow to enter the 1000-lb. list.

The cardinal principle in the dairymen's creed is cleanliness.—ROBERT MCADAM.

Now! You Can Insure Your Milk Profits



Milk Cooling that turns every drop into Dollars and Cents

Dairy farmers are now adopting the same resourceful methods to safeguard their milk output, as is evidenced in the conduction of other successful industries.

The market price of milk is regulated by the law of supply and demand, which is the case with many other commodities produced by mills and factories. Therefore, manufacturers employ every available labor-saving device to insure more efficient production, saving both time and money, and thereby developing a new source of profit.

Following the same principles in the handling of their milk, dairy farmers are now increasing the size of their bank accounts through the savings made possible by the adoption of modernized methods for cooling milk, putting an end to spoilage and the resultant rejections at receiving stations.

Nizer-Kelvinator Electric Milk Coolers Insure Your Profits

They are made in two sizes, fitting the need of large or small dairy herds—16-can capacity aerator type, and 5-can capacity submersion type. Both have established their efficiency and dependability for profitable operation under the most exhaustive tests while in actual use on dairy farms. Require no mechanical knowledge to operate—are entirely automatic. Easy to own and within reach of every dairy farmer. Scientifically and soundly built to last a lifetime. A one-time investment that insures profits for all time by correct cooling temperature; turning every drop of milk into dollars and cents.

Learn today, how Nizer-Kelvinator Electric Milk Coolers will insure your milk profits. Ask your milk dealer; he will advise you and can supply you. Or, mail the coupon below today for illustrated folder giving full details.

NIZER Kelvinator

REG. U. S. PATENT OFFICE

THE PRACTICAL ELECTRIC MILK COOLER

Sold to or through Milk Dealers by Nizer Division, Electric Refrigeration Corporation, also by most Kelvinator Dealers, and in Canada by Kelvinator of Canada, Ltd., London, Ontario

Nizer Sales and Service

14210 Plymouth Rd., Detroit, Mich.
492 Peachtree St., Atlanta, Ga.
171 Sidney St., Boston, Mass.
3560 A. I. A. Bldg., Columbus, Ohio.
1 West 47th St., New York City.
15 Jefferson Court Bldg., Orlando, Fla.
565 W. Washington Blvd., Chicago, Ill.
1034 Allen Bldg., Dallas, Tex.
538 Gas and Electric Bldg., Denver, Colo.
221 Balcony Bldg., Kansas City, Mo.
647 Plymouth Bldg., Minneapolis, Minn.
1911 Washington Ave., St. Louis, Mo.
702 Pacific Bldg., San Francisco, Cal.
208 South Third St., Seattle, Wash.
121 N. Broad St., Room 931, Philadelphia, Pa.

Mail the Coupon Now!

Nizer Division, Electric Refrigeration Corp.,
14210 Plymouth Road, Detroit, Michigan.
Gentlemen: Please send a complete description of your Electric Milk Coolers.

Name.....Address.....
Size of dairy herd.....Name of Milk Company
I sell to.....

FARM RADIO SERVICE

S. R. WINTERS, Washington, D. C.

BEGINNING October 3, 1927, and continuing through April 30, 1928, the United States Department of Agriculture will utilize approximately 100 commercial broadcasting stations for the distribution of timely agricultural information to a nation-wide audience. This purely informative radio service consists of 11 distinct features and at least 12 scientific bureaus will contribute authentic data in the preparation of the material,.

Departing from the policy of 1926 in concentrating on the presentation of a few subjects, this season's farm radio service will embrace practically every phase of agriculture and much of the information broadcasted will be of interest to the city dweller as well as the rural listener. At least six features will make a bid for the favor of residents of towns and cities and their suburbs. These services are as follows:

"Housekeepers' Chat," in which "Aunt Sammy" will discuss homekeeping, meal-planning, marketing, home furnishing, etc.; "Poultry Chats," a ten-minute weekly program of interest to townspeople in that practical information will be imparted on chicken raising; "Young Folks' Program," a feature inviting the attention of children in city as well as country because "Uncle Ab" will tell stories of birds, trees, and flowers; "Chats by the Weather Man," a subject of universal appeal which will be presented by meterologists of the Weather Bureau; "Insect and Wild Animal Allies and Enemies," a feature which will give residents of cities an insight into the control metho of injurious pests and means of pr tecting wild life friends; "Primer f Town Farmers," is a program inten ed to interest town farmers who wa information on gardening and oth phases of country life.

The two overshadowing services exclusive interest to farmers a "Noon Farm Flashes" and "U. S. R dio Farm School." The former occ pies a ten-minute period as a que tion and answer service, where "County Agent Robbins" is bombar ed with farm topics that perplex, farmer with a friendly personali being the inquisitive person at t microphone. The dialogue betwe the county agricultural agent and t farmer will shed light on problems poultry keeping, dairying, live stoc crops, soils, fruits, vegetables, t farm woodlot, and marketing fa products,.

The "U. S. Radio Farm School as the term implies, is an agricultur college of the air and farmers at t plow handles and in fields and gra aries are the students. This is a co tinuation of one of three most pop lar radio services of the Departme of Agriculture last year. The su ject matter, however, will be vari gated so as to include crops and soi farm economics, and community li as well as dairying and live stock two subjects which received exclusi consideration last year. Lessons this school of the air will be present in popular form; interested farme questioning specialists who present t information in an entertaining manne

Farmers, and city dwellers as we



A KANSAS FARMER RECEIVING MARKET REPORTS FROM THE FIRST "AGRICULTURAL COLLEGE OF THE AIR," CONDUCTED BY THE KANSAS STATE AGRICULTURAL COLLEGE



SAM PICKARD, FORMER CHIEF OF THE RADIO SERVICE OF THE U. S. D. A., AND NOW SECRETARY OF THE FEDERAL RADIO COMMISSION, POINTING TO THE FACT THAT RADIO IS A DOMESTIC UTILITY TO ONE MILLION FARMERS

ho are in tune with the 1927—1928 idio services of the Department of griculture, will frequently be nused and entertained as well as istructed. For example, if radio reeiving sets were broadcasting stations there would be a chorus of a illion guffaws when the Bureau of nimal Industry gives instructions in orseshoeing by radio, and a meatutting demonstration by the same edium will undoubtedly excite a ave of laughter over the country. eriously, both of these demonstrations are intended to be informative.

"Aunt Sammy," who is Miss Jephine Hemphill of the Radio Service f the Department of Agriculture, ill continue her extremely popular eature of last year, namely, "Housekeepers' Chat." In fact, this is Service No. 1 and will be broadcast four ays each week to millions of women city and country. These are ritten in an informal, refreshng style, and contain brief discusons of home-keeping, meal-planing, marketing, cooking, canning, stablishing good food habits in children, sewing, home furnishing, decration, gardening, and kindred subects. As the first edition of the 927—1928 "Aunt Sammy's Radio ecipes," the Department of Agriculure has authorized the printing of 5,000 copies. This enlarged cook ook contains 70 menus and approximately 300 recipes tested by the Bureau of Home Economics. These ook books are free upon request.

Unique perhaps is the attempt of he Department of Agriculture to aunch a farmers' weekly radio newsaper, which undertaking solicits the o-operation of 100 commercial roadcasting stations in distributing urely agricultural news. Entitled Farm News Digest," this service, roadcast during a seven-minute period on Saturday, is a summary of farm news of special interest to agriculturists and others interested in American farm problems and methods. The news thus distributed will be taken from the releases of the Press Service of the Department and its dissemination will be speedier than by other mediums, not excepting telegraph and airplane. "The Agricultural Situation" is the title of a service similar to "Farm News Digest" in which the various bureaus will give a bird's-eye view of farming as noted in collective form by thousands of crop reporters scattered throughout the United States.

The Radio Service of the Department of Agriculture, pending the selection of a Chief by the Civil Service Commission, is under the direction of Nelson Antrim Crawford, who is also head of the Press and Publication Services. The radio staff consists of Miss Josephine Hemphill, Solon R. Barber, and C. A. Herndon. Announcers at the commercial broadcasting stations who participate in the "U. S. Radio Farm School" have been dubbed "radio schoolmasters" by Secretary of Agriculture William M. Jardine, who estimates that more than 1,000,000 farmers own radio receiving sets.

Without owning or leasing a broadcasting station, the Department of Agriculture has received approximately 100,000 congratulatory letters during the past nine months. These applause messages have not been prompted by the musical strains of "It All Depends on You" or "Me and My Shadow," but they were inspired by a purely informative radio service, varying in subject matter from a prescription for a sour soil to how to raise rabbits. Farmers sought help in eradicating weeds, improving baby chicks, combating live stock diseases, feeding, breeding, and care of sheep, beautifying the home grounds, and raising turkeys.

Calcium Arsenate Controls Alfalfa Weevil

The alfalfa weevil, which now occurs in several states of the Great Basin, sometimes destroys an average of one-half of the first cutting and nearly all of the second cutting of the alfalfa crop, says the United States Department of Agriculture. Although the weevil feeds upon a large number of plants of the clover family, it is not known to damage any crop plant other than alfalfa.

Attempts to control the weevil have consisted principally of quarantine measures, the importation of foreign parasites, and direct methods of preventing damage to the crop. The most dependable means of control known is to spray with calcium arsenate. The only safe course is to be prepared to spray the alfalfa when its condition shows that it will fail to reach maturity without protection against the weevil.

The best time to spray is several days before the feeding of the larvae reaches it height, when conditions for poisoning them are favorable. There is, however, no way of forecasting this turning point in injury. Careful watching of the field, coupled with experience, is the only safe guide to the best spraying practice.

Further details are given in Farmers' Bulletin 1528-F, The Control of the Alfalfa Weevil, a copy of which may be obtained upon application to the Department of Agriculture, Washington, D. C.

Mrs. O'Rafferty: "I hear he is a philanthropist."

Mrs. O'Flannigan: "Yes, he offered to will $100,000 to the widdy of the unknown soldier."—Exchange.

Get more out of your light plant



For every make of plant

You can have plenty of lights and plenty of power—all the convenience your light plant was built to give—if *you* give it strong dependable Universal "Nu-Seal" Batteries to work with.

Less care—long life

Big sediment space, visible charging gauge, extra thick plates, fewer fillings—all this saves you trouble, insures long life. "Nu-Seals" cost you no more now and much less in the long run.

For EVERY plant

These batteries—the *original* sealed glass cells—are made in every size and capacity for every light plant ever sold!—Yours! Any!

Battery Guide FREE

Big free book that tells you how to care for all batteries. We make farm light, radio and auto batteries for *every* purpose—this book gives you our expert advice. Send for it. And remember there's a good trade-in allowance on your worn-out batteries. Ask for it—today!

UNIVERSAL BATTERY COMPANY
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Auto-Radio-Farm Light
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UNIVERSAL BATTERIES

Raise MONEY-MAKING Crops!



THIS MARVELOUS NEW SPREADER WILL HELP YOU DO IT

Saves Time. Saves Work. Brings Bigger Yields. Read the Facts in a Valuable Book—"New Profits" —Now Offered Free.

HERE is the new SUPERIOR Black Hawk Spreader. It has an amazing record for making extra profits for the farmers of America. It helps them produce bigger crops, better crops. It helps reduce fertilizer bills. It saves time, work and expense. But read what John L. Strickland, Riderwood, Maryland, says:

"Your Superior Black Hawk Spreader saved me considerable in commercial fertilizer bills, as the manure spreads more uniformly and goes farther. By using this spreader I have cut down my labor expense."

It Will Make Money for You

Old ways of spreading manure are slow and costly. A spreader that has seen its best days is a never-ending source of trouble and expense. Adopt the *new* way —a SUPERIOR Black Hawk—and you'll save labor, time and money. It's *one* spreader that more than pays for itself with the money it saves and earns.

Revolutionary Features

See the SUPERIOR Black Hawk at the nearest SUPERIOR dealer—or in operation on some neighboring farm.

Note the lighter draft. That's because of few moving parts and Alemite lubrication. As Raymond Kadel writes, "It's the best spreader on the market for light draft. One horse can pull this spreader and it's the most even spreader of them all."

Note how it's built for quick and easy loading. Carl W. Jenny, Grove City, Iowa, tested his SUPERIOR Black Hawk with three other spreaders. He says, "It took bigger loads than any of the rest and it's easier to load. It spread more evenly and went farther on the least horse power. It's the best spreader on the market."

Note the automobile type mounting in front to give a shorter turn. And that isn't all.

No Other Spreader Like It

The SUPERIOR Black Hawk completely pulverizes every particle of the manure. It spreads it over the field in a broad, smooth layer. No part of the field gets too much. No part gets too little. All of it becomes available as plant food. And how crops grow! This is the most effective method of fertilization known today.

Biggest Value for Your Money

The SUPERIOR Black Hawk not only does quicker work and better work, but it lasts longer. *It's built to last.* It's made to give you more years of service. But see the SUPERIOR Black Hawk at your dealers. Compare it part by part with other spreaders. You'll see why this new SUPERIOR Black Hawk is the choice of farmers who are seeking ways to save time and work and get bigger crops and bigger profits.

In the meantime, mail the coupon for free book "New Profits." Do it now.

THE AMERICAN SEEDING MACHINE CO., Inc.
525 Monroe Street, Springfield, Ohio

MAIL COUPON FOR FREE BOOK!

Full of facts vital to farmers. Explains proved methods of increasing crop yield and profits by more efficient handling of plant foods. Describes various types of soil and how to fertilize them for maximum results. Full of interesting illustrations. This book is well worth reading. And it's free. The coupon brings it by return mail. Sign and mail the coupon now.



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Black Hawk Spreader

Other SUPERIOR Products

SUPERIOR Buckeye Cultivators, SUPERIOR Lime and Fertilizer Broadcast Sowers, SUPERIOR Grain Drills, SUPERIOR Corn Planters — implements known the world over for superior service. They, too, are illustrated and briefly described in "New Profits" — an additional reason why you want the book.

THE AMERICAN SEEDING MACHINE CO., Inc.
525 Monroe Street, Springfield, Ohio.

I'd like to read your book "New Profits." Please send a copy free.

Name_____

R. F. D._____

P. O._____ State_____

EDITORIAL COMMENT



MILK proteins are perfect proteins; milk sugar is a most wholesome food and milk minerals are very essential. As the Department of Agriculture says: "The use of dried skimmilk results in a product highly superior for bread-baking purposes. When used with good flour, it is possible to get a loaf 10% larger and about 4% heavier than without it. An even more desirable advantage is the fact that the skimmilk adds greatly to the nutritive value of the bread, as well as to its flavor and physical characteristics."

The several companies attempting to extend the use of powdered skimmilk in the manufacture of bread are rendering a good service to the dairy industry and to the consumers.

On dairy farms where the milk is separated skimmilk should be used in the making of bread. What we need is a better understanding of this product and its value in the human diet.

MEETING DEMAND FOR MILK

How to meet the demands of increased consumption of milk in this country without enlarging our national dairy herd or otherwise increasing the costs of producing milk is a problem of considerable economic importance to dairymen everywhere.

The per capita consumption of milk has increased from 43 gallons in 1920 to 53.3 gallons in 1926, while the population has increased nearly 2,000,000 persons a year. For each year's increase in population we need an additional 440,000 cows or the equivalent of their production from the cows we now have. On January 1, 1926, there were 330,000 fewer cows than on January 1 of the preceding year and January 1, 1927, saw 324,000 fewer cows than January 1, 1926.

The total production of milk, however, has not decreased. The increased demand for fluid milk has been met partly by a slight increased production per cow and partly by converting less milk into manufactured products.

The average cow in this country is credited with producing 4,500 lbs. milk and 180 lbs. fat a year. The 360,000 cows now included in co-operative herd improvement work (cow testing associations) average 7,500 lbs. milk. This plan not only affords a means of meeting the demands of increased consumption of milk but also of doing it at less cost per unit of production. We are told by the Bureau of Dairy Industry that a cow producing 9,000 lbs. of milk requires only 40 per cent more feed than one producing 4,500 lbs. or half as much.

Dairy herd improvement work has been in operation in this country for 20 years but less than two per cent of our cows are in herds under its influence. We can produce more cows like the average cow to meet the increased demand for milk but this will not lower the cost of producing milk. We can keep up with the demand for dairy products with even less cows than we now have if we will only realize the sound economic principles of dairy herd improvement work. Let us meet the demand with better cows and less cost of production.

CAPITAL FOR DISTRIBUTION

It seems strange that farmers with an investment of twenty to thirty thousand dollars in their farms and equipment hesitate to invest a dollar in a plant for processing and marketing their products. Anyone who has given this matter attention can clearly see the weakness of such an attitude and why farmers, on the whole, are in such a disadvantageous position for marketing their products. No farm is organized upon a proper basis or is the farmer in position to take advantage of market conditions, unless he has the equivalent of 10 per cent of his investment in his production plant devoted to distributing and marketing his products.

This, in substance, is a statement made to us by W. S. Moscrip, a successful breeder and farmer in Minnesota. Mr. Moscrip has also had long experience in the development of co-operative enterprises and is a director of the Twin City Milk Producers' Association, one of the best operated co-operative organizations in the country. The problems of agriculture will never be solved so long as the farmer is contented to interest himself only in production. All branches of agriculture must arrange to market a considerable percentage of their products co-operatively; or, in other words, to place themselves in control of processing and marketing a sufficient percentage of their products so they will be a substantial force in helping to determine the market value of their products.

Farmers have the same rights to determine market prices of their products as the manufacturers have to determine the market value of their products. It is not so necessary for manufacturers to co-operate for the purpose of taking advantage of market conditions as it is for farmers to co-operate. No one farmer produces any product on a sufficiently large scale to make him a commanding agency in marketing his product.

In order to place agriculture upon a basis comparable to other industries it is essential that the farmer invest sufficient capital in plants for processing, holding, and distributing his products.

CO-OPERATIVES MEET

The National Co-operative Milk Producers' Federation held its annual meeting in Milwaukee, November 15 and 16. This organization is made up of 40 or more co-operative associations located in the various parts of the United States. The membership consists largely of co-operative milk marketing companies, but the Land O' Lakes Creameries, Inc., and the Wisconsin Cheese Producers' Association belong to it. Any co-operative institution engaged in marketing dairy products is eligible for membership.

The National Federation is rendering a splendid service to the co-operative movement. Fortunately the men in charge of its affairs are directing themselves to the problems of co-operation and matters directly or indirectly affecting the development of the dairy industry.

The resolutions passed by this organization epitomize the subjects discussed at the annual meeting. They were, in brief, as follows: That Congress enact a tariff law which would place adequate duties on farm products and all raw products imported into the United States which either directly or indirectly come into competition with the products of American farmers; that Congress levy an excise tax on all vegetable oils and raw materials from which such oils are produced that are imported from the Philippine Islands; that agricultural credit facilities be enlarged to include long time credits to co-operatives to be paid on the amortization plan. The resolutions also asked for an increased flexibility of crop production credit, and securing of loans by co-operatives on commodity security for as short a period as two months. This association also recommended that there be federal supervision of cheese grades; that a larger appropriation be made by Congress for more dairy research and the expansion of the Division of Co-operative Marketing in the Bureau of Agricultural Economics; and that Congress provide adequate funds to defray the cost of administering the Lenroot—Tabor bill.

The delegates to the convention discussed the activities of their own local organization. This gives the leaders in each institution a rather comprehensive understanding of what the other associations are doing, how they have met emergencies, and otherwise handled the affairs of their organization. It seems to us both fitting and wise that the National Co-operative Milk Producers' Federation devote itself to securing information of this character for it harmonizes and nationalizes and develops uniformity among the various co-operative institutions of this country. These contacts bring new viewpoints and an understanding essential to the progress of the co-operative movement.

The organization is a strong influence in dairy legislation and both its president, John D. Miller, and its secretary, Chas. W. Holman, have rendered important service to the dairy industry when bills affecting it were being considered in Congress.

The following officers were elected: John D. Miller, president; Harry Hartke, vice-president; Frank P. Willits, treasurer; and Chas. W. Holman, secretary.

UNRELIABLE LEADERSHIP

The National Farmers' Union at its recent annual convention held at Des Moines, Iowa, passed the following resolution: "We declare that the present methods of testing cattle for tuberculosis are unfair, unreliable, and illegal, and suggest that pasteurization of milk at low temperatures would prevent any possible injury to health from the use of milk from tubercular cows."

We wonder if this resolution expresses the opinion of the majority of members of this farm organization. We can't conceive that it does. In the several states where the membership in the Farmers' Union is the largest, there is a very small percentage of tuberculosis, and the expense of eradicating it now would be very small compared to what it will be if testing is deferred until the herds grow larger and dairying becomes a more intensified industry. We are shocked at such leadership in any organization that would pass a resolution of this character, and it leads us to wonder just how far it is safe to follow them in other matters directed to the proper development of agriculture.

The resolution declares that the tuberculin test is unfair, unreliable, and illegal.

In what respect is it unfair? The federal and state governments are making appropriations to pay the farmer a large percentage of the value for his reacting animals and are bearing all the expense of testing cattle. The total sum raised by the federal and state governments for the year 1927 amounts to about $18,000,000. We have been much in favor of paying the farmers liberal indemnities to get rid of tuberculosis.

In tabulating the results of a large number of animals tested for tuberculosis, it has been shown that the tuberculin test is accurate to the extent of 95 to 98 per cent. It is not infallible, but we have no diagnostic agent that is more accurate and through the use of this test tuberculosis is being eliminated from the herds. There is adequate evidence to prove this.

We can not understand how the test is illegal for whenever laws pertaining to tuberculin testing have come before a state supreme court, they have been declared constitutional.

It is true that pasteurization of milk protects the consumer, but does it protect the producer from sustaining heavy losses when tuberculosis is harbored on his farm? Does the producer protect his family by pasteurizing the milk from tubercular cows? Cows and hogs from such farms sell at lower prices. It can be shown that the farmer have lost millions of dollars because of the lower prices received from animals coming from areas with a considerable percentage of tuberculosis. Why continue to inflict this loss upon the producers when the state and federal governments are willing to help them eliminate this loss? Where is the understanding and vision that we have a right to expect in men who occupy positions of leadership?

We have been very staunch friends of all farm organizations working for the purpose of improving agricultural conditions, and we deeply regret when we find an organization so large and powerful misdirecting its energies and giving wrong advice to its membership. The losses from tuberculosis are borne by the producer. That this disease and the losses sustained by it be reduced to the minimum is only good business.

Should I Buy Alfalfa Hay?

I am writing for information relative to the feeding of my 18 grade and pure-bred Holstein cows. I face a shortage of feed as I have only one silo 14x28 and have about 10 tons of mixed hay, mostly timothy. I expect to feed a 16 per cent dairy feed at the rate of 1 lb. for each 4 lbs. of milk produced along with a full feed of silage once a day, followed by a feed of hay. Would it be better to buy a carload of good alfalfa hay or would you prefer buying shock corn and cutting this up for the cows? Last winter the same cows milked up to 60 lbs. daily. They are now in good condition and freshened in November.

Sun Prairie, Wis. E. S.

If these cows are capable of producing from 40 to 60 lbs. of milk a day, we doubt if the feeds mentioned, together with the quantity to be fed, will supply their needs. A roughage combination of silage and hay, which is mostly timothy, requires a concentrate mixture yielding from 18 to 20 per cent digestible protein to properly balance the ration, and we think the rate of feeding should be a little heavier than 1 lb. to 4 lbs. of milk.

This silo contains approximately 75 tons of silage, enough to feed 18 cows 30 lbs. per head daily for 180 days, or until pasture is available with enough left to feed 12 younger cattle 20 lbs. per head daily for a similar period. The 10 tons of hay is enough to feed 18 cows 12 lbs. per head daily for only 3 months. The need is for more hay.

It would be much better to buy a carload of alfalfa hay to be fed with the silage than to buy shock corn and cut it for feeding. A combination of silage and alfalfa hay requires a concentrates mixture yielding 10 to 11 per cent of digestible protein to properly balance the ration. Such a mixture could be made of 300 lbs. ground corn or barley, 300 lbs. ground oats, 100 lbs. bran, and 50 lbs. each of linseed and cottonseed meals.

A roughage combination of silage, timothy hay, and cut shock corn requires a concentrates mixture yielding from 18 to 20 per cent of digestible protein to properly balance the ration. Such a mixture could be made of 200 lbs. each of ground corn and ground oats, 100 lbs. bran, 250 lbs. each of linseed and cottonseed meals, and 200 lbs. gluten feed in which mixture it is observed that 800 lbs. or two-thirds is purchased concentrates, whereas in the mixture given for silage and alfalfa hay, three-fourths is from home-grown grains.

If the alfalfa hay is purchased and it is desired to feed with it and the silage some of the mixed hay, it will be necessary to increase the protein content of the concentrates mixture. In this case, a 16 per cent dairy feed yielding about 13 per cent of digestible protein would be about right. If the alfalfa hay is not purchased but other roughage, such as corn fodder, is bought and if one does not have corn, oats, or barley available one should purchase a standard 24 per cent protein mixed feed, which will yield about 20 per cent digestible protein.

A Question of Wages

We wish to know what salary two men should draw per month on a dairy farm of 55 head of pure-bred Guernseys, 26 cows that are now milking. We are to commence working Oct. 15th and work until March 1st. We have to furnish our own board and fuel. We are farmers and the family consists of man, wife, and grown son.

Wisconsin. L. M.

We find the usual difficulty in giving concrete reply to an inquiry as to wages. Wages are largely governed by local conditions, by the efficiency of the laborer, and the amount and kind of work that is required. Generally speaking, we believe that farm wages without board in Wisconsin will run on the average from $60 to $75. In some cases, wages will be less and in some higher, but this will doubtless cover the greater majority of cases. In some sections this will be rather high for winter labor, but where there is considerable demand for help, wages may be even higher than this.

If you are to take only the usual care of this herd and are not responsible for some special classes of work, it would scarcely require the full time of two men with a herd of fifty-five cows where approximately half this number are in milk at one time. Of course, much depends as to the kind of care given the cows and as to whether you are required to prepare and deliver the milk in a retail market. Generally speaking, however, two men should do the work in such a herd in not over six to eight hours a day. When just ordinary herd care is given, it would occur to us that possibly $100 a month for the two men would be an equitable and rather liberal wage. Of course, if local conditions are such that there is a heavy demand for labor, then you can doubtless secure more; while if the supply of labor is above the demand, then the wages may be higher than the owner of the farm would have to pay to secure the labor he desired. Of course, the owner must also look to the efficiency of his employees as being one of the primary factors in setting the wage he can afford to pay.

Are We Talking About You?

Remember that beautiful day last June when, after what seemed ages of dark days, the sun broke forth in all his glory and you found the alfalfa ready to cut and the corn crying for cultivation—both at one and the same time—and only you and the hired man to do ten men's work?

You were "tickled pink" over the prospect of good crops, and scared stiff for fear you couldn't take proper care of 'em.

Remember?

Well, sir, that is just about how we folks at the HOARD'S DAIRYMAN office are going to feel in a few short days—unless you'll help.

Several thousands of our subscriptions expire around the first of the year.

Most of those good folks, if they run true to form this year, will wait until the week between Christmas and New Year to renew.

Along about that same time several thousand more will decide they have been struggling along without the Dairy Gospel for a sufficient length of time—and will hustle their orders in with instructions to "begin my subscription with your Christmas issue."

And we? Well, we'll be as happy as you were last June—and just as "stumped." Some of you are bound to wonder why on earth it takes those HOARD folks so long to enter a subscription. Some of you are going to get mad because we are so "unbusinesslike" and "stupid." We do the best we can, but no one can do a year's work in a week or two. Delays and mistakes do happen, especially when we are snowed under and have to put on "green" help. But you can, if you will, make sure no mistakes or misunderstandings will occur on your renewal.

To be a "good fellow" do this: *Look at the label under which this copy of HOARD'S DAIRYMAN reaches you. If it reads "Dec. 27" or "Jan. 28" it means your subscription expires around the first of the year.*

Then, if you want to make our Christmas a wee bit merrier than usual; if you want to make sure of getting the Dairy Gospel without a break (and who, if he milks cows, would want to be without it at $1.00 for three years,) fill out the renewal blank that's enclosed with this paper—and mail it *today.*

By so doing you will earn our undying gratitude—and leave us with more "nervous temperament" to be of greater service to you in the future than we have been in the past.

One more thought:

If you have enjoyed HOARD'S DAIRYMAN, and profited from reading it—and if you believe in passing good things around, what better Christmas gift could you get a friend than a three-year subscription to the Dairy Gospel? How better could you wish him a prosperous New Year than to put him in touch with information that will help him make himself a better farmer and dairyman?

There's room on the blank for several other subscriptions—and if you make a (+) mark in front of the other names we will write each one a letter telling him of his good fortune and wishing him a Merry Christmas in your name.

HOARD'S DAIRYMAN

And Here's a Christmas Present For You

If you will send us three subscriptions (at $1.00 each for three years and your own may be among them) we will send you a copy of our book, "The Life of W. D. Hoard," by Geo. W. Rankin. This book is not only an interesting account of the life of the founder of Hoard's Dairyman, but is really a vivid history of the growth and development of the dairy farming business.

To Secure Thick Cream

In science, as in practical affairs, many discoveries are the result of what appears to be chance. It is not all chance, however, because it requires a close and trained observer to recognize and make use of what chance has disclosed. This is well illustrated in the discovery, made at the New York Agricultural Experiment Station at Geneva, of one of the principal causes of high viscosity in cream, or thick, heavy cream as it is more commonly expressed.

The investigators noted that milk from the station herd seemed to produce a thicker, heavier cream than that from the herds of neighboring farms. It was the custom to cool the milk from the station herd and hold it in the refrigerator until needed for separation, while the neighboring farmers separated immediately after milking. In looking for reasons for the difference in the cream, this chance condition was observed and trials based on this were made.

One portion of the same milk was separated immediately after milking and the cream promptly cooled and held at 37 degrees Fahrenheit over night. The other portion of milk was cooled immediately after milking and held over night at 37 degrees Fahrenheit. It was then warmed to 90 degrees Fahrenheit, separated, and the cream cooled.

Both lots of cream were then held for varying periods of time, the viscosity increasing in each case with the time of holding. The striking result noted, however, was the fact that the second lot of cream was much thicker and measurement showed its viscosity was ten times greater than the cream which had been skimmed immediately after milking.

While the thicker cream secured by cooling and reheating milk is the practical result, it is interesting to note that microscopic examination showed that the fat was finely dispersed throughout the cream of the first lot, while in the second lot the fat globules tended to cluster together and be distorted in shape.

"The viscosity or thickness of cream," writes Professor Dahlberg, one of the investigators, "is dependent primarily upon two factors. One is the percentage of fat and the other the extent to which the fat is clumped in the cream. The investigation at this institution has clearly shown that almost any degree of viscosity can be secured on a cream testing in excess of 25 per cent fat by controlling the fat clumping. Briefly stated, the fat clumping can be controlled by the condition of the fat at the time of separating. Neither liquid nor hard fat clumps during separation, but fat in a semi-solid condition does clump. The fat clumping can be brought into proper condition by first cooling the milk to 40 or 50 degrees and holding at this temperature long enough (3 to 10 hours) for the fat to harden. The milk should then be warmed to 85 or 90 degrees and then separated. After a few hours aging at 50 degrees or below, cream produced in this way will have an abnormal high viscosity."

The first conclusion the reader would draw is the desirability of this method when cream is sold for consumption and that the process will produce a cream better fitted for whipping and for ice cream manufacture. The investigators, however, state that this process is of doubtful practical value because it is somewhat expensive and does not lend itself readily to routine milk plant operation. Further, they did not find this high viscosity cream was much improved in whipping properties.

For those interested in technical details of the investigation, we suggest writing the Agricultural Experiment Station, Geneva, N. Y., for a copy of Technical Bulletin 113, "Viscosity, Surface Tension, and Whipping Properties of Milk and Cream."

There is something about a windshield glass that magnifies a tack and makes a pedestrian seem a small matter.—Ex.

Now is the Time

to take stock of the year's dairying

Have you made any mistakes which have lessened your profits, such as:

1. Turning your cows on pasture too early.

2. Leaving them on pasture too long.

3. Getting your hay in too late.

4. Neglecting to weigh the feed consumed and milk produced by each cow.

5. Failing to feed enough grain through the Summer.

6. Not properly utilizing your home-grown grains.

7. Spending too much money for unproductive feeds.

If you've made any of these mistakes this year don't make them again in 1928. Nos. 1 to 6 are entirely up to you. But we can help you in regard to No. 7.

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NOTE—Immediate inquiry is desirable as the area of Sumas Reclaimed Lands placed on the market this year is limited.

Royal Winter Fair At Toront

F. E. ELLIS, ONTARIO

THE Royal Winter Fair of Canada, held in Toronto, November 16 to 24, was all that its founders intended that it should be, and more. The Royal, brought into being in 1922, was designed to be a national live stock event. It was intended to be the one fair at which every part of Canada would be represented. This ambition has been fully realized. At the recent show breeders were on hand from every province with the animals that had won on provincial circuits. But the Royal has become an international event. The entries from the United States, in cattle and horses, totalled several hundred head. This added spice and interest to the competition and the prize money was distributed over the entire continent.

This year's Royal surpassed all its predecessors in magnitude. With more stock gathered together than was ever entered at any one fair on this continent, there was room for all under the one roof in the new quarters provided. This made it very convenient for both visitors and exhibitors. An idea of the extent of the exhibits may be gathered from the entries in the dairy classes. There were well over 400 Ayrshires, 321 Holsteins, 186 Jerseys, 147 Guernseys, and 46 French Canadians. The beef classes were almost equally numerous. Add to this a great horse show, a big display of sheep and swine, a national seed show, a national apple show, and a flower show that made the western annex of the Coliseum a bower of beauty and one has an idea of what the Royal now presents to the fair goer.

Ayrshires Again Predominate

At the first Royal the Ayrshire breeders staged the largest exhibition of the breed ever seen in the world—423 head. At that time something was sacrificed in quality to get size. This year the 1922 record was almost equalled and from first to last it was a quality exhibition. Quebec and Ontario had the largest representations but Nova Scotia, Prince Edward Island, Saskatchewan, and Alberta also shared in the awards. From the United States came herds from Strathglass Farm, New York; J. E. Davidson, Michigan; Estate of L. S. Clough, Pennsylvania; and an entry or two from Wendover Farm, New Jersey. Awards were placed by John Young, Scotland.

The mature bull class, with 20 entries and 17 drawn out in the ring, was an index of the character of the competition. There were bulls there that had been recent champions at the Scotch shows, champions at state fairs, and the leaders of the Canadian circuit. Mr. Young expressed the opinion that such an aggregation of Ayrshire bulls had never before been drawn out in one class. This class demonstrated the dependence of breeders on this side of the water on the breeders in the home of the breed. Five of the first six bulls placed were bred in Scotland. Hobsland White King, Strathglass Farm, the champion of the recent National Dairy Show, was placed first. When it came to championship honors, however, he had to give place to the two-year-old Edgertowne's Sir Oliver exhibited by Cumming Bros., Ontario. This bull has had an unbroken record of success at Canadian shows. R. R. Ness & Sons, Quebec, had the junior champion in Howie's Top Grade, the grand champion of the last Canadian national exhibition. Strathglass Farm had reserve junior on Strathglass Royal Charmer. Their senior yearling, Strathglass Kirte, junior champion of many United States shows was fifth in his class, having been in condition for several days.

Mature cows in milk brought out 26 shapely matrons and here the great Ness cow, Burnside Blossom Andrietta, one of the greatest show cows the breed has ever produced met her first defeat. This seven-year-old cow has 31 grand championships to her credit and has six living beef calves, several of them with notable ring records. She is also a producer having a total official production in four years of 45,581 pounds milk and 2,088 lbs. fat. She had freshened with twin calves shortly before and was not showing to best advantage. Even at that, however, she was quite evidently the greatest cow in the ring and placing her into second place because of a temporary lack of condition seemed to be a case of overlooking the essentials and placing the premium too strongly on bloom. The cow that got the preference was Ba Flame, shown by Glen Campbell Farms, Ontario, a cow of beautiful type and in finest fit but too small to be considered a really great cow. The class for dry cows brought out 23 entries and Glen Campbell Farms again won. The champion was found in the four-year-old milk class—Springbu Lady Beauty II, exhibited by H. Swart, Ontario. This young cow showed pleasing type, a great middle and a practically ideal udder. A senior calf was junior champion, Bois la Roche Sprightly, shown by W. Skinner, Quebec. There were from 25 to 30 entries in all the younger classes of this breed.

A National Holstein Show

The Holstein classes brought out contenders from all provinces but one. Axel Hansen, Minnesota, placed the awards with general satisfaction. The fit, type, and uniformity of the black and white classes were in such strong contrast to what this breed brought out a few years ago that the claim to standardized type for the breed seemed to be justified. J. Innis & Sons, Ontario, who have been the Holstein leaders all over the Canadian circuit this year, were the heaviest winners. Their senior herd bull, Abbekerk Sylvius Lad, was grand champion. This bull is a son of Aaggie Sylvia, the only Canadian Holstein cow that has yet won grand championship honors at a National Dairy Show. Geo. M. Wood, Ontario, had the reserve senior champion in Sir Alcartra Inka. Howard Graham, Quebec, had the junior champion in yearling, Mantel Count of Hudson.

The milk cow class brought out a score of splendid animals, including the new four-year champion butter producer over all breeds, Springbank Snow Countess, bred by T. H. Dei, Ontario. Haley & Lee, Ontario, had the leader in Gypsie Posch Ruby. The dry class had the champion in Oakhurst Colantha Abbekerk, for M. Victoria Farms, Quebec, a cow that carries almost faultless type with massive size. The reserve went to C. Hardy on May Walker Inka Segis, the two-year-old heifer for which was paid $7,000 at the recent Minnesota sale. This was a doubtful win over an Innis heifer that showed greater depth of body and more desirable udder formation. Innis had the junior champion on Winona Lennox De K, a consistent winner this season. Space forbids mention of other awards but cattle from as far west as British C-

nbia and as far east as Prince Edrd Island were prominent in the nnings.

U. S. Jerseys the Champions

The Jersey classes were strengthed by two herds from across the e—Elm Hill Farm, Massachusetts, d The Oaklands, Michigan. Prosor J. C. McNutt, New Hampshire, ced the ribbons. To the American itors went all four championships. m Hill Farm had the senior champn bull with Cedarine Golden Sul- and junior with Volunteer's April ltan. Both female championships nt the same way, with Imp. Yolan- and Rosebay's Golden Xenia. Canan exhibitors, however, won heavin many classes including six firsts senior female classes and a couple firsts in bull classes. The most minent winners were John Pringle d A. T. Little, London; Jas. Bagg & ns, Edgeley; Queen Alexandra nitarium, London; and F. J. Bagg.

Guernseys are Advancing

The Guernsey breed has made phemenal progress in the showing ade at Canadian fairs in the past lf dozen years. There are more ernseys shown but it is the type provement that is really noterthy. Even at the first Royal this eed made a rather sorry showing at e tail end of all classes. This year e classes were fairly uniform alough the claim could hardly be ade that type has been as well stanrdized as in any of the other dairy eeds. Geo. M. White, New York, ade a satisfactory judge.

Men of wealth are playing a large rt in the development of the Guernv breed in Canada. Competition was enest between the herds of F. W. indells, Nova Scotia, and Don Alda rms and Martindale Farms, Onrio. Some of the smaller breeders ade an excellent showing, however, tably Jas. A. Telfer, Ontario, and . G. Darke and L. W. Roper, Prince lward Island. Swindells had the and champion bull in Langwater armion's Prince Edward, this being e third time that this bull has headthe Guernseys at the Royal. Don da Farms had reserve senior on remost Lad. Martindale Jeweller is junior champion.

The females, on the whole, were a ronger lot than the bulls. Aged ws, yearling heifers, and senior ifer calves were the strongest sses. The mature milk class, with entries, was a really fine class aded by La Fleur du Jardin of artindale, the grand champion. Don da won the dry class of 13 with ugerties Ultra Anna. Reserve sen- and grand was Martindale Faith, dry two-year-old. L. W. Roper had e junior champion with Appletree oint Amelia, a junior yearling, and vindells the reserve on a senior calf. was rather notable in the Record Performance classes that the recds were evident in the cows themlves, there being no changes made hen the points for production were lded.

French Canadian Cattle

The French Canadian breed is the ly dairy breed that has been develed on this continent. The cows are milar to the Jersey in appearance, e extremely hardy, and have been nsiderably improved in the past cade both in conformation and procing ability. The breed is enjoying ite a boom in its native province of uebec and at the Provincial Exhition at Quebec last fall there were 0 head entered. There was only a nall showing at this year's Royal.

Cream Paid for on Grade

In dairy products, Ontario creamy men managed to hold their own with the makers from Western Canada for the first time in many years. The prairie makers have been getting all the firsts and most of the other awards at eastern fairs with their butter manufactured for the British trade. This year Ontario men divided the high awards and the sweepstakes butter was made by Goode Bros., Ontario. All the winning cheese was from Ontario. It may be of interest to add that practically all the cream now delivered to creameries in Canada is paid for on grade. In Ontario, one of the last provinces to adopt cream grading, this reform has accomplished more for the improvement of cream and butter than was accomplished in a lifetime of educational effort without the stimulus of financial reward.

Montana Dairy Manufacturing Short Course

The twelve weeks' dairy manufacturing short course at Montana State College will begin January 2nd and continue until March 23rd, 1928. This course is designed to meet the needs of men who have a sincere desire to pursue creamery work. The course is arranged to give students practical training in the manufacture of cheese, butter, and ice cream; the testing of milk and cream, the judging of dairy products, and feeding of dairy cattle.

For the further information write Professor J. A. Nelson, Dairy Department, Montana State College, Bozeman, Montana.

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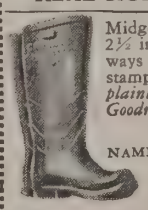
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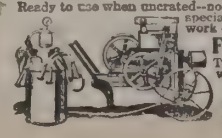
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Milk 2 to 4 cows at a time—18 to 40 an hour. Clean, convenient. Easy to use. Sold on 30 days Free Trial. Satisfaction Guaranteed. 22

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TOP NOTCH



Down at the heel? *Never!*

WHERE do your arctics usually break through first? At the heel, don't they? Then, even though the sole and uppers are still good, you have to throw them away.

But you won't have that trouble with Top Notch Redfore cloth-top arctics. The "Clincher Cushion" heel construction makes the heels last as long as the tough, red soles. This is a patented feature exclusive with Top Notch arctics. So you'll find it a real economy to buy your arctics at the Top Notch store.

The Top Notch line includes cloth-top arctics in 4-buckle and 5-buckle styles—arctics of *all-rubber* from top to toe—heavy and light rubbers. Good-looking and good-fitting as well as long-lasting. Ask for Top Notch by name, and look for the Top Notch Cross.



TOP NOTCH CORN BELT ALL-RUBBER ARCTIC

Waterproof from top to toe. Strong and rugged to stand hard punishment.

BEACON FALLS RUBBER SHOE CO.

For 27 Years Makers of Top Notch Rubber and Canvas Rubber Sole Footwear

Beacon Falls Connecticut

A GUARANTEE TOP NOTCH OF SERVICE

COW BOY SURE HEATER for STOCK TANKS



KEEP COWS HEALTHY

Illinois State Experiments show that 85% of Cows kept in Close Warm Barns tested Tubercular. Prevent this by keeping water tank in open barnyard equipped with a Self-Sinking

COW BOY TANK HEATER Saves Money Every Week

Turn cows out of barn to drink in Fresh Air and Warm Water. "Better drink from a Large Tank than from a Small Bowl." Burns coal, cobs or wood. Outlasts all others. Durable, practical, reliable. Quickest to heat; strongest draft; ashes removed with no check to fire; adjustable grates; keeps fire 24 hours. ABSOLUTELY SAFE. Warm water helps digestion; saves grain.

"Purchased 3 of your Tank Heaters last winter, worked very satisfactorily and are well worth their cost. Every stockman should use one." W. H. PEW, Prof. of Animal Husbandry, Iowa State College, Ames, Ia.

Write today for illustrated circular and dealer's name.

MUNDIE MFG. COMPANY, 513 Brunner St., Peru, ILL.



DAIRYMEN—BREEDERS

Pierce-Easy Bull Ring A quality product for stockmen who want a "better than ordinary" ring. Standard sizes in copper, bronze and nickelsilver.

Kant-Suk Calf Weaner Made with hinge joint—swings out of way when calf eats or drinks. Calf size 45¢; Yearling 55¢; Cow 65¢, post paid.

Buy from your dealer. Write for leaflets.



Reg. U. S. Pat. Office

Reg. U. S. Pat. Office **WAGNER SPECIALTY COMPANY — Burlington, Wis.**

The C. T. A. Did It



THE "RUNT" BULL AND HIS DAUGHTERS

Margaret's Eminent of Gussana Farm and four of his daughters were loaned to the Wisconsin Dairymen's Association by Fred Burhop as a part of its cow testing exhibit at the recent state fair. These daughters averaged 458 pounds fat, an increase of 75 pounds over what their dams were able to do. Good bulls and good cows made known and made possible by testing, is Mr. Burhop's formula for success in dairying.

KNOW your bull by his daughters" and "Build your herd from a good cow" were the two slogans illustrated in the cow testing association exhibit at the 1927 Wisconsin State Fair, an annual affair put on by the Wisconsin Dairymen's Association.

A pure-bred Guernsey bull and four of his daughters and a grade Guernsey cow, "Sunbeam," with four of her daughters, all from the herd of Fred Burhop, a member of the Thiensville—Lakefield Cow Testing Association, told a significant story of the value of a cow testing association membership.

"My first owner, Fred Burhop, sold me cheap when two years old because I was a *runt*. See my daughters. The butchers can't get me now since my first four daughters average 1,138 lbs. more milk and 75 lbs. more fat," read the sign over the bull pen.

Fred Burhop has been a member of the cow testing association for five and a half years. As soon as he tested the daughters of the "runt" bull and discovered their production, he bought the bull back selling him this last spring to Charles Garbisch because most of the herd of 23 or 24 head of grade Guernseys on the Burhop farm were bred by the bull.

The four daughters of the bull, Margaret's Eminent of Gussana Farm, averaged 8,929 lbs. milk and 458 lbs. of butterfat. No wonder Fred bought back this bull. The cow testing association did it.

"Build your herd from a good cow." Sunbeam, the foundation cow in Fred Burhop's herd, has an association average record for five years of 8,374 lbs. milk and 447 lbs. butterfat. Four of her daughters averaged 475 lbs. of fat each.



SUNBEAM AND HER DAUGHTERS

Sunbeam has five C. T. A. records averaging 447 pounds fat. Her four daughters, all by the same sire, have an average of 475 pounds fat. Sunbeam and her daughters are owned by Fred Burhop of the Thiensville—Lakefield C. T. A. of Wisconsin. The Burhop herd of 13 cows averaged 414 pounds fat last year. The average five years previous for the same number, but not the same cows, was 277 pounds. In five years he doubled his profit over cost of feed, and he is generous enough to say "it has all come from testing and knowing."

Four Out of Seven Take Milk Drinks

Four out of every seven people who order food or drink over the soda fountain counter at a State and Randolph drug store in Chicago have a milk drink, according to a recent survey by the National Dairy Council. In this one store they sell 125 gallons of pasteurized milk each day, equal to 2,000 glasses. The average number of people served each day is 3,500, which indicates that 2,000 out of every 3,500 people ordering lunch or light afternoon refreshments are milk drinkers.

Although malted milk sells for twenty cents and milk shakes for fifteen cents, the first is ordered almost twice as much as milk shakes. The favorite flavors of both are chocolate, strawberry in season, and pineapple. Strawberries are the only fresh fruit lending themselves to use in milk drinks.

Acidophilus milk is becoming increasingly popular in drug stores. Five hundred bottles a month are sold at a single Chicago store, usually steady customers who are drinking for their health.

That the trend of milk-drinking soda fountains has affected the soda drink business is evident on checking over any orders placed by managers in soda fountains in various parts of Chicago. It is usually found, according to the Dairy Council survey, that the proportion of milk drinks over soft drinks increases in the stores located in sections of the city where standards of living and general welfare are higher.

New Zealand Control Board

The New Zealand Dairy Produce Control Board has issued regulations governing the export of dairy products from New Zealand. A report embodying these regulations may be had upon request from the Foodstuffs Division, Bureau of Foreign and Domestic Commerce, Washington, D. C.

Uncle Ab says sowing and reaping are only a part; it's what you do between that counts.



"You're there with a Crosley"

A Wonderful Christmas day!

Made perfect by the pleasure and ›y the Crosley Bandbox brings for very day thereafter!

With it the activities of the world are mir-›red in your home. Your house is on the ›ain street of the nation. National events re held next door—the market changes in our own living room—famous preachers de-ver their sermons in your home—You listen in ·n every activity—You hear everybody's point f view from radical to fundamentalist—You njoy the world's funniest clowns and its weetest singers. Cheer, laugh, exhult, ap-›laud, delight at the world's sport, fun and en-ertainment brought to your threshold! Whatever happens—"You're *there* with a Crosley."

Its simple operation is easily understood and ts wonderful performance is at the command f any hand that can turn a dial.

Experienced radio owners will look first for fundamental points and to every set they onsider will address these questions:

1. Is it selective?
2. Is it sensitive?
3. Is it easy to operate?

atisfied on these points they will look for:

1. Single dial control
2. Illuminated dial
3. Volume control
4. Single cable leads
5. Console installation adaptability
6. Reasonable price.

Millions will buy the Crosley Bandbox. his amazing little set is now displayed by ore than 16,000 dealers.

The Crosley Bandbox is a 6-tube receiver.

The circuit of this set is of the excellence ou would expect from a group of skilled en-ineers suddenly given the pick of the world's adio patents to work with.

Crosley has always given the radio world its iggest value for its dollar. Contemplate the erfection possible when the doors of the research and development laboratories of The Radio Corporation of America, The General Electric Co., The Westinghouse Electric and Manufacturing Co., The American Telephone & Telegraph Co., and the Hazeltine and Latour Corporations were thrown open.

Licensed under their patents!

The Crosley Bandbox is totally and completely shielded. Every element is absolutely separated from every other element by solid shielding. Coils are covered with copper. This could have been done cheaper but efficiency would have been sacrificed. Condensers are housed in cadmium-plated steel. All wiring is separated and shielded from all other parts of the receiver. Solid, sturdy, substantial, the entire set is assembled on a heavy metal chassis.

The tuned radio frequency amplification stages have been absolutely balanced through use of the Neutrodyne principal. The set is a genuine Neutrodyne.

To the initiated this means much. To the layman it manifests itself only as a radio receiver that does not squeal or howl when you are trying to get a station.

The shielding makes the Bandbox highly selective—the circuit makes it acutely sensitive and the design makes it extremely easy to operate.

The Bandbox is operated with a single station selector (one dial).

In most localities and in most owners' hands the single station selector will find all the programs anyone could possibly wish. It is the far away stations of weak power but perhaps good music that are captured by the use of the little auxiliary tuners called "Acuminators." Their function is best likened to a pair of field glasses. As the lens bring the distant scene to nearby aspect, so do the Acuminators bring the remote station signals up to room filling volume. Ordinary one dial radios can never perform like this. The Acuminators, little secondary adjustments *exclusive* to Crosley give the Bandbox a substantial command of the air and *all* that is in it.

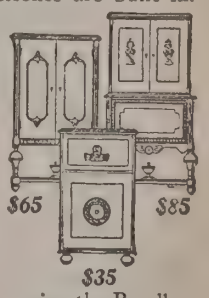
The dial of the Bandbox is illuminated. For shadowy corners and dim eyesight it recommends itself.

Volume Control is necessary on good radio today. Nearby and high powered stations send terrific impulses into the receiver. Detuning has been a favorite method of softening this loud reception but with stations closer and closer together on the dial detuning creates an overlapping of programs. The volume control of the Bandbox cuts the loudest blast down to a veritable whisper.

A single cable leads all outside and power connections from the Bandbox. In this brown fabric covered cable lies each lead covered with colored rubber for protection, accuracy and easy assembly. Tidy housewives appreciate it.

The adaptability of the Bandbox to installation in all types of cabinets is a feature. The metal case of the Bandbox lifts off the chassis. This leaves the closely grouped dial, switch and volume control shafts to be stuck through holes in the panel of any sort of cabinet. The escutcheon is quickly screwed over them and the console installation is not only complete but has no earmarks of a makeshift.

Prominent furniture manufacturers thru their long experience have produced beautiful cabinets at moderate prices. The celebrated Crosley Musicones are built in. Crosley dealers sell them. Purchasers may know they are best suited for Crosley radio by looking for the "approved label" in each one. Crosley dealers get these cabinets only from The H. T. Roberts Co., located at 1340 S. Michigan Ave., Chicago, Sales representative for The Showers Brothers Co., Bloomington, Ind., and The Wolf Manufacturing Industries, Kokomo, Ind.



Much has influenced the $55 price of the Bandbox.

Throughout the country millions examine the Bandbox today. They see it the achievement of an organization who began its development when radio as we know it today began. Its success has been tremendous if clamorous demands from dealers are any indication. Even at any price it would be a sensation, for its performance ranks with the most expensive radio receivers on the market.

An AC Bandbox using ordinary house current electricity for power, sells for $110.

CROSLEY RADIO

THE CROSLEY RADIO CORP.
Powel Crosley, Jr., Pres.
Cincinnati, Ohio

Crosley is licensed only for Radio Amateur, Experimental and Broadcast Reception

Write Dept. 205 for descriptive literature

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of Hoard's Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Coming Events

Jan. 17, 1928—Annual convention of The Milk Council, Inc., 228 No. La Salle St., Chicago, Ill. Secretary M. O. Maughan.

"Hello, is this you, Abe?"

"Sure it's me."

"This is Abe Potash I'm talking to?"

"Yes, yes, what do you want?"

"Well, Abe, I want to borrow fifty dollars for—"

"All right. I'll tell him as soon as he comes in."

News From Washington, D. C.

[Special to Hoard's Dairyman.]

Washington, D. C., Nov. 25—The Seventieth Congress will convene December 5, and after the routine of organization will proceed to tackle about the biggest grist of national legislative business which was ever accumulated for a peace time session. Even the organization will not be entirely routine either, for in the Senate there is first the matter of seating two members, Vare and Smith, whose election is under contest, and on this issue there is likely to arise a line-up in which certain progressive Republican senators unite with the Democrats, making up a majority group which under certain circumstances might overturn the normal Republican majority and elect a Democratic or nondescript set of Senate officers.

After organization nothing is to be routine, according to present indications, from the drop of the first gavel until the last half minute before the session adjourns to go to the national conventions next June. The tax bill is being written at this time by a narrow majority in the House Ways and Means Committee but with so many contested points that there is little likelihood of the majority decision of the committee standing up before either a House or a Senate majority, and even this majority committee decision at odds with the requests of the president and the secretary of the treasury, as to two major items, the automobile tax and the inheritance tax. In both of these cases the president and secretary of the treasury advise one way and the committee majority has voted another way.

The major interests of the dairy industry in legislation this year, with one exception, come under the head of special legislation and therefore falls inside of the category of facing much difficulty. Just what the industry's legislative program is to be depends on the action which may be taken at the December meetings of the various dairy organizations in Chicago. The one project already agreed upon is for a generous appropriation to permit the Bureau of Dairy Industry to expand some of its work to take up needed new research or greatly enlarged research work already outlined and started.

Other legislative matters under consideration include further effort to probe into the cause of contagious abortion through a research investigation under the direction of the secretary of agriculture, increased support for the work of tuberculosis eradication, and sending a national delegation to the World's Dairy Congress next June. These three matters have general support and are likely to be approved generally. There is considerable general discussion of the matter of legal standard for cheese and processed cheese, and some further changes in the butter standards law. There has been some discussion of complete separation of the dairy and poultry work in the Bureau of Agricultural Economics, just as they are completely separated in the animal industry bureaus.

No consideration of congressional work is complete without mentioning farm relief. It is apparent that there is no nearer an agreement by major interests than when Congress ended in the spring after the President vetoed the McNary—Haugen bill. Several different plans are being considered, a number of bills will be introduced, and the effort to enact legislation for the benefit of farmers will be just as forceful and just as noisy in this Congress as in the last—possibly more so.

Interest in the World's Dairy Congress has been aroused here by two recent events. One is the visit to Washington of A. D. Allen of London, Eng., organizing secretary of the Congress, who is paying a two-day visit here as this is written. He met a good sized group of dairy workers here at a special luncheon in his honor given by the American Dairy Federation, and then visited at the Dairy Laboratories of the Department of Agriculture, in various dairy plants, and paid special visits to the Canadian and British Embassies. He told, in a brief address at the luncheon, of the great interest he has found in all parts of the country in the meetings to be held next year in England. The other event was the proposal made by the secretary of agriculture and approved by the state department looking to naming an official delegation to attend the Congress.

New York Milk News

HOARD'S DAIRYMAN:—Utica, N. Y., used to be quite a center of interest in milk marketing. All of that has not yet disappeared. The Dairymen's League headquarters have long since been moved to New York City but they continue their ice cream plant and maintain one of their division offices here still. It is the city where most of the organization meetings for improved co-operation are held. While there lately I called around at some of the still remaining centers of activity. Mr. Garlock, who was the president of the Eastern States Association, still has his office at the old stand. The organization ceased to function some time ago but he still sells milk for a number of co-operative milk plants.

Down a little further is the office of Mr. Hovey who at one time was the general manager of the League. He now has a milk business of his own and that business is somewhat on the gain. In part it is a brokerage business, but he has some milk plants of his own and he handles a lot of milk every day. He has been able to return to the farmers quite good dividends for their milk. In the same building is the office of Mr. Pratt, the lawyer who has been named by our dairy farmers in the last few years oftener than any attorney that I can think of. Some have spoken highly of him and others said something different. His first statement to me was that he is no longer fighting the League. He formerly defended those who violated League contracts. He is attorney for those who do not want the tuberculin test made obligatory.

Down a few flights and I called at the stand of the Non-Pooling Dairymen's Association, expecting to find some of the former leaders of that organization. There has been a change. The editor of the "Non-Pooler" has gone elsewhere and that publication no longer functions. Instead of the faces one formerly found, there is simply one office manager for the greater portion of the time and that not of the Non-Pool Association but of the Unity Dairymen's organization. The office is run at small expense. The association has some membership but I do not think that the number is given out. Members sign an order authorizing the buyer of the milk to deduct one cent a hundred and pay the same to the association. This money enables them to keep the office and pay certain expenses for work to increase membership, ar presumably expenses of committe that meet to discuss prices, et These meetings I believe are held the Utica office. After a price recommended the local does its ow selling but is told not to sell for le than the price named.

The League price for October $2.88 for 3.5 per cent milk at 201-210 miles from the city. It is 30 cen above the price a year ago. It within 13 cents of the Sheffield pri and that is the nearest that I remer ber their coming to the Sheffields a though that is on memory alon With the League getting its highe price, gaining in membership, ar handling more milk for some tim the officers and members are feelin much more encouraged than at ar time in its history.

New York. H. H. LYON.

New England Co-operative Leader Dies

Richard Pattee, managing directo of the New England Milk Producer Association, Boston, Massachusett died at his home in Laconia, N. H November 6, following an illness o more than a year.

Besides being active in the organ ization and development of the asso ciation of which he was managin director, Mr. Pattee was also active i promoting the National Co-operativ Milk Producers' Federation and wa its vice-president at the time of h death. He also served as chairman o the Board of Trustees of the Amer can Institute of Co-operation.

He is survived by Mrs. Pattee, a son Samuel, who is a student at Dar mouth, and one daughter, Mary. H loss to the co-operative movement i the New England States will b mourned by many.

You Can't Beat the Old Reliable

JAY BEE Humdinger
CRUSHER GRINDER PULVERIZER

For fine, fast, uniform grinding of ever kind of feed, biggest capacity, lowest grin ing cost per ton, absolute dependability all times, freedom from breakage and cost repairs, you can't beat the **"JAY BEE.**

Not 1c for Repairs in 5 Year

Mount Meadow Farm, Gadsden, Ala., write "We have never spent 1c for repairs n have we had a shut-down for one minu with our **'JAY BEE'** in 5 years. We grir practically everything and got balir wire, nails and the like into the mill whi have failed to damage the mill one b

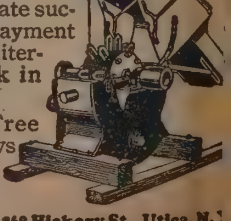
"Has Never Failed Me"

S. Shipman, Guide Rock, Nebr., writes: have ground more than 15,000 bushels corn and at least 400 tons of hay and fo der, and haven't spent a dime on r **HUMDINGER** yet. One sure thing, whe you are feeding full feed, a breakdown ar waiting for repairs costs lots of money. M **HUMDINGER** has never failed me yet

Free Feeding Booklet

Nothing to wear dull or brea Grinds the feed cool. Ov 7,500 in use. The best mill cheapest when work is don

3 sizes, 7 h. p. to 30 h. p. Fordson will operate successfully. Easy payment plan. Descriptive literature free. Stock in principal cities.



Send for this Free feeding book. Shows way to greater feeding profits.

J. B. Sedberry, Inc., 268 Hickory St., Utica, N.

J. C. McDowell

HOARD'S DAIRYMAN:—This introces Dr. J. C. McDowell, dairy husndryman, author, lecturer, and ince of fellows!

Occupying the unusual but pleasg filial distinction of graduating om the same institution and on the me day as that of his son, J. C. cDowell of the Bureau of Dairy Instry, United States Department of griculture, received the degree of ctor of philosophy from the Ameri-n University, Washington, D. C., at recent commencement exercises. s son, Charles J., was awarded the gree of bachelor of arts, specializg in economics. At the preceding mmencement, Miss Dorothy Mcowell, a daughter of the elder Mr.



J. C. McDOWELL AND HIS SON, CHARLES, AS THEY APPEARED UPON GRADUATION FROM AMERICAN UNIVERSITY

cDowell, was graduated with the gree of bachelor of arts, specializg in social service work.

J. C. McDowell, known far and ide among dairy farmers because of s ceaseless activities in the promoon of cow testing associations, has een "going to school" for three ears, pursuing academic studies hen off duty in the Bureau of Dairy ndustry. Going to and from work, n the Washington street cars, this riter perchanced to see him assidusly digesting the contents of a textook—probably a book on economs, the subject in which he specialed in obtaining his Ph. D. degree. lassroom exercises at night furnered his ambition, and two years go he received the degree of master f arts from the American Univerty.

Dr. McDowell is a native of Marquette County, Wisconsin, and was orn in a log cabin. He is self-made -master mechanic that he is! After ttending the rural schools of Marquette County and the normal school f Milwaukee, he matriculated in the niversity of Wisconsin, from which e received the degree of bachelor of cience in agriculture.

Dr. McDowell has been associated ith the United States Department of griculture for 19 years, eight of hich he served as economist in farm anagement and eleven as dairy husandman in the Bureau of Dairy Industry. He is the author of many arcles and bulletins on farm economs and dairying, one of his publicaons on milk being perhaps the most opular literary production of the epartment of Agriculture. He is a rolific writer, contributing to outde journals as well as author of deartmental bulletins. The 1926 earbook of Agriculture, just from he press, contains two contributions rom his pen: "Cow Testing Tales rove Breeding and Feeding Pay," and "Proving Dairy Sires Through Daughters' Records Worth While."

The academic cap and gown, which may for the moment seem forbidding to dairymen and farmers who have seen Mr. McDowell in the motion picture role of a real "dirt farmer," have not deprived him of his cast as acting the part of an honest-to-goodness tiller of the soil. Invariably when the Department of Agriculture needs to portray the character of the true farmer, Mr. McDowell is selected to play the leading role. Consequently he figures in many of the educational films screened by the Motion Picture Division of the Department of Agriculture.

Washington, D. C. S. R. WINTERS.

ATWATER KENT RADIO

Tremendous saving in the world's finest radio

EVEN before these new 1928 low prices were announced, Atwater Kent Radio was overwhelmingly preferred in rural homes.

NOW the always moderate prices of Atwater Kent ONE Dial Receivers and Radio Speakers are still lower. NOW the radio that most farm families prefer, as proved over and over again by their words, is within the reach of thousands and thousands of families who still thought the prices of really good radio were a little high.

Universal demand has enabled the largest radio factory to put the economies of big production into effect. At the same time our radio has been greatly improved in performance.

Much better radio—at much lower prices—with Christmas just ahead! Let the nearest Atwater Kent dealer show you.

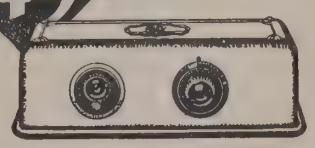
Write for illustrated booklet telling the complete story of Atwater Kent Radio

ATWATER KENT MANUFACTURING COMPANY

4769 Wissahickon Avenue *A. Atwater Kent, President* Philadelphia, Pa.

ONE Dial Receivers licensed under U.S. Patent 1,014,002

$49



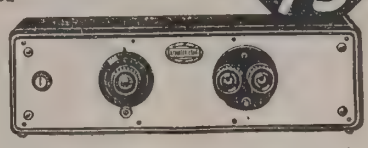
Model 35, a powerful ONE Dial, six-tube Receiver with shielded cabinet, finished in two tones of brown crystalline. Ideal for a small table, window sill or bookshelf. Without accessories. $49

Electrified, if you like

Any Atwater Kent Receiver can be operated from your electric light circuit as a source of current supply. It's merely a matter of equipment. Just tell the dealer which you wish—battery power or socket power.

Atwater Kent Radio Hour every Sunday night on 23 associated stations

$75



Model 33, a very powerful ONE Dial, six-tube Receiver with solid mahogany cabinet and gold-plated trimmings. Unusually effective where distance-getting is essential or inside antenna is necessary. Simple antenna adjustment device assures remarkable selectivity. Without accessories. $75

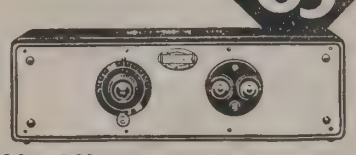
$24



Model E Radio Speaker. New method of cone suspension, found in no other speaker, makes certain the faithful reproduction of the entire range of musical tones. An extraordinary speaker—hear it! $24

Prices slightly higher from the Rockies West

$65



Model 30, a powerful ONE Dial, six-tube Receiver. The mahogany cabinet of unobtrusive beauty is the type that many people prefer. Without accessories. $65

Why Milk in Schools

Six reasons why milk service should be in schools are given as follows by M. O. Maughan, secretary of The Milk Council:

1. Milk service in the schools helps keep the children who are normal in a healthy condition.

2. Milk service in the schools helps overcome undernourishment among the children. Results speak for themselves.

3. Children who participate in the milk service regularly, generally do better school work than otherwise.

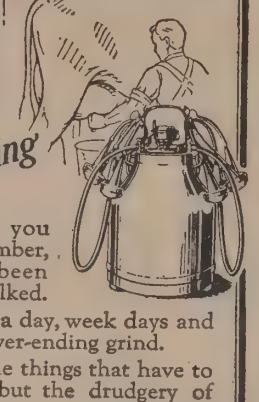
4. Milk service affords a splendid opportunity for a tie-up between teacher and parent.

5. A bottle of milk at school helps make up the proper and standard amount, namely a quart a day.

6. A bottle of milk in mid-forenoon serves to prevent children getting over-hungry before lunch time and thus prevents eating to excess and causing sluggishness during the afternoon.

It Milks the Cows
CLEAN

Say Good-bye to the Drudgery of Hand Milking

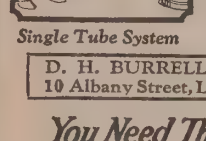


EVER since you can remember, there have been cows to be milked.

Always, twice a day, week days and Sundays, a never-ending grind.

There are some things that have to be tolerated, but the drudgery of hand milking is not one of them. You can say good-bye to it forever. And, the time you save will pay big dividends on the investment. You just can't afford to milk by hand.

The Burrell Milker has enabled thousands and thousands of farmers to take the drudgery out of dairying and increased their profits at the same time. It will do the same for you.



Single Tube System

It will milk your herd easier, quicker, better and more safely than hand milking—and *It Milks the Cows Clean.* And that is why you'll finally come to a Burrell.

D. H. BURRELL & CO. INC.
10 Albany Street, Little Falls, N.Y.

You Need This Book



Every cow owner needs it—whether he is now milking by hand or machine. It's not a mere catalog, but a 32-page profusely illustrated book which is a guide in both selecting and using a milking machine—backed by 67 years' experience and experience. You owe this book to yourself. It's free. Send for it now.

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MILKING MACHINES AND CREAM SEPARATORS

Ladd's Pressure Washer
ELIMINATES
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Washes, Rinses and Sterilizes

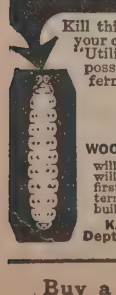
SAVE HEALTH, ENERGY and MONEY

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Ladd's Blue Line Pasteurizer, Ladd's Tubular Filter, Ladd's Cooler, Milwaukee Filler and Capper, Ladd's Brine Maker and Ladd's "42nd"

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Kill this fellow before he ruins you and your crop! Government bulletins say: "Utilize as much of the corn crop as possible *through the silo* since the fermentation *kills all* the insects."

The Old Reliable
Kalamazoo
WOOD STAVE or GLAZED TILE SILO
will not only kill the dread borer, but will *save your crop.* Pays for itself the first year. Save by buying now. Easy terms. Write for free book on silos and building tile.



KALAMAZOO TANK & SILO CO.
Dept. B Kalamazoo, Mich.

Buy a Vest Pocket Herd Book

Dairy Herd Improvement Associations



Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk	Ass'n. Report Ave. fat	High Herd Average Breed	High Herd Average No. of cows	High Herd Average Ave. milk	High Herd Average Ave. fat	Owner
				Lbs.	Lbs.			Lbs.	Lbs.	
Mich.	No. Newaygo*	Sept.	140	381	18.1	J.-D.	3	750	32.1	O. Westbrook
"	Oceana East*	Oct.	235	349	17.8	G. J.	9	713	37.2	E. Robart
"	So. Berrien*	"	292	573	23.8	H.	11	945	34.2	J. Straub
"	So. Newaygo*	"	203	392	16.6	P. J.		648	33.1	N. Mosher.
"	Branch Co.*	"	261	508	21.2	G. H.	20	724	35.4	J. Walsh
"	Ott.-Jamestown*	"	254	542	19.7	P. H.	9	1068	31.6	H. M. Vande Bunte
"	Chippewa*	"	297	614	22.9	P. H.	3	1081	37.7	A. D. MacDonald
"	Charlevoix*	"	234	596	24.6	P. H.	11	987	33.9	Breezy Pt. Farm
"	So. Wexford	"	227	491	20.7	B. S.	10	794	31.8	E. H. Benson
"	Barry Co. 1*	"	216	503	20.4	H.-N.	6	930	33.8	S. Swift
"	W. Oceana*	"	224	445	21.2	P. J.	6	1202	60.7	H. Meyers
"	Missaukee 2*	"	253	388	17.0	M.	7	723	28.9	C. H. Blake
"	Ionia-Belding*	"	381	615	24.2	H.	60	1156	37.8	Michigan Reformatory
"	Lansing-Ingham*	"	301	561	22.2	H.-G.	7	861	36.6	O. J. Becker
"	So. Kent*	"	245	456	19.9	M.	21	770	31.5	H. N. Vander Schnur
"	Traverse 1*	"	344	647	25.2	J.	3	990	45.9	L. V. Gore
"	No. Antrim*	"	218	431	20.8	M.	6	828	35.9	H. Fielstra
"	Hillsdale 2*	"	239	466	20.9	P. G.	4	592	35.1	D. Patrick
"	Alcoma 1*	"	216	607	24.3	M.	11	730	31.6	L. Effrick
"	Genesee 2*	"	228	547	20.4	R. H.	5	820	29.6	G. H. Van Wagoner
"	Macomb 2*	"	242	564	21.9	P. G.	3	489	31.0	H. Kruse
"	Livingston*	"	369	674	26.8	P. H.	45	1160	39.1	Mich. State San.
Mass.	Essex Co.	"	601	690	23.0	G.	54	703	31.1	Randot Farms
Ill.	Moultrie*	"	218	623	30.4	J.	7	885	47.5	J. A. Powell
"	Kane 3	"	729	623	21.8	R. H.	16	996	36.6	Melms Bros.
Ind.	Spencer-Perry Co.*	"	294	502	22.1	J.	16	650	33.0	C. R. Lang
"	Randolph*	"	229	555	28.7	P. J.	7	699	42.4	S. Botkin
"	Boone*	"	350	419	24.8	G. G.	11	778	38.8	F. Walker
Wash.	King Co.	"	697	664	26.4	G. J.	20	729	38.4	K. M. Dougherty
"	Cowlitz Co.	"	473	534	24.9	J.		652	42.9	C. S. Houpt
Col.	Pueblo Co.	"	504	560	25.2	J.	20	714	33.3	R. W. Cann
Va.	Aug.-Rockbridge	"	422	549	27.1	G.	16	688	35.7	J. G. Flory
"	Prince William	"	696				18	1202	38.7	J. F. Miller
Nebr.	Lancaster	"	539	580	23.4	J.	20	653	33.5	Walnut Spr. Farm
Ida.	Pioneer	"	461	592	24.1	H.	26	1135	38.5	J. R. Long
Ala.	Hale Co.*	"	421	319	16.6	G. J.	14	491	26.0	C. H. Drury
Ohio	Licking Co.	"	278	489	21.7	R. H.	9	1127	38.5	J. H. & E. O. Myer
Mo.	Jackson 1	Sept.	271	521	21.5	H.	48	770	28.7	W. F. Bell
"	Jackson 2	"	928	654	24.2	H.	67	863	30.6	E. Peterson & Son
Penn.	Alleghany Co.	Oct.	354	594	25.0	R. G.	6	787	38.4	Fairacres Farm
Minn.	Barnum*	"	335	458	20.4	G. G.	5	734	35.5	R. Frohrip
"	Ers.-McIntosh*	"	353	327	13.6	R. G.	14	414	23.1	F. A. Uggen
"	Lac. Qui Parle*	"	357	354	14.6	G. G.	8	667	28.9	C. A. Mangel
Wis.	Westby*	"	381	410	18.9	P. J.	19	450	25.9	M. Stafslin
"	Cleghorn-Eleva	"	411	352	16.6	G. G.	20	577	28.8	S. Meyer
Kans.	Harvey	"	140	530	19.7	M.	12	553	25.6	H. O. Molzen
"	Reno	"	321	391	15.6	J.	31	515	26.0	A. O. Jacobs
Mont.	Lake Co.	"	316	718	29.6	G. H.	6	1524	45.2	R. Turnquist
Mich.	Miss.-McBain*	"	228	416	17.1	M.	5	686	33.7	C. DeBoer
"	So. Eaton*	"	369	580	21 0	H.	9	773	30.9	E. H. Gruesbeck
"	Lelanau Co.*	"	204	427	20 4	J.	6	664	37.7	J. E. Hilbert
Ore.	Tillamook	"	1609	611	30.2	G. G.	30	889	45.1	G. W. Durrer
Wis.	Pittsville	Nov.	290	603	23.7	R. H.	15	1164	38.0	H. H. Meyers

*Retest rules followed.

Holds Banquet

HOARD'S DAIRYMAN:—After completing seven months of this year's test the members of the Erskine—McIntosh Association of Minnesota held a "get-to-gether" banquet at the Leland Hotel at Erskine. A big majority of the members were present, many bringing their wives. Thirty-seven people in all were there and a jolly bunch they were. A splendid banquet dinner was served by the hotel management and those who had lunched at home before coming were decidedly at a disadvantage.

The president of the association, Mr. Magnus Haaven, welcomed the members with a short talk touching lightly upon the object of the association and the results of testing. The Northwest School of Agriculture was represented by Professor O. M. Kiser, who talked on "General Farm Problems." Other speakers were Mr. E. O. Melness, vice-president of the "Land O' Lakes Creameries," and Mr. Albert Anderson, former Erskin buttermaker and now editor of "The Creamery Operator." A number of vocal solos were sung by Miss Ruth Melquist, accompanied at the piano by her sister, Genevieve.

An enjoyable evening was spent, music, humor, and short talks making the time fly. The banquet gave the members the opportunity to talk things over, compare notes, and become better acquainted. This has been instrumental in creating that friendly feeling in which co-operation thrives so well. All those attending could not help but feel that the association in general and the banquet in particular was a success in every respect.

MORRIS C. GROVE, Tester.

Raises All His Feed

HOARD'S DAIRYMAN:—Soy beans make it possible for one dairyman of the Henry Association of Illinois to feed all home grown feed to dairy cattle. Last year the cows received only feed produced on his farm. Corn, barley, and oats furnished the carbonaceous concentrates and soy beans furnished the nitrogenous concentrate. The roughage consisted of alfalfa hay and corn silage.

The beans yielded very well, making 27 bushels per acre this year. The choice beans are sold on the market for seed, the cracked beans are ground for the cows. The butter produced from beans seems to be somewhat soft, but this is not objectionable to him as he does not produce butter for the market. The beans seem to have a very good physiological effect on the cows due to their high percentage of oil.

The yearly average of this herd was 9,752 pounds of milk and 307.2 pounds of butterfat. Each cow returned an average of $106.90 above the cost of feed. The feed was figured at current prices at time of consumption. The cows consumed an average of 200 pounds of beans per he yearly. It takes approximately tw tenths of an acre per cow to furn this nitrogenous concentrate. In t section of Illinois it seems to be most profitable crop to produce p tein concentrate for cows.

JESSE L. BARNES, Tester

Monthly State Summary Table

State	Month	No. of ass'ns. Operating	No. of ass'ns. Reporting	No. of cows*	Ave. fat per cow* All cows	Ave. fat per cow* High ass'n.	Ave. fat per cow* High herd	High cow fat	No. of separators Tested	No. of separators Over .05%	Cows culled
					Lbs.	Lbs.	Lbs.	Lbs.			
Iowa	Oct.	85	80	28,733		25.1	50.8				449
So. Dakota	"	7	7	2,140	14.3	18.1	30.4	69.4	95	18	17
Wisconsin	"	167	140	56,548	18.6	27.9	42.3	125.9	1246	112	1125
Idaho	"	10	10	4,376	24.6	27.3	48.1		151	19	60
Utah	Sept.	5	5	2,470	22.4	24.4	43.1	101.4			12
Michigan	"	104	90	24,466	20.8	27.7	†60.6	90.0			173

*Includes dry cows. †Retest rules followed.

The Need of Testing

HOARD'S DAIRYMAN:—Many dai men or farmers that keep cows w der what is the use of testing. Is t not due to the lack of a thorough derstanding of its principle val Are they willing to feed high pri feed to inferior or unprofitable co thereby lowering the value of th feed? Why put feed into a cow anything else that will not bring farmer a fair return above the c of production? Time, labor, and pense are only wasted.

Early in the summer the county ricultural agent and myself called a farm where they were milking th teen cows. It took considerable eff to get him to join the So. Kent As ciation of Michigan, but he fina signed up. Through testing he fou several cows producing at too low standard to keep this winter. He s six of these and is now milking sev He now asks, "Why will a man k twice the cows that he should wh he can produce just as much with h the cows and thereby save nearly h the feed, labor, and expense?"

The secret of dairying is not keep a large herd of cows but fe and better cows. When farmers realize this fact the matter of ov production will be a thing of the pa Let us all get behind the dairy h improvement association and h boost dairying.

FORREST BENDER, Tester

Accuracy of Records

HOARD'S DAIRYMAN:—There been some question among memb of dairy herd improvement assoc tions as to the accuracy of their r ords on account of the practice computing the month's producti from one day's actual producti This has been checked by the m sheet records by various members the Genesee No. 2 Association Michigan and found to be very cl to the actual production, one mon with another.

One member recently figured t actual production from his m sheets for the entire year on his he of 21 cows. In terms of the value the product according to the price received for milk each month the was $3.59 difference between his to and the total value of the product shown by the herd association recor This was an average of 17 cents p cow on the year's production.

A. D. REYNOLDS, Tester.

Helpful Hints

In his annual report as tester the Thiensville—Lakefield Assoc tion of Wisconsin, James Rezach cludes the following comments:

"A hen does not stop scratching cause the worms are scarce. S scratches just so much harder to a living. Do not quit the dairy herd i provement association when the he average is a little lower; work much harder to make it better."

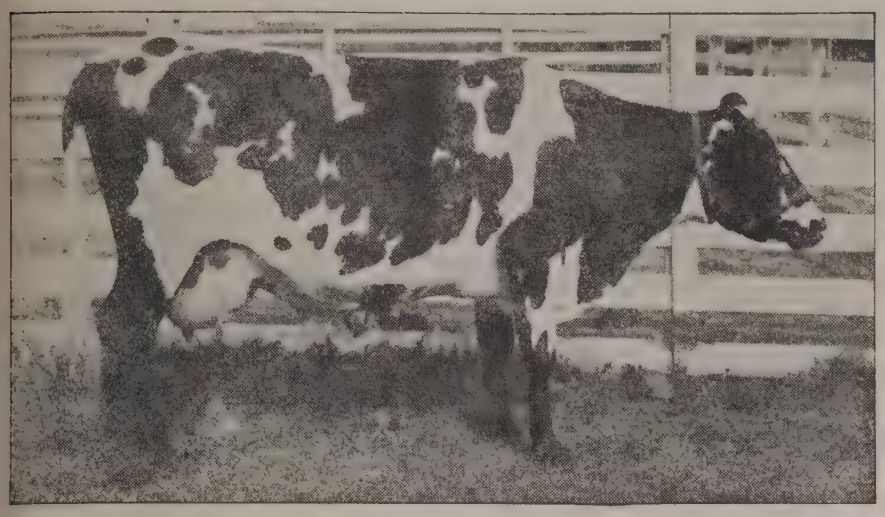
"It is not the spurt at the start b the steady advance that wins succes Do not try to do it all at once. St from the bottom up and not from t top down."

"If you do not have sufficient fe reduce the number of cows or procu the feed. Remember, no man ev cheated a cow without she retaliat with heavy costs."

BULLETIN

Milk Production Record of Two Cows for 10 Months

Research Farm, Dr. Hess & Clark, Inc., Ashland, Ohio

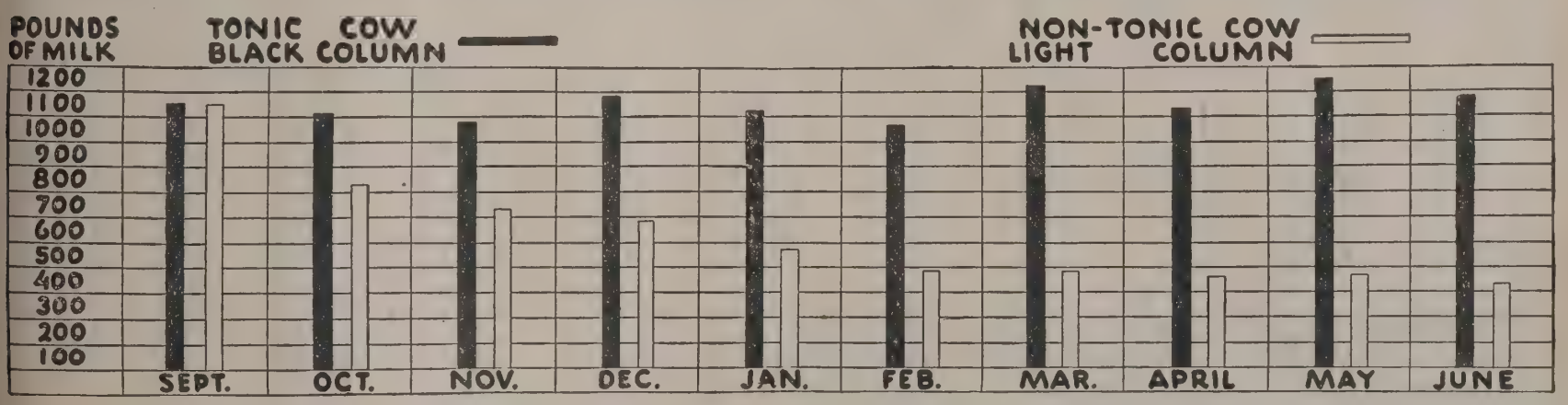


This is just an ordinary milker, getting ordinary care and feed—ground oats and corn, bran with oil meal added. She freshened in August and began to receive Dr. Hess Improved Stock Tonic in her ration in September. This continued for ten months. This cow and the one below were rated equally good milkers, there being but two pounds difference in production in September when the test began.



This cow might well be in the same class as the cow above. She was of the same age and condition. She got exactly the same feed and care. She freshened the same month. No reason is apparent in age, condition, feed or care why her production should not equal the other cow. But she did not receive Dr. Hess Improved Stock Tonic at any time, either before or during the test.

THE above two cows were placed in competitive milk production test beginning September 1st and continuing ten months. For better comparison, the milk production records for both cows are given month by month in the graph below.



The outstanding feature of the test is the sustained production of the Tonic cow. Instead of falling off the usual 10% a month after freshening, as the other cow did, she maintained her milk flow until the end of the test.

Production for the ninth and tenth months was greater than the first month after freshening. Compare the graph records of the two cows closely. The Tonic cow's total production was 10,493 pounds—that of the non-Tonic cow, 5234 pounds.

The Tonic cow was kept in better milking trim, in condition to do her best, remained longer in full milk than the usual course, and thus was able to produce a little more than double the milk of the cow not receiving the Tonic.

The average butter fat test for the Tonic cow was 4.67%, for the non-Tonic cow, 3.73%.

The average monthly profit from the Tonic cow was $21.10, for the non-Tonic, $3.55. The total profit from the Tonic cow over and above the feed cost was $210.97; total profits from the non-Tonic cow, $35.46.

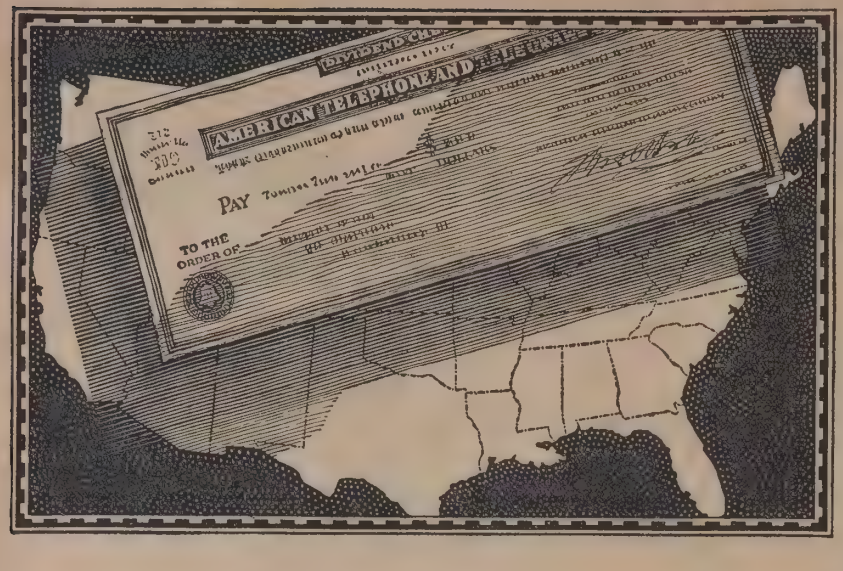
Dr. Hess Improved Stock Tonic

APPETIZER — REGULATOR — MINERAL BALANCE

All combined in one product

PRICES: 100-lb. drum, 10c per lb.; 500 lbs. 9½c per lb.; 1000 lbs. at 9c per lb.; ton lots 8½c per lb.

(Except in the Far West and Canada)



How many are 421,000 stockholders?

An Advertisement of the American Telephone and Telegraph Company

ON OCTOBER 15th, American Telephone and Telegraph Company checks representing the 152d dividend were mailed to its 421,000 stockholders. That is the largest number of stockholders of any company in the world.

The American Telephone and Telegraph Company is owned by a great investment democracy.

Its dividend checks are cashed at banks in every state in the Union, by people representing all trades and stations and professions.

No institution is more nationally or publicly owned than the American Telephone and Telegraph Company, which in turn owns more than 91% of the common stock of the operating companies of the Bell national System.

The average holding is 26 shares, and no one person owns as much as 1% of the total stock.

The Bell System was developed in the interest of telephone users and is owned by the public that it serves.

KEEP TAB ON YOUR COWS!

Send 5c in stamps for samples and prices of our weekly and monthly **MILK RECORD SHEETS**

Hoard's Dairyman **Fort Atkinson, Wisconsin**

Strains 100% Clean or your Money Back



Dr. Clark's Purity Milk Strainer is the only strainer on the market *guaranteed to get all the dirt, dust and sediment or your money back.*

Because it is the ONE strainer that strains absolutely clean is the reason why it is used and recommended by practically all the large dairies, creameries, condensaries, thousands of farmers.

WHY TAKE CHANCES

when you can use Dr. Clark's Purity Strainer with its sterilized cotton disc and KNOW that your milk will grade *100% clean?*

Dr. Clark's Purity Strainers are simple to use and easy to clean—save time—bring you higher prices for your milk. Also best for straining maple syrup, vinegar, cider and home beverages.

Sold by good dealers everywhere. Two sizes, 10 quart and 18 quart. Write for descriptive folder and our 10 Day Trial Test Offer. If your dealer can't supply you, we will. (2)

10 Day Trial Test

Write at once for our 10 Day Trial Test Offer. Find out how you can test the PURITY Strainer and get your money back if it doesn't remove every particle of dirt from your milk. Get all the facts. A postal or letter brings you complete information "10 Day Trial Test Offer" by return mail.

PURITY STAMPING CO.
Battle Creek, Mich.
Dept. Q2

DR. CLARK'S **Purity** MILK STRAINER

"The Truth Hurts"

National Dairy Council's Butter Exhibits Arouse Ire of Margarine Manufacturers

AS a result of the regular summer activity of the National Dairy Council in scheduling exhibits of scientifically fed experimental rats at state and county fairs, in store windows, and other strategic locations throughout the Middle West, an organized defense is under way sponsored by margarine manufacturers to offset the inroads on public opinion which these exhibits create against margarine.

For many years the National Dairy Council has maintained an experimental animal station near St. Paul, Minnesota. White rats, chickens, dogs, and pigs, raised in pairs of the same age, sex, and breeding, have been raised on special diets to show the advantage of milk and butter as necessary food in a proper diet for growth and health. The diets are prescribed and supervised by a leading nutrition authority of the University of Minnesota.

Exhibits are Widely Used

Each year an increasing volume of inquiries has taxed the capacity of the experiment station to supply these exhibits. One of each pair of animals has been fed on a basic diet plus butter and another fed on the same basic diet plus margarine. Anyone familiar with the difference in food value of these two products can predict the results which follow. The surprising fact about these experiments has been that in hundreds of cases the same diets have produced almost identical effects on the animals.

Crowds of people both from cities and farms have always gathered about the display of these experimental animals at meeting places or in store windows. At the same time the National Dairy Council supplies publicity matter for local newspapers reaching many thousands of people who do not see the animals in person. They are told about the diets and their effect upon the animals, together with a statement showing what the same results will be in the growth and health of human beings on a similar diet. Not only have the hundreds of exhibits created considerable discussion among those who witnessed them, but in many cases the Dairy Council secures letters and verbal inquiries from those who have heard of the exhibits indirectly from those who have seen them.

"Butter Made the Difference" is the slogan in large letters which always catches the eye over these exhibits. This same slogan is usually the headline for local publicity above the attraction.

"Oleo" Manufacturers Object

It is not surprising, when the cumulative effect of this widespread publicity is considered, that the margarine manufacturers should become alarmed. Reports have come to the National Dairy Council of a concentrated effort on the part of the manufacturers to put the "quietus on this source of information to the general public, particularly in the Middle West. Letters are being sent to state and county fair managers and to others whom the "oleo" people expect to be responsible for the display of this exhibit showing what butter will do that margarine cannot. Direct contact through the local representatives of margarine manufacturers is beginning to result in pressure brought to bear on business men and fair managers, calling upon them to stop the spread of what they seem to regard as effective against their business.

To show how effective these exhibits have been against the margarine sales in localities where people have been informed, surveys have been made of the market situation by local county agents in a disinterested capacity. At Indianola, Iowa, Claude S. Halderman, County Agent of Warren County, made a partial check of the amount of butter and oleomargarine sold by local merchants in Indianola the week previous to the showing of the experiment at the county fair and another the week following.

"I found," reports Mr. Halderman, "that there were approximately 2 pounds of oleomargarine sold through the merchants to every pound of butter. It was very interesting and gratifying to find that the merchants are selling now only 1½ pounds of oleomargarine to every pound of butter. I would like to have this same exhibit next year."

Essential Food Elements Lacking

The Institute of Margarine Manufacturers has unconsciously stated what follows when margarine is used in a basic diet in its protest "against the exhibition of sick rats or other sick animals in connection with oleomargarine and butter." The sick condition is not caused by a contagious disease, but is the direct result of malnutrition resulting from the use of margarine in place of butter. The malnutrition, in turn, is accompanied by a lack of resistance to disease



Farmers' Co-operative Creamery, Sunberg, Minn., sells its butter to the Atlantic and Pacific Tea Co., New York, and receives extra price. In 1924, 250,000 lbs. butter were made.

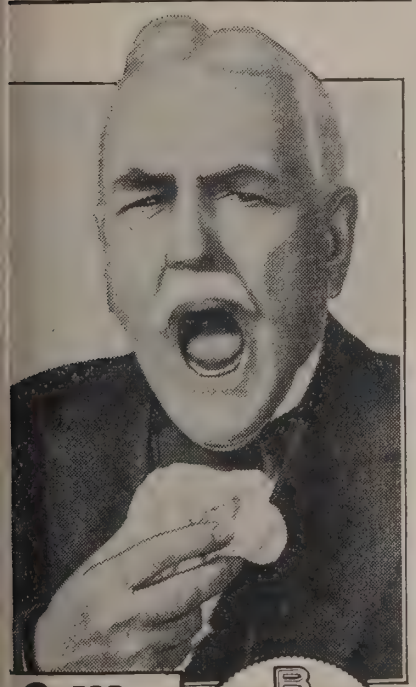
hich in the end often results in an nfection of one form or another, as)r. Amy Daniels of the University of owa found in her experiment work rith rats where oleomargarine was sed in place of butter.

Food is intended to build body tisue and furnish the body with energy nd it is not intended to make either ats or human beings sick. But a soalled "food" like margarine, by reason of its lack of essential food elements, can and does produce a condition which is a form of sickness as he Council's exhibit has shown thouands of people in a striking manner.

The statement in the complaint of he Margarine Institute, that "it food) does not prevent growth and evelopment" is misleading. Food is, y nature, intended to promote rowth and development. Margarine ecause it lacks growth promoting elements, does not promote growth and, herefore, its use does prevent growth ausing the very thing which the Margarine Institute says "food" hould not do. It can be truthfully aid there is "food for thought" in his shallow protest of the Institute f Margarine Manufacturers.

The National Dairy Council will ontinue to inform the American pubc in its effective displays as to the elative food value of butter versus nargarine. Many who see these xhibits exclaim to each other: "No nore oleo for me!"—National Dairy Council.

More than 7,500 patrons of 275 actories located in 45 counties in the wo leading dairy states are now marketing their cheese through the Wisonsin Cheese Producers' Association.



To break a cold harmlessly *and in a hurry* try a Bayer Aspirin tablet. And for headache. The action of Aspirin is very efficient, too, in cases of neuralgia, neuritis, even rheumatism and lumbago! And there's no after effect; doctors give Aspirin to children—often infants. Whenever there's pain, think of Aspirin. The genuine Bayer Aspirin has Bayer on the box and on every tablet. All druggists, with proven directions.

Physicians prescribe Bayer Aspirin; it does NOT affect the heart

Aspirin is the trade mark of Bayer Manufacture of Monoaceticacidester of Salicylicacid

Middlesex Ayrshires Sell Well

Ayrshire breeders went home from the dispersal sale of the Middlesex Meadows herd of Major A. Henry Higginson at Westport, N. Y., October 28, with a firm conviction that the public is eager to purchase improved Ayrshires at remunerative prices. The offering of 52 head including three bull calves, several baby heifers, and the usual dispersal sale quota of old cows was readily absorbed at an average of $296. The crowd was large, the cattle nicely fitted, and the bidding spirited.

For nearly fifteen years the cattle of Major Higginson have been conspicuous in the show rings and in the Advanced Registry, and champions in both of these endeavors have resulted. Ayrshire breeders will be gratified to know that a nucleus of the youngsters has been reserved and that just as soon as barns are rebuilt and forage produced an even greater herd is planned for Middlesex.

Winthrop Taylor, New York, topped the sale with a bid of $800 for Imperial Mayflower, a consistent prize winner on the 1926 show circuit, that has a senior three-year-old record of 14,057 pounds milk, 614 pounds fat. Mr. Taylor personally selected six very choice animals for his estate, including the two-year-old Middlesex Snowbird at $785, undoubtedly one of the most popular animals in the offering.

The estate of Seymour H. Knox, New York, took five head including the good yearling show heifer, Middlesex Carmencita, at $485.

L. L. Grow & Son, New York, selected ten choice heifers for a total of $2,590 and Henry L. Higginson, who has been quietly acquiring a select herd on the estate formerly occupied by the Middlesex herd in Massachusetts, purchased eight females for a total of $2,900.

Averages for animals of different ages were as follows: Seventeen cows averaged, $384; 8 two-year-old heifers, $428; 11 yearling heifers, $261; 8 heifer calves, $163; 3 bulls, $232; and 5 bulls, $126.

Herdmen's Short Course

Young men who would like an opportunity to spend the winter months (January 2 to March 16) preparing themselves to qualify for something better should be interested in the Winter Live Stock Short Course offered at Iowa State College at that time. This course is known as the Herdsmen's Course and consists of two winter quarters' work which may or may not be taken during consecutive winters.

The Herdsmen's Course has been found to fill a very definite need for the farm boys of the Middle West who do not feel that they can spare more time to take the longer collegiate or non-collegiate course in agriculture. It has attracted an ever-increasing number of very fine boys from over a rather wide area during the last few years. One year as many as thirteen states and Canada were represented by students enrolled in the course.

Many new cow testing associations are being organized in Iowa and adjoining states and the success of the work is largely dependent on the type of men employed as testers. One of the chief objects of the above mentioned course is to help train men to take up this line of work. This is the only course of its kind offered at Ames with this end in view and it occurs at a time of the year when men and boys can best leave the farm.

For further information, write to the Dairy Husbandry Department, Iowa State College, Ames, Iowa.

"..... Over 80% of shipments of milk *and* cream *in* cans moving on our line are now supplied with Parchment Gaskets....."

C. L. Jellinghaus
Supt of Property Protection—N.Y. Central RR Co N.Y.



Do Parchment gaskets pay?
Here is overwhelming evidence.

Copyright 1925 N.Y. Central

Into the heart of New York City every day come thousands upon thousands of cans of fresh milk. "How many of them," we asked The New York Central Railroad, "are protected by Vegetable Parchment gaskets?" Here is the answer:

"..... over 80% of shipments of milk and cream in cans moving on our line are now supplied with the Parchment Gaskets, and .... their value is generally appreciated."

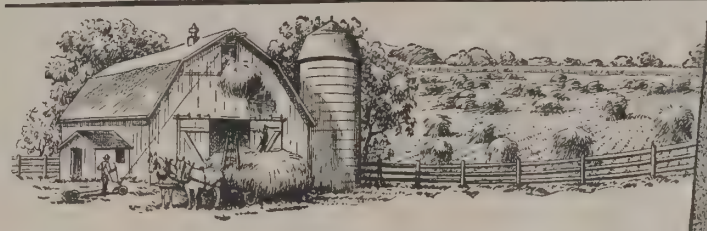
C. L. Jellinghaus,
Superintendent of Property Protection,
New York Central R. R., N. Y.

The most widely used Milk Can Gasket measures 11"x11" and is prepared in 50-lb. substance genuine Paterson Vegetable Parchment. Ask your Supply House for a trial lot now!

Such overwhelming evidence tells its own story.

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TEN years of increasing strength of the Federal Land Banks have made their Bonds a seasoned standard investment. Not a default on interest or principal. Over one Billion dollars of these Bonds now held by investors. They are guaranteed jointly by the twelve Federal Land Banks, with combined capital and reserves exceeding $70,000,000. Back of these Bonds are farms valued at more than twice the amount loaned. These Bonds are safer than any single first farm mortgage.

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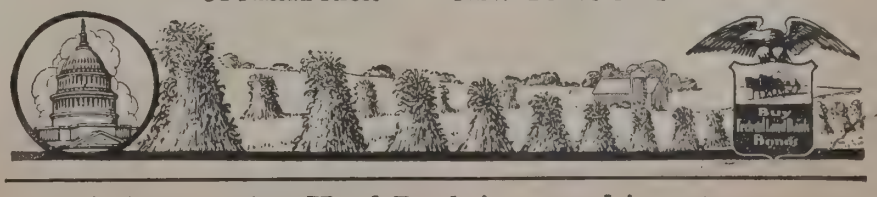
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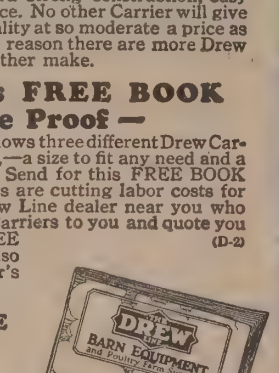
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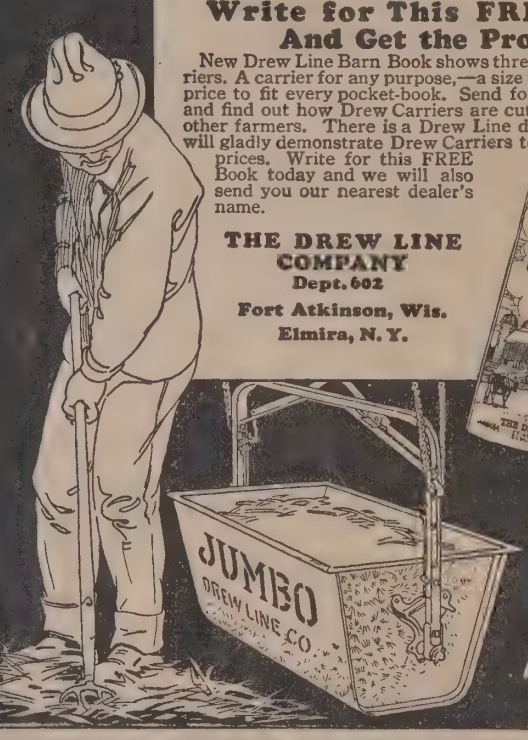
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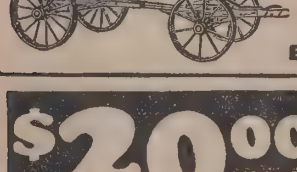
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Fort Atkinson, Wis.
Elmira, N. Y.





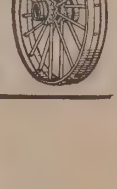
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The greatest Sharples separator in 46 years of business! Wonderful improvements make this new Tubular model easily the most serviceable of all cream separators. Hip low supply can. Ball bearing. Self-balancing, suspended Tubular bowl. **No Discs!** Easy to clean; so easy to turn. Highest skimming efficiency—larger cream checks. Now ***direct from factory on 30 days trial*** at **lowest prices** ever made.

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MILK STOOL PHILOSOPHY

J. J. SPRENGER, MINNESOTA

I BELIEVE I would make a good millionaire. I feel I have all the longing for prosperity and all the inclinations to spend money and be extravagant, needed by the best of them. It is only a trifling thing I lack—the money. But, being a farmer, I don't expect to get much wealth but I do expect to be happy.

Farmers are usually well-to-do but not wealthy. We live forehanded lives but seldom live in luxury. We succeed oftener in keeping our credit good at the bank than the rank and file of any other group, but we are not rich. I am not sorry that this is so, but I am sorry our credit is not quite as good as it has been. I am glad we are trying to get back because I believe we will get something out of that trying which we could not have gotten without it.

You will not need to have me tell you why we slipped a little, because everybody is already doing that. I would, however, like to tell you in a modest way about some of the things which are helping me to get back.

When it became evident that a man could produce ever so much more farm products in a given time than before he had the endless string of labor-saving machinery, it showed me that our difficulties might be increased along the line of marketing the increased quantity of products, especially at a time when so many consumers had been made poor by the war and by many other destructive agencies throughout the world. It was then that we were in need of wisdom as to the best way of meeting this new condition, and there were developed two schools of thought. The one believed the best way was to slack up so the people we were fee ing would become more liberal wi the buying power they did not hav the other school thought we mig get back by working harder and mo carefully so as to produce cheap until our weakened customers cou get on their feet and then we wou finally both be in a better position.

The people of the first school thought certainly have the argume which would appeal to the mass, b I could not see it that way. All m observations of the past point to o thing especially, and that is that the end it always pays to do our ve best. A farmer can not do that unle he throws himself, soul and body, i to his work. So the first thing I d was to extend my work so that su labor-saving machines as had prov practical could be used to the be advantage. However, had I been a small farm, I would have intensifi for the same reason because I belie there is an advantage to be gained separating the two kinds of farmi in our minds, the intensive and t extensive, because the methods of t one are not the methods of the othe

Then the second thing I did was sell products only in the form human foods because animal foo are not as much needed in a mechan cal world. In the third place, reasoned that new problems alwa look bigger to the masses and thou everybody talks about surpluses, v end each year with practically no ca ry-over of food products and at th time there is a profitable market.

But above all, I enjoy my work. have confidence in economic adjus ment and believe there are gre things in store for the progressi farmer.

Creamery Pays For Itself In Three Years

HOARD'S DAIRYMAN:—When a few farmers around about Luana, Iowa, 37 years ago met and organized the first co-operative creamery in North-



THE NEW LUANA, IOWA, CREAMERY

eastern Iowa, the venture met with considerable skepticism. There were those who said that the farmers never would hang together. Another doubtful feature of the situation was the lack of dairy cows and the preponderance of beef cattle on prairie farms around Luana at the time.

The creamery had its ups and downs, more downs than ups at first, but carried on. Then a day came when its butter began getting premiums in eastern markets.

For a good many years now it has done a huge business, but for a long time the farmers held off from investing in a new building, though the business had outgrown the old frame structure. Three years ago, however, the stockholders voted in favor of a new modern tile building, and it was agreed that each and all should leave a cent a pound on all butterfat receipts in the creamery exchequer until the building was paid for.

That was in 1925. The building was completed last year. It cost $20,000. It is already two-thirds paid fo and the entire debt will be wiped o by the first of January, 1928, sa Elliot Nelson, secretary.

The little creamery which dared be co-operative nearly forty years ag made over three-quarter millio pounds butter last year. Its June re ord for this year was 84,110 poun butter, and checks totalling $32,0 were paid out to the 320 patrons.

Since the new building has been o cupied, the creamery has made son changes in its management. Individ al cans are used this year for t first time. If cream comes in bad t farmer is notified. If it comes in b from the same farm again, the crea ery reserves the right to reject it f their own use, and to ship it to a ce tralizing plant. Secretary Nels says they have not had to resort this measure.

The Luana creamery is about fo miles from the farmers' creamery Monona and around six miles fro the farmers' creamery at Postvill Both the Monona and Postvil creameries do a big business, the san as the one at Luana. Rivalry w made taboo by the three creameri some time ago when the directors the institutions held a joint meetin and agreed that no patron of one the creameries would be accepted either of the others.

Iowa. F. L. CLARK.

"Ah shuah pity you," said a color pugilist to his opponent as th squared off. "Ah was bohn wi boxin' gloves on."

"Maybe you was," retorted the ot er, "and Ah reckon you'se goin' to d the same way."

It is never too late to read.

Built for Hardest Winter

Here's an arctic that's built for workers.

Uppers of heavy, tough cashmerette —to give double wear.

Lined with thick, warm fleece for northern weather.

Tough soles with an extra red rubber reinforcement where the hardest wear comes. Bumper-edged for rough going on frozen ruts.
Try and wear 'em out!

The Hood name across the sole shows the maker's pride in these arctics. Ask for them by name—Hood Red Treads. Other styles for all the family offer the same plus value. Look for the Hood Arrow—and save money.

Made by: Hood Rubber Co., Watertown, Mass.
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HOOD THE SYMBOL OF WORLD WIDE SERVICE IN QUALITY RUBBER PRODUCTS

The Fire Died at Midnight!

Cold gray dawn. Windows covered with frost. Dead ashes in the old stove. What a dreary way to start the day!

Even after the fire is started, corners will be cold all day. Floors drafty. Mother will keep a shawl over her shoulders. Baby will have snuffles. Cold feet a habit with the whole family.

Junk the old outfit and get one that is up-to-date.



YOUR family is entitled to modern heat in the house. There's no need to freeze at night and shiver in poorly distributed heat all day. A modern outfit will fill the house with mellow warmth, will glow with comfort all night, utilizing all possible value from the fuel instead of sending it roaring up the chimney.

When you buy a new outfit you want results and economy. Turn to a manufacturer who has worked out designs from years of study and experiment. Trust an institution where every man is proud of the company's reputation, from executive in the office to molder carrying splashing crucible of white-hot metal. Such are the advertisers in this paper. They make good equipment and their guarantee counts.

Steady warmth that circulates, leaving no cold corners, will keep the family vigorous and full of hustle, without the dragging handicap of colds. All this, yet economy that keeps your pocketbook cheerful.

Firepots carefully cast, with metal compounded so they will not warp, crack or burn out, doors accurately machined so they fit, solid character and sound design in every part. That's what you want to buy.

You Can Depend on the Heating Systems Advertised in This Paper

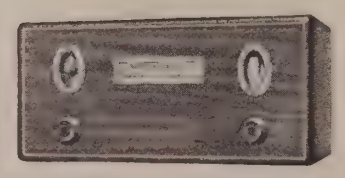


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WHEN you buy a Radiola (and an RCA Loudspeaker) you know that you are getting the best in radio.

Back of every instrument bearing the RCA trademark are the resources, not only of the pioneer and leader in radio research—the Radio Corporation of America—but also the pioneers and leaders of the whole electrical industry—the General Electric and Westinghouse companies.

Three radio instruments designed by the engineers of these companies are specially adapted to give perfect radio reception and reproduction in communities away from the congested centers of population.



RADIOLA 16—Storage battery receiver of great compactness. For selectivity, sensitivity and tone quality, it sets a new standard for receivers in its price class. The cabinet is finished in mahogany.

Less accessories	$69.50
With Radiotrons	$82.75



RADIOLA 20—Dry-battery-operated receiver, with amazing sensitivity and many times as selective as the average antenna set. Ideal for distant reception. Can readily be adapted to socket operation. Ideal to use with the new RCA Loudspeaker 100-A.

Less accessories	$78.00
With Radiotrons	$89.50

These are the new, compact, storage-battery operated Radiola 16, the popular dry-battery operated Radiola 20, and the new RCA Loudspeaker 100-A.

Either of these fine receiving sets, when used with the wonderful new loudspeaker, will faithfully reproduce the programs from the great broadcasting stations—the best music, university extension courses, crop and weather bulletins, and the news of the world. And either of these sets can be adapted for operation from the electric light circuit by the addition of socket power devices.

RCA Radiola

MADE · BY · THE · MAKERS · OF · THE · RADIOTRON



I call this living!

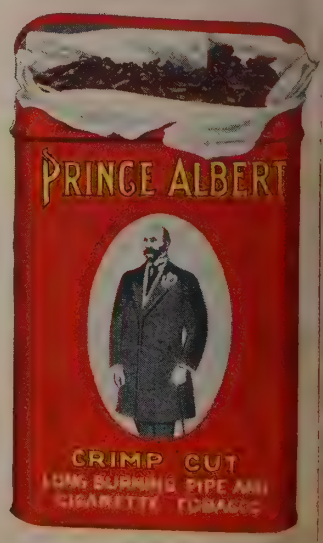
A PIPE and P. A.—what a wonderful combination for pleasure! I often read about "what ten books" a man would choose for companionship if he had to spend the rest of his days on a desert island. I'd want books, of course. But the thing I'd insist on would be a warehouse full of Prince Albert!

I would never be lonely anywhere with my pipe and plenty of P. A. In fact, I'd be lonely in a crowded city *without* them. You'll begin to understand "why" when you get that first fragrant whiff of Prince Albert as you tamp it into your pipe. You'll know for sure when you light up.

Cool as a referee. Sweet as a decision for *your* side. Mild as cambric tea. So mild that you can smoke pipe-load after pipe-load without a stung tongue or a parched throat. Yet P. A. has that rich, full tobacco-body that satisfies to the limit in every pull. A grand old smoke, Men.

I don't know what your present smoke-program is and I'm not going to ask questions. But I'm going to state in no uncertain terms that you don't know how good your pipe *can* taste until you load it to the brim with long-burning P. A. Millions of other contented jimmy-pipers will tell you the same thing. Why don't you find out for yourself?

P. A. is sold everywhere in tidy red tins, pound and half-pound tin humidors, and pound crystal-glass humidors with sponge-moistener top. And always with every bit of bite and parch removed by the Prince Albert process.



PRINCE ALBERT

—the national joy smoke!

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

Seasonable Live Stock Notes

N Indiana subscriber in a recent letter after telling us about the results of the benevolence of ridence and his good management the year 1926 concludes with, s year if nothing happens we will s well if not better than last year. at yielded 29 bushels per acre; 47 bushels; corn, 65 bushels; po- es, 300 bushels. Everything look- fine and doing well."

eading between these lines we see xpression of the spirit of the sea- This dairy farmer is thankful bountiful harvest; he is content- ith his opportunity to live in the country and work with nature ie production of crops and in the andry of good live stock. He ap- ches Christmas time with that t of good will that has perpetu- the gift of a great man for near- ,000 years.

Cleanliness and Customers

producer of market milk writes say that his customers complain n undesirable taste in his milk to ask by return mail what can o about it.

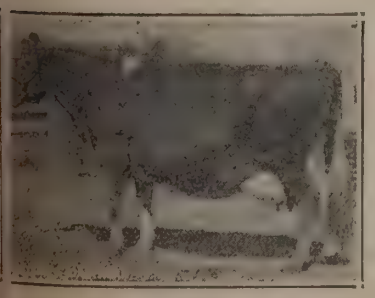
"seasonable live stock notes" may ade to include the care of milk in out of the cow barn, may we sug- under winter housing conditions cleanliness is a great factor in fying customers. We realize that all undesirable flavors in milk from uncleanliness but a great y of them do come of this cause. odors, dirty flanks and udders, less cleaning and sterilization of sils, and failure to properly cool all may contribute to undesirable rs in milk. Bad habits of barn agement are worth breaking if would satisfy our customers.

egume Hay Essential Roughage

few weeks ago we listened to a rer on foods and their combina- with respect to human nutrition. ing the talk the speaker cited an riment with rabbits in which a n of alfalfa hay and cereals fed to one group and a ration cereals alone fed to another p. The experiment was to have inued for two years but at the of 14 months the rabbits receiv- cereals alone had all died, where- hose in whose ration alfalfa hay fed continued in normal health. t this time winter feeding is in swing. The roughage part of the y cow's ration is of great impor- e. Furthermore, we are inclined he opinion that good quality le- e hay is the most important part ny roughage combination. Feed ty of good roughage.

o They Drink All They Need?

hen icy winds sweep out of the thwest it's a great satisfaction to v that water is being offered to herd under conditions that the nals will drink all they need. It has been repeatedly demonstrated that cows adequately fed and capable of producing large quantities of milk will restrict their production when, for any reason, they are not persuaded to drink all the water they need. Ice cold water is one reason for restricted production of capable cows.



rleen's Byrl of Meadow Brook, the h highest producing pure-bred Guern- cow in the world for class AA (ma- e cow, carrying a calf for 265 days of year's record). She was bred and de- ped by William Bock of Wisconsin and duced 12,842.7 pounds milk and 841.9 nds fat during the year.—The Ameri- Guernsey Cattle Club.

A Shortage of Feed

A letter from a subscriber indicates a shortage of roughage for the winter needs of the herd. Plenty of silage is available but the hay is limited to only about half enough and it is of inferior kind to be fed with silage, being mostly timothy. Shock corn can be bought locally or alfalfa hay may be shipped in. We advised buying the alfalfa hay on the basis that to feed silage, timothy hay, and shock corn would require the purchase of comparatively large quantities of high protein concentrates to be mixed with home grown grains. We also advised the elimination of low producing cows, if any, as one means of putting the limited amount of feed to the best use. Now is the time to plan how to overcome the handicap of a feed shortage.

Feeding Calves on a Minimum of Milk

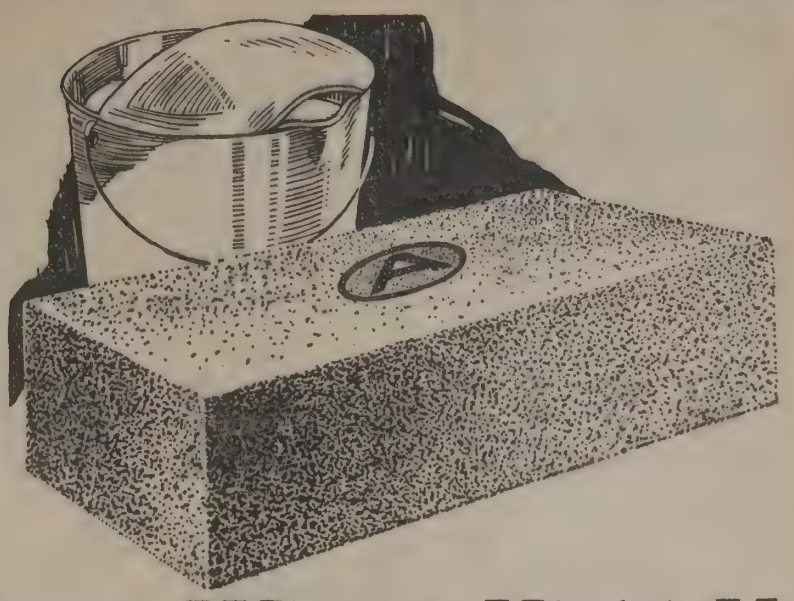
A Kansas subscriber wants to know how he can get his calves from birth to a full ration of roughage and grain on a minimum of milk. His safest procedure is to start the calves on whole milk, leaving them on this for about 20 days and then gradually substitute powdered skimmilk for the whole milk. The powdered skimmilk is mixed with water in the proportion of one pound of milk to nine pounds of water; it is fed warm or at a temperature of 98 to 100° F. One should take at least 10 days to make the complete change from whole milk to powdered skimmilk. At 30 days of age one should place equal parts of ground grain, such as corn and oats, before the calves as also hay, preferably clover, alfalfa, or mixed hay which is at least 50 per cent clover or alfalfa. The powdered skimmilk should be continued until the calves are at least six months old. After calves are accustomed to grain they will do just as well on the whole grain up to six months of age as on the ground grain.

Give the Hogs Some Hay

Two important swine problems come to mind as being important at this time. The first is that of suitable rations for pregnant sows; the second is that of suitable rations for fall pigs. The most common fault in feeding either the sow or the shote is that the ration is confined too closely to the cereal grains. Try some alfalfa or clover hay this winter along with cereal grains. It protects fall pigs against rickets and insures the birth of strong, large pigs from the sows. Besides, it's a very good way to supply protein and some minerals.

Fitting the Flock to the Floor Space

The tendency in housing poultry during the winter is to place too many chickens in a given space and for that reason we suggest now as a good time to cull the flock, removing all diseased birds, if any, and such others as are so poorly developed that they will not come into laying until March or April. On many dairy farms the dairy herd has first claim on the grain feeds available and this is a good reason why the poultry flock may well be restricted to the better birds that can be more comfortably housed and adequately fed.



Keep Winter Yield Up

Comfortable, healthy cows don't "fall off" in winter. It is only when they are *uncomfortable* from cold and dampness, or when they are sick, that their yield decreases.

One of the surest ways to protect health and to prevent a diminished yield is to floor every stall with Circle A Cork Brick. They make a warm, dry and thoroughly sanitary floor that is nonabsorbent, nonslippery and decidedly comfortable to stand or lie on. They *insulate* your cows against the chill and dampness of the ground and conserve their natural bodily warmth.

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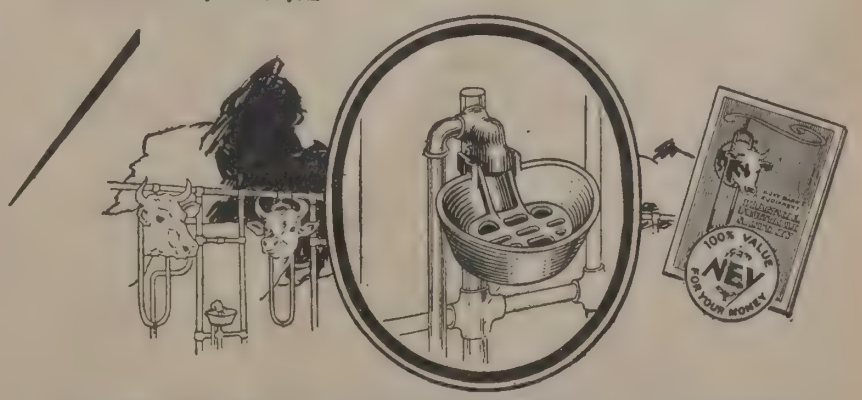
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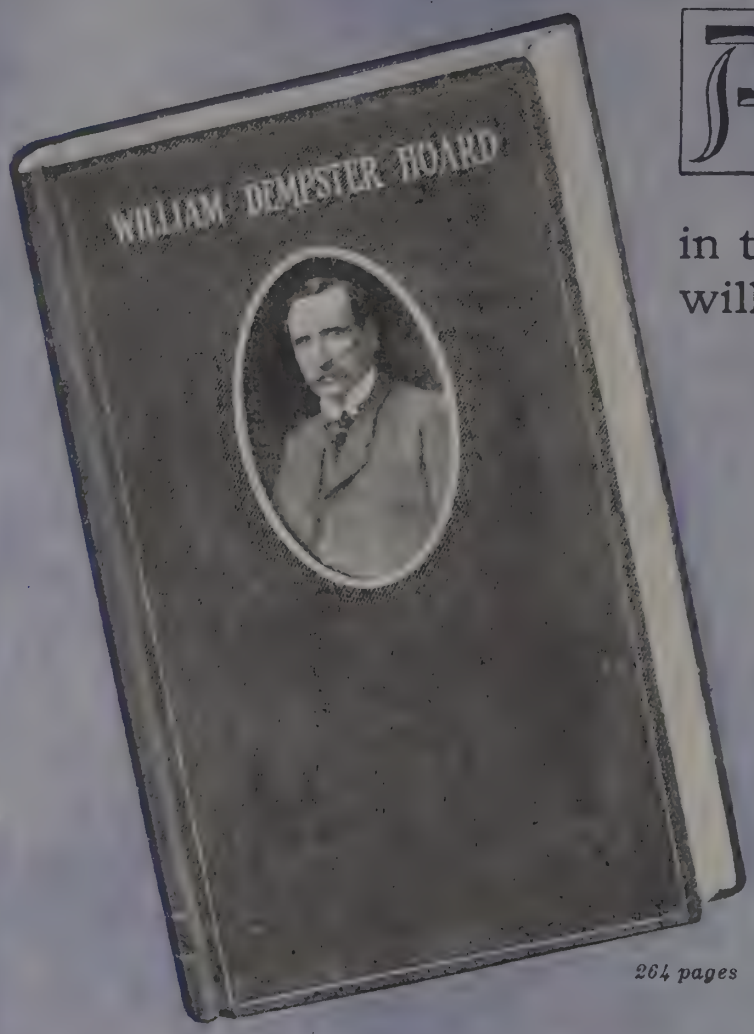


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Thoughts From National Grange

O other farm organization has served the American farmer continuously as long as the nge. Its sixty-first annual meet- was held recently at Cleveland, , at which time Louis J. Taber, ter, presented in his annual ad- s many of the problems signifi- of Grange activities. We pre- extracts of the more important cs from Mr. Taber's address:

Agriculture's Future

Much that will never happen is licted about the farmer. On one eme we are told that peasantry is ad for rural life. On the other, America will go hungry because farmer has failed to keep step mechanical progress. Each ap is in error.

Peasantry will never come in erica unless American agriculture the government become incom- ibly stupid and shortsighted.

When it comes to the danger of erica going hungry, again the fear groundless, unless stupidity and ow policy guide the nation's agri- ural destiny. We have the acre- ; we have the man power; we have scientific resources and we have mechanical equipment to feed and he all who will live in this Repub- for centuries to come.

Our Big Problem

There are big problems before us his period of change and readjust- t, not only in agriculture but in y avenue of life. Numerically, culture has moved from the ma- ty to the minority side. Our farm ulation will further decline. All iencies of life are toward organ- ion, and agriculture will find itself elessly handicapped unless it ts organization by organization.

Farm organizations must continue grow. Whenever more than 50 cent of our farmers are organized, problems will begin to disappear. hey are social or educational, we have sufficient membership to ect them. If they are economic, will have the numbers and finances their adjustment. If they are slative, there will be the numerical ngth to insure correction.

Present day inequalities are not result of any desire to injure ag- lture for the benefit of other ups, but remain because the farmer been unable thus far to utilize the e agencies that have been effec- in the nation's commercial affairs.

Export Debenture Idea

The export debenture idea as ad- ated by the National Grange one year ago, has received wide discussion and much favorable comment.

"This plan is a straight-forward, honest attempt to bring tariff benefits to articles of which there is an exportable surplus, and to do it in the simplest, most efficient, and economical manner, without the creation of expensive machinery or the introduction of agencies that might in the future be dangerous to rural life.

"When we read carefully the history of tariff legislation in America, we find that other groups have been seeking to take care of themselves, and as we analyze the methods and practices employed, we can but conclude that agriculture has neglected its own opportunity in this regard.

"It is entirely possible to make tariff adjustments so that the debenture plan would not cost the government a penny.

"The debenture is no more a subsidy than the operation of the tariff under many conditions. It can not be considered as class legislation or special favor to any one group. It simply seeks to remove inequalities and to bring to the basic industry the same tariff benefits enjoyed by others.

Present Day Problems

"Unfortunately, a number of well informed people have allowed themselves to believe that some type of farm relief legislation is the only matter of importance confronting rural life. This is a grievous error. Agriculture, like every other calling, must make a daily and continuous struggle to keep abreast of the times, to adjust inequalities and improve conditions. Co-operative marketing has had the support of the Grange from its very beginning.

"More important than marketing, however, will be the development of agencies to guide our production in a more intelligent manner.

Research

"The place of the chemist and scientist in modern civilization is outstanding. Every great industry has its research department. Much of the progress along industrial lines has resulted from painstaking study, by competent authority, of the intricate production problems. Recently, as a result of the Purnell Act, advocated by the Grange, there has been renewed emphasis placed on the economic problems of the farmer.

"We need research directed toward the finding of new uses for food products, other than as food for man and beast.

Taxation

"One of the heaviest drains on farm income during the past few years has been the increasing tax burdens, local and state. Economy, efficiency, elimination of waste, abolition of unnecessary offices, and cutting out of frills in government can assist in lightening tax burdens. Agriculture should cooperate with industry, tranportation, finance, commerce, and labor in seeking the honest, economical expenditure of public funds.

"Every state in the Union should have a debt control law that will prohibit borrowings for current operating expenses and limit the life of bonds to the life of the improvement purchased. Every state should have a workable budget law that will not allow the expenditure of money not collected with the fiscal period and that will require taxing officials to prepare budgets, and open them for public inspection and hearings before approved.

Respect for Law

"A danger signal that we cannot ignore is the growing disregard for law. With twelve thousand murders in the United States during the past year, we can appreciate the perils that threaten our welfare unless American people realize the gravity of present day apathy toward law and constitutional authority. A serious menace in this disrespect for law comes from the fact that many of our citizens are trying to choose which laws they themselves are willing to obey.

Citizenship

"A dark picture of present day tendencies is the fact that sons and daughters of those who died to secure the franchise for themselves and their children, do not go to the polls, exercise their right, and accept their responsibility. The decline in the number of those participating in our elections has been marked. In the last election, when we selected the chief executive, all of our congressmen, one-third of our senators, many of our governors, and practically all local and country officials, less than fifty per cent of the qualified electorate participated.

Education

"There is an old Assyrian proverb which tells us that 'The man who is the best educated, is the most useful; and the test of his education lies in his ability to serve others.' We doubt if modern thought has ever given a better test of education than this. 'Knowledge is power' and as our knowledge increases, our power of necessity increases, but unless that knowledge and power can be used in service for the good of others, the individual and the world are none the better because of the training and education received."



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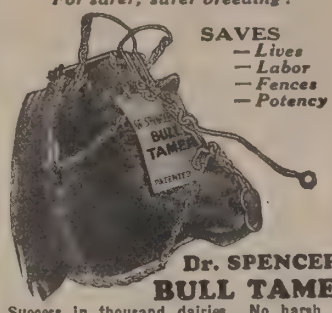
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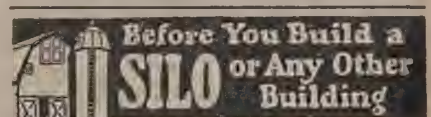


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"Willie Just Has to Have His Own Way"

In a family where we used to visit, the youngest child was a boy named Willie. He was a good deal younger than the six other children and the meanest little boy I ever saw. His mother was a fine neighbor and the best natured person possible to imagine; everyone loved her but she had a grievous weakness and that was Willie.

She was famous all around the country for her good cooking and liked to please everyone with it—but most of all, Willie. She would plan things that she thought would please him and often work hard to make them only to have him push his plate away with a snarl and refuse to eat. Then, instead of taking him in hand, she would laugh in a comfortable, humoring way and say with a chuckle of pride, "Seems as if Willie's going to get there all right; he just has to have his way about everything."

All we knew in those days was that Willie was the most disagreeable child for miles around and that we other children despised him. Now I know that instead of disliking him we should have done a little thinking; then we would have seen that his mother was at fault for his yellowish eyes, his pasty face, and his wretched temper for she catered to a perverted appetite instead of making him eat wholesome, health-giving food.

The day of the whining child, picking and choosing his food, is happily passing and more and more we see round-faced, healthy youngsters eating food that would have thrown Willie into convulsions of rage. Mothers now know that their big job is to make their children into desirable citizens of the world and that right feeding is one of their biggest problems.

Miss Helen Parsons at the University of Wisconsin is a nutrition specialist who spends all of her time experimenting with foods and the results they produce in the body. She has recently worked out a card for scoring children in the matter of meals and already it has received nation wide attention.

Forty points are allowed a child who takes two pints of milk a day or one and one-half pints if a physician has advised this amount. If less than this amount is taken the child is allowed ten points for every cup. This includes milk taken in cooked foods as well as milk to drink. If the milk is skimmed the fat must be made up in the form of cream or butter.

For the right kind and right amount of protein each day the child is given 15 points. The child from three to six years of age should, according to Miss Parsons, have in addition to his milk one or two servings of the following foods: poached eggs if eggs agree with him, sponge cake, cottage cheese, custard, or a small helping of fish, chicken, beef, or liver. (It is not well to serve meat more than once a day but egg every day if possible.) Other protein foods which are good for him are: peanut butter, other egg dishes, and cheese dishes which have been cooked at a low temperature.

For eating two generous servings of vegetables other than potato he gets 25 points. Ten points are allowed the child who eats one generous serving of fruit (preferably fresh) each day. An additional five points is allowed if at least one of the servings of fruit or vegetables has been from the following list: fresh or canned tomatoes, raw, grated carrot or rutabaga, chopped raw cabbage, lettuce, oranges, or lemons.

Iron makes blood and if the child's diet contains this substance, five points may be added. Foods rich in iron are: spinach, beef, beef juice, dandelion greens, and egg yolk.

Energy foods are necessary but should not be eaten to the exclusion of other foods. These include bread, cereals, beans, macaroni, potatoes, peanut butter, bacon, plain cake and cookies, simple puddings, honey, molasses, jam, and jelly. Fatty foods which are particularly good for the growing child are cod liver oil, egg yolk, butter, cream, and whole milk.
—LUCY THOMPSON.

Neighborly Notes

It was a still, hot night in the country. For hours all had been wrapped in darkness and peace. The hands of the clock crept slowly around until they measured off the hour of midnight. Suddenly the quiet in every farm home in the community was shattered by the shrill ringing of the telephone. Long rings, short rings, every sort of ring was given in an effort to awaken the sleeping countryside. As they awoke and hastened to the phone to find the reason for such a disturbance in the nighttime, the cry flew over the wire of "Fire! Fire! Fire! All of Martin Johnson's buildings, except his house, are on fire."

Rushing to their windows as they struggled into a few clothes, the neighbors gazed upon what had been a world of darkness suddenly transformed into a world of red light, centered around a mammoth, raging, red blaze as the flames leaped higher and higher into the air. The roads became alive with people, half dressed, running along, and cars hurrying to the relief of a neighbor. Most of the neighbors within a mile or two were soon there but little could be done. The night was still, with no wind, and as the house stood a little apart from the other buildings it seemed safe. The other buildings, with the exception of a tool shed, were all ablaze, one having caught from the other as tinder. A very meagre amount of machinery had been saved and the horses and cows that were in the pasture when the fire started.

The women stood about, dazed and helpless, watching the buildings as they tottered and fell as the flames roared and soared upward. Children huddled together in a little group, some crying quietly, others shrieking hysterically. The men rushed about with water which they pumped from the cistern, frantically throwing it here and there. It was impossible to reach the well and gasoline engine, for the fire raged all about them.

Unknown to the watchers, a gentle breeze started up. Suddenly a flame broke out on the roof of the house. At first everyone became panic stricken. Then the men left the other buildings and rushed to the scene. A bucket brigade was formed and men took turns pumping water from the cistern. Women rushed into the house and dragged out all that they could lift and saved a good share of the household goods. But soon all of the water was used and the supply was exhausted. All worked valiantly but to no avail. The house could not be saved. The little breeze that had arisen unawares fed the fire and kept it beyond control.

In the morning a sorry group stood hovering about the scene. The charred ruins still smoldered. A variety of half burned articles lay in a heap on the grass. Household goods were piled in a field of ripening oats. Cars kept driving up with curiosity seekers bent on seeing the destruction of the night before. The stock had to be fed and there was nothing to feed it; cows needed to be milked and there was no place to tie them and no pails or cans for the milk; the family needed a place to live and food to eat, and there was neither. Only one building remained standing, a fair sized tool shed with a floor, door, a few windows, four walls, and a roof. This, they decided, must serve as their home through the next few months. Neighbors were back early in the morning with lumber to build out-of-door stanchions for the cows and sacks of oats and barley. The women brought baskets laden with food for the Johnsons and the men who were assisting them. By night the tool shed had been thoroughly cleaned and the Johnsons, with what furniture they would need, had been installed in their new home.

That evening the men of the community met around the ruins of the fire to discuss the problem of ample fire protection; not by insurance, for that was up to each and every individual, but some means by which they could have the use of a fire engine and equipment for just such occasions as this had been. The matter was thoroughly and seriously discussed. They could not expect the nearest city to send forth its truck, for they had been forced to refuse to do this, since a very serious fire had broken out one day when the truck was out in the country. As the truck had been purchased by the city to protect the city, it had been decided that it must be kept within the city limits. The meeting this evening resulted in a committee of three men being elected to study the question of fire protection and see what solution could be offered.

It took these men three months to gather the data that they wanted. Then the community was called together in the new barn of Martin Johnson's which was nearing completion, to hear their report. They had met with the council in the nearby

(Continued on next page)

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You simply must have a copy of our Fall and Winter Fashion Magazine, for it contains too many good things for you to miss. All the new fall and early winter styles of course, and then there are pages of novelties for the masquerade. Articles about health and beauty and reducing safely, and pages showing correct hats, fancy needle work, special lingerie, etc.

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Mrs. Leonard: Mrs. Harker is t ty-three, but you couldn't tell it.
Mrs. Lennox: Nevertheless, I —Good Hardware.

and the council had offered this position: If the three townships surrounded the city would purchase a small fire engine, the city would provide a place to keep it in, and forth a crew of trained firemen ready to any call in the country, and the expense of the upkeep on the truck, if in return the city might have the use of it, should it ever happen that they needed more than their own truck at a fire.

The fire at Martin Johnson's had received a great deal of attention and publicity. Farmers and town people from miles around had driven to see the ruins in the days following the fire. Everyone was agreed that something must be done to prevent the repetition of this serious affair. No one knew how it started but in the course of a year there are many serious fires of unknown origin in the country Had they been able to secure a fire truck promptly, the house, at least, could have been saved.

The men in this community set about to convince the other two townships of the necessity of owning a fire truck. At the town meetings the following spring these three townships voted to purchase this truck and today they are enjoying ample fire protection, and are resting secure in the knowledge that when they need a fire there are trained workers they can depend it. A distance from this community, a fire truck was purchased and placed in the town by popular subscription among the farmers, and the truck goes only to those farmers who helped to pay for it. In still another city a truck was purchased and owned by the city for rural use. It goes into the country at a certain charge per run. The time has arrived when every rural community realizes that it needs fire protection and is adequate.—ETHEL MORRISON HUDSEN.

What They Talk About

"A friend of mine wrote me some time ago that she was going to organize a club I was certainly surprised that she is not the organizing type but this is what she wrote:

"I've finally got my dander up and have reached the point where I'm going to do something about it. I go to church and there the women talk sick; I go to community meetings, grange, to ladies' aid, and everywhere it is the same; all the women talk shop until I am ready to scream. Now you know my people were particularly well educated but we never read the daily newspaper at home and we talked about what was in it—and it wasn't the murders, either.

"We hardly ever got to hear a fine concert back home but somehow we knew who the great musicians were when we talked about them. Days when I get so tired of the sight of milk cans that I think I can never look another one in the face, I just long for someone to talk to about things that are clear away and out of my life. I'd like to hear what someone else thinks about.

"I adore my husband and children—you know I do—and I love country life but I don't want always to be talking about whether they just won't eat cabbage cooked this way or that and I do like to escape chickens once in a while—and diseases and operations.

"So I am going to organize a club and the club is going to subscribe for one or two magazines that haven't got one word in them about clothes and housekeeping and that wouldn't print a recipe for a million dollars. And we're going to read those magazines and talk about what's in them and anyone who gets in the club and doesn't like it will just have to get out. I'm going to try to have my children interested in things beyond their small horizon, too, and the only way I can see to do it is for me to blaze the trail for them. It won't make them dissatisfied; it will make them all the more contented."

I have changed the letter only enough to conceal the identity of the writer though I doubt if she would care about that. Thousands of farm women have these same longings and her idea seems to me an interesting one and one that it would pay any woman to tackle in her own community if she has the energy and a bit of leisure, for there is nothing that lifts us out of our daily grind like getting a view of people far away and different from ourselves.—LUCY THOMPSON.

What Else Can We Have?

Christmas always finds a goodly number of tired mothers who have got the meat and pie ends of the dinner ready but who have been too utterly busy to give much thought to the in-betweens, taking a chance on having an inspiration at the last minute.

Now onions for Christmas dinner may not seem very exciting but onions, French style! That's a different matter. And you'd be surprised how many well regulated Christmas dinners include a dish of this common vegetable—smelly but so good.

To make the French style onions, divide about a dozen of them into quarters, put into a sauce pan with a quarter cup of butter, cover very tightly and cook till tender, stirring occasionally and seasoning at the last with salt and pepper.

You'll nearly all have apples in the house and they make another fine last-minute dish. Pare and core as many as you require, put into a pan and add boiling water to nearly the top of the apples. Cover and cook, not too fast, until the apples begin to look clear. Add sugar and a little grated lemon rind if you have it and cook until the apples are completely clear. If you have any red cinnamon drops, dissolve a few of them in water and add to the apples while cooking to make them red and Christmassy.—LUCY THOMPSON.

Mothers and Daughters

About a year ago one of our women's magazines of large national circulation offered a first prize of $100 for the best letter from a girl on, "Why I Do Not Confide in My Mother." The letters published as a result of this contest were extremely interesting and, in spite of the pessimistic tone, they must have been exceedingly helpful to mothers of girls in the process of "growing up."

The prize-winning letter stated that most girls do not confide in their mothers because the mothers do not invite the confidence; that up to 12, say, mothers are responsive to the problems of their children but after the maturing process has begun, when a girl's ideas seem queer and hazy, the mother loses patience with her and confidences are shut off, never to be naturally resumed. The mother becomes frightened about possible happenings and comradely talk changes to ominous warnings and admonitions.

The magazine conducting the contest listed its findings under the following heads: 517 mothers deliberately lied when questioned about sex and the source of life; as many more evaded the question; 351 betrayed confidence; 335 were too old fashioned; 227 were too busy to listen to their children; 196 were not interested in their daughters' confidences; 172 were too critical; 161 did not trust their daughters; 143 forgot that they had ever been anything but perfect and were too easily shocked; 139 laughed at childish confidences; 133 insisted on managing their children's affairs at any age; 118 did not solve their children's religious problems satisfactorily; 114 never invited confidences and gave none; 93 were not affectionate; 71 nagged; 65 were unfair; 54 were dictatorial.

If you have a mothers' club in your community it would be interesting to take this list along to one of the meetings and discuss it frankly for if there is as much wrong with our young folks as the world at large seems to think there is, the regaining of children's confidences on the part of mothers would go a long way toward setting things right.—LUCY THOMPSON.

Good Ventilation

"We are beginning to realize that the carbon dioxide content of the air is not nearly so important to the health of human beings as the temperature of the air, its circulation, and moisture content."

This remark is a comment by the Wisconsin State Board of Health of the findings of the New York State Commission on ventilation and is particularly timely at a season when houses and other buildings are closed to keep out the cold and when many persons are shut up in rooms as they are all through the school year.

It was once thought to be very dangerous for one person to breathe into his lungs air that another had breathed out and we still consider it very distasteful and to a certain extent dangerous but we know now that there are other problems to be considered in connection with ventilating.

Many persons feel that everything

(Continued on next page)



No. 3424—Luncheon sets with the appliqued pockets for the napkins are new and extremely popular. This set is charmingly developed on best quality linen finish Indian Head in shades of orange and yellow for the larger flowers, the new lacquer red in the smaller flower, with the basket of green material embroidered in blanket stitch of green and white, which makes the set extremely effective. A butterfly design on the napkin is finished in colors to match. A detailed working chart showing where each color is to be used is enclosed.

The centerpiece is 36x36 inches and the four napkins 12x12 inches.

Complete set sent postpaid to any address on receipt of 95 cents.



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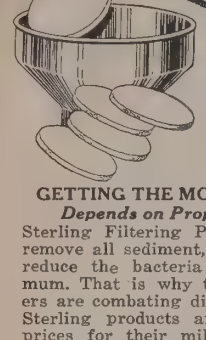
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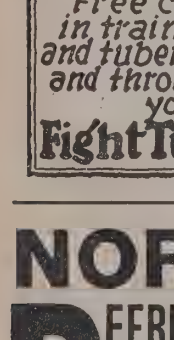
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is all right so long as they are warm enough but it is a safe guess that many more people have been injured by being too warm than ever were hurt by being too cold, though the latter is more uncomfortable.

The New York Commission referred to above studied the cases of 2,500 school children distributed through 58 class rooms in eight different school buildings and 3,000 other children distributed among 76 rooms in 12 different schools. The health of the children was watched carefully for eight weeks during the first season and for 12 weeks during the second season. Each room studied was ventilated in one of three ways: (a) by a low flow of cold air, (b) by a low flow of cool air, (c) by a high flow of warm air.

When records for the two seasons were analyzed they showed that the amount of respiratory illness in rooms of the (a) and (b) type was about the same, while type (c) rooms showed an eight per cent excess of absence of pupils due to respiratory diseases and a 70 per cent of excess illness due to the same cause among pupils in attendance.

Rooms of the (a) and (b) type were kept at mean temperatures of 59° F. and 66.5° F. respectively, while rooms of the (c) type were kept at a mean temperature of 68.5° F.—LUCY THOMPSON.

Apples With Pork

I think the practice of many people of never having pork without apples is a good one. Pork fat seems, somehow, greasier and heavier than other fat and it is acknowledged, I believe, to be harder to digest. Apples take away to a large degree the heaviness that so many people object to in pork, especially when it is fresh, though I do not know that they make it any more digestible.

If your pork is roasted you can make a pretty effect by surrounding it on a platter with baked apples or apple rings. To make the latter, cut clear across the apple slices from one-fourth to one-half inch thick and cook them gently in a clear syrup or in one to which you have added a few red cinnamon drops. These give the apples a nice rosy look and make them taste better, too.—LUCY THOMPSON.

Butchering Recipes

If you buy your table salt in five-pound cheese cloth bags you will find them very convenient to use for packing sausage at butchering time. Sausage put up this way should be kept very cold—freezing won't hurt it—and when it is to be used slice it, bag and all, with a very sharp knife and peel off the cloth before frying. Sausage may also be packed into large stone jars, covered with a layer of melted lard, and kept in a cold place or it may be fried in cakes and packed away in jars which are sealed by pouring on hot lard.

The following recipes which I think you will like come from the University of Wisconsin:

For head cheese, boil 25 lbs. of pork taken from the head, heart, tongue, and trimmings. When the meat separates from the bones cool the mixture and take out the bones. Chop the meat into small pieces, or grind it and add these seasonings: ¼ lb. pepper, ½ lb. salt, ¼ ounce allspice, ¼ ounce cloves, ½ ounce caraway, 2 quarts broth in which the meat was boiled. Mix thoroughly and cook twenty minutes. The cheese may be put into a clean hog paunch or into a two-inch pan to cool.

To make old fashioned scrapple, prepare the meat the same as for head cheese—25 lbs. of it—and add ¼ lb. pepper and ½ lb. salt. After all the bones have been removed return the meat to the liquid in which it was cooked. Heat to the boiling point and add corn meal slowly, stirring constantly, until the mixture becomes thick like corn meal mush. Stir well and boil for 15 minutes. Cook slowly on back of range for an hour longer. Put away in shallow pans.—LUCY THOMPSON.

White Fruit Cake

There are many people who do not care for the regular type of fruit cake but practically none who do not like the white kind. This recipe was given me by a friend and I liked it so well that I am passing it on as one that is easy to make, delicious, and not prohibitively expensive, though all fruit cakes are more expensive than most of us can afford often.

½ cup butter
1⅓ cups sugar
½ teaspoon vanilla
½ teaspoon orange or almond extract
1 cup water
3 cups pastry flour
½ teaspoon salt
4 teaspoons baking powder
½ cup chopped candied cherries
¼ cup chopped candied pineapple
2 tablespoons chopped candied orange peel
Whites of five eggs

Cream shortening, add sugar slowly, and beat till light. Add flavoring and a little of the water, then part of the flour sifted with the salt and baking powder, then the remainder of the water and the remaining dry ingredients, then the fruit which has been slightly floured. Fold in beaten whites of eggs and bake in a round loaf in a moderate oven about fifty minutes. The usual icing for this type cake is the white boiled frosting.—LUCY THOMPSON.

Too Tired to Eat

"I'm tired, I don't feel like eating."

"There is a particular significance to this feeling of grown-ups, when we stop to realize that this may apply to children as well as adults," advises Miss Ada Lockhart, nutrition director of the National Dairy Council's Ohio unit. "Pediatritians—those doctors who specialize in child care—have a favorite saying, 'A tired child won't eat.' Yet many times children are hurried to the table, direct from play or study, and obliged to compose themselves in the right mood or adjust themselves to the form necessary, with hardly a minute's preparation. Little nerves may be all taut from an exciting game or equally distracting disagreement. Little minds may be troubled or tired from study or music lessons."

Miss Lockhart points to the well-known fact that children do not know when they are overtired. Their se of judgment, their training in s control has not yet taught them stop. A call to supper a half h before actual meal time, with an portunity to "wash up" in ord fashion, and the requirement for teen or twenty minutes absol quiet and relaxation, prepares body for taking care of the f which is so important a factor in growth and health of boys and g

The next time Johnny or M complains that "I can't drink all t milk," or that "I don't want any s ach," mother or dad should stop consider the real reason may be t they came to the table tired out that the poor appetite could be me ed and improved in a large meas by the simple short rest period fore the meal, concludes Miss L hart.

Lucinda Matlock

The Chinese are a resposeful p ple and their calm is always a buke to our feverish western ha Have you heard the story of the v ing Chinese statesman who was b taken around New York? His h were hurrying, hurrying, getting rapidly about from one place to other; never stopping to enjoy a thing when they got to it but rush on to the next place. Finally one them said to the statesmen tri phantly, "We saved a whole min there by catching the subway," the Chinaman replied, "But what you do with it, now that you h saved it?"

Lack of repose is everywhere; p ple are hurrying more frantically the time and the ability to enjoy quietly seems to be passing per nently away from us. Some o when I see the high pressure at w life is going on I think with joy simple Lucinda Matlock. If you h read Spoon River Anthology you remember that she is one of the m characters who, speaking from t graves in Spoon River cemetery, how they happened to lie there. cinda's is, I think, the finest stor the book. Here is part of it:

"I spun, I wove, I kept the house, I n
the sick,
I made the garden, and for holiday
Rambled over the fields where sang the
And by Spoon River gathering many a
And many a flower and medicinal weed
Shouting to the wooded hills, singing t
green valley.
At ninety-six I had lived enough, that i
And passed to a sweet repose.
What is this I hear of sorrow and weari
Anger, discontent, and drooping hopes,
Degenerate sons and daughters?
Life is too strong for you—
It takes life to love life."

—LUCY THOMPSO



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Here is an accessory the well ordered bc that will be very g appreciated. These bag readily attached to the door and keep the sho proper place at all t They come in three size you will note by the illu tions shown. Prices a follows: Bag with pockets, 65 cents; bag eight pockets, 85 cents with 12 pockets, These are made of quality, heavy unbleached muslin. Pockets are of f color material in the f ing colors: Red, blue, and maize. They ar made and bound cor with metal grommets i for attaching to the Be sure to specify colo size desired when order

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pinions, Brickbats, and Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of eir opinion on any subject, whether radical or conservative, destructive or constructive, se or foolish. It may be cows or crops, religion or politics, or what at the time most terests you. It may be critical or commendatory, but it should be your opinion. It is ur own editorial page but your editorial must not exceed 250 words. Hoard's Dairyman sumes no responsibility for opinions expressed.

Cleaner Stockmen

)ARD'S DAIRYMAN:—There has a lot written about bigger and r county fairs, and about cleaner ty fairs. But I want to urge ier stockmen at our fairs.

helped show cattle at several of county and state fairs this fall. of the fairs furnished excellent ters for the stock and "wash-s" for the cattle, but made little o provision for sleeping quarters "wash-racks" for the men who care of those same cattle. If e was an empty stall, well and ; if not they could sleep in the behind the cows. At no county did we find a ghost of any provi- for the men to bathe, and one e superintendent assured us that re attempted to use the cattle sh-rack" (except after midnight) washing stockmen they would us in."

ne state fair, whose governor had picture posted up all over the fair nds proclaiming him the "patron :" of the state fair, had two vers tucked away in one corner of of the cattle barns. One of the vers was out of order and no pro-n was made for heating either of n.

nother state fair had a little len building with four showers, a r, and a man to keep water hot. t was surely appreciated. Still her state fair had a very nice nitory for cattle men and one ver but they disconnected the er in the shower during fair week, eby saving the state several dol-

ersonally we do not mind sleeping n empty cow stall or even in the behind cows, but we do object to g five or six weeks without proper ities for taking a bath. A small ling, not necessarily having a ing plant but with one or two vers, can be put up very cheaply no county fair should be without

any of our showmen are young who have formed habits of clean-s at home and they should not be cted to go out and work hard, ing, keeping clean, and showing a g of cattle for from 5 to 9 weeks not have the facilities for keeping n themselves.

ou hear a lot of "holler" about ex-ing questionable shows and hav-a clean county fair, but I say let's a positive step and have clean men or at least give them a ice to be clean.

isconsin. ROBT. HARGRAVE.

Children and Work

OARD'S DAIRYMAN:—Many well ning people believe children ld be kept from work in order to ue an education. Many consider a misfortune, a penalty of pov-

believe work is education and that king habits must be formed in y years if they are to be formed ll.

know a girl, the daughter of fair-ell to do parents, that as a child always eager to work, wanted to her hands which is a normal thing children. Nobody took any pains her, thinking it a disgrace to k. She did not have to earn her g and consequently that instinct ected, died down. Today she is interested in anything, she is simply a good for nothing girl. If she had been trained to work she would have made a wonderful woman and a useful citizen.

What a pity a life should be wasted in this way! I think work is good for children and those who are kept busy will thank their parents in later years. All of our great men had to work while they were young and it is just this thing that made them great.

The work of the world has to be done and each child should have his share. It's a natural, normal thing for a child to want to work. He wants to do things and make things. They should be taught to work, otherwise they are likely not to acquire the habit at all.

Experience has taught me that work for children is not slavery; on the contrary, it gives them confidence and will help make them better men and women.

Illinois. (MRS) FRANCIS J. ORR.

Commendation

HOARD'S DAIRYMAN:—I wish to thank you at this time for the many good points on breeding, feeding, and all other good points I have learned from Hoard's Dairyman on dairy farming in the last ten years. I don't think any man that is in the farming game can afford to be without it. I started five 2-year-olds in the C. T. A. last year and the lowest finished with 368 lbs. butterfat with the herd averaging close to 400 lbs. and must give your journal credit for many of the good points in building up this herd.

Wisconsin. W. C. TAYLOR.

An Appreciation

HOARD'S DAIRYMAN:—I have just read in your October 25 issue the splendid reply you made to the inquiry signed "W. P. R.," Milford, Mass., regarding abortion cures and control.

I want to express my appreciation of this article and also of the stand you take on refusing to accept advertisements for so-called abortion cures. Your article is one of the most sensible I have seen anywhere and I think it is high time that more of our dairy papers gave the farmers the true facts about this trouble.

Michigan. W. H.

The Sign That Worked

He was a burglar.

After effecting an entrance into the bank he found his way, easily enough, to the strong room. When the light of the lantern fell on the door he saw this sign written in rather conspicuous red letters:

"Save your dynamite. This safe is not locked. Turn the knob and it will open."

For a moment he ruminated.

"Anyhow," he reflected, "there's no harm in trying it if it really is unlocked."

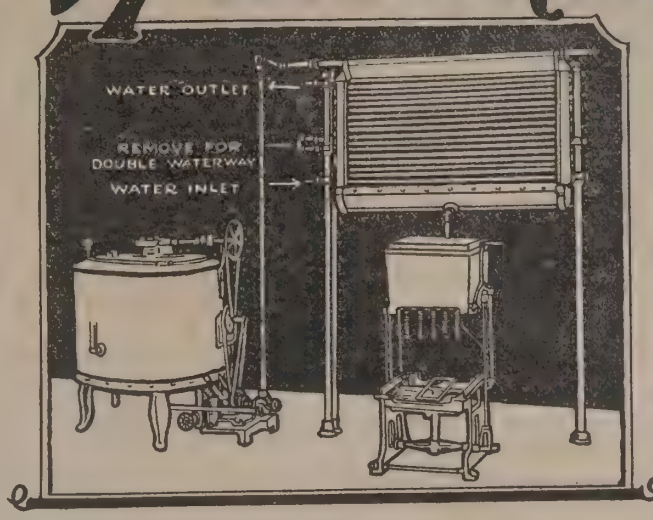
He grasped the knob and turned it.

Instantly the office was flooded with light, an alarm bell rang loudly, an electric shock rendered him helpless, while a panel in the wall opened and out rushed a bulldog which seized him firmly.

An hour later, when the cell door closed on him, he sighed:

"I know what's wrong with me. I'm too trusting. I have too much faith in human nature."—Everybody's Magazine.

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REALIZING the need for a simple, efficient and economical milk pasteurizing outfit for smaller plants and farm dairies, *CP* offers the Victor, illustrated above.

The outfit consists of a combined heater and holder, sanitary pump and Alaska cooler. (Bottle filler is not included, but can be supplied at extra cost.) Operation is simple and conforms with all state health boards' requirements.

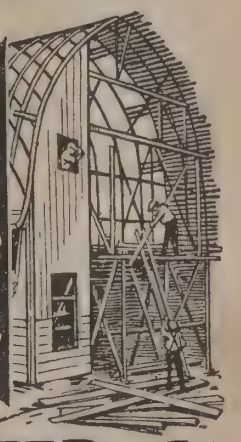
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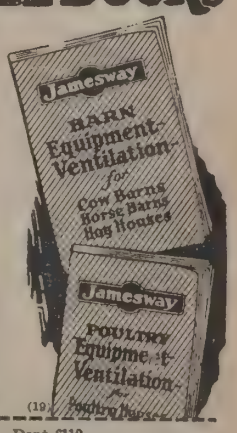
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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR DAIRY FARM GIRLS AND BOYS

A Club Boy and a "Runt" Pig

NOBODY wanted that runt pig. Nine boys and nine pure-bred Duroc-Jersey sow pigs were about to form a pig club. Eight of the pigs weighed 50 lbs. each but one —the runt—only tipped the scales at 35 lbs. The pigs were numbered, and the numbers placed in a hat for a drawing. But there was the runt. Nobody wanted her. The boys refused to draw while she was in the lot.

Oh, yes, there was one boy braver than the rest. He had visions. He wanted to raise a prize winner just as much as the other fellows did. Perhaps he was sorry for the runt. Perhaps she winked at him.

Lee Griffitts wanted to be a pig club member. If nobody took the runt there might not be a pig club. So Lee Griffitts stepped up to County Agent Baker and volunteered to buy the runt. County Agent Baker at first refused, but Lee insisted and was finally granted his request. The other boys then drew numbers for the eight, and all paid $15 apiece for their new pets.

That was back in March, 1923. Lee took the runt home. He gave her special care. He had challenged the other boys at the drawing and he intended to make good. He did. It was the runt that won first prize in the fall when the nine pigs and boys met in competition.

"A balanced ration—corn, tankage, and skimmilk, regular feeding and good care turned the trick," Lee told the boys when his pig was declared champion.

In the three years that followed, the "runt" farrowed 78 pigs in six litters which sold for $1,929. Add to this the value of the sow and you have a total of $2,004. Not bad for a "runt" pig and a club boy in three years, is it?

The sow and the boy both must have had considerable to be thankful for because when Thanksgiving Day rolled around each year another litter of pigs was born. On three successive Thanksgivings the "runt" farrowed litters. It must have been her way of giving thanks to her owner for befriending and taking such good care of her.

The sow produced three large litters in 13 months as follows: Her first litter contained nine pigs Thanksgiving, 1924, she farrow pigs; on May 1, 1925, she farrow pigs. The fourth litter was bo Thanksgiving, 1925, and contain pigs. Every one of the 46 pigs rowed in the first four litters raised. The fifth and sixth litters tained 16 pigs each, and 13 a pigs were raised respectively.

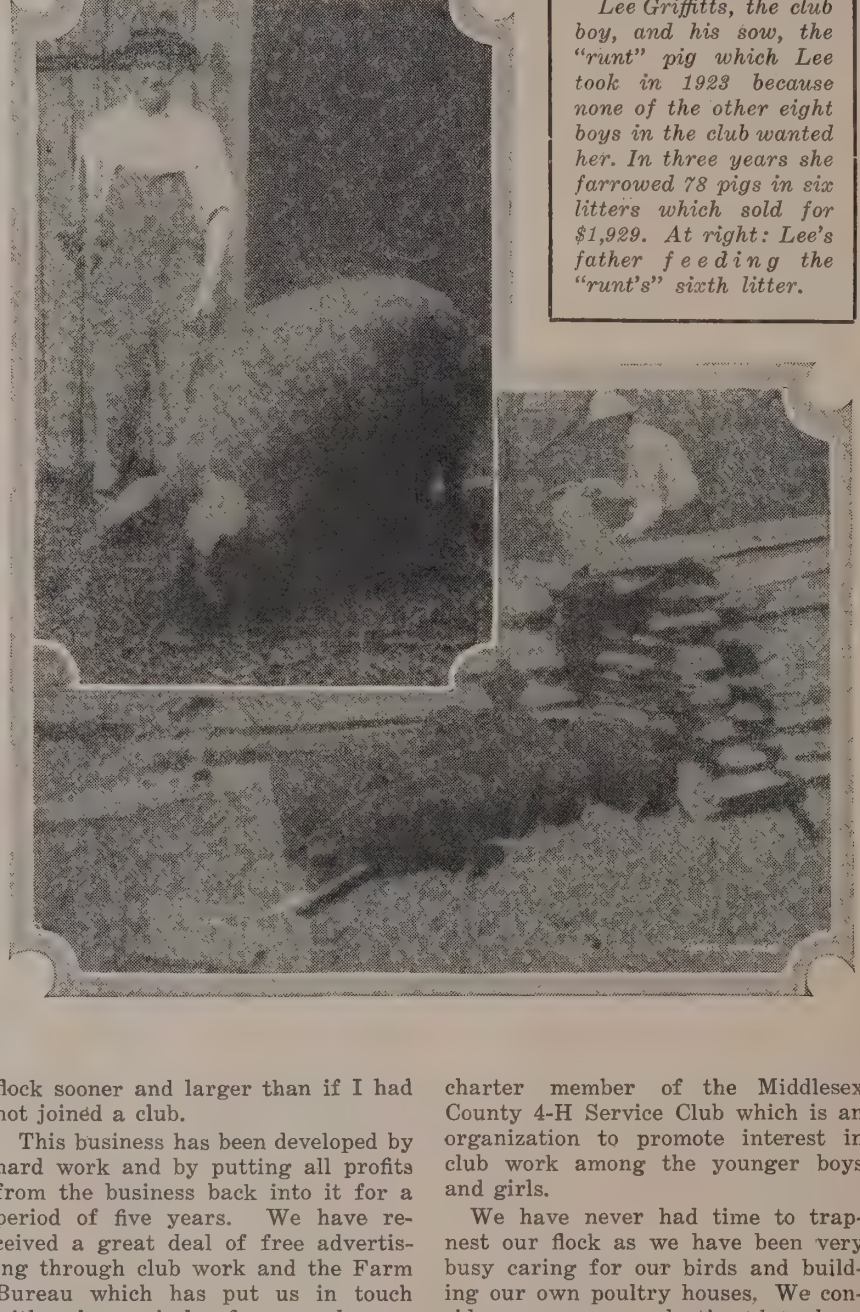
The feed given the fifth litter how Lee Griffitts grew out his for market. The 13 pigs cons $27 worth of shorts, 1,000 gallo skimmilk valued at $20, 130 b of corn valued at $65, and we lowed the run of a rape and oa ture valued at $8, making a tota cost of $120. The pigs were s six months of age for $520, leav profit of $400 above feed cost.

On the six litters from his run Griffitts realized a net profit of or a net return of $312 a year. that for a runt?

Fred Griffitts, Lee's father, leading dairyman of Loudon Co Tennessee. Before Lee joined pig club, no hogs had been ke the Griffitts' farm. Today Mr. fitts says he would not be witho least one good sow. "Cows and go together" is the way he state matter.

He milks 15 cows which ma net profit of $830 last year in tion to furnishing skimmilk fo hogs. Milk and corn with some age and shorts are a wonderful bination for producing cheap ga hog feeding, according to Griffi

Besides hogs and a dairy herd Griffitts grows corn, wheat, h small acreage of tobacco, a good den, and keeps bees and chicke his 335-acre hill farm, 150 of wh in timber. When Lee is away at s and he has been away teaching father takes care of the "gold sow and her piggies, the runt made good.



Lee Griffitts, the club boy, and his sow, the "runt" pig which Lee took in 1923 because none of the other eight boys in the club wanted her. In three years she farrowed 78 pigs in six litters which sold for $1,929. At right: Lee's father feeding the "runt's" sixth litter.

Gastler Brothers Build a Big Poultry Business From Club Work

HOARD'S DAIRYMAN JUNIORS: —I started in with club work in 1918 when it was first organized in Middlesex County, Connecticut. While I always liked the farm, these clubs were organized with the slogan, "Help win the war." After once belonging to a club it was just natural that I should stay in club work.

In 1921 a poultry club was organized in Durham and it was from this time on that we started increasing our poultry flock on our farm. While I was always interested in poultry and had a small flock before joining the club it is probable that it changed my ideas and that we increased our flock sooner and larger than if I had not joined a club.

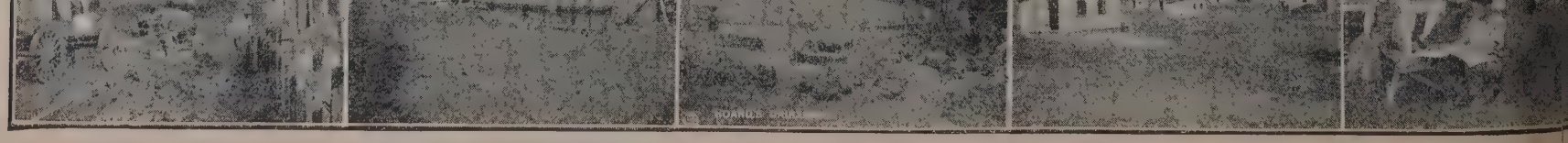
This business has been developed by hard work and by putting all profits from the business back into it for a period of five years. We have received a great deal of free advertising through club work and the Farm Bureau which has put us in touch with a large circle of men and women who are prospective customers or who will refer us to such, which could not have been reached as satisfactorily in any other way. We originally planned on a commercial egg farm but we have had to change our plans to meet the demand for baby chicks.

I have been in club work since 1918 which would make 10 years. I was 21 years old last March, and I am now no longer in club work, but I am a charter member of the Middlesex County 4-H Service Club which is an organization to promote interest in club work among the younger boys and girls.

We have never had time to trapnest our flock as we have been very busy caring for our birds and building our own poultry houses. We consider our egg production has been very good as we have averaged as high as 156 eggs per bird on a flock of 980 birds.

We market our eggs in a nearby city mostly at wholesale although we have a small retail trade. These eggs are all candled. Our broilers, roasters, and fowl are sold to a wholesaler who gets them right at the farm. This wholesaler sells to the summer resorts and shore trade and for this reason and because our stock i Barred Plymouth Rocks, he pays premium for them.

We feed our flock as recomm by the Connecticut Agricultura periment Station at Storrs. Ou tire flock is handled as a bre proposition and not as a comm farm. The birds have mash t them at all times and in the la ternoon they are given a heavy fe of scratch grain which is enou that they will have all they wa eat before they go to roost, a that some will be left in the litt their early morning feed. We our birds germinated oats, and liver oil mixed in the oats, and t fed in the morning. During the ter the birds have all the ca they can eat and in summer



A PICTORIAL REVIEW SHOWING THE DEVELOPMENT OF GASTLER BROTHERS' POULTRY BUSINESS

Left to right: Mixing cement for foundation, foundation of incubator cellar and feed house under construction, Frederick Gastler and some of his laying flock, the brooding range, keeping rec

e grass range or alfalfa for green
l. They have running water the
r round in non-freezing fountains.
Ve have two mammoth incubators.
brooders we use a large size coal
ner. Our incubator capacity is
)0 eggs and we have brooder ca-
ity for 6,000 chicks. At present
capacity for breeding birds is
ut 1,600, but we are planning on
ding another house this summer.
ll our stock, farm, and equipment
paid for and there are no loans
mortgages. Both my brother and
ave paid up life insurance policies,
own our own autos, and we have
e money in the savings bank.
t has meant a great deal of hard
k but probably as the years roll
we will be better able to appreci-
that it has all been worthwhile.
ur entire flock is state tested for
te diarrhea and this season we
e hatched a little over 22,000
ks and have sold 16,000. This
r the fertility ran about 85% and
averaged a little better than 60%
h of all eggs set for the season.
onnecticut. FRED GASTLER.

Starting Dad With Pure-breds

OARD'S DAIRYMAN JUNIORS:—Be-
se of George Wood's 4-H club
k his father became interested in
e-bred dairy cattle and the owner



ORMAN WOOD MILKED THIS HEIF-
ER FOR A HIGH RECORD

Creamelli Carlotta Johanna, high
lucing cow.
eorge's 10-year-old brother, Nor-
n, milked this cow morning and
ning while on test. Mr. and Mrs.
od milked her at mid-day while
man was in school. Creamelli Car-
a Johanna produced 21,436.8 lbs.
t, 693.26 lbs. butterfat in one year.
orman Wood, now twelve, is very
h interested in calf club work. He
s a pure-bred heifer and his
her, George, owns three pure-bred
nals.
onnecticut. R. W. WHAPLES.

Minnesota Champion

With his grade Jersey yearling,
e, doing her part by winning the
ors of her class at the Minnesota
te Fair and Northwest Dairy Ex-
ition, Harold Larson, 16-year-old
boy of Redwood County, has been
lared grand champion dairy calf
member in Minnesota. This con-
is based on the record of the boy
girl as a dairy calf club member,
record made at the state fair, and
oral examination.
I selected a Jersey for that is my
orite breed of cattle," says Har-
. "I named her Babe and kept her
pasture the first month and a half.



HAROLD LARSON AND BABE

In the evening I turned her into the barn and gave her two pounds of a mixture of equal parts of ground oats and cracked corn together with a handful of oil meal. She had free access to alfalfa until morning when she again received her grain and was turned out to pasture.

"For the last 45 days I kept her in the barn and increased the grain to five pounds a day. In the evenings I exercised and trained her, and she surely enjoyed it after a hot day in the barn. After washing and polishing her for the show ring I felt well repaid for my efforts."

Our Review Column

[A regular feature of the junior department, reviewing the contents of Hoard's Dairyman for the previous issue. Let's talk it over.]

For further discussion of the following, see the November 25 issue of Hoard's Dairyman.

Why should milk be a part of the food eaten by young and old? Because it is the one food that makes the diet fool proof, according to Dr. G. K. Abbott of the Washington Sanitarium and Hospital, the largest institution of its kind in the South Atlantic States. "Milk containing lime, plus the essential vitamins, can sustain life indefinitely." (See page 1091.)

What is the production record of the Kansas state herds? Five hundred ninety-one cows averaged 9,837 lbs. milk, 333 lbs. fat last year. Since 1918, the number of cattle in the 12 state herds has increased 77 per cent and the total milk yield has jumped 173 per cent. (See page 1092.)

How many cows have been culled as unprofitable? Since 1922, when testing was begun in the Kansas state herds, 310 cows have been culled as unprofitable.

How many types of electric motors are recommended for the average dairy farm? Three—1, individual, such as a motor for the milking machine or the separator; 2, a small utility motor can often do a half dozen seasonable jobs, such as turning the churn, the grindstone, the sausage grinder, and the fanning mill; 3, the large utility motor, probably 5 H-P, will run the feed grinder, the concrete mixer, and the wood saw. (See page 1094.)

What is a profitable market weight for pigs? There is more net profit in marketing hogs at the weights between 175 and 210 lbs. than at heavier weights. (See page 1106.)

How should salt be fed to the poultry? It should be mixed in the mash, using fine salt at the rate of 1 per cent, or 1 lb. per 100 lbs. mash mixture. (See page 1120.)

Should coarse oyster shell be a part of the poultry ration? Yes, just as much a part of the ration as a grain mash or other ingredients. An average hen will consume about 3½ lbs. oyster shell per year.

Why is cod liver oil fed to laying hens? Usually it is fed as a preventive for paralysis, poor shell texture, low production, and egg eating. The usual recommendation is 2 per cent added to the dry mash. It may also be fed as one pint per 100 hens weekly in milk, moist mash, or scratch feed.

Junior Letters

Earning an Education

Hoard's Dairyman Juniors:—I graduated from the eighth grade last year and have my diploma and this fall I am going to high school. I picked strawberries to get enough money to take me through a year of school and when I got through with strawberries I helped at home with whatever I could. My address is R. 1, Bush Prairie, Wash. Alice Jenny.

My Cow

Hoard's Dairyman Juniors:—Father gave me a grade Jersey calf to raise. I named her Cherry. When she became a cow she gave over four gallons of milk a day. I sold her when we sold out at the auction sale, as a second calf heifer. She brought me $87. I paid father for the feed and bought some good clothes with the rest. In case other Juniors want to write to me my address is Escalon, Calif.

Carl Trink.

A New New Zealand Junior

Hoard's Dairyman Juniors:—I am a 14-year-old boy working for my dad. We have about 85 pedigree Jersey cattle now and hope to breed more. We have about 16 young bulls to break in to take to the bull sale.

We have about 180 acres of land altogether and all has been broken in. It is mostly hills and hollows which shelter the cattle when there is a gale on. It is also sheltered with trees; most of the paddocks are watered by creeks or troughs.

We have six cows under C. O. R. test. Most of them have done what they are supposed to do, and some are doing more. We have one heifer which is not quite a 2-year-old and for the first month of her testing she produced 43.58 lbs. butterfat and 913.8 lbs. milk. All the cows that are under C. O. R. test get a little bran and moose nuts to make them produce more milk.

New Zealand farming is quite different than American farming because we do not have to house the cattle in the winter. Instead of housing the cattle in winter we feed them hay and turnips. We feed a few carrots and mangolds if they need them. We send our cream to the largest butter factory (the New Zealand Co-operative) in the world.

I have to thank the club for the watch fob, badge, and creed of which I am very proud.

If any of the Juniors wish to write to me my address is "Tyntesfield," Okauia, Mata Mata, North Island, N. Z.

Ronald R. W. Garland.



MEN WANTED ON RAILROADS
Nearest their homes—everywhere. Firemen, Brakemen, beginners $150—$250 monthly. Promoted to Conductor or Engineer—$3,000—$4,000 yearly—highest wages on railroads. RAILWAY ASSOCIATION, Desk M10, Brooklyn, N. Y.



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Reg. U. S. Pat. Off. The Old Reliable

Brown's Beach Jacket

Just the garment for rough-and-ready outdoor service — warm, strong and cut to fit snugly without binding. Will not rip, ravel or tear and can be washed without losing shape or warmth. Ask your dealer to show you the three styles—coat with or without collar, and vest.

An Ideal Christmas Gift for the outdoor worker.

BROWN'S BEACH JACKET COMPANY
Worcester, Massachusetts

DON'T WEAR A TRUSS

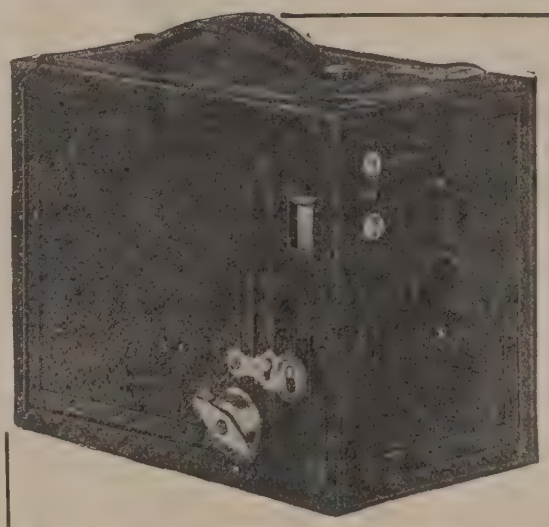
BE COMFORTABLE—

Wear the Brooks Appliance, the modern scientific invention which gives rupture sufferers immediate relief. It has no obnoxious springs or pads. Automatic Air Cushions bind and draw together the broken parts. No salves or plasters. Durable. Cheap. Sent on trial to prove its worth. Beware of imitations. Never sold in stores nor by agents. Every appliance made to special order and sent direct from Marshall. Full information and booklet sent free in plain, sealed envelope.



MR. C. E. BROOKS

BROOKS APPLIANCE CO., 219A State St., Marshall, Mich.



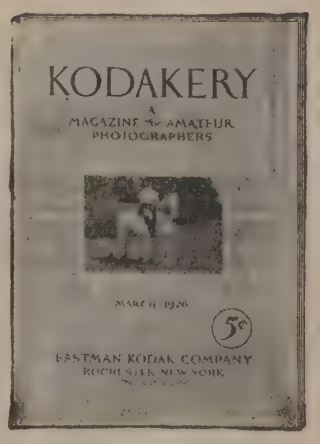
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With this fine little camera you can easily make good pictures of all your good times, your family and your friends. You'll have fun making them—and they will be priceless in years to come. Club members will want pictures of their livestock to show development. There's no end of chances for interesting snapshots. And **Kodakery**, with its stories, articles, picture-making hints and profuse illustrations, will help you enjoy your camera to the fullest extent.

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HOARD'S DAIRYMAN JUNIORS
FORT ATKINSON WISCONSIN

All your products are important to us



YOUR business is primarily the production of butter-fat.

Our business with you is primarily the purchase of butter-fat to market in various forms throughout the world.

But you must not forget that we offer you a cash market at all seasons of the year for the products of your farm.

On every farm reached by this paper there is, for instance, an average of 25 hogs. Besides hogs, calves form a highly important product. We are also continually in the market for chickens and eggs. In addition to all these prime products, we provide you with a market for cows and bulls, that may be used in the preparation of meat foods.

We meet you on a fair competitive basis, giving you the best price we can afford on an open market. We need your products; and you need our services. It is therefore to our interests to encourage you, by fair dealing, to sell to us; and it is equally to your interests to avail yourself of the marvelous manufacturing and marketing organization we have built up throughout this country and in foreign nations in the course of 60 years' successful business.

F. Edson White
President

ARMOUR AND COMPANY
U.S.A.

DAIRY MARKET NEWS

November Condensed Milk

(From Report by U. S. Dept. of Agriculture)

During November, according to reports from 116 factories manufacturing both case and bulk condensed and evaporated milk in various sections of the United States, producers received from $1.88 to $3.10 per hundred for 3.5 per cent milk f. o. b. factory, the average price being $2.20. Reports from an additional 23 factories manufacturing bulk goods only show an average of $2.39 per hundred, the range being from $1.94 to $3.10.

Manufacturers' wholesale selling prices for sweetened condensed and unsweetened evaporated milk were as follows for October:

	Range	Ave.
Condensed, per case	$5.60— 6.75	$ 6.28
Condensed, per cwt.	9.25—13.00	10.38
Evaporated, per case	3.63— 5.20	4.51
Evaporated, per cwt.	7.23—10.50	8.83
Condensed skim, per cwt.	5.19— 7.25	5.93
Evaporated skim, per cwt.	2.50— 4.50	3.53

Cold Storage Holdings

(U. S. Department of Agriculture)

The following is a report of the cold storage holdings of dairy products on November 1, figures being given in thousands of pounds (000 omitted):

	Nov. 1 5-yr.-ave.	Nov. 1 1926	Nov. 1 1927
	Lbs.	Lbs.	Lbs.
Butter, Creamery	96,227	100,871	118,768
Cheese, American	62,218	72,491	58,867
Cheese, Swiss	7,861	7,903	7,633
Cheese, Brick	1,728	1,381	1,761
Cheese, Limburger	1,264	1,544	2,054
Cheese, All Other	6,291	6,466	7,115

These holdings include stocks in both cold storage warehouses and packing house plants.

Connecticut November Milk

The Connecticut Milk Producers' Association announces the following prices for Grade B milk delivered during November at market milk centers:

All milk sold in fluid form, 9.5 cents per quart for 4 per cent milk, and 4 cents per point allowed for other tests; all milk made into cream that is sold in fluid form, 22.5 cents per pound fat above the average monthly price of 92-score butter on the Boston market; all milk made into butter, at a price per pound fat equal to the month's average on 92-score butter in Boston.

Iowa September Butter

The Iowa Creamery Secretaries' and Managers' Association reports that for the local creameries reporting, patrons received 51.08 cents a pound for fat in September as compared with 49.46 cents for the same month a year ago. The price paid per pound of fat ranged from 45 cents to 55 cents, with the average fat handled per creamery being 25,302 pounds.

Butter and Cheese in November

Butter averaged 49.7 cents on the New York market for the first twenty-six days of November, which is 1.3 cents above the previous month and one cent below the November average of the previous two years. Prices advanced steadily during the month and the market appeared to absorb the fresh butter at advancing prices despite the use of storage butter by many dealers. There is disagreement as to what the trend of the market will be in the immediate future. The lighter production and the tariff wall tend to support the strong outlook. The opposition calls attention to the slower movement out of storage and it is of the opinion consum of butter is not as favorable as a year

For the first time this year the market registered a serious decline, and tended to discourage imports. The de however, has been largely made up an average on the Wisconsin boards wil proximate 25.7c for the month. This is cline of one cent from the previous but is still approximately two cents November of the two previous years.

Twin City October Mil

The Twin City Milk Producers' As tion of Minnesota paid $2.60 a hundre 3.5% milk delivered in St. Paul during ber. The association handled 20,281,65 milk, of which 37% was surplus.

Cream patrons were paid 56 cents a for butterfat in first grade cream durin tober. This is 7.6 cents above the av price of 92-score butter on the New market.

The Feed Market Situat

(By the Grain, Hay and Feed Market Service Bureau of Agricultural Econ U. S. Department of Agriculture.)

The supply of feed grains and feeds thi son is much the same as a year ago there is much more hay on hand. Except ly fine weather in October favored the crop and the supply of corn, includin crop and carryover, is placed at about 000,000 bushels more than a year ago.

Cottonseed meal continues to advance quotations are now over 10 per cent h than at the low levels of a year ago. sumers seemed disposed to buy for imm needs only at current quotations but cr were holding their offerings firmly and s unwilling to quote liberally for deferred ment.

Stocks of cottonseed meal of about 1 tons on November 1 were the largest o date in recent years. The carryover int season was considerably smaller than a ago but about 45,000 tons more were cr in the first three months of the season out shipments totaled about 46,000 tons Crushers had about 100,000 tons less c seed on hand on November 1 than a yea

Linseed meal prices also advanced i face of liberal production of this feed. C ings continued to be of good volume be of a good demand for linseed oil at the prices for several years but the offerin linseed meal seemed to be taken readily. mills and resellers were offering free Buffalo although at firm prices. Howeve casional large lots were sold at concessio order to provide needed shipping instru from time to time. Prices showed a f advance at Chicago where the demand fo moderate offerings was only fair. Buyi jobbers and feed mixers helped to ad prices at Minneapolis where country d were not buying ahead.

Gluten feed continued to move readily consuming channels and dealers at Ch were also quoting this feed for January ment at a 50c premium over December p although December feed was still availa that market. Both independent mills an sellers were offering this feed freely at l lo although the Corn Products Company quoting only for December shipment at point at prices 50c above November quota

Alfalfa meal averaged nearly a dollar h for the better grades. Best inquiry con to be for top qualities of this feed which tinues to be scarce because of unusual in the principal producing sections last mer. Trade reports indicate that more o feed is being fed in Colorado than last and that Colorado mills are enjoying s trade to the East and South. Demand a cago and Omaha was only of fair volum Kansas City mills complained that w grinders were able to under quote the cause of favorable freight rates.

Tankage continued to move freely into suming channels at unchanged quotatio

November butter averaged 49.7 cents in New York as compared with 50.6 cents i 1926 and 50.7 cents in 1925.

Check Up On Your Cows!

Weigh milk and test for butterfat by Babcock method!

HANSON Dairy Scale

Adjustable pointer sets anywhere on dial to offset weight of pail. Readings in tenths of pounds make figuring easy--and large dial with distinct numerals and graduations insures correctness. Sturdy steel construction. Guaranteed accuracy.

At better dealers—or order direct. Sent prepaid on receipt of price.

HANSON BROS. SCALE CO
500 N. Ada St. CHICAGO

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LARGEST HAY MARKET IN AMERICA

Write or wire us when in the market for hay of any kind or grade, delivered your station. We specialize in Dairy Hay.

AXLEY HAY & GRAIN CO.
754 Live Stock Exchange, Kansas City, Mo.

Kane Syro Brand
Feeding Molasses

For their health and your profit
REDUCES FEEDING COSTS

The Original Sugar Cane Plantation Molasses, shipped in barrels from our large tank station. Write us for prices and literature.

FEDERAL FEED PRODUCTS CO., St. Louis, Mo.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

a ton for 60 per cent digester tankage at portant markets.

Quoted November 23

andard wheat bran: $32.50 Buffalo, $36 adelphia, $32 Chicago, $28.75 Minneapolis. d winter wheat bran: $36.50 Philadelphia, Chicago, $29.25 Omaha, $29 Kansas City. winter wheat bran: $35.50 Buffalo, $37 adelphia, $32.50 Cincinnati, $31 St. Louis. andard spring middlings: $33 Buffalo, 25 Chicago, $29.25 Minneapolis. Gray ts: $36.75 St. Louis, $34.50 Omaha, $35 sas City.
ttonseed meal (43%): $49 Buffalo, $51 adelphia, $48.25 Chicago, $48 Omaha, $46 sas City.
nseed meal (34%): $46 Buffalo, $48 Chi-, $47 Minneapolis, $51 Omaha.
uten feed: $39 Buffalo, $35.70 Chicago.
e hominy: $40 Buffalo, $42 Philadelphia, Chicago, $33 Omaha. No. 1 alfalfa meal: 5 St. Louis, $23 Kansas City, $23 Omaha.

November Milk Prices

m Report by U. S. Dept. of Agriculture)

ble I represents a comparison of the net s received by producers in 106 local mar- for fluid milk (test 3.5%) f. o. b. local ping point or distributors' country plant:

e I—November Producers' Prices by Geographic Sections.

tions	Range of prices per cwt.	Comparison of average prices 1927 Nov.	1927 Oct.	1926 Nov.
England	$3.19—4.19	$3.67	$3.73	$3.48
le Atlantic	2.25—3.52	2.98	2.97	2.86
o. Central	1.75—3.13	2.58	2.55	2.55
o. Central	1.65—2.87	2.34	2.31	2.26
tlantic	2.91—4.88	3.71	3.56	3.82
. Central	2.22—3.24	2.54	2.45	2.66
o. Central	1.87—3.00	2.38	2.36	2.64
ntain	1.88—3.20	2.42	2.42	2.44
ic	2.35—3.00	2.61	2.64	2.57
ed States	1.65—4.88	2.79	2.77	2.79

ble 11 shows for certain representative markets the prices of standard grade milk de B, test 3.5%) received by producers b. city and paid by consumers.

e II—November Producers' Prices f. o. b. City and Consumers' Prices.

	Producer received per cwt.	Consumer pays per qt.
		Cts.
ingham, Ala.	$3.25—3.75	17
nix, Ariz.		10—15
Diego, Calif.		15
rancisco, Calif.	3.11—3.21	14
er, Colo.	2.10	12
ford, Conn.	4.22*	16
ington, D. C.	3.49*	15
sonville, Fla.	3.80	17—20
go, Ill.		14
napolis, Ind.	2.10	12
oines, Ia.	2.65*—2.70*	12
ka, Kans.	2.10—2.30	10—11
ville, Ky.	2.54—2.59	13
Orleans, La.	2.93	14
more, Md.	3.55*	14
n, Mass.	4.09*†	15½
it, Mich.	2.90	14
aul, Minn.	2.80*	12
uis, Mo.	2.75	13
, Mont.	2.62	13
ln, Nebr.	2.19	11
ton, N. J.	3.41*	13
York, N. Y.		16
land, O.	3.30*	14
, Okla.	2.27—2.62	13—20
delphia, Pa.	3.49*—3.52*	13
burgh, Pa.	3.85*—3.90*	15
dence, R. I.	4.09*†	15.5
phis, Tenn.	2.58*—2.73*	14—15
s, Tex.	2.60—2.80*	13
Lake City, Utah	2.35	11
mond, Va.	3.93*—4.05*	14
le, Wash.	2.65*—2.75*	12
ane, Wash.	2.35	12
aukee, Wis.	3.00*	11

asic prices for fluid milk. †The October price was lowered 23¼c cwt. on the 9th.

ces paid per hundred pounds for stand- rade milk (Grade B, 3.5%) at the deal- country receiving stations or at the pro- s' railway shipping points, as also price b. city, are given in Table III:

le III—November Prices at Country Stations.

ies	At country stations	Freight zones to which prices apply
Haven	$3.70*	28c rate
ington	2.91*	35c 10-gal. can
go	2.50	All
more	2.97*	35c rate
n	3.26*	181—200-mile zone
uis	2.25—2.35	34c rate
on	2.85*	41—50-mile zone
lo	2.72	28c rate
York	3.42*—3.52*	201—210-mile zone†
land	2.92*—2.99*	All
delphia	2.91*—2.95*	51—60-mile zone
burgh	3.10*	All
ston	2.80—3.00	30c rate
a	2.10—2.20	All

asic prices for fluid milk. †53c rate.

following net prices were reported paid to members of producers' associations supplying the cities listed. Prices announced in advance for such cities are usually of two classes, "Basic" and "Surplus," the former applying to that portion of the milk which is used in fluid form for city wholesale and retail trade, and the latter applying to that portion classed as "Surplus," which is used for manufacturing purposes:

Table IV—Net Prices Paid Members of Producers' Associations for 3.5% Milk

Cities	Paid*	Period	Previously announced price for same period Basic	Surplus
Hartford	$3.85	Sept.	$4.22	Butter markets
Des Moines	2.54	Sept.	2.65	$1.85
Boston	2.70‡	Sept.	3.51	Butter markets
St. Paul	2.48	Sept.	2.60	All milk pooled
New York	2.75†	Sept.	8.37	$2.21—2.46
Akron	2.96	Oct.	3.40	$2.00
Cleveland	2.88	Sept.	3.34	Butter markets
Pittsburgh	3.12	Sept.	3.45	Butter markets
Milwaukee	2.85	Oct.	3.00	Butter markets
Duluth	2.39	Oct.	2.67	All milk pooled

*f. o. b. city unless otherwise indicated. ‡181—200-mile zone. †201—210-mile zone.

Table V gives for a few cities the retail prices of special milk, certified milk, cultured buttermilk, cottage cheese, and cream testing 18 to 25 per cent butterfat:

Table V—November Retail Prices to Consumer

Cities	Special milk per qt.	Certified milk per qt.	Buttermilk per qt.	Cottage cheese per lb.	†Light cream per ½ pt.
	Cts.	Cts.	Cts.	Cts.	Cts.
Akron	16—18	20	8	10	16
Asheville	19	25			20
Baltimore		30	14	15*	18
Birmingham		25	7	22	15
Boston	16	26	10		
Buffalo	14	30	10	12*	
Chicago	17	25	10—20	15*	16
Cleveland	19—20	25	12—13	15—20	17—22
Columbus	17	25	7	20*	14—16
Denver	14		8		14
Des Moines	14		9	14	13—14
Detroit	25	25		15	16
Duluth	15	25	8	15*	17
El Paso	17	25	10	20*	15—16
Hartford	18—25	25—35			18
Indianapolis	16	25	10	18	13
Jacksonville			10—12	30	15—30
Kansas City	15—25	25	10	20*	10—15
Los Angeles		30	10		17
Louisville	17	24	13	15*	16
Milwaukee	15—20	25	7	9—10	15
Minneapolis		22	14	12*—15*	15
Nashville	18		10	20	16
New Orleans	18	31	14		17
New York	19	29			
Omaha	15	15	10		11
Philadelphia	15—16	30	9—13		17
Pittsburgh		25	10		17
San Francisco		25	14	20	20
Scranton	18	25	8—10		20
Seattle	25	20		20	15
St. Louis	18	25	10—18	15	17
Trenton	17	30	13		15—16
Washington	18—20	30	15	15—20	16

*12 oz. package. †18 to 25% fat.




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Pacific International Live Stock Exposition

(Continued from page 1134)

make perhaps the best Jersey show ever seen at the Pacific International, brought the dairy division to a high standard of excellence. Throughout the barns high quality extended more p'aces down into the judging than has been the case at Portland before. Particularly was this true of the Jerseys and Holsteins. While the Jerseys were remarkable because of the great improvement over last year when the exhibits of this Island type were not much above mediocrity, the show yet must be considered a Holstein show. Competent judgment called it the best Holstein show of the year in the United States. Always a good Holstein show during the past two or three years, it has reached a high standard.



NORTHWEST CHAMPION STOCK JUDGING TEAM, BOYS' AND GIRLS' CLUBS

Left to right: Howard Loe, high scoring individual, winner of Plummer scholarship, Chester Loe, Kenneth Dahl.

Guernseys were in fair numbers and better quality than heretofore, due to the presence of two eastern herds. There is a question, however, if the presence of two eastern herds of high quality in this breed was helpful to the show. Guernseys are comparatively new on the Pacific Coast and there are not yet large numbers of cattle of the best show type. Progress is being made in approaching type ideals and the herds are growing larger, but the presence of two or three of the best herds in the United States dampens the enthusiasm of the local breeder and prevents his exhibiting. It would probably build this department of the show faster to limit eastern entries, and thereby encourage growth and development of the new Guernsey breeders of the West.

The Matador Segis Walker trophy, offered by the Carnation Stock Farms, for the best breeders' young herd of registered Holstein cattle, was captured by the Forum Holstein Farm, Iowa. The same farm was awarded the John L. Smith trophy for the best Holstein produce of dam bred by the exhibitor.

The Holstein silver tea set trophy, presented by I. E. Staples for the best Holstein calf herd, was awarded to the Carnation Milk Farms, Washington. The Jersey silver tea set trophy for the best Jersey calf herd was taken by the La Lomita Rancho, F. R. Bain, California. The Guernsey silver tea set trophy for the best herd of Guernsey calves was given to the William Larsen Canning Company, Wisconsin. E. W. Van Tassell, Washington, took the Ayrshire silver tea set trophy for the best herd of Ayrshire calves. The Brown Swiss silver tea set trophy for the best herd of Brown Swiss calves went to Peringer & Salzman, Washington.

The Holstein Sale

Only one dairy cattle sale was held this year. Forty-six head of Holst were auctioned for an averag $200. The offerings had few rec and could have been improved s what in fitting to advantage. high bull sold for $280 and the cow for $325.

The Holsteins

Judge: Axel Hansen, Minnesot

The Holstein line-up was sai competent observers to be the quality in the United States year. Certainly it has not been celled at Portland during the se years in which the Portland show been markedly a stein show.

The best class o show was the aged class in which N sack Irma Segis, grand old cow of Carnation herd, on eral bloom and c tion, was a na first over Forum tiac Queen of the herd. A strong was Fair Oaks De Nellie. The two ners in this class gether with the wi of the 4-year-old class, Long H Mercedes Butter Boy, who finall came grand champion, made a tr wonderful matrons. Carnation Bonnie owned by Carnation Farms was junior champion.

The aged bull class, second probably, to the aged cows, bro out the grand champion to head line-up in Harry Waldorf of Cer owned by James C. Chamberli Washington. Junior champion was Carnation Romeo Cola owned by Carnation Milk Farms.

The Brown Swiss

Judge: P. M. Brandt, Oregon.

The Brown Swiss show was a couragement. It was entirely a cific Northwest show in which breeders brought together a very bunch of this useful dairy b There is a spirit of progress pre ing among the little group of B Swiss breeders in the Pacific N west that is beginning to leave mark. This year the young stock the bulls were unusually good, a dition which is eminently correct a showing of cattle of the relat undeveloped status of Brown S in the Pacific Northwest.

This year a new Oregon was in the list, and it a popular decision when out this herd, that of F. W. Freur Sons, came the senior and g champion bull, Nellie Ella's Lad. of the Brown Swiss herds in the are working dairy herds and par larly is this true of the Freund



BROWNE OF C. H., JUNIOR AND GRAND CHAMPI BROWN SWISS FEMALE

OWNED BY PERINGER & SALZMAN, WASHINGTON

has to make money for its own- a commercial dairy herd up in igh country of Central Oregon. yd's Lady, owned by Peringer and an, a cow with great evidences pacity and a good top line, took place over a stablemate. This lso took first as an aged cow g an official yearly record, but shown as an Advanced Registry vith two of her progeny, was d by her stablemate, Mascott's y. The grand champion female Browne of C. H., a senior heifer owned by Peringer and Salz- Washington.

The Guernseys

lge: Ralph Tratt, Wisconsin.

ht exhibitors of Guernseys made first class show. Two eastern , that of the Wm. Larsen Can- Company, Wisconsin, and the J. enney herd from Emmadine , New York, gave the tone to ntry list. The former herd took grand champions, while Em- ie Farm presented the junior pion bull, Resolute's Eminent, an eated junior champion of the n. The grand champion bull was r King of Roberts from the line-up in which class he defeat- orewood Resolute for the third this season. Last year Shore- Resolute was too good, winning ecision two or three times, but xtra finish and condition of the nsin entry could not be denied season.

e great cow, Imp. County Flow- Langwater from the Larsen was grand champion after hav- been placed first in the aged lass which was the best class in uernsey show. Second place in lass was won by Imp. Gem's of the Gron. Both these cows been class winners at the Na- Dairy Show, and this year the r was second at the National second at the Eastern States. ner Emmadine entry, Admira- f the Prairie, lent quality to this taking third place, the same ng made at the recent National. urning to the aged bulls, the place winner, Weiser's King is a good bull and only the extra of eastern entries kept him .

The Ayrshires

dge: P. M. Brandt, Oregon.

e Ayrshire show was light, exhibitors only making entries. nigh light of the line-up was the from Fairfield Farm, Kansas. E. an Tassel, Washington, was the western exhibitor. Fairfield n took all the champions. Cava- Fox Trot was senior and grand pion bull without any particular ilty. Junior and grand cham- female was Fairfield Spicy Girl, was placed up over the four- old Cairncroft Primrose, winner ass at the recent National and l champion at Waterloo.

The Jerseys

dge: Sam H. Crabbe, N. Dakota.

e Jersey show with 152 entries the best ever held in Portland, nly approach having been the y show of 1920. The line-up, dominated by the entry of F. R. . California, attracted larger ds to the ringside than any other ng in the arena. The out- ling class in Jerseys was the cow class. Thirteen excel- individuals were brought before udge. The first five or six were lent, but the interest of the ring- centered around the first three. ably no single moment in the ng throughout the entire dairy division held greater grip on the ring- side than that which marked the plac- ing of Bain's Brampton Snow Pride, at the head of this class, from which point she went on to be senior and grand champion.

The Jersey bull classes were good, the aged bulls and two-year-olds par- ticularly so. The latter class con- tained three champions of Pacific Coast state fairs of the current sea- son. The winner was the Bain entry, Molly's Count of La Lomita. The senior yearling class brought out the grand champion, Imperial Oreole's Prince, also from the Bain herd.



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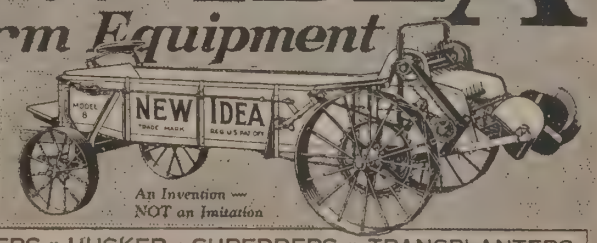
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60 Choice Holstein and Guernsey springers. Also registered heifers, bred and open. Tested. F. B. GREEN, Evansville, Wisconsin. 20-6

For Sale—50 top Holstein and Guernsey grade and purebred springers from accredited area tested county. BERG BROS., Iola, Waupaca County, Wis. 23-7

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

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For Sale—50 high grade Holstein and Guernsey springers, reasonably priced. JOHN PETERSON & SON, Scandinavia, Wis. 19-*

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Jerseys—Noble, Owl breeding, $60. SAMUEL SCHLABACH, Shanesville, Ohio. 21-3

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LIVE STOCK WANTED

Wanted—Registered Holstein heifers, 1 to 2 years old. Give number, their ages, breeding, price. C. H. NICHOLS, Hebron, Ill.

Wanted—One or two carloads of grade Guernsey heifers from six to eight months old. W. JONES, Wayside Farm, Assumption, Ill. 23-3

Wanted—Baby Holstein bull, real breeding. STUART FLOYD, Mulberry Grove, Illinois.

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Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

Farms to Rent—We will have one or more good dairy farms to lease on shares this spring. Liberal terms. Excellent Grade A. milk market. For particulars, apply ARTHUR DANKS, Mgr., Allamuchy, N. J.

Tenant Wanted—Cash. Open now. 160 or 220 acre dairy farm. Close to McHenry. BOX J, Woodstock, Illinois.

WANT TO RENT

Equipped dairy farm, located in southern Wisconsin or northern Illinois, wanted on shares by experienced dairyman with help. Address BOX 581, care Hoard's Dairyman.

DAIRIES

Fifty Cow Dairy South Florida. Also ten thousand acre cattle ranch. J. M. WILLSON, Kissimmee, Florida. 22-4

TESTERS WANTED

Iowa Cow Testing Associations need testers. Salary $900 per year and up, plus board. Training courses offered. Give age, experience, references first letter. DAIRY EXTENSION, IOWA STATE COLLEGE, Ames. 20-*

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

Coupon Milk Tickets, Score Cards, Tags, Routebooks, Statements, etc. E. F. WILKE & CO., 2424 N. Francisco Ave., Chicago, Ill. 22-2

ROCK PHOSPHATES

Our finely ground raw rock phosphate greatly increases yields of small grain and hay crops. Cheaper than acid phosphate. Write for literature and prices. ROBIN JONES PHOSPHATE COMPANY, 572 Bennie Dillon Building, Nashville, Tennessee. 20-*

MISCELLANEOUS

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*

Advertising in this department is 8c per word. Remit in advance.

HELP WANTED

Want to hire a real farmer and breeder, experienced with Holsteins. March 1st, 1928. 360 acres of excellent land, close to town, excellent buildings for cattle, hogs and poultry and good equipment. Have extra good pure-bred herd of choicest breeding. Prefer man with own help, experienced with tractors. Will milk 20 cows after June, work on salary until next fall, then sell surplus stock and rent on a fifty-fifty basis, renter to furnish all power and machinery. Investigate this real opportunity for the right man. References required. DR. I. H. WELLS, Harvey, N. D.

Wanted—Position together, two dry hand milkers. Handle 30 cows. Start January 1st. Good reference. State wages and conditions. SLYVAN & W. D. CORWIN, Morrow, Ohio.

Wanted—Reliable man for milk route and milk house on modern dairy. Good milker preferred. $70 to start. When applying, state age and experience. WM. SIEDENTOPF, Miles City, Montana.

Wanted—Experienced single man on large modern Holstein farm in Illinois. State experience and references. Also wages. Address BOX 588, care Hoard's Dairyman.

Wanted—Good experienced single dairy hand for Holsteins. $60.00 per month with room and [illegible] PLAINS DAIRY, 3127 Thomes, Cheyenne, Wyoming.

HELP WANTED

Help Wanted—Herdsman, single man, to tak[e] plete charge of Guernsey herd 50 head. Tho[se] experienced, understanding all angles of dairy milk production, and care of herd. Man [m]ust sober, reliable and industrious. An excellent [h]ome and good home. State in full experience, refe[r]age, and salary. Farm located 40 miles N. W[est] cago. Address BOX 582, care Hoard's Dairyma[n]

Wanted Jan. 1—Young man with clean hab[its] general farm and dairy work, or could use [an] young man who wants to learn herdsman work. Jersey herd. De Laval milker used. Give fu[ll] ticulars and wages expected first letter. R. A. LY, Howe, Indiana.

Wanted—A middle aged man to care for smal[l] by the year. Address BOX 578, care Hoard's man.

Wanted Immediately—Experienced test cow Jerseys. HUGH W. BONNELL, R. R. 4, town, Ohio.

POSITIONS WANTED

Widower who has lost about all but pep an[d] wishes steady job with a future; any kind of proposition. Certified experience, neat farm gardener, good manager. High school and h[igh] education, good appearance, a great lover of ch[il]d good home conditions much desired. Do not t[ake] bacco, booze, or profanity. Unencumbered. A[ge] references. Age 49; height, 6 feet; weight, 200 particulars. R. M. W., 2694 W. Grand Blvd troit, Michigan.

Spring—Swiss 25, abroad, wants position on diversified farm. Trained manual-machine thumb-milker. Agricultural intermediate scho[ol] one year. Desire stable and field work. A[m]born, Protestant. Room, laundry. For par[t] address BOX 579, care Hoard's Dairyman.

Position as herdsman or test cow milker. age 24, sober, capable and willing. Experie[nced] feeding, testing, calf-raising and general care dairy herd. You are to set the wages. Avail[able] once. Best of references. An answer to all Address BOX 586, care Hoard's Dairyman.

As supervising herdsman or farm manager years A. R. work; lifetime farm experience, [N]atural college graduate. Total abstainer. Re[f]furnished. E. A. NELSON, Livingston, Grant Wisconsin.

Open for offer—Experienced, capable manag[er] estate or dairy farm. A. R. O. Grade A or c[er]milk, records. Office, feeding, field work, c[or]grounds and the upkeep of property. Age 40. A[d]BOX 585, care Hoard's Dairyman.

Wanted—Work in milk house or creamery h[ou]good grade of milk. Understand making Studied dairying at Ames. Born in dairy b[el]Good references. Address BOX 589, care Dairyman.

Position as Herdsman or farm manager by enced college man. Experienced in Grade A m[il]ficial testing. Available at once. References fur[n]RAE McILREITH, R 3, Medford, Wisconsin.

Position Wanted—Working farm manager. M[an] Experienced general farming, cattle, hogs, sheep ing. Eight years last employer. Good referen[ce] M. HEIN, 1818 Eleventh St., Two Rivers, Wis

Married Man wants position as manager. H[ol]preferred. Pedigree expert. Much experience Holsteins. Successful feeding test cows and pr[ep]show cattle. Address BOX 587, care Hoard's Da[i]

Dependable young man wants work in a dai[ry] or on a good dairy farm. Prefer Illinois or s[ou]Wisconsin. State wages. Dry hand milker. A[dd]HABEN, Holloway, Minn.

Married man, age 22, wishes position on [a] farm. Can furnish references both as to ex[pe]and honesty. Address BOX 591, care Hoard's man.

Man 40 wishes a job on a Guernsey farm, that you can rely on and trust. Wages $65 per Address BOX 590, care Hoard's Dairyman.

Wanted—Position on dairy farm. Dry hand Age 24, single. A. HOLM, Western Springs, I[ll].

Wanted—Position at once. Dry hand milker. O. SOCKLER, Marshall, Illinois.

Wanted—Dairy barn work. Good milker. GE CRAMER, Box 379, Sidney, New York.

Christmas Presents

== for Dad or Broth

Sometimes Dad or Brother is to please. These suggestions help you:

(1) Some nice farm stationer lustrated with one of your own mals or one of our carefully sel stock cuts. 500 letterheads and envelopes at a reasonable figure. for information and prices.

(2) A leather bound, loose pocket herd book. Room for 100 mals. Very handy and a great he selling animals. We arranged herd book and manufacture it. F ers and breeders all over like it. tra leaves cheap. Price only postpaid.

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OIL BURNING GARAGE HEATER **TANK HEATER**
NORTHFIELD ECONO[MY]
HEATER keeps water even temperature. Saves fe[el]
Steady. Safe. Trouble proof. Burns distillate, kerosene or furnace oil; also wood, coal or cobs. Large supply tank. Two gallons runs 24 hours. Guaranteed to work successfully. Write for, low prices and information.
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WE OFFER YOUNG BULLS. Two ready for [s]from A. R. dams. Good individuals. May R[es]Cherub breeding. Send for sale list.
Federal Accredited Herd 4239
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More Milk Per Cow!

show you how FREE!

ne show you how to get more milk
ow, more income, and make the whole
ack in a few weeks' time. You'll get
er, richer milk—constantly. Thousands
mers have been doing it for years, so I
this method works. And I'm ready to
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will do everything I claim for it. You take
tely no risk. And when I tell you that the
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y Farmer Can Afford It!

se it pays for itself in a few weeks. You'll
ly have more milk—better milk—with this
d, you'll have better COWS—cleaner and
ier.

Send You the Facts—Free

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How can I get more and better milk?"
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me TODAY! *Andy Olson*

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Barren Cows Wanted!

cow that has been bred for
o months or longer will usu-
ly require a treatment each
eek for ten straight weeks.
xpense prohibits hiring this
ne. The cow and the Herds-
an being at the same place it
ly requires twenty minutes
r each treatment. Ninety per
nt of these cows require the
me treatment. We can teach
y average Breeder or Herds-
an how to do this work. Some-
dy on the same farm with
e cows must do this work or
nd them to the butcher. Nine-
per cent of the barren cows
heifers of a breeding age can
made breeders by our new
ethod.

nder our car fare plan a stu-
nt living nearly 400 miles
way can attend nearly as
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c h o o l. Satisfactory Results
ueranteed. E v e r y student
ust make good—an instructor
sits each student. We teach
l breeding troubles.

or Breeders and Herdsmen Only

ive Days At Each Place

ANSAS CITY, MO., Jan. 10-14
President Hotel, Jr. Assembly Room
EVELAND, OHIO, Jan. 24-28
Hollenden Hotel, Parlor B
ILADELPHIA, PA., Jan. 31-Feb. 4
njamin Franklin Hotel, Betsy Ross Room
UISVILLE, KY., Feb. 14-18
Seelbach Hotel, Leather Room
ICAGO, ILL., Feb. 21-25
Stock Yards Inn Hotel
. PAUL, MINN., March 6-10
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nd for Free Catalog and Statements from Breeders

raham Scientific Breeding School

FRANK B. GRAHAM, Mgr.

5 W. 12th St., Kansas City, Mo.

Fitting the Feed to the Cow

(Continued from page 1131)

of the production of the herd as it is now fed with the production from a ration and feeding according to the suggestions herein made. In making the comparison it will, of course, be necessary to weigh the milk from the herd for at least a week under present feeding and after the new ration and rate of feeding is in force for a week or so to again weigh the milk for a similar length of time. We urge that reports be made to Hoard's Dairyman of results obtained from changes made in feeding practices based on suggestions made in this article.

We realize that many dairymen may have feeds and conditions that do not come within the limitations of this article in which cases we urge personal correspondence with the editorial service of Hoard's Dairyman if suggestions are desired on how rations and feeding practices may be improved. To compile the most economical ration we should have the kinds of feed available and their prevailing local prices, as also the kinds of roughage.

We will pass over the calculation of rations according to nutrient analyses and feeding standards and in the next issue discuss air, water, minerals, vitamins, herd management, and dairymen.

U. S. National Holstein Sale

Haeger, Baird, and Darcey had a very successful U. S. National Sale at Waukesha and Watertown, Wis., Nov. 15—18. Most of the 315 registered Holsteins which they sold were good ones, a few were very good, indeed, and a few were very ordinary. It seemed to us a good sale where cattle brought pretty well what they were worth,—a sale to suit both buyer and seller.

The 315 head brought $84,190, an average of just over $267. One hundred sixty animals averaged $287.50 at Waukesha; at Watertown 155 head averaged just over $246. Sixty-three head sold for $300 or more, 21 reached $500 or above, and five went for four figure prices.

The outstanding animal of the sale was Maggie Calamity Hartog, a 9-year-old cow consigned by Houck Bros. of Ontario. Not only is Maggie a cow with excellent type and good records,—she has two records of over 1,200 lbs. butter and one 1,370 lbs.,—but she comes of a good producing family and she is the dam of Decreamco Calamity Posch, the Detroit Creamery Co. Farms' junior herd sire that has been a winner wherever shown this fall. A good many breeders would have liked to own the cow, and several bid on her, but in the end she was struck off to the Detroit Creamery Co. for $5,000 with R. V. Rasmussen of Illinois the last contending bidder.

The highest priced bull and the second highest priced animal of the sale was Logan Ormsby Segis Fayne, a yearling son of that great cow, Side Hill Ormsby Segis, that produced 941 lbs. milk, 38.5 lbs. butter in 7 days and over 1,100 lbs. butter from 26,000 lbs. milk in a year in subdivision B. The bull was consigned by John R. Logan & Son of Illinois and purchased by the Side Hill Bull Club of the same state.

All of the other animals reaching the $1,000 mark were bulls. Houck Bros., Ontario, consigned a 10 months' old calf whose dam made 32 lbs. in 7 days and is making over 1,200 lbs. butter, 28,000 lbs. milk in a year as a 4-year-old, most of the time being milked only twice or three times daily. He went to the Jefferson County Asylum for $1,550.

A 35-lb. son of Sir Inka May consigned by Carnation Milk Farms sold to C. H. Anderson & Co. of Maryland for $1,500, and a 4-year-old son of Wisconsin Pride 2nd and Admiral Ormsby Fobes consigned by E. L. Hotchkiss, Virginia, brought $1,325 from H. C. Tills and Dave Lorfeldt of Wisconsin.

Haeger, Mack, and Wood did the selling.

Those animals selling for $300 or more and buyers are listed below:

C. H. Anderson & Co., Maryland	
Sir Inka May 11th	$1,500
Steinbach Bros., Wisconsin	
Segis Artis Dorothy	$400
Burton Rita Prospect	400
Thos. R. Vincent, Wisconsin	
Walcowis Ollie Ormsby Canary	$480
Baltz Hoesley, Wisconsin	
Carnation Josephine Ormsby Canary	$330
A. C. Oosterhuis, Wisconsin	
Milford Pontiac Ormsby	$500
Martin F. Morgan, Indiana	
Pabst Prilly Virginia Johanna	$550
Lee Larimer, Pennsylvania	
Oriole Home Netherland Star	$300
Otto Zimmerli, Wisconsin	
No. 224	$325
George Schumacher, Wisconsin	
Jessie Pontiac Polkadot	$325
R. F. Clark, Wisconsin	
Creamelle Sir Ollie Madrigal	$310
Carl E. Rudolph, Illinois	
Sir De Kol Ollie Creamelle	$310
Bess Ormsby De Kol Burke	575
Side Hill Bull Club, Illinois	
Logan Ormsby Segis Fayne	$2,000
Wis. State Reformatory	
Juneau Homestead Fobes	$340
Pabst Arbutus Burke	450
Paul Smith, New York	
Ormsby Pabst Burke	$875
Wis. Industrial School for Boys	
Mercedes Barbetta De Kol	$335
Bess Terracelawn Ormsby	350
L. G. Blood, Wisconsin	
Ollie Ormsby Mercedes	$350
Alvin Burbach, Wisconsin	
No. 264	$300
L. R. Siebecker, Wisconsin	
Hoesley Veritis Homestead Joe	$575
Milwaukee Co. Institutions, Wisconsin	
Sir Ollie Pontiac De Kol	$500
D. W. Norris, Wisconsin	
Miss Ormsby Pride Supreme	$325
Lena Pontiac Colantha	380
Wis. State Hospital for Insane	
Branline Lena Pontiac	$310
Nockdair Homestead Fobes	350
Geo. J. Weiner, Wisconsin	
Sir Perfection Ormsby Pontiac	$460
T. C. Hoesley, Wisconsin	
Ormsby Pontiac Walker Oldenburg	$370
C. K. Fleming, Wisconsin	
No. 341	$370
C. W. Newman, Indiana	
No. I	$500
Toledo Bull Association, Ohio	
Dutchland Creamelle Prince Denver	$675
H. C. Tills & Dave Lorfeldt. Wisconsin	
Admiral Ormsby Pride	$1,325
Edw. E. Carman, Minnesota	
Governor Admiral Ormsby	$725
Arbu Farm & Kennels, Michigan	
Mountain Ash Colantha Ormsby	$675
Colantha Mutual Fobes	410
Miss Pietertje Maid Mixture	775
Waukesha Co. Asylum, Wisconsin	
Mountain Ash Colantha Valentine	$400
Wis. School for Deaf	
Sir Ollie Korndyke Ormsby Johanna	$460
Heidelkiss Ophelia Pride	350
C. E. Tuffle, Wisconsin	
Swartz Pontiac Honor	$400
H. A. Nelson, Wisconsin	
Meadowmere Ormsby Queen	$315
E. J. Hanson, Minnesota	
No. 46	$725
Detroit Creamery Co., Michigan	
Dicmere Ann De Kol Ormsby	$630
Beauty of Highland Farm 4th	350
Maggie Calamity Hartog	5,000
Mercedes Jewel Ormsby Queen	630
Colantha Parthenea Netherland	350
S. S. Foster, Wisconsin	
Korndyke Pontiac Rue Bess	$300
J. J. Stieb, Indiana	
Monclova Prilly De Kol Clytice	$350
Wm. A. Nehrbass, Wisconsin	
Bloodwood Korndyke Clothilde	$300
Toney Smith, Indiana	
Albina Mutual King	$330
E. J. Baker, Illinois	
Cedar Park Eldon Korndyke Lass	$380
Cedar Park Eldon Ormsby	330
Queen Mercedes Ormsby De Kol	475
Bloodwood Clothilde Korndyke	300
Black Pearl Ormsby Korndyke	650
Ralph Stauffacher, Wisconsin	
Dukes Mixture 27th	$320
F. O. Kilpatrick, Wisconsin	
Sir Korndyke Ormsby Lad Piebe	$300
Jno. A. Carroll, Hyde Park Farm	
Echo Segis Hartog 2d	$400
Llehroc Walker Lady	500
Theo. M. Pritzl, Wisconsin	
Llenroc Jemima Mechthilde	$350
Jefferson Co., Asylum, Wisconsin	
No. 134	$1,550

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Carry it anywhere—lay it down or hang it on the post—*there's no danger of fire.* You will find your Cobb Electric Lantern a big help in doing the chores. It's always ready—with a half turn—to shed *plenty of steady light in dark places.*

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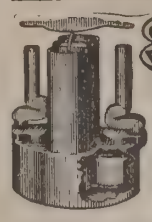
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THE NEW IMPROVED JENSEN Adjustable CHAIN HALTER

No loose Bulls or horses. A Universal **SAFETY SNAP** no animal can unlock or break. Made of bronze **$2.50,** nickel plated **$3.** Bull Chain Stakeout consists of 1 run chain 20 ft. long, 2 steel stakes, 1 lead and tie chain 8 ft. long with bronze snap $12, nickle plated snap $12.50. Bull rings made of yellow tubing bronze, none better, made in 3 sizes, 2 7-8 x3-8, $1.75; 3 1-4x7-16, $2; 3 1-4x 1-2, $2.50. Lead and tie chain 8 ft. long with bronze snap $5, nickle plated snap $5.50. Calf Trainer $2. Write for circular and more information. **CHAIN HALTERS,** fits all size bulls, on 15 days trial. Money back if not satisfied. Price **$6.50,** shipped prepaid U. S. A. where no dealers. **(Clip this ad.)**



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OIL BURNING TANK HEATER

Burns with intense BLUE FLAME. No ashes, smoke, or sparks. Safe, convenient, practical. Keeps water in stock tanks at proper temperature in zero weather for only ½c per hour. 11th successful year. Will last a life time. Two sizes—regular 2-burner and Junior one-burner. Write today for complete information, prices, and letters from satisfied users of the Clover Leaf Tank Heater.

Cedar Rapids Foundry & Machine Co., Foundry Sta., No. 909, Cedar Rapids, Ia.

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Order Now

For bedding, most convenient, serviceable and sanitary. Write for special, delivered prices.
Jagerson Fuel Company, Neenah, Wis.

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Appreciative of the enthusiasm with which the farmers of America have received my No-Buckle Harness, thereby creating a growing demand which has again compelled me to enlarge my factory, I wish to give every farmer in America a fine calendar. It is a beautiful work of art in three colors, the creation of one of the best American artists.

This fine calendar sent free upon receipt of the coupon below. If you desire my big harness catalogue, check it also. Wishing you a prosperous 1928. 6-28

Sincerely, James M. Walsh Co.

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This Book Saves Hours of Needless Hard Work

THE other day, a prominent farm paper editor made this startling statement: If the average dairyman would sell a third of his cows — even letting a blind man pick out the ones to keep — and feed the remaining two-thirds according to the latest methods, he would make more money with a third less work. And he proved it with figures!

Why work your life away needlessly, when a postage stamp will bring you this free book of practical, tested rations for business farmers? Learn how to make higher profits per head, with Linseed Meal and your home-grown feeds.

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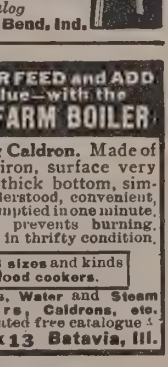
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ANTI-COW KICKER

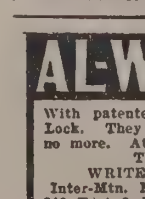
Saves your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers, cows with sore teats, or vicious kickers. Cannot wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker, or put on loosely as hobble for cow, horse or mule. Price $1.15. Postage extra. Weight 2 lbs. Send for it today, when you need it you won't have time.

DAIRY EQUIPMENT CO.
Dept. H Topeka, Kansas

BOWSHER FEED MILLS



(Sold with or without elevator)
Crush ear corn (with or without husks) and **grind** all kinds of small grain. Have conical-shaped grinders. *Different from all others.* Handiest to operate and **Lightest Running** (Our circular tells why)
Ten sizes, 2 to 25-horsepower
Send today for Free Catalog
N. P. D. BOWSHER CO., South Bend, Ind.



COOK YOUR FEED and ADD to its value—with the PROFIT FARM BOILER

with **Dumping Caldron.** Made of the best cast iron, surface very smooth, extra thick bottom, simple, quickly understood, convenient, no dipping out, emptied in one minute. Water jacket prevents burning. Keeps live stock in thrifty condition.

We make **23 sizes** and kinds of **stock food cookers.**

Also **Dairy** and **Laundry Stoves, Water** and **Steam Jacket Kettles, Hog Scalders, Caldrons,** etc. Write us. Ask for our illustrated free catalogue
D. R. SPERRY & CO., Box 13 Batavia, Ill.

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—It Means CLEANER and BETTER MILK

Clipped and groomed cows during stable months will keep them clean and comfortable and keep the dirt out of the milk pail. **CLIPPING AND GROOMING IMPROVE THE HEALTH OF YOUR CATTLE, HORSES, MULES,** etc. Use a **GILLETTE PORTABLE ELECTRIC MACHINE.** Operates on the light circuit furnished by any Electric Light & Power Co., or on any make of Farm Lighting Plant.

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A Vest Pocket Herd Book is a good investment

Swedish Cow Testing Associations

(Continued from page 1136)

finished, giving the results for each cow and totals for each herd.

7. Report to the supervisor any inaccuracy or doubtful practices on the part of the owner of the cows.

The association officers, working gratis:

1. Keep a record of the finances in the association.

2. Control the work of the tester.

3. Report to the supervisor any doubtful practices regarding the work of the tester or members of the association.

The duties of the supervisor are:

1. Superintend the work in the county associations.

2. Enlist more farmers to test their cows.

3. Give an annual printed report of the results obtained in each association during the year. In this report the names of all men in the association, number of cows, and their average production are given.

Government Aid Given

The state and county spend a great deal of money in keeping up test association work. In addition to hiring the supervisor the state gives each starting association about $110 for buying equipment. Small farmers get the preference in this aid because associations having more than 500 cows or less than 8 members do not receive so much. County appropriations vary in different counties but as an illustration, one county in central Sweden, Ostergotland, gives $30 to a starting association having at least 8 members. Thereafter it gives an annual graduated sum, depending on the number of cows in the association. Those with 251 to 300 cows receive $20, with 201 to 250 get $30, and those with less than 200 get 55 cents per cow up to a $45 limit. In addition each member with less than 25 cows receives 55 cents per cow to help pay the tester's fees.

Swedish testing associations are usually smaller than those in the United States, there being few associations with as many as 600 cows, while some have as few as 150. If a herd has more than 50 cows the tester spends at least two days on that farm. When the herd number exceeds 150 he works there at least three days and the number of the herds in the association will be correspondingly less.

Three Testing Periods in Use

The testing program in the entire country starts the first of November and ends the 31st of October the next year. This, for statistical purposes, is far superior to the system in vogue in the United States where the associations begin and end their year in every month. In most associations in the United States the monthly testing period is used. In Sweden, however, there are few associations working on monthly periods, for it is felt that this does not give reliable enough figures to serve as an indication of the productive ability and breeding value of the cow. This period is used only in associations with small herds or in herds where no breeding stock is produced, as dairymen raising stock for breeding purposes must test their animals at least once every 21 days. Most men rearing animals to sell as breeding stock test every 15 days. The number of herds in each association will therefore depend on the length of the testing period.

Cost to Farmers is Low

The tester's salary ranges from $250 to $300 a year with free board and free transportation from farm to farm, as well as free railr transportation in the district. S of the farms in the association many miles apart, so the tester r reach them by train. The farm expense for the testing runs f 25 cents up to $1.00 per cow year, depending on the size of association and the amount of mo spent by the county. Becaus county aid many farmers with s herds pay very little.

Farmers usually milk their c three times daily so long as they more than 25 lbs. of milk a The tester weighs the milk from cow at each milking and takes a s ple for fat test. This sample certain per cent of each milking cured by running a pipe with a ing end to the bottom of a cylin cal pail. The samples are kep small glass bottles in a locked The fat content is then obtained a Lindstrom buturometer, a Swe test similar to the Babcock.

Tests Made on Yearly Basis

All figures are given for the a al year and not for the lacta year. In that way they get a time record for the cows. The testing association member have all of his cows tested. He is allowed to take away some of poorest unless he disposes of t entirely. Even though a cow comes sick, has an abortion, or fers from other abnormality, her erage must be figured with the of the herd until she is sold. Sh a cow that has once been milke dry for six months in a year, average would still be figured on year basis. A farmer receives advantage from manipulating the tation period of the cow to get a production in a single year, fo the long run a cow will give the b est production when she drops a a year and it is the long time re a Swedish farmer looks for. records for sale catalogue purp are figured for at least three secutive years unless the femal question is too young to have su record behind her.

Results of Testing Work

The Swedish farmer does not g for spectacular yearly productio individual records are probably so high there as in the United St However, there are some very s ing examples of the value of work. The average production the cows in a single breed comp well with those in America. In county, Ostergotland, where the tal number of cows tested is 21 thirty per cent of all pure-bred shires gave more than 10,000 milk a year. Fifty per cent h fat content of more than 4 per In this same county 39 per cen the pure-bred Holstein-Friesians more than 11,000 lbs. milk and 400 lbs. fat. In one association Ayrshires averaged 8,542 lbs. and 352 lbs. fat. These aver hold in spite of the fact that a the cows owned are averag whether they were milking the y year or not.

There has been a steady incr in the production of animals in ing associations there. In th years from 1911 to 1921 the ave butterfat production for all the on test in Sweden rose from 218 to 229 lbs. In the county of Ma Southern Sweden, the average duction for 10,960 cows on te 1901 was 6,266 lbs. milk and lbs. fat. This average had incre

(Continued on page 1175)



Artificial Lights

few years ago any flock owner tried to boost production by the f artificial lights was considered candidate for some detention col- Aside from lack of proper bal- he was also accused of cruelty to als and "busting up" the hen's . The first person to try any venture or innovation is accused e same way but others gradually n line and follow the lead. The has happened in this case since ood flocks now lighted are be- ig exceptions.

ong the experiments designed to ver the actual money value of vs. no lights was that at Ne- a. They found that one pen of ghorns that were lighted during riod of six winter months re- d $25.44 more than another pen ghted.

npilations at Ohio show that the costs per dozen eggs in lighted was 15.3c while in unlighted it was 21.1c. A profit over feed $1.37 per bird when lighted and er bird when not lighted.

hts will not necessarily increase uction for the year but they will to increase the per cent of eggs ned during the winter months. station found that the use of increased the average profit ten per bird after paying for the care.

When to Use

ere are four general systems in 1, morning; 2, evening; 3, morn- nd evening; 4, night lunch. sed on economy of fuel, No. 4 is ost efficient because of a shorter f lights.

actual practice morning lights ost used because of ease in ing a clock switch, giving lights ore time and because of greater arity. It is also easier to get the down off the roost. Lights at or 5:00 a. m. will give almost leal twelve-hour day.

ening lights offer greater opportu- y for irregularity because of so- ngagements, afternoon meetings, other excuses. It is necessary to some sort of dinner with this m.

ne flock owners are so situated lights for a short time in the ing and again in the evening ing at dusk is most advisable. rning lights are cut off as soon becomes bright in the house. ing lights start at dusk.

of the systems have their adher- all of them give results when rly used; all of them can go g if improperly used. The first only principle consists of using s not in excess of twelve to thir- hours a day, absolute regulari- nd heavier feeding. The extra means all the hard grain that the will clean up.

Light Arrangement

ctric lights, gasoline lanterns, or kerosene lanterns may be used. sene is best suited as a dimmer lectric lights as a means of get- ting the flock back to roost after an evening feed.

New York State College of Agriculture recommends:

1. Lamps

a. One 40-watt Mazda lamp for every 200 square feet or major fraction of floor space.

b. Locate lamps six feet above floor and about ten feet apart.

2. Reflectors.

a. Cone shaped, sixteen inches in diameter, four inches high.

b. Reflecting surface painted with three coats of aluminum bronze.

The Delaware Station derives the following conclusions:

1. Artificial lighting increases winter production.

2. Artificial lighting makes the production curve approach more nearly the price curve in winter.

3. Lights were of no value after March 1 in stimulating production.

4. Lights must be discontinued gradually to prevent disaster.

5. Early hatched pullets, subject to fall molt, may be carried over this period by lights.

6. Eggs can be produced cheaper with lights in winter than under natural conditions.

7. Pullets in lighted pens return greater profit over feed than unlighted pullets.

8. Use of lights is not harmful to flocks when one does not exceed twelve to fourteen hours a day.

9. Proper arrangement of lights is important.

10. Artificial lights, properly installed and managed, are a profitable investment.

Results

Artificial lighting is held accountable for many ailments. Some believe that lights tend to force production and result in poor hatches the following spring. Anything when carried to extreme can be harmful. If one forces production by lights to such an extent that a loss of weight is noticed and the fowl is run down, poor results will be noted. Heavier feeding is required.

It is also important to have a constant supply of water available. This means except when milk is fed.—J. B. HAYES.

Paralysis

We are having trouble with paralysis in our cockerels, pullets, and old hens. Can you tell us a cause of this and give us a remedy? We had no trouble until chicks were eight weeks old. We had them in new houses on new ground, entirely away from hens, and are on free range in alfalfa fields, with fresh running water.

West Alexander, Penn. C. L. K.

This paralysis which you are experiencing in your flock can, of course, be due to worm infestation and it may also be possibly due to another form of range paralysis that has apparently just been discovered recently. This too seems to be associated with a very minute type of worm that a casual observance would never detect, but can be upon laboratory examination.

I should suggest that one of the sick birds be sent either to your experiment station or to a veterinarian equipped to make a very thorough examination of these in order to definitely determine the cause.

I don't know of anything that a person can follow in the way of treatment except prevention, such as you have attempted at this time. Even though you may have trouble with this, I believe you will find that the results obtained by following out the program which you are now doing—that is, clean range and various things of that sort, will react favorably anyhow.

Some of the eastern farms have even found it necessary not only to follow the practice of using clean range, but also to screen with fly screen the windows and doors of the colony houses and also cover the small outside range which the chicks may have available for them, in order to prevent the spread of tapeworms particularly through the flies.

If we knew definitely what the cause was by examination, we might be in better position to give a definite recommendation.—J. B. HAYES.

Wisconsin Egg Laying Contest

Persons desiring regular reports of the Wisconsin Egg Laying Contest may secure the same by writing Secretary E. W. Bentzien, 200 18th Street, Milwaukee, Wisconsin. These reports will summarize the production and feeding of contest flocks as also the expense and income derived therefrom.

At the Canada Experiment Farms in an experiment in which one lot of birds received 4 c. c. of cod liver oil daily, no appreciable effect was noted in increasing either the gross egg weight or the weight of the shell.

SAVES CHICKS
Smith Bros. Electric Brooders
No fire risk — muss or bother. Clean, healthy, electric heat. Even temperature, no huddling. Write for Free Folder. Describes five sizes, capacity 100 to 1000 chicks.
Wellington J. Smith Co.
510 Davis-Farley Bldg.
Cleveland, Ohio

DE SOTO CONDENSED BUTTERMILK
4¢ lb
A pound of De Soto Condensed Buttermilk mixed with water makes 4 gals. of pig slop. For poultry feed, use one lb. to 3 gals water. Satisfaction guaranteed.
10 Pound Trial Pail For 60c In Stamps.
125 lb KEGS
500 lb BBLS 3¢ lb
DeSoto Creamery & Prod Co. Minneapolis Minn

How many Eggs did they lay last month?

Quite a few of our readers are using Hoard's Dairyman Milk Record Sheets on which to keep egg laying records. Not a bad idea either!

If you are keeping trap-nest records, send for a few of our handy milk record sheets.

10 Cow—One month records 5 cents each

25 Cow—One month records 10 cents each

Post-paid

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POULTRY TRIBUNE
3 Months 10¢
More Egg Money
Make $1,000 a year from 300 hens. Get eggs when prices are high. Raise chickens the Poultry Tribune way. New methods of feeding, housing, marketing, etc., that you can use. Practical articles every month by successful poultrymen. Free breed pictures in natural colors. 3 yrs., $1. 1 yr., 50c; 3 month trial 10c.
POULTRY TRIBUNE
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WHITE LEGHORN Eggs and Chicks
big discount if ordered now for spring shipment. Sired by 200 to 293 egg males. Egg bred 28 years. Winners 20 egg contests. Shipped c. o. d. Catalog, special price bulletin free. Thousands of pullets, hens, cockerels at low prices.
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Shows and describes 53 varieties Old Reliable Blood Tested Flocks SHOEMAKER STRAINS—best for 38 years. Gives facts about handling, feeding, housing, diseases and remedies. LOW PRICES on fowls, eggs CHICKS. Brooder Stoves and Supplies. BOOK FREE.
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BRUMMER-FREDRICKSON POULTRY FARMS
Box 32 HOLLAND, MICH.

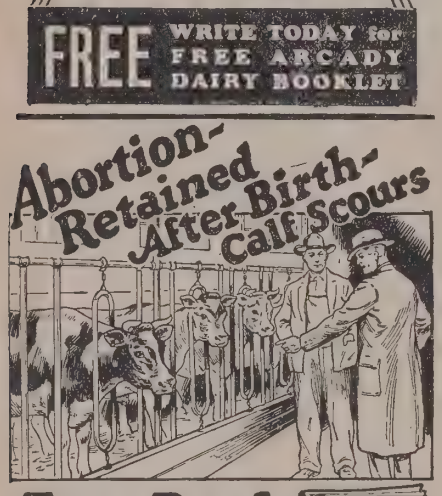
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Get the Details of Our Big Money Saving Offer on Chicks for Shipment Next Spring
White Leghorn chicks with pep and egg breeding—the big fluffy kind that jump out of the box when you get them. 28 years of egg breeding back of them. Not only guaranteed to reach you safely but insured for 30 days. Write for special prices on any number you want from 25 to 5000 or more.
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VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Functioning of Udder Quarters

There is a common belief to the effect that when a cow loses the function of one quarter of her udder the remaining quarters take up the work of the lost one and produce practically as much milk as would the normal udder. There must be some grounds for that belief considering its popularity and the persistence with which it is asserted by many dairymen; but, theoretically, at least, it is not based upon sound anatomical or physiological facts.

It has been proved by experimentation that there is no connection between one quarter and its mate, or between the two halves of the udder. The two halves are separated by a well marked partition or septum of fibrous tissue and the quarters are as perfectly separated, although one cannot see a dividing partition as one can when dissecting one-half of the udder from the other half. The fact that there is no connection between the quarters has been proved by stripping the udder clean, injecting a different colored fluid into each quarter in turn and shortly afterward slaughtering the cow and examining the treated quarters. It has been found by so doing that there is no mixing of the colored fluids; that injected into each quarter retains its original color. From this it must be concluded that each quarter secretes or elaborates its own quota of milk in readiness for each milking time and that one quarter does not send milk into another quarter; but there is another consideration which must be taken into account and that is the blood circulation of the udder.

The udder or mammary gland is richly supplied with arterial blood from which is derived all of the ingredients of milk. When anything occurs that lessens the flow of blood to the udder, the quantity of milk diminishes. Should circulation of blood suddenly cease, milk secretion may entirely be suppressed, the nervous system being simultaneously affected. When the amount of blood flowing through the udder is increased, secretion of milk, theoretically, should likewise increase and it does, in some measure. Both the quantity and quality of the milk produced depend upon the quantity and quality of the blood, the latter attribute depending, of course, upon the nutrients derived from the digested ration which are carried to the udder by the arteries for the manufacture of milk.

It may, perhaps, be true that when one quarter of the udder loses its function of milk secretion a large amount of the blood that normally would flow to it, and no longer needed by the idle quarter, goes to the other quarter of that half of the udder and induces it to secrete or manufacture a larger quantity of milk. That some increase of milk does occur has been noticed by dairymen but we have no actual proof that the mate of the blind quarter greatly increases its quota of milk production. The increase, if any, probably averages among the three active quarters and it does not fully make up for loss of milk due to inactivity of one quarter. The important matter, in all instances, is fully and completely to feed the cow that she may produce a maximum yield of milk, see that the ration is of proper quality, and prevent all influences that may lessen milk yield. The "three-teated" cow often is a menace, usually is a nuisance, and seldom is worth retaining.

Dehorning Cows

Please advise what period during gestation it is most desirable to dehorn milk cows, or does dehorning have any injurious effect? Is it liable to cause abortion?

Eudora, Kans. G. C. C.

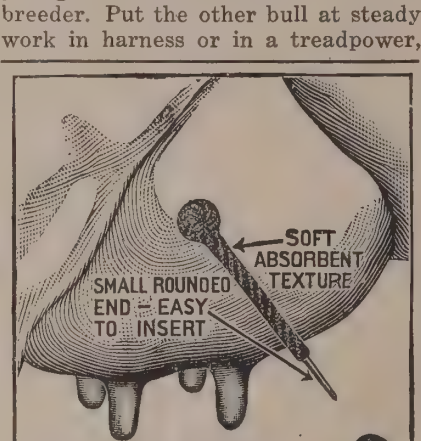
It is best to dehorn cows before they are bred. Dehorning during pregnancy possibly may induce abortion or so shock the cow that her fetus incidentally is injured. The operation may also cause a shrink in milk yield. Do not dehorn cattle in very cold or very hot weather and not when they are being fed sweet clover hay. Fatal bleeding is liable to occur when cattle that are being fed sweet clover hay are dehorned or castrated. Old or moldy hay of that sort is most dangerous.

Barren Cows

I have trouble getting my cows to breed. I think it is the fault of the bull. He is four years old and in good shape. He is in a 2-acre pasture by himself; has good grass, plenty good water, and am feeding him green fodder with the corn on. He is awful slow to perform and the cows fail to get with calf. What is the remedy?

Columbus, Kans. J. W. C.

Better breed the cows to a vigorous young bull that is known to be a sure breeder. Put the other bull at steady work in harness or in a treadpower,



Don't Lose the quarter

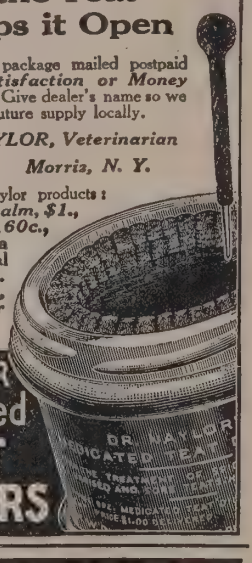
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Do you sell all your whole milk? Then you'll want our free pamphlet, telling modern methods of raising heifer calves from your best cows with greatest success and least cost. Explains feeding practice as endorsed by U. S. Dept. of Agriculture and state animal husbandry authorities.

The "minimum milk method" of calf feeding means extra profits to all who use it. Find out all about it now. Simply ask for bulletin 301. Stating approximate number of calves you feed.

Write today to room 716, 160 N. La Salle Street, Chicago, Ill.

A Hint to Thos with Pipe-Smoke on Christmas Lis

Son's Christmas Gif wins pipe-smoker ov to a certain tobacc

There is no telling how long Vaughan would have been in ig ance of the merits of a certain to if it hadn't been for the though ness of his son.

The following letter may pro be a Christmas tip to other wives, and friends who have smokers on their Christmas lists

Carney's Point, N.
Larus & Bro. Co., January 7, 19
Richmond, Va:
Gentlemen:

My son noticed your advertiseme in a magazine. He sent for the sa ple in my name, and when the samp of Edgeworth arrived I thought pe haps some friend had sent you n name.

The boy questioned me several tim whether I liked the new pipe tobacc When I told him I liked it better tha any I had ever used, he surprised m by giving me a one-pound box f Christmas.

I might say that I do not hear a complaint from my wife about a more vile pipes.

Very truly yours,
James L. Vaugha

The two favorite gift sizes of E worth are the 16-ounce glass hu jar and the 8-ounce tin. Both are vided at Christmas time with a priate wrappings. Each size co Edgeworth Ready-Rubbed, and is packe a good-l ing dec ed gift ton pri in col Prices— for the ounce The 8-o tins are each.



Please your to dealer fo Edgew Christ package he will supply we gladly the following service to you:

Send us $1.65 for each 16-ounc and 75c for each 8-ounce tin t shipped; also a list of the name addresses of those you wish to re ber, with your personal greeting for each friend.

We will gladly attend to sendin Christmas Edgeworth to your fri all delivery charges prepaid.

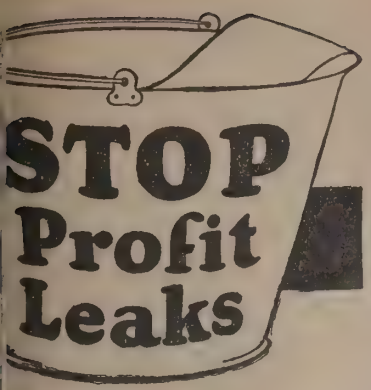
Personal: Perhaps you yoursel not acquainted with Edgeworth so, send your name and addre Larus & Brother Company. We be glad to send you free samp generous helpings both of Edgew Plug Slice and Edgeworth R Rubbed.

Edgeworth is sold in various Both Edgeworth Plug Slice and worth Ready-Rubbed are packe small, pocket-size packages, in some humidors, holding a pound also in several handy in-between

For the free samples, kindly ad Larus & Brother Company, 15 21st Street, Richmond, Va.

To Retail Tobacco Merchant your jobber cannot supply you Edgeworth, Larus & Brother pany will gladly send you prepa parcel post a one- or two-dozen c of any size of Edgeworth Plug or Edgeworth Ready-Rubbed fo same price you would pay the jo

[*On your radio—tune in on WRVA, Richmond, the Edgeworth Station. Wave length (254.1 m 1180 kilocycles.*



Fight Udder Troubles

orly-filled milk pails are a disappointent—and a loss. When they occur, be re the trouble is not under your very es.

Remember this—cows are nervous, sen. ive animals. The slightest discomfort of e udder or teats is extra annoying during ilking. The milk is held back—lost to u as surely as if the cow lacked the ility to produce.

Fight udder troubles constantly—the ıy the bes. dairymen in the country now —with a can of Bag Balm, the great aling ointment. Bag Balm is a rapid tiseptic healer of all sores or hurts, aps, cracked teats, inflammation of the der, caked bag, bunches, cow-pox, etc. is clean and pleasant to use—cannot nt the milk. For any sore or skin uble Bag Balm is sure relief.

Use Bag Balm liberally to keep your ws comfortable and productive. Big 10. nce package 60c at feed dealers, drugts, general stores. Mailed postpaid if rd to obtain locally. Booklet, "Dairy rinkles" free on request.

Dairy Association Co., Inc.
Lyndonville, Vermont



OPS LAMENESS

from a bone spavin, ring bone, splint, curb, side bone, or similar troubles; gets horse going sound. Absorbine acts mildly but quickly. Lasting results. Does not blister or remove hair, and horse can be worked. At druggists, or postpaid, $2.50. Horse book 9-S free.

Pleased user says: "Had a very lame horse with bone spavin. Now sound as a dollar; not a lame step in months. Working daily."

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TRADE MARK REG. U. S. PAT. OFF.
OUNG, Inc. 454 Lyman St., Springfield, Mass.

4-times-a-day
Milk Record Sheets
10 cows for 31 days
5c each prepaid
oard's Dairyman, Ft. Atkinson, Wis.

Horns Can't Grow!
After using TOMELLEM PASTE on calves up to 2 months old. An easy and safe way to do away with dangerous horns. One application enough. No bleeding, sore-scars. Endorsed by county agents. Keeps ly Bottle sufficient for 50 calves. $1.00 s. At dealers or direct by mail from
M CO., Dept. B, CALICO ROCK, ARKANSAS.



VELL'S
Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It releases GARGET and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1 a pkg 6 for $5
CLEANING
SCRIPTION
Mfg. by Lowell Blaisdell & Co.
5904 N. Harlem Ave. CHICAGO, ILL.

or make him take active outdoor exercise daily in some other way. Letting a bull butt at a big smooth stump or block of wood suspended by chains from an overhead beam in his paddock is a good way of inducing exercise. A big empty oil or molasses barrel placed in the paddock also serves the purpose. Stop feeding corn and substitute oats, bran, and oil meal along with a legume hay and some roots. If the cows do not conceive when served by another bull it will be necessary to have your veterinarian treat their generative organs with antiseptic solutions.

Garget

Will formaldehyde kill the garget germ in cows? How much and how should it be injected in the bag and how much should be fed to a cow? I have a cow that a while ago had it in one of her hind teats, then the other one, and now she has it in the front teat; it seems to travel in her bag.

Becker, Minn. T. S.

Formaldehyde (formalin) is given internally as a remedy for mastitis or garget. The dose is 2 to 8 drams, given in one quart of milk, night and morning, for 3 or 4 days, under direction of the veterinarian. The medicine is a strong irritant and therefore must be carefully used. It should be discontinued at once if any derangement of the digestive organs is noticed. It must *not* be injected into the udder. It may be added that established mastitis is incurable. Isolate an affected cow and cleanse, disinfect, and whitewash the stall she has occupied, including the floor and gutter. Destroy abnormal milk. Have your veterinarian give hypodermic treatment with anti-mastitis serum at the outset of an attack, and treat the unaffected cows with a herd autogenous mastitis bacterin as a preventive.

Heaves

I would like to know if you could give me any information on how to help a horse with the heaves.

Austinburg, O. W. D.

Heaves (emphysema of the lungs) is incurable when established. The distress may be relieved and the horse enabled to work by the following procedure: In summer, let the animal live on grass, without hay. In winter feed oat straw or oat sheaves and bright corn stover instead of hay. Also feed oats, bran, and carrots. Add ear corn in extra cold weather. Do not give any bulky feed at noon when the horse has to work, and do not let him work immediately after a meal. Keep the bowels active. Wet all feed with limewater. If these measures do not suffice, also give one-half an ounce of Fowler's solution of arsenic, night and morning, sprinkled on the feed or given in a little water by means of a dose syringe. Proprietary heave powders are also helpful.

Chapped Teats

My cows all have chapped teats. They have a dry place day and night.

Oshkosh, Wis. L. B.

Cleanse the teats each time before milking and milk with dry, clean hands. After milking immerse the teats for 5 minutes in warm water containing one teaspoonful of coal tar disinfectant per pint. In the evening apply a soft paste of cold-pressed castor oil and bismuth subnitrate. After two days of treatment omit the immersion process. If any sore is tardy in healing apply strong iodine ointment once or twice daily.

About Pennyroyal

If a cow eats pennyroyal will it cause her to abort?

Endeavor, Wis. A READER.

Oil of pennyroyal has poisonous properties; keeps mosquitoes away, and in large doses, taken internally, so deranges the digestive organs that abortion incidentally may occur. We have never heard of the green plant injuring animals.

Swedish Cow Testing Associations

(Continued from page 1172)

by 1923 for 31,338 cows on test to 8,700 lbs. milk, 294 lbs. fat.

Utilization of Cow Testing Association Figures

Originally the main purpose of the cow testing association work was to give farmers advice as to the right way of feeding and to show the difference in the way individual cows would utilize the feed. As time has gone on, however, the figures have taken on more and more importance in breeding work. They have received more and more official value until now they have become the basis for the whole breeding program and for the awarding of prizes at shows.

In every sales catalogue, yearly records for the females in the ancestry are given and these records must always be an average of at least three years' production, providing the animal is old enough. The records for all animals in a pedigree can now be secured for several generations back. The feed units consumed, the percentage of fat, pounds of butterfat, pounds of milk, and even the kinds of feed consumed can be secured for the ancestry of every bull or female offered for public auction today. No bull can be sold for breeding purposes in any official sale or be awarded prize of any kind from governmental funds or admitted under the government scheme for improvement of the cattle breeding, either crossbreeding or pure breeding, if he has not behind him complete production records for all the females in his ancestry during three generations on both father's and mother's side. No one will buy a female for breeding purposes if she does not have a similar production pedigree, because sons can not be sold from her for breeding purposes.

Production, too, has become a necessary qualification for admission into the herd books for all the breeds. It is not enough to be a good show animal or to have a pedigree ancestry, for unless the female of, for example, the Ayrshire breed, produces at least 242 lbs. fat for a three-year average and gives milk with a butterfat percentage of at least 3.5 per cent, she cannot be registered. All in all these records are the basis for most of the constructive work in dairy breeding and feeding that is being done in Sweden at the present time.

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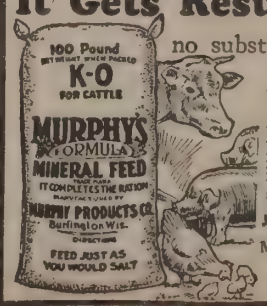
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Swine

Feeding Iodine to Pigs

When we think of feeding iodine to live stock we usually think of it in connection with the prevention of goiter or hairlessness in pigs, calves, and lambs. John M. Evvard of the Iowa Experiment Station has pushed the inquiry further than this by showing that iodine has beneficial effects on the growth of pigs in a section where goiter or hairlessness in pigs rarely occurs.

During 14 years at that station where from 300 to 800 spring pigs and from 150 to 300 fall pigs were farrowed annually, no recognizable goiter symptoms were observed. In spite of this, three carefully controlled experiments resulted in a significant influence of iodine in each of them.

The first experiment conducted during the summer of 1920 was a comparison of two lots of 50-lb. pigs grazed on rape pasture. In addition to pasture, each lot had shelled corn mixed yellow and white, self-fed; plus a supplemental protein, vitamin, and mineral feed mixture composed of tankage, 30; corn gluten meal, 15; corn oil cake meal, 20; linseed meal, 10; cottonseed meal, 20; bone meal, 3; and flake salt, 2 pounds, self-fed, plus block salt, self-fed. One lot received, in addition to rape pasture and the above feeds, potassium iodide incorporated with the supplemental feed mixture at the rate of one-tenth pound to each 1,000 lbs. of the supplemental feed mixture.

The average daily gain of the iodide-fed pigs was 8.4 per cent greater and the feed requirements for 100 lbs. gain 12.5 per cent less than for the pigs not receiving iodide.

The second iodine feeding comparison was made in 1921. Two groups of 50-lb. pigs were fed in dry lot. The check group to which no iodide was fed received a basal ration of shelled corn self-fed; plus a supplemental feed mixture composed of prime cottonseed meal 80 parts and Armour's dried blood meal 20 parts; plus 10 per cent of a mineral mixture composed of 33.33 pounds each of finely ground high calcium limestone, flake salt, and bone meal. The supplemental feed mixture and the mineral mixture were put together in the proportion of 100 lbs. of the feed plus 10 lbs. of the mineral mixture and this was self-fed.

The iodide-fed group was fed exactly the same except that one-tenth of one pound of potassium iodide was mixed with 100 lbs. of the mineral mixture and then 10 pounds of this new mixture incorporated with each 100 lbs. of the supplemental feed.

The pigs receiving iodine made 8.3 per cent greater average daily gain on a feed requirement of 9.4 per cent less than for the pigs that did not receive the potassium iodide.

A third iodine feeding trial was made during the winter of 1923—24. A check lot of pigs weighing about 67 lbs. each was self-fed shelled corn supplemented by a protein feed mixture composed of cottonseed meal, 30; corn oil cake meal, 20; linseed meal, 15; standard wheat middlings, 10; soy bean oil meal, 14; peanut meal, 7; and alfalfa meal, 4 pounds, self-fed. In addition to this, these pigs received a mineral mixture composed of flake salt, 20; finely ground high calcium limestone, 40; spent bone black, 40 pounds, self-fed.

The iodide fed pigs received the same feeds as were given the check lot but in addition, .05 lb. or one-twentieth of a pound of potassium iodide was mixed with each 99.95 lbs. of the mineral mixture.

The pigs receiving iodine made an average daily gain of 13.05 per cent more on 8.04% less feed per 100 lbs. than the check pigs that did not receive iodine.

The results of the three experiments averaged show that the average daily gain was increased by 9.91 per cent and the feed requirement for 100 lbs. gain reduced 9.98 per cent as compared with similar pigs fed exactly the same but without the iodine.

Greatest Return From Skimmilk

Numerous feeding trials have demonstrated the superior merit of skimmilk as a supplement to cereal grains for feeding swine. In feeding this valuable supplement the proportion of it to grain fed is of considerable importance in getting the greatest return for a given amount fed. Experimental evidence indicates that maximum returns are had when 2 to 3 pounds of skimmilk are fed with each pound of grain. This applies only in dry-lot feeding and when skimmilk is the only supplement fed. If alfalfa hay is also put before pigs the amount of skimmilk could well be reduced.

Corn Not Enough

The effect of a ration of straight corn in comparison with a balanced ration is strikingly shown in experiments conducted at the Iowa Experiment Station. Yearling sows fed corn alone farrowed pigs that averaged 1.85 lbs. at birth, whereas similar sows fed corn and tankage containing liberal amounts of lime and protein farrowed pigs that averaged 2.42 lbs. at birth. Pigs from gilts fed corn alone averaged 1.74 lbs., while pigs from similar gilts fed corn and alfalfa hay averaged 2.29 lbs. at birth.

This striking comparison suggests that inadequate foetal nourishment may be the forerunner to the runt pig.

Record Breeding Dates

A timely reminder is that the dates of breeding each sow when recorded and filed safely will come handy next spring. A good many sows have had to farrow in unfit places because their owners failed to record the dates of service and thereby failed to provide proper housing facilities in time to save the pigs.

W. H. Peters of the North Dakota Experiment Station makes the following conclusions from observations of pregnant sows fed alfalfa hay in cheaply constructed racks as a supplement to a grain mixture of two parts crushed barley and one part bran by weight fed as a thick mash with warm water:

It was possible to replace one-third of the grain for sows with alfalfa hay. It required 1.04 lbs. alfalfa hay to replace one pound of grain. The feeding of alfalfa afforded an excellent means of getting the sows to take more exercise than they do when fed grain alone. No trouble was experienced by any of the sows when farrowing. The sows fed alfalfa hay appeared to milk better and nurse their pigs a little better than did those not receiving hay. The results obtained indicate that it is practical and advisable to feed as much alfalfa hay to brood sows in winter as they will eat, regulating the additional grain to keep the sows in proper condition.

Obtaining Money From Intermediate Credit Banks

(Continued from page 1135)

ability to feed. Other borrowers want to send some dry cows to the butcher or add to their herd. By putting up some or all of their other cows as collateral they frequently can borrow full purchase price. However, the ordinary procedure is to lend 50 to 60% of the value of the dairy cattle and take a chattel upon them and the other stock, horses, and implements.

In different parts of the country collection practices vary. In some the loans are made with a provision for repayment over a series of months. Where the dairyman is delivering milk or cream to a creamery, cheese factory, or condensery, such a method may simplify collection materially if the dairyman agrees to the institution's deducting the monthly payment from the amount due him and mailing it directly to the credit corporation. Frequently such loans run 15 to 20 months. In other instances loans are usually made for 12 months, at the end of which time settlement in full is made. In still other cases the lending agency collects directly from the farmer a stipulated amount each month or three or six months until the loan is paid off.

Agencies which rediscount agricultural paper with the Intermediate Credit Banks can not at present charge more than 7% on live stock or dairy loans.

Throughout the United States there are 557 rediscounting agencies doing business with the 12 Federal Intermediate Credit Banks and the number is increasing. To date they have rediscounted more than 130,000 individual loans aggregating in excess of $180,000,000. Direct loans to farmers' co-operative marketing associations have exceeded $400,000,000 whose membership is approximately a million farmers. These co-operatives have borrowed on wheat, wool, cotton, tobacco, raisins, peanuts, broom corn, beans, rice, alfalfa, red top seeds, hay, nuts, canned fruits, vegetables, syrup, dried fruits, coffee, olives, and olive oil. Strained honey and powdered milk will likely be added to this list in the near future.

Let me but do my work day to day
In field or forest, at this desk or loom,
In roaring market place or tranquil room;
Let me but find it in my heart to say,
When vagrant wishes beckon me astray,
"This is my work; my blessing, not my doom,
Of all who live, I am the one by whom
This work can best be done in the right way."

—HENRY VAN DYKE.



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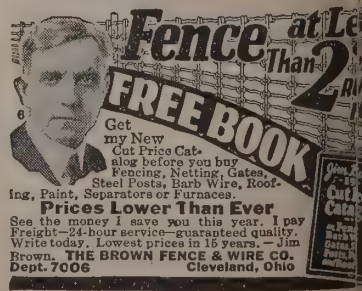
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Corn Improvement in Various States

(Continued from page 1135)

between moisture in the corn, quent low temperatures, and the ntage of germination. The corn ation studies in Nebraska have referred to elsewhere. Studies the prevalence of root rots of in Nebraska have shown little le from that source as yet. es in inbreeding and crossbreed- f varieties have been under way veral years.

Minnesota, some excellent work een done in the crossing of dent flint varieties of corn in the en- r to increase hardiness and The results have been fairly actory. Selfing and crossing are an important feature of the Min- a corn program.

J. Kinney of the Kentucky Ex- ent Station says that, like every experiment station, they are g every method of corn breeding seems to offer chances of im- ement. An endeavor is being made present time to get a good strain rn for Kentucky by selfing corn number of years and then com- g the best of the inbreds.

the Iowa station the crops de- ent has been sponsoring the corn yield contest. This work eceived national attention. Hun- of farmers have entered this st and the testing of varieties different sections of the state elped to establish many of the yielding strains. The Iowa Sta- co-operating with the U. S. De- ent of Agriculture under the ion of M. T. Jenkins, is carrying very intensive program of selfing us corn belt varieties. Some es have been made and are being out. Within a very few years outstanding varieties will, with- oubt, have been originated.

Kansas, it has been established the variety, Pride of Saline, is minently adapted to the eastern hirds of the state. In the time- unting and method-of-planting iments, listed, surface planted, pen furrowed planted plots have ed approximately the same. In ime-of-planting tests, the early have, on the average, been t to give the best results. The yields over a period of years are y the same from the 10th of to the first of May.

porting for Oregon, E. N. Bress- of the Oregon Agricultural Col- says that the planting of the ty known as McKay yellow dent ilage has been the biggest step corn improvement. Intensive ling work will be carried on with variety. Striking results have secured with land plaster (cal- sulphate) on seed corn. Greater of seedlings and a cleaner and r growth of plants has been not- llowing its use.

e Dakotas and Montana are pay- ncreasing attention to corn each and the acreage devoted to this has been increasing. In South ta a variety of corn has been ated through the combining of al varieties, and it is called All- ta. Work in South Dakota has ed in increasing and decreasing ercentage of oil and of protein in In North Dakota variety tests number of years have resulted e determination of seven varie- which are recommended for dif- t sections of the state. The use osphorus and manures on corn esulted in increasing the earli- of maturity of several varieties. nsive work in inbreeding is now e North Dakota corn breeding am. Montana Station authori- hrough variety trials have estab- lished the best varieties for the differ- ent sections of the state. Northwest- ern Dent, Minnesota 13, Gehu flint, and Dakota white flint have proved to be especially valuable varieties.

It may be said for most of the corn states at the present time, that the best varieties have been pretty well established and that work along cul- tural lines and especially along in- breeding and crossing lines will henceforth predominate. Despite all that we have learned about this cere- al, the field of investigation is still large and one finds it hard to prophe- sy as to just what the future will re- veal in this interesting line.

(EDITOR'S NOTE:—This is the first of a series of articles on corn by Mr. Biggar. The next article will appear in an early issue.)

Hunter of Kewaunee

(Continued from page 1133)

forth the candle molds. They were usually arranged to make candles about a foot in length. They were made of tin and tapered towards the tip. A wick ran through the center of each mold and was held by cross stick. Since deer were plentiful, most of the candles used in our family were made from deer tallow. These burned longer and gave a better light than beef tallow candles.

These candles were used for several years. But the time came when can- dles were a thing of the past. The kerosene lamp had come to stay. In those days petroleum was so impure that explosions were quite common. I remember distinctly at seven or eight years of age seeing my father quickly open the door and throw a fluttering lamp out into the snow. Candles were used the rest of the evening.

People cherished these lamps and dressed them up so that they really became an ornament in the home. People were so economical that they often sat and told stories by the big fireplace or in front of the cook stove. It was quite common for the family and neighbors to sit around large fires outside especially in the summertime. There was a profound feeling of friendship existing between all set- tlers. If one had sorrow, there were hundreds to share it.

My grandfather always had a weak spot in his heart to own lands, so con- sequently he purchased several miles of heavy beech and maple land south of Kewaunee bordering on Lake Michigan. He purchased it directly from the government at $1.25 per acre.

We used this property for several years as a sugar bush. Making maple syrup and sugar was popular among the settlers as they had to pay money for brown sugar of an exceed- ingly poor quality. We never wanted for sugar as we tapped several hun- dred trees.

Many of the foreign settlers did not really know the art of making sugar and frequently you would find them tapping the beech, elm, and basswood, as well as the maple trees, and they wondered why sap ran from some trees and not from others. Some oozed out bitter sap, and some of the sugar made was as bad as the early butter. My grandfather was an ex- pert sugar maker and made sugar of fine quality.

The sugar bush was a noted place for the young people to gather and tell stories and sing songs during the evening. There was no social circle at which you did not hear singing. The old songs were based upon some interesting facts or legends.

Many people played instruments. The boy usually took to the violin and the girls played a melodeon or organ. It wasn't uncommon to have dances in the homes or to set the fur- niture back for a dance after an en- tertainment in the schoolhouse.

(To be continued)

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THE GOLDEN GLOW JERSEY FARM KENSINGTON, MD.

Bohstedt Returns to Wisconsin

Gustav Bohstedt, chief of the animal industry department of the Ohio State Experiment Station at Wooster since 1921, has been appointed to head the research work in the animal husbandry department at the University of Wisconsin. He fills the chair vacated by F. B. Morrison who left Wisconsin this fall to direct the New York Experiment Stations.

Born in the province of Holstein, Germany, Bohstedt came to this country as a boy and spent the first three years on an Iowa farm. Moving to Texas he soon worked up to the position of foreman on a large ranch. Returning to Iowa he attended the West Des Moines high school, graduating with honors in three years' time. In 1911 he enrolled in the agricultural course at the University of Wisconsin.

Bohstedt was a brilliant student and prominent in campus activities, forensics and athletics, rowing on the varsity crew. Upon graduation from the University of Wisconsin, he was appointed as assistant in the animal husbandry department and obtained a Master of Science degree.

He then went to Ames as an assistant in the animal husbandry department at Iowa State College, and while there worked closely with John M. Evvard on nutritional research. He returned to Wisconsin and was an assistant professor in animal husbandry for several years. In 1921 he went to Wooster, Ohio.

Mr. Bohstedt has served as secretary-treasurer and also president of the American Society of Animal Production.

Premier Breeders and Exhibitors at the National

Awards for premier exhibitor and breeder in the five breeds shown at the National Dairy Exposition have been announced after complete compilations of the awards have been verified. The prize banners are being sent out to the following list of winners:

Jerseys: Exhibitor and breeder—Longview Farm, Missouri.

Ayrshires: Exhibitor—Strathglass Farm, New York. Breeder—Adam Seitz & Sons, Wisconsin.

Brown Swiss: Exhibitor and breeder—The Hull Bros. Co., Ohio.

Guernseys: Exhibitor—Wm. H. Williams, New York. Breeder—Emmadine Farm, New York.

Holsteins: Exhibitor — Carnation Milk Farms, Washington. Breeder—Forum Holstein Farm, Iowa.—National Dairy Association.

Love of Farm Life Brings Success

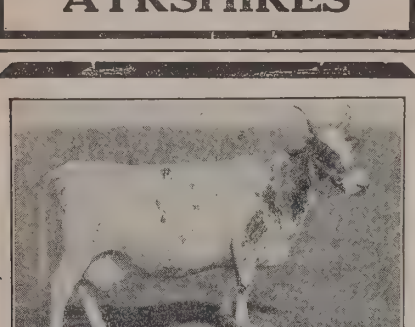
(Continued from page 1132)

Greenwood Dairy is one of the outstanding dairy farms of Crow Wing County. There is the improved soil, the fine barn built in 1922, the new combined dairy house and garage, a roomy, comfortable farm home with running water, bath, furnace heat; there is the electric power for running the milker, separator, and other machinery, and for lighting the farm buildings—in fact, there is just about everything one could even wish for at a farm home. It is unusually attractive. And best of all, it is all paid for and the Storstads have money in the bank.

Theirs is a happy family. We didn't get to see the twelve-year-old boy as he was in school that day. But we did have a good time answering questions asked by the nine-year-old daughter. When we went to take a picture of the old barn, first used by Iver, she thought it would add to the interest of the view if she were in the loft window—and so there she is!

We left the Greenwood Dairy thankful for these new friends. This Americanized son of Norway had given us a lot to think about. He had deepened our faith in the ever present opportunities of American agriculture waiting only upon human vision, intelligent work, and thrift. So long as folks like the Storstads are finding success and happiness in building real farm homes, we need not worry much about the future of America.

AYRSHIRES



TOOTSIE Mitchell, A. R. 3409-3, at 15 years, whose 22 Ayrshire progeny at Pinehurst have made 55 tests since 1920 averaging:

12,146 lbs. milk, 4.07%, 496 fat

WOULD this average help your profits? Stock for sale. Ask

PINEHURST FARMS, Pinehurst, N. C.
Leonard Tufts, Owner,
Breeders of Ayrshire Cattle & Berkshire Hogs

BUY A BABY BULL

Ayrshire bull calves from heavy-producing, good-uddered cows at bargain prices.

Let us help you find one.

Ayrshire Breeders' Association
10 Center Street, Brandon, Vermont

Exceptional Ayrshire Opportunity

Bull born, June 3, 1927. Color: White with a few small red spots. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440 lbs. fat, 4.04%, winners of 3 French Cups, 1 Gold Medal, 1 Association Cup and 6 Silver Medals. Dam Reba Ayr, 54053, a large typy cow with a big udder and long well placed teats. She has a Junior three-year-old record of 9,405 lbs. milk, 381 lbs. fat; Mature, 11,115 lbs. milk, 429 lbs. fat. Six World's Champions in six years

GLEN FOERD FARMS TORRESDALE, PA.

AYRSHIRE BULLS-$35 and UP



Edgerstoune Wide Awake

Nicely marked, deep bodied, straight bull calves from dams with 10,000 lbs. milk or better. By such sires as Edgerstoune Wide Awake, Imp. Howie's Wait and See, Imp. Howie's Ringmaster and Imp. Favorite Beauty Champion, sires that have over 15,000 lbs. milk back of them for 5 generations. Bulls are priced low because we need the room. $35.00 and up. Herd under State and Federal supervision. Write.

BOOTHSTOCK FARM, Roy F. Booth, Mgr., Northville, Mich.

AYRSHIRE COWS

FULLY ACCREDITED

300 Head in the Herd

Present offering: Fresh cows—springers in calf to our noted herd sires—yearling heifers—heifer and bull calves.

ALTA CREST FARMS,
SPENCER, MASSACHUSETTS

Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

WM. NISBET & SONS, Richland Center, Wis.

GUERNSEYS

The Place to Buy Breed Improving Guernsey Sires

is where that kind is bred. Visit our herd of Foremost Guernseys, or write for facts which prove we are breeding the kind of bulls that will increase production, improve type, vigor and reproducing ability.

The dams of our six herd bulls average 13,797 lbs. milk, 729 lbs. fat. Twenty-eight calves dropped since August 1st. Twenty-one cows due to calve before December 1st.

We need room. Your opportunity to buy bulls or bull calves below value.

EMMADINE FARM
Hopewell Junction (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Guernsey Bulls FOR SALE

The very best breeding. Accredited Herd. Write for information.

OTTO W. POST, Ensenore, N. Y.

BONNIE BRAE GUERNSEYS

ITCHEN KING 49803 AR is the Sire of King's Advocator, 120310, 1st prize and Junior Champion Bull at the N. Y. State Fair. Itchen King has two 800 lb. and one 700 lb. daughters. His Dam made over 800 lbs. fat and she has one daughter with a record of over 900 lbs. fat. We offer for sale Sons of Itchen King out of AR Dams. Priced at $250. and up.

BONNIE BRAE FARM, CLINTON, N. Y.

Herd Sire Prospects FOR SALE

Write us if you want to buy a bull calf with persistent producers back of him. We have some fine individuals to offer you; some of serviceable age if you want to talk business.

Farmers' Prices!

LOMA FARMS
W. W. Blake Arkcoll, Mgr.
MARQUETTE MICHIGAN

PENNCREST FARM

ACCREDITED
WALTER SMEDLEY, OWNER
HERD SIRES—

Lancastrian—A son of Ne Plus Ultra.
Sunnybrook Ultra Noble—A grandson o Plus Ultra out of a 920-lb. cow.
Fairmaid's May Royal—A son of Mixter Royal out of a 920-lb. daughter of Lan ter Demonstrator.
Penncrest's Starlight's Royal Master—G son of Langwater Royal Master out of 6 Class G daughter of Langwater Master
Stock sired by these bulls for sale. Addres quiries to Media, Pennsylvania.

WM. P. SMEDLEY, Manager

Bargains in Bull Calv

A TWO-CENT STAMP CAN SAVE YOU
From $100.00 to $500.00

WRITE FOR SALES LIST—FINEST BL

Lines—May Rose through King of the Golden Secret, Langwater Cavalier; founder, France, Glenwoods. Greatest of herd sires in any herd. A. R. record to 800 lbs. fat.

WAWA DAIRY FARMS,
22 So. 32nd St., Philadelphia

BARGAIN BULLS *prod* CLASS LEADERS

BROOKMEAD'S WHITE FACE sire
ALICE LEMAN OF THE RANCHO
Milk 13,625.8; Fat 618.7; Farmer's Class
White Face was sold sight unseen as a youngster
Write for Sales List

BROOKMEAD FARM, 526 Land Title Bldg., PHILADE

RADISSON FARM GUERNSEY

We are offering at attractive prices a young bulls sired by RADISSON'S GOL ROYALIST 91632, whose get was aw first prize at Dairy Cattle Congress in He is a son of GOLDEN CORONET OF J DU LUTH 81283, world's champion Gue in Class AA, 968.80 lbs. fat.

E. IVERSON, Herdsman,
Care Hotel Radisson, MINNEAPOLIS, M

LE HILLIER FARM GUERNSE

FEDERAL ACCREDITED

To avoid inbreeding we offer for sale RAINB FISHERMAN OF WOODEND 81150—Age 5 Sire: Langwater Fisherman 21873 A. R. Dam man's Mixter Rainbow 73217 A. R. Record 11 milk—623.58 fat (Class C) and out of a daugh Langwater Demonstrator. Guaranteed a breede particulars write. Bull calves of this breedi sale, out of A. R. dams.

PRATT & LAW, Box 304, Mankato,

LEADER'S First Daughter Finishes About 812 Lbs. Fat Class F (third pl

Offering one or two sons combinin
Type Plus Production

The place to buy LADYSMITH CHERUB BLOOD

SHOREWOOD FARM Crystal Bay,

Thorn Hill Farm Guernse



Have several high class G sey bulls at reasonable p May Rose and Glenwood ing. Dams have records 700 lbs. of fat. Write for list to

AUGUST ZIESING, Deerfield, Il

PUBLIC AUCTION!

550 GRADE DAIRY CATTLE

The Greatest Sale of High Class Grade Dairy Cattle Ever Presented to the Public will be held

December 14th, Fond du Lac, Wis.

This sale will be held in O. G. CLARK'S modern steam heated sale pavilion which seats 3000 people and stables 550 head of cattle.

The O. G. CLARK & CO., INC., Fond du Lac, Wisconsin and the LA CROSSE COUNTY DAIRY CATTLE CO., INC., West Salem, Wisconsin, are combining their efforts to assemble the choicest array of grade dairy cattle ever presented to the American public.

These well known companies have held three successful sales this fall and plan to make this, their final sale of the present season, the most colossal auction of strictly high class cattle ever attempted.

Write for further particulars to

O. G. CLARK, Mgr. Hotel Retlaw, FOND DU LAC, WIS.

SALE ANNOUNCEMENTS

Dec. 14—Guy A. Adams Dispersal, Registered Holsteins, Owatonna, Minnesota. Melin—Petersen Co., Mgrs.
Dec. 14—Grade Dairy Cattle Sale. O. G. Clark, Mgr., Fond du Lac, Wis.
May 17, 1928—National Guernsey Sale, Hinsdale, Ill.
May 18, 1928—Illinois State Guernsey Sale, Hinsdale, Ill.
May 23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florham Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
May 24-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herrick—Merryman Sales Co., Mgrs.
May 26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hopewell Junction, New York.
June 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.

Not a Short Cut to Wealth —but a Sure Road to Profits

— that's the Guernsey way — the road to prosperity with dairy cattle.

Ask for
"The Story of the Guernsey"

THE AMERICAN GUERNSEY CATTLE CLUB
3 Grove St. Peterboro, N. H.

)UNDATION GUERNSEYS

FROM THE HOME OF
LANGWATER JUVIS
Outstanding son of Langwater Warrior

A NUMBER OF GOOD BULLS
FROM A. R. DAMS TO 719 LBS. FAT. REASONABLE!
MAY ROSE—GLENWOOD BREEDING


LANGWATER JUVIS 100894

M FARM Deerfield, Illinois
28 miles north of Chicago, 1 mile east of Everett on 42A

)URNEDALE GUERNSEYS

We Offer For Sale

excellent son of Maxim of Linda Vista, the only Guernsey sire to ve 2 class leader daughters. Dam of calf is Foremost Lassie, 506 lbs. in F., a daughter of Langwater Foremost. Bull dropped Sept. 1926.

OTHER GOOD BULLS FOR SALE
3 to 12 months old from A. R. dams—$250 to $750
A clean herd under federal supervision. Write for sale list.
RNEDALE FARM, H. F. Andrus, Owner, MILLERTON, N. Y.

Must Sell Fast

We have several Holliston bred **GUERNSEY BULLS** —of all ages—that we must l before winter. If you want a good bull bred to sire producers, with good ividuality, **write**

G. TENNEY, 15 West Fourth Street, NEW YORK CITY

ARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this

There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. pounds of fat in Class A. In your efforts to improve the type of your cattle, the show scords indicate Cherub blood really sure way. Let us ad- u about your next sire.

MARSH FARM, WATERLOO, IOWA

UERNSEYS

egistered and High Grades of Any Age For Sale

Vaukesha County you have an opportunity st what you want from 250 tuberculin herds owned by members of the oldest breeders' association in America. Our service, and prices will suit you. Write e.

ESHA CO. GUERNSEY BREEDERS' ASS'N
OX, Sec'y WAUKESHA, WISCONSIN

egistered Females

dation females are offered at very nable prices. If you want a few heifers or cows, Glenwood bred, write day. Our cows have A. R. records up 3.80 lbs. butterfat. The herd is clean.
E. LARSON, AMHERST JCT., WIS.

RIDAN "Luxerin" Fond du Lac, Wis.

t on bulls over three months of age. n select some very promising young om fifteen. May Rose sires. Glenwood ith good production records.
SHERIDAN, Fond du Lac, Wis.

MESTEAD FARM GUERNSEYS

ell bull calves of various ages. Also and cows with A. R. breeding. Ac- d herd. Write to
ON BROS., APPLETON, WIS.

ERNSEYS! GUERNSEYS!

is of pure breds or grades. Area tested county. 0 herds to select from. Prices are right. write.
LA CROSSE COUNTY ASSOCIATION
. Young, Sec. West Salem, Wis.

BULLS 6 to 10 Mos. Old From A. R. Cows

Prices to Suit the Present Times

They are sons of Anton's King Cecil and King B. from dams with records up to 600 lbs. Some from good producing dams not yet tested, at sacrifice prices. Write me today.

A. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

75 to 150 High Grade Guernseys and Holsteins

We have for sale at all times from 75 to 150 high grade Guernseys and Holstein springers of all ages. T. B. tested. Sound and heavy producers. We buy and ship on order. Visit us or write. Prices reasonable. Satisfaction guaranteed.

LA CROSSE COUNTY DAIRY CATTLE CO.,
Raymond Knutson, Mgr., West Salem, Wis.

A High Class Bull

A. R. DAM—PRICED TO SELL

CHERUB'S SPLENDOR OF CHIPPEWA is for sale. Born Aug. 15, '26. Growthy, good type. Sire: Proud Prince of the Prairie is a prize winning son of Cherub's Prince. Dam, a Glenwood cow with 415 lbs. fat in F. F. Priced right. Write today.

L. P. MARTINY, Chippewa Falls, Wis.

LINWOOD FARM GUERNSEY BULLS FOR SALE
Linwood's Lucky Strike, age 12 mos. Dam 675 lbs. fat.
Linwood's Successor, age 12 mos. Dam 515 lbs. fat.
Linwood's Merit, age 12 mos. Gr. D's. 566 & 740 lbs. fat.
Linwood's Charm, age 12 mos. Grandams 540 G and 740 lbs. fat.
Linwood's Best, age 11 mos. Dam 517 GG, Gr. D. 804 G.
Linwood's Regent, born April. Dam 707 lbs. fat.
Linwood's Actor, born Apr. Dam 744 C, grandam 804 G.
Linwood's Victor, born April. Dam 669 lbs. A.
Linwood's May King, born April. Dam 634 A, grandam 804 G.
Write for New Sale List
LINWOOD GUERNSEY FARM,
Homer Rundell, Livingston, Wisconsin

CORIUM . . GUERNSEYS

Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

CORIUM FARM, Inc. • • • FOND DU LAC, WISCONSIN

Write for Our December Special Guernsey Bull Offerings

Larsen's Fern-Dell Farms, A. W. FOX, Mgr. **Green Bay, Wis.**

OAKLAND GUERNSEY FARMS (SINCE 1890)

OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 14) MUKWONAGO, WIS.

RIVERVIEW GUERNSEY FARMS

Offer 150 high grade Guernseys of all ages. T. B. tested, young, sound and heavy producers. Write or come and see us. Carloads furnished on short notice. Prices reasonable. Satisfaction guaranteed. Calves a specialty.

RIVERVIEW FARMS (In Waukesha Co. on Highway 61) Lloyd L. Dewey, MUKWONAGO, WIS.

Guernsey Bulls at Farmers' Prices

Serviceable show type, sired by the best son of the Famous World's Record Cow, Lone Pine Mollie Cowan A. R. No. 11278, who sold for $15,100 at Stout Dispersal Auction. Dams have A. R. records.

HAPPY HOLLOW FARM, A. M. Kailing, Prop., THIENSVILLE, WIS.

BUTTERGOLD GUERNSEYS

SERVICEABLE YOUNG SHOW BULLS from tested dams, sired by National Grand Champion whose first four daughters now finishing tests will average over 600 lbs. fat, two with first calves, one with second. Clean stock.

TARR BROS., NEW AUBURN, WISCONSIN

FOR SALE—3 Bulls

ages from eight to eighteen months, two from A. R. cows, fine individuals. Just right for shipment. Write for prices and particulars.

INGERSOLL-TILDEN FARMS, Delavan, Wis.
EDWIN EVANS, Manager

GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

FOR SALE

Fifteen registered Guernsey heifers seven to twenty months old, a number bred, others open. $1900 for the lot F. O. B. cars, all papers furnished. Several registered bulls, all ages. Also offering twenty high grade, bred two-year-old heifers, some to freshen soon. $2000 buys them. Above stock is especially well bred, good size, good type, in good condition, well marked, and T. B. tested. Priced for quick sale.

H. R. LOBDELL, Mukwonago, Waukesha, Co., Wis.
On State Highway 14

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

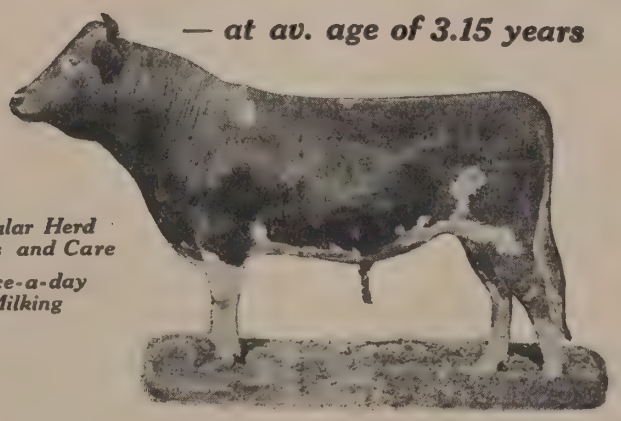
JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

His First 20 A. R. Daughters average—434.7 lbs. fat 8989.11 lbs. milk

— at av. age of 3.15 years

— Regular Herd Rations and Care

— Twice-a-day Milking



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money. We have several nice ones on hand now — and they are priced to sell.

HERD ACCREDITED

Hoard's Dairyman Farm, Fort Atkinson, Wis.

Loeb Farm Holstein Sale

The dispersion of the Loeb Farm Holstein herd at Grand Rapids, Mich., Nov. 1—2, brought out an excellent attendance of Holstein men but because the cattle were out of condition and a number of the cows showed very poor udders, prices did not rule high. One hundred forty-three head averaged $167 with one animal going to $850, and only three others reaching the $500 mark.

The top price was for a six months' old son of that great record cow, Kolrain Marion Finderne (35,339.5 lbs. milk, 1,278.56 lbs. butter), purchased by Blissveldt Farms of Michigan.

The sale was under the management of the Melin—Petersen Co. Mack, Hansen, and Baxter did the selling with G. R. Melin in the box.

The following list includes those animals selling for $200 or more and buyers:

Walter B. Green, Michigan	
Charlevoix Ormsby Marion Boy	$315
D. E. Waters, Michigan	
Carnation Mutual Matador	$505
Carl D. Bradley, Michigan	
Kolrain Marion Finderne	$410
Charlevoix Grace Lady	500
J. A. Vergouwe, Michigan	
Charlevoix Ormsby Marion Finderne	$525
Charlevoix Ormsby Queen	300
J. S. Graves & Sons, Massachusetts	
Charlevoix Marion Best	$360
Detroit Creamery Farms, Michigan	
Charlevoix Ormsby Marion Tidy	$200
Rex Johnson, Michigan	
Merdu Finderne Fayne	$200
Chas. A. Pratt, Michigan	
Charlevoix Ormsby Martha Karen	$250
Wayne Co. Training School, Michigan	
Charlevoix Ormsby Alma Zweele	$210
Charlevoix Ormsby Zephyr	200
Charlevoix Ormsby Maid	335
Charlevoix O Matador Queen	220
Serradella Farm, Michigan	
Patricia Korndyke Ravenwood	$230
Charlevoix Ormsby Lady Finderne	220
Charlevoix Ormsby Lady De Kol	200
M. D. Buth, Michigan	
Charlevoix Ormsby Jewel	$265
McLachlan Bros., Michigan	
Charlevoix Ormsby Sparkle Queen	$210
Charlevoix Houwtje Colista	285
W. H. Knapp, Michigan	
Charlevoix Ormsby Ruby	$280
Jno. P. Drake, Michigan	
Charlevoix Ormsby Nina	$230
Charlevoix Ormsby Eleanor	300
John C. Buth, Michigan	
Charlevoix O. K. Grace	$200
Guy L. Bailey, Michigan	
Charlevoix Ormsby Danish Pontiac	$205
Charlevoix Ormsby Karen Topsy	200
Gezienus Kamps, Michigan	
Charlevoix Ormsby Karen Koo	$200
R. Van Till, Michigan	
Charlevoix Ormsby Karen Ethel	$200
Peter Mossner, Michigan	
Charlevoix Ormsby Deane Finderne	$220
Chas. J. Johnson, Michigan	
Charlevoix Ormsby Ada Finderne	$315
Edmund Miller, Michigan	
Charlevoix Ormsby Martha	$205
Roy Brooks, Michigan	
Charlevoix Ona Ormsby Belle	$200
Stephan Ermy, Michigan	
Charlevoix Ormsby Aaggie Alice	$205
W. J. Baker, Michigan	
Charlevoix Ormsby Finderne Gwen	$200
Charlevoix Ormsby Matador Jewel	225
Blissveldt Farms, Michigan	
Sir Charlevoix Himalaya	$850
W. A. Cook & Son, Michigan	
Charlevoix Ormsby Vale	$200
D. H. Hoover, Michigan	
Charlevoix Ormsby Duke Zweele	$230

You need a Vest Pocket Herd Book

HOLSTEINS

OHIO HOLSTEINS
Registered COWS, HEIFERS and BULLS. Very choice Calf Club CALVES. We have two sales agents in the field all the time who can take care of all orders in fine shape. All inquiries are referred to our entire membership.
OHIO HOLSTEIN-FRIESIAN ASS'N
2029 E. 102nd St. Cleveland, Ohio.

HIGH CLASS YOUNG BULLS
A. R. O. Dams — Accredited Herd
We have some very good young bulls up to 10 months old for sale. They are from good record dams of Colantha breeding. Most of them are by Lauderdale North Star Champion, a 1033 lb. grandson of Johanna Bonheur Champion. A few are by K. P. O. P. 54. Priced to sell. Accredited herd.
OSBORNDALE FARM, DERBY, CONN.
WALDO S. KELLOGG, Owner

Holstein Milk

Vitality!

The Production of Holsteins
The average butterfat production of the 27,798 Holsteins which have been credited with long-time tests is 533.72 lbs. for the average 331 producing days. For the 9,774 aged cows — average producing days 332 — the average butterfat production is 600.60.
Write for Holstein Literature
The Extension Service HOLSTEIN-FRIESIAN ASSOCIATION of AMERICA
230 E. Ohio St. CHICAGO

Herd Reduction
Lacking barn room and for other reasons we are offering up to 20 pure-bred Holstein-Friesians at private sale. Eight two year olds and running up to 11 years. Four bred heifers, 3-15 months heifers and two 6 months bulls, great grandsons of K. P. O. P. and 37th. Beets Piebe Segis 497945, whose seven nearest dams average 1200 pounds butter, in service in this herd. Records of performance for all females old enough. Herd fully accredited. These animals are priced to sell.
J. H. CHAMBERLAIN Telephone 18, Holt, Michigan
½ mile south of Holt, 7 miles south of Lansing, 28 mils north of Jackson on U. S. 127

High Grade Holstein Springers
If in the market for big production these cows will please you. Tuberculin tested. Address
RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

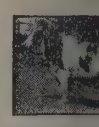
HOLSTEIN BULLS FOR SALE
SPRING BROOK BESS BURKE 2ND—ORMSBY breeding. All sold out of bulls over six months of age. Herd under Federal Supervision for tuberculosis, also blood tested for abortion.
WINTERTHUR FARMS. Winterthur, Del.

We could never understand—
why dairymen want to raise grade calves when pure-breds can be had so reasonably. We are offering some of the finest we have ever had the pleasure of breeding because we have had more than we can take care of. Let us tell you about them. The home of Matador Pietertje Prospect and Sir Segis Letta who is by Matador Segis Ormsby out of a thousand pound two year old.
BRACH HOLSTEIN FARM,
R. F. D. No. 2, Franksville, Wis.

Jefferson County Holsteins
Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.
JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.


SIR ROMEO MILDRED COLANTHA
Never Defeated By A Bull of His Age And One of the Greatest Show Bulls Living Today

You Too, Can Own a Son of Sir Romeo
What other herd sire can you name whose sons and daughters won five championships, 12 firsts and 7 seconds at the largest Holstein shows in the United States this year, including the National, Pacific International, Minnesota, Iowa, Kansas and Oklahoma State Fairs?
An All-American Prize Winning Champion himself—Sir Romeo Mildred Colantha combined with Matador breeding—is producing remarkable offspring.
One of his sons is available for your next herd sire at a reasonable price.
WRITE US TODAY
CARNATION MILK FARMS
1211-A Carnation Bldg., OCONOMOWOC, WIS.
HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR


Clover Lawn Ormsby Fobes

Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

MORRIS FARM *Is Offering* SEVERAL D ABLE BULLS, ready for s this fall. Also YOUNGER CALVES. Write for particulars.
MUKWONAGO (Fully Accredited) WISCON

AN AREA TESTED COUNTY
The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Buyers are given every consideration in helping to locate, and assemble their purchases, whether it be one or a carload. Can furnish you with 40 pure-bred cows and heifers bred to freshen this fall and early winter. A carload of bred, richly bred, grade heifers. 4 carload of springing and fresh highly bred grade cows. October and November freshening. Also a number of good pure-bred bulls 3 months to 1½ years old.
Send for bull list or write your wants for serviceable bulls. Sample—Bonair King Pontiac, born October 1, 1926, well marked, a good individual; Sire—Pabst Woodrest Pontiac 288286. Dam has 1178 lbs. butter in a year. Dam—Bonair Beauty Ormsby 4th 454150. Butter 7 days @ 3 years 20.50 lbs. Price $175.
W. L. Baird, Art Bennett at your service. Write or wire.
WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

HIGH QUALITY
DAIRY COWS
Springing and Fresh — ALL BREEDS
REID MURRAY, Oshkosh, Wis.

Come to St. Croix County and Buy Your Dairy Cattle
DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Purebred and Grade Holsteins
The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association
can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

ABORTION FREE HOMESTE
We usually have some well bred bull from fine blood lines for sale. Place orders early.
T. B. under Federal Supervision.
MILWAUKEE COUNTY INSTITUTIONS
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager

TWO GOOD BULLS FOR S
Ollie-S, P. O. M, 37th Breedin
We have two typy young bulls for sal One is from a 26-lb. granddaughter o and by a 968-lb. son of Iowana Sir Olli other is from a 28-lb. granddaughter o and by Sir Ollie Mooie Watson 7th. calves priced right. Write today or c the farm.
DICMERE FARM
H. E. DICKINSON, Oconomowoc

MILFORD MEADO
KING BESS BURKE ORMSBY—MARA AAGGIE—SIR TRIUNE PANSY
A combination of bulls whose individual production will improve your herd calves carrying the blood of all of the sale.
"A Record on Every Dam."
W. W. KINYON, MGR., Lake Mill

ORMSBYS and OLL
One of the greatest herds in Wisconsi of the best herd sires in the Middle Just drop us a line and your bull troub look easy; we have a surprise for you stein bulls of type and production at that will please.
F. H. BOYLE, OWNER, PEEBLES
L. F. Murphy, Manager.

YOUNG BULL
sired by Governor Fobes and from good 7 year record dams for sale. Breeding, pro type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYMOUTH

Come to Sheboygan County for Hol
We have choice grades and purebreds to from. Write your wants to:
SHEBOYGAN COUNTY HOLSTEIN A
Frank Ubbelohde, Secy., Plymouth

ntire Holstein Herd For Sale

37 Registered Holsteins at Private Sale

e are offering our entire herd of purebred Holsteins for sale. includes 13 cows, 8 bred heifers, 4 yearlings, 9 heifer calves o 6 Mos. old and 3 bulls. Last 2 T. B. tests 100% clean. Pre- to sell the whole herd together but will divide to suit buyers.

BLUE BELL DAIRY FARM

AS. W. GIBBS, Proprietor — WEST McHENRY, ILLINOIS

ealthy Holsteins

in the market for grade or registered Hol- tested herds write us today.
INOIS HOLSTEIN-FRIESIAN ASSN.
arborn, St., CHICAGO, ILL.

BEST IS USUALLY THE CHEAPEST

37, born March 15th, has for his two dams real TRUE TYPE COWS THAT HAVE RECORDS over 1,100 lbs. and 1,200 lbs. Send for pedigree.

k River Farms, Byron, Ill.

E BULL YOU WANT

33-Lb. Dam — Good Type

IGH PIEBE OAK POSCH, born Dec. 1926, the best calves we have ever had for sale. s. Dam a 33-lb. Homestead cow with 885 r in 305 days as a 4-year-old. His sire is e 41-lb. 4-year-old granddaughter of 37th. est dam's average over 37 lbs. Write today ete information.

HE W. T. RAWLEIGH CO.
Rawleigh's Ideal Farm. Freeport, Ill.

lo Creek Farm Holsteins

offering BULL CALVES rich in breeding from tested dams. These m six to eleven months old. Some s low as $100.00. Write for pedigrees ther information. Herd under federal ion.

AM BROS., Arlington Heights, Ill.

— We Can Offer —

ew Choice Bulls of Ormsby Breeding

be ready for fall service. They are lividuals from good record dams. Also unger calves at bargain prices.

ELLWOOD & NELSON
, ILLINOIS

DE PARK FARM

PARK, - ILLINOIS

Offers BULL CALVES

an outstanding 35-lb. son of Mata- m Fully Accredited Registered Yr. ith leading cow testing association $100.00 up for typy individuals.

. CARROLL — WILLIAM EDGAR
Owner — Herdsman

ORMSBY BULLS BY

n of the Ormsbys 2d

is a son of 37th and Colantha Pieter- , a 1265-lb. daughter of Old Sir Piet. is a 1017-lb. daughter of Ormsby Hengerveld De Kol. We have a few ady for service from cows on S. O. o a few young bulls from daughters of b. son of Sir Walker Segis Homestead.

KE PARK ORPHANS HOME
ed Herd) — Lake Park, Minnesota

. P. O. P. Bulls

ou will need a new sire dur- the next year get in touch us. We can offer you just you want.

ROVE & ARNOLD, Norwalk, Iowa

EABLE 30-LB. BULL and BULL CALVES

P. breeding. Sons of Rival King Ormsby his dam world's champion in Class C. ederal Supervision. If you want show type, production write

ERGUSON, LAURENS, IOWA.

Wants a Serviceable *Show* of *Man O' War* —That Son of 37th

traight, square udder, royal breeding. 3-yr.-old—has a 751-lb. 2-yr.-old daugh- f—Large, straight, light in color. Send ure and pedigree. Price $250 F. O. B. r.

EMPIRE STOCK FARMS
hmidt's Sons, St. Peter, Minnesota

a Vest Pocket Herd Book

IN NO OTHER HERD

Can There Be Found Five Cows With Records Equal to These Five Femco Cows

May Walker Ollie Homestead	1,523.24	
Milk		31,610.60
Grahamholm Co. Paul. Segis	1,426.75	
Milk		34,291.80
Grahamholm Col. Segis Maid	1,316.60	
Milk		33,545.60
Miss Mutual Rose De Kol	1,260.50	
Milk		26,551.80
Aurora Homestead Badger	1,208.76	
Milk		32,321.20

Eight other cows in the herd have records from 1,000 to 1,194 lbs. Femco Holsteins are producers.

A Few Choice Bulls For Sale

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

BULLS For Sale

We have young bulls of serviceable age and some yearling heifers of the famous

COUNT-PIEBE
breeding

Some outstanding individuals from

High Record Cows

These animals are priced to sell quickly. Write us for pedigrees. You cannot beat our price or quality.

ARDEN DAIRIES, Inc.
ST. PAUL — MINNESOTA

Last Calf Advertised Was Sold to Nevada, But We Have Another Good One

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.

ST. OLAF COLLEGE FARMS, Northfield, Minn.

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

ALL SET!

MICHIGAN PUREBRED HOLSTEINS are now "barned." You don't have to chase all over the back forty to see 'em. Our County Sales Managers will take you around, Free.

WRITE ME WHAT YOU WANT!

J. G. HAYS, Sec., MICHIGAN HOLSTEIN-FRIESIAN ASS'N, EAST LANSING, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

SERRADELLA FARM OFFERS — A 33-lb. Serviceable Colantha Bull

Sired by Sir Dutchland Colantha Denver whose dam is a 36-lb., 1300-lb. daughter of Colantha Johanna Lad. This young bull is from Serradella Kanaka Rosewood, 33.24-lb. 5-year-old that also has a good 305-day record made as a heifer. The bull is 2 years old, straight, and well grown. A bargain at $300.

SERRADELLA FARM, (Federal Accredited Herd), Oscoda, Michigan

The World's Greatest Butter Cow

TRAVERSE COLANTHA WALKER — Bred and Owned by Traverse City State Hospital

8415 Lbs. of Butter in 8 Lactation Periods

TRAVERSE COLANTHA WALKER was born April 29, 1916, and weighed 1,750 lbs. shortly before freshening at 2 yrs. 9 mos. of age. She has been on test continually since first freshening and has calved regularly each year.

She has recently finished her 8th lactation period with a total production of 8,415 lbs. butter, a world's record over all breeds.

Her dams for generations back have been bred in the Traverse herd—dependable breeding since 1889.

MICHIGAN STATE HERDS — BRED FOR PRODUCTION

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

Decreamco Bess Burke Fobes — Our Jr. Sire



This picture of Decreamco Bess Burke Fobes was taken at 12 months of age. He is developing remarkably well and promises to become the kind of a bull you would expect from so wonderful a dam—Wisconsin Fobes 5th—unquestionably the greatest daughter of S. P. O. M. 37th. His sire is Marathon Bess Burke.

We have a few good young sons of Decreamco Bess Burke Fobes for sale.

THE DETROIT CREAMERY CO. FARMS, Mt. Clemens, Michigan

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad

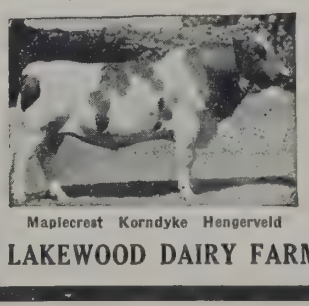


SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

Buy Your Next Bull At Lakewood



Maplecrest Korndyke Hengerveld

GOOD BULLS

Priced to Sell!

We have for sale bull calves by Maplecrest Korndyke Hengerveld—century sire—from high producing, well bred dams.

Write us today for further information

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

STEELE COUNTY HOLSTEINS

are noted for their size, type and production. Pure-breds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

AKONA HOLSTEIN FARM

BULL CALF born Aug. 20, 1927, sire from a high record daughter of "37th" and a 1100 lb. son of Sir P. O. M. Dam on test this year, a granddaughter of "37". Satisfaction or money back. Price $125.

B. A. NORRIS, Anoka, Minn.



Three out of Five Cows can give More Winter Milk



DAIRY authorities agree that the biggest thief of dairy profits is expensive winter feeding that fails to register in the milk pails. It is claimed that three out of five cows—in the average dairy—are capable of giving more milk for the feed they consume.

Where is the leak? What is the trouble? In most cases it is a failure to fit the feeding procedure to the changing conditions of the season. Very few cows have the natural vigor and bodily health to suddenly change from pasture to barn-feeding without a let-up in production. The milk-flow falls off just when feeding costs are highest.



Outside aid is needed—something besides good feed and good housing. *Assimilation*—the ability to turn good food into milk—is the key to money-making cows in winter. Kow-Kare supplies just what every cow needs during the winter months. It acts directly on the organs of digestion and assimilation—strengthens, regulates, rebuilds.

While aiding the cow in getting from her feed every possible ounce of milk, Kow-Kare at the same time builds into her the vigor to resist disease. Its use costs nothing; the added milk yield pays for it many times over. To avoid break-downs, to insure full milkings, use Kow-Kare regularly. The investment is so slight—the results so sure. It requires only a tablespoonful of this highly concentrated regulator with the feed, one to two weeks each month, to keep each cow on the profit side of the ledger. A few cents per cow per month is a small price to pay for this profit-insurance.

Stamp Out Expensive Cow Disorders

Kow-Kare—through its direct invigorating action on the digestive and genital organs—has a 30-year record of money-saving service to cow owners. In the prevention and treatment of Barrenness, Retained Afterbirth, Abortion, Scours, Bunches, Milk Fever and similar troubles Kow-Kare enjoys a well-earned reputation from coast to coast. Dairymen who know its benefits never fail to call upon this proven remedy in case of trouble.

Home-Mix Your Own Complete Mineral

With Kow-Kare you can easily mix your own complete mineral at a surprisingly low cost—a mixture of recognized conditioning value.

Simply mix 30 lbs. of salt, 30 lbs. fine-ground lime, 30 lbs. steamed bone meal and four cans (large) Kow-Kare. For well under $6 per hundred you will have an unbeatable mineral. Use 80 lbs. of this mixture to a ton of grain.





Use Kow-Kare Before Calving—It Pays

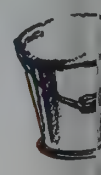
The dual function of milk-product and raising a healthy calf each y involves a strain too severe to al a valuable cow to undergo without posi outside aid. Elements that are lacking the feed—no matter how efficient the ra —are needed to aid the cow in the ter strain of the freshening period.

Kow-Kare supplies the needed help the genital organs. It builds up vitality insure the cow against the serious disor that so often follow calf birth. Feed a blespoonful of Kow-Kare with the grain two to three weeks before and after fr ening. It will be the best investment ever made. Feed dealers, general sto and druggists supply Kow-Kare. Large $1.25, six cans $6.25; small size 65c. If y dealer is not supplied, we will mail dir postpaid.

Dairy Association Co., In
Lyndonville, Vermont

NOW READY NEW ILLUSTRATED EDITION

[*Write for our valuable free book, "More Milk from the Cows You Have."*]



KOW-KARE *regulates and condition*

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HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

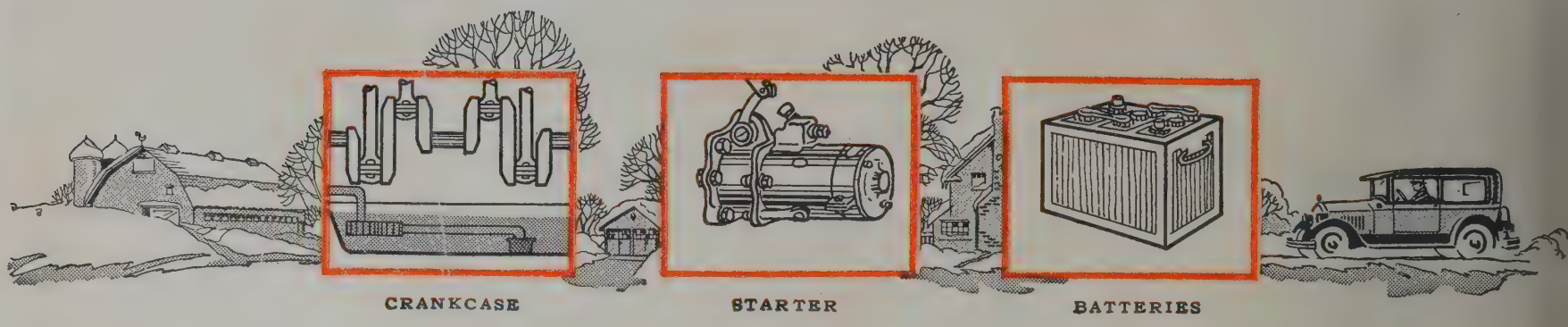
THE LIBRARY OF THE
DEC 24 1927
UNIVERSITY OF ILLINOIS



Volume 72, No. 24 Fort Atkinson, Wisconsin December 25, 1927

Winter dangers

which may easily cost more than a whole year's supply of oil



EXPERIENCE teaches you that cold-weather operation may be hard on the engine of your automobile or motor truck. Repair expense may pile up.

But do you know the cause of most winter engine troubles? Do you know the remedy?

Poor or incorrect winter oil in your crankcase speeds wear—perhaps 25%.

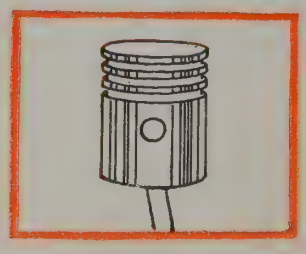
Poor or incorrect winter oil prevents quick engine response to the starter. Your batteries may need recharging frequently.

In winter, due to more frequent use of the choke in starting, extra gasoline slips by your piston rings to dilute your crankcase oil—perhaps as much as a pint in a few difficult starts.

Eight hours of cold weather driving may put a tumblerful of water into your crankcase. How? Water vapor, a product of gasoline combustion, passes the rings and is condensed on the cold walls of your crankcase before your engine becomes heated.

How to avoid winter troubles

Many cars require different oil in winter than they use in summer. The Mobiloil


PISTONS

SPECIAL WINTER CHART

Mobiloil Arctic

should be used in Winter (below 32°F.) in all cars marked *.

PASSENGER CARS	1927	1926	1925	1924
Auburn *all except Models 4-44 & 6-66*	*	*	*	*
Buick	*	*	*	*
Cadillac	*	*	*	*
Chandler *except Special Six*	*	*	*	*
Chevrolet	*	*	*	*
Chrysler *4-cyl.*	*	*	*	
Dodge Brothers	*	*	*	*
Elcar *all except Models 6-65 & 4 cyls.*	*	*	*	*
Erskine	*			
Essex	*	*	*	*
Flint	*	*	*	*
Hudson	*	*	*	*
Hupmobile	*	*	*	*
Jordan	*	*	*	*
La Salle	*			
Locomobile	*	*	*	*
Marmon *8-cyl.*	*			
Moon	*	*	*	*
Nash	*	*	*	*
Oakland	*	*	*	*
Oldsmobile	*	*	*	*
Overland & Overland Whippet	*	*	*	*
Packard Six	*	*	*	
" Eight	*	*	*	*
Paige	*	*	*	*
Peerless *Models 60, 80 & Eight*	*	*	*	*
Pontiac	*	*		
Reo	*	*	*	*
Star	*	*	*	*
Studebaker	*	*	*	*
Velie	*	*	*	*
Willys-Knight	*	*	*	*

If your car is not listed above, consult the complete Mobiloil Chart at Mobiloil dealers' for your winter grade of Mobiloil.

Engineers have gone into this perplexing problem from all angles. Through the accuracy of their recommendations and the engineering margin of safety it assures, Mobiloil has become the most popular oil in Canada, Norway, Sweden and other countries where cold is severe.

The engine in your automotive equipment has been analyzed by these experts under all extremes of temperature. The Mobiloil Chart tells you exactly which grade of Mobiloil provides adequate lubrication and brings utmost relief from hard starting, rapid wear and crankcase dilution.

This chart is approved by 609 manufacturers of automobiles, motor trucks, farm tractors and other automotive equipment.

Your nearby Mobiloil dealer has the complete Mobiloil Chart. He will give you a substantial discount on orders for barrels and half-barrels of Mobiloil. He also has the newly-designed 10-gallon drum which may give you a sufficient supply of winter oil for your car, truck or tractor.

When you turn to Mobiloil you do *not* buy a cheap oil. But you do buy the most economical lubrication.

GARGOYLE

Mobiloil
Arctic

VACUUM OIL COMPANY

MAIN BRANCHES: *New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas*

Other branches and distributing warehouses throughout the country

HOARD'S DAIRYMAN

A JOURNAL DEVOTED TO DAIRY FARMING

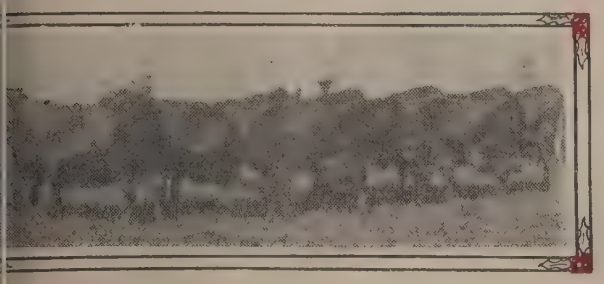
d at Fort Atkinson,
s second class matter.

Semi-monthly

Three Years $1.00

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olume 72 FORT ATKINSON, WIS., DECEMBER 25, 1927 Number 24



WHICH SHALL IT BE

Phenomenal Production or a Good Average

E. L. ANTHONY

HE spotting out of a few superior producing cows, while a good thing, will not bring about rapid breed improvement. In order to produce, such animals must have the inheritance for this production. If it is there it will take care of itself in breed and herd improve-
. The vital thing, however, is to spot the low producers, those with a lack of er inheritance. They constitute the real cle to progress and must be eliminated from erds and breeds. In this our European cous- through their developed practices in herd gement and breeding, have some real lessons is. These methods we must adopt in a greater ss degree if we are to continue to move for- in our future cattle improvement. It is gen- knowledge, I believe, that the registration and g systems in Europe are much different from

hink it is a generally accepted opinion that present system of cattle registry here in the ed States is fundamentally unsound in its ba- rinciple, in that just because the sire and dam calf may be pure-bred and registered, it fol- that the calf is auto- cally qualified also to egistered and worthy e used for breed devel- ent. Such a system inues in ever increasing bers to propagate and y on undesirable ani- , and thereby lessens value of the registra- of all animals.

ch a system as we now tice with our breeds is tically unsound and of the greatest drags to d improvement that it is ible for us to practice. practice is daily be- ing worse. As we start breeders into the dairy ness and into improve- their herds with pure- s, unless they have wise guidance and sel, it is natural that will be fitted out with cheaper pure-bred cat- which in the majority cases are really cull -breds, and should in ity have been culled out slaughtered and not be wed to be used for ding purposes. New ders saddled with such ndicap are indeed to be d. Our present system egistry and dissemina- of pure-bred cattle fos- this practice. In ope such a system could be developed.

Denmark, Holland, Scotland, which are the most progressive dairy cattle sections, and in most other cattle sections of Europe, there is practiced a much more rational system of cattle registry. The Danish system, which I think one of the most rational, fairly well typifies the rest and is a system which we can well study.

In brief, only animals may be registered in the Red Danish Herd Books or Jutland Black and White Herd Books if they come from dams with certain known production records. These animals for whom registry is sought cannot be registered even if from satisfactory producing ancestry, unless they themselves are of satisfactory type and conformation. This practice, together with rational testing systems, has brought about and developed in seventy-five years' time a new breed of cattle in the Red Danish breed whose high *average* production and fixation of type is a marvel in the history of dairy cattle development and could well be the envy of any of our best breeds in America today.

The Northern European dairymen are also much ahead of us in the rational development and use of records. Their whole record system has been developed to benefit the mass rather than the individual. The whole idea and purpose of record is different with them than with us. Their control work is not developed on the basis of authenticity, but on the basis of locating undesirable cows. Records are naturally honest. There is no purpose in being dishonest. They have not developed their record work with the idea of singling out a few high producing animals for the purpose of animal, herd, or family line exploitation. They have developed it on the basis of eliminating the unprofitable cow from the dairy and thereby eliminating her from the animals which are selected for herd and breed development. The whole idea of record work is to raise the average for the herd unit and, in turn, the breed, not by spotting the occasional high producing cow but by quickly spotting out the low and undesirable producers.

European breeders cannot point out any world's record cows or class leaders in some seventy-five different classes, but they can point out with pride their whole herd average—not only for one year but more often for a five-, ten-, or fifteen-year period. They can and do point to their district average, their county average, and their average for the whole land which is well above the line of unprofitable production. The European cattle breeders are using their records for the real purpose and justification of records, the spotting out of undesirable cows and for breed improvement.



Cow testing association records are the basis for all record work in Denmark, Holland, and Scotland. There are no separate systems of Advanced Registry as we have here. All cows in a herd are tested.

In Denmark there is now a total of approximately 1,275,000 cows in milk. In 1926 more than one-fourth of all the cows in Denmark were under control in cow testing associations, while in the dairy sections this runs as high as 50 per cent. This would give, allowing one calf per cow per year and 50 per cent of these bulls, approximately 150,000 bull calves each year from tested dams. There are a total of 63,000 bulls over one year of age in service in Denmark. Allowing the use of a bull for four years there is an estimated bull replacement each year of some 15,000. With the 150,000 bull calves born each year from tested dams, nine bull calves from every ten can be discarded each year and still keep every breeding bull in Denmark a bull from a tested and selected dam. Contrast this with the herd sire

(Continued on page 1208)

How Testing Built A Good Herd

"If They Put Too Much Feed on Their Backs, I Sent Them to the Butcher," Said This Successful Minnesota Dairyman

THE first time we saw Wallie Anderson's name was in the Minnesota annual cow testing association report covering the results of the several associations for 1924. This report said that his dairy herd consisting of 27 grade and registered Holsteins averaged 452.9 lbs. fat. From this we decided this man Anderson was worth seeing. In order to be doubly assured that Anderson's reputation as a good farmer and community citizen was in keeping with the fine record made by his cows, we wrote County Agent L. E. McMillan, whom we knew, and asked him to confirm what we had reason to believe by reading between the lines of the cow testing association report. We find in our letter to him the following: "We hope you realize the necessity of our confining stories of this character to men who have made what success they have made out of their own skill, thrift, and industry in managing their dairy farms."



WALLIE ANDERSON AND SON, LEWIS, WHO, WITH ONE HIRED MAN, DO THE WORK ON THIS FARM



THE ANDERSON HERD THAT AVERAGED 452 LBS. OF FAT

McMillan's reply convinced us more than ever that we ought to see Anderson.

The first time we saw the man was on July 20, 1926. He was riding a binder around a 20-acre field of wheat. It was about ten o'clock in the forenoon. The sky was cloudless; the sun beat down fiercely, untempered. By noon corn here and there began to curl. In the afternoon a near neighbor took his horses off the binder to the shade. It was a scorching hot day.

A short lane leads back to the Anderson farmstead. As we, McMillan and the writer, drove in, we noticed a native pasture on the left. It was bare, burned to the grass roots; on the right was a field of alfalfa standing erect, beating back the scorching sun, challenging some pigs to help themselves.

Mrs. Anderson told us where to find her husband in the harvest field. Before going, she told us the hot, dry weather had put them hard up against it for cow feed. The pastures were all spent and they were forced to feed a full ration of silage and grain.

The Andersons were born and reared within five miles of the farm they now own. It is a quarter section of level land, well improved, with a public road on three sides and a private one on the fourth side. Mr. Anderson has few fence disputes. They have lived on this farm for twenty years, the first twelve of which they paid rent. In addition to their own farm, they rent and operate 160 acres about a mile away.

One tractor and six horses furnish the power to operate this half section of land. That a large portion of it is under cultivation is shown by the fact that nearly 10,000 bushels of grain are produced annually. The factor representing crop acres per unit of horse power is unusually high.

Man power is supplied by Mr. Anderson, his son, Lewis, and one hired man. Anyone who knows anything at all about the amount of work to be done on a dairy farm knows that man labor is used efficiently on the Anderson farm.

Woman power is supplied by Mrs. Anderson, but the men folk help her. Mr. Anderson, recognizing the advantages of labor saving equipment for his work, has provided equipment that make his wife's work easier. Even though the Andersons are well supplied with labor saving equipment, we do not want to create the impression that they are on an 8-hour day. They are all busy and as Sam Salt of the comic strip says, "You may lay to that."



MRS. ANDERSON CALLS HER FLOCK OUT FROM THE SHADE TO HAVE A PICTURE TAKEN

When the Andersons moved on this farm twenty years ago, they brought with them a grade Holstein cow—a good milk cow. This cow dropped a bull calf which was later used for a year as a herd sire. Mr. Anderson bought his first pure-bred Holstein bull in 1913 for $65. It was two weeks old and he hauled it home in the back of his auto.

A thing that had considerable influence in ing the Andersons to make dairying their m farm enterprise was a severe hailstorm bac 1914. This storm came in June and it was too late to replant for a crop of corn and grain. The second crop clover came on in a dance that fall and it was this clover hay fe cows that enabled them to pay their rent and essary living expenses. They decided that if were good property in emergencies, they good at other times as well.

The herd was gradually built up by buying looking grade Holstein cows at sales. Right Mr. Anderson played a master stroke that men might well heed. He did not depend on looks of these cows to make money. For a nu of years every cow he bought was subjected production test. Samples of milk from each were tested for fat by the local buttermaker they put too much feed on their backs, he them. In other words, he decided that the kind of cows he could afford to keep were whose greatest asset was production and not or or conformation.

After a time he began replacing grades pure-breds but he required his pure-breds measure up to the same production standard required of grades. A pure-bred cow had to a place in his barn by performance at the rather than on the recorded history of ancestors.

The results of this kind of herd building ar teresting. With this kind of management, Anderson herd of 27 cows averaged to pro 452.9 lbs. fat the first year they were in cow ing association work. This is a remarkable re when the number of cows and the fact part of them were grades are considered.

Mr. Anderson believes in cow testing ciation work but at the same time he that any man who really wants to improve production of his herd can easily do so out membership in an association. We not know what the average herd produc was ten years ago. We have some reaso believe that the production has been dou in ten years' time. Mr. Anderson did without belonging to a cow testing ass tion and no one herd sire has left an standing number of daughters compared the production of their dams. In fact, wh pure-bred bull gets up against the use of Babcock test and milk scale herd for ten years, he's go be some bull to make owner know his regi tion papers are w something.

Anderson is a good er. He says that man uses the teste milk scale, he must also learn how to swing feed basket often and with the right contents winter he feeds silage, fodder, clover or al hay supplemented with a mixture of ground oats, barley, bran, and linseed meal. In the mer he continues to feed some grain to ce

(Continued on page 1214)

As The World Shrinks Does Our Vision Widen

H. L. Russell

INTERNATIONAL trade has grown apace with the annihilation of time and distance through the improvement in communication. The more we see and know of the products of other lands, the more we want to lay them under tribute to serve our needs. A generation ago the frugal breakfast our forefathers consisted of home-grown prodts with the exception of coffee and its sweetng. Now California, Florida, or Honduras ust supply our breakfast tables with fruit, and r cereal must be prepared at agara Falls, Battle Creek, or some distant state.

It is this exchange in wants at is the basis of internationtrade and consequent relanships. Britain cannot conue to take our cotton unless buy some of her Scotch eeds and Manchester weaves. uth America needs our steel t she has to pay for it in fee and fertilizer. Japan d China furnish us with the w silk from which is fashied those lustrous fabrics at so delight the eye. Once were clad in homespun. w the world is ransacked r the most delicate of fabrics meet the demand of modern gue. We pay for these silks d satins, for the fine weaves, r the tea, the coffee, and the ices of the Orient, in automobiles, in sewing machines, cash registers, and ner devices of Yankee ingenuity, in gasoline d cotton—in a myriad of things which they have rned to like.

If We Would Sell, We Must Buy

Trade cannot be all one-sided. Trade is like soal intercourse in life; one cannot always get and t give. You cannot indefinitely accept invitans without issuing some in return. You cannot l a nation or a country continuously without in me way making it possible for them to sell you mething. What we can best sell is that which can best produce. That which we can best proce is that which we can most economically grow make.

In the production of any commodity considera-n necessarily has to be given not only to the raw aterial from which the article is made but labor d other expenses that enter into its manufacture. me nations are preeminently favored in the mat-r of low costs of production. Perchance through abundance of natural resources, or through me especially favorable condition as low cost of bor, they are unusually well suited to compete th the rest of the world. It seems strange that ese natural advantages are not recognized and ilized more than they are. For a surplus-produc-g nation it is imperative that such conditions be preciated. Such a nation may go too far in atmpting to grow and produce everything it uses. lf-sufficiency is a laudable ambition, but it lim-s necessarily the outlook and aspirations of a na-n as it does an individual. Its outlook is toward e past rather than the future. Such a position llowed to its logical outcome is an eighteenth, not twentieth, century viewpoint. In these days when ne and space have been almost annihilated, a w attitude of mind is needed if we expect to be le to do business with the rest of the world.

In a trip last year to the Orient and the Australian continent I had an excellent chance to study me of the methods a nation finds that it must adopt when once it attempts to place itself on a level that is different from the rest of the world.

Australia is a country that is dominantly agricultural in its economic output and is likely to remain so until increase in population is much more marked than now. Most of the six million population, even though over one-half of them live in cities rather than on the broad acres of this island continent that is as large as continental United States, derive their living indirectly at least from the land and its products.

Australia's agricultural surplus cannot be consumed at home. It must go abroad. In the last eight years 42 per cent of the products of her farms have been exported, mainly to the home land of Britain. With wheat and wool the island continent is in a position to match anyone. Cheap land and extensive use of labor-saving machinery produce cheap wheat. While the high cost of gasoline and oil limit the use of automotive power to a much greater extent than here in America, the abundant supply of horse power makes possible a wide extension in the use of lands. Moreover, the correlation of wheat culture and wool growing aids in the retention of fertility and improved yields. Instead of growing wheat year after year as with us, or at most summer fallowing for a season to permit of the accumulation of moisture in the soil, the dry belt farms of Western Australia, which are undoubtedly going to assume constantly increasing importance in the wheat program of the Commonwealth, follow a rotation in which sheep utilize the land for one year out of three. By top-dressing the land with commercial fertilizer (90 pounds of superphosphates to the acre), an excellent crop of grain is assured. When the grain crop is removed, sheep are turned into the long stubble, as the harvesting process strips off only the heads of the grain. With this application of fertilizer, weed growth is facilitated as an aftermath, but on this stubble 250 sheep to the half section of land can be readily maintained. Practically a wool clip is produced at a minimum cost, the fertility of the land kept up, and the offal cleaned up by the use of live stock. The following season fallowing is practiced to conserve moisture. In a country where the rainfall is only about ten inches a year it needs two seasons' precipitation to produce a crop of wheat.

With low freight rates by water, distance is wellnigh annihilated. Even though the surplus production is disposed of in the far distant British market, Australia can hold her own with wool and wheat by reason of relatively low cost of production. Not so with the newer and less developed agricultural industries, such as sugar, rice, cotton, flax, tobacco, and fruits. Here the government has sought grower support by the allowance of a bonus on all of the crop exported if it can be shown that only *white* labor is employed in its production. The situation is justified on the "white Australia" policy, which maintains that the country at all hazards shall be kept wholly white. Under no condition will an alien race of any other color be introduced even for menial labor.

With a recently introduced crop such as rice that is grown on the irrigated lands, the bounty was applied not merely to the crop exported, but to the entire production, providing the growers would

(Continued on page 1216)



TEN THOUSAND TONS OF WHEAT AT A SINGLE COUNTRY SHIPPING STATION

With cheap land and extensive use of labor-saving machinery both for planting and harvesting, Australia is in a position to hold her own in the wheat markets of the world. With her limited population she is only able to consume about one bushel out of every five or six which she raises. At present, Eastern Australia produces the bulk of the crop, but the rapid expansion of wheat culture, in regions of low rainfall, by summer fallowing the soil bids fair to expand production in large measure. In this dry belt elevators are not even needed for storage pending shipment.



SUGAR CANE, TEN MONTHS OLD, FROM NORTH QUEENSLAND

Australia can grow sugar cane readily in her northern warmer sections as is shown from this ten months' old crop. She insists, however, in growing it wholly by "white labor," which entails such a cost that heavy export subsidies are paid to producers to enable them to compete at all in the world's markets. Last year nearly $3,000,000 were expended in export bounties to enable the surplus production to be sold abroad. In spite of this tax which is necessarily heavy on the limited population of this country, popular sentiment is universally opposed to the introduction of any alien races of color.

Creed of a Dairy Farmer



I believe in myself because without this faith I cannot hope to succeed.

I believe in my wife and family because they are my choicest possessions.

I believe in the home because it is the foundation of our nation.

I believe in 4-H club work because it develops the boys and girls who are the citizens of to-morrow.

I believe in the dairy cow because she is the chief sustaining force of the human race.

I believe in treating the cow kindly because she is a mother.

I believe in the use of genuine dairy products in my home because of their unusual food value and because it shows faith in my own product.

I believe in dairy farming because diversification helps maintain the productivity of my farm and protects my sources of income.

I believe in the use of a pure-bred sire from proven ancestry because he can increase the value and production of my herd.

I believe in the herd improvement association because it finds the boarder cows and helps me make more money from my dairy.

I believe in the tuberculin test for my dairy herd because it protects me against losses and safeguards human life.

I believe in properly housing my live stock because it pays dividends in comfort, satisfaction, and labor savings.

I believe in the future prosperity of the dairy industry because it supplies a basic food, and because it is the greatest branch of agriculture.

I believe in feeding good rations because I cannot expect to get more out of my herd than I put into it.

I believe in cooperation, because man should not live for himself alone.

I believe in organization because it is a logical and profitable outgrowth of true cooperation.

I believe in vaccination because it protects my hogs from cholera.

I believe in the use of machinery because it takes drudgery out of work and makes it a pleasure.

I believe in farm records because farming is a business.

I believe in studying my business because knowledge brings greater satisfaction, more enjoyment, and greater profits.

I believe in the legume, especially alfalfa, because it is an excellent feed, a good milk maker, and replenishes the soil upon which it is grown.

I believe in fertilizing my fields because the soil can yield in abundance only in accordance with its state of fertility.

I believe in crop rotation because it protects against insect pests, weeds, and plant diseases, and helps maintain soil fertility.

I believe in paint because it lengthens the life of my buildings and machinery, and makes their appearance more attractive.

I believe in the use of electricity because it is a servant ready to work day and night, takes no vacations, and the harder it works the less it costs.

I believe in standing squarely on my own feet and accepting responsibility for my own acts because this is the only real way to succeed.



Hunter of Kewaunee

An Account of an Exciting Encounter With a Wildcat



RANSOM A. MOORE



YING nearly in the center of Kewaunee County was a large tract of waste land, called the Dikeman Swamp, some three miles wide and six miles long. The major portion of this swamp was scrub cedar which grew so thick that one could scarcely penetrate it.

ıe catamount had practically taken possession ıis swamp, and lived quite largely upon par- ges, rabbits, and deer, h were very abundant. high land around it soon me quite thickly settled. wildcats became so nu- ous that they came out he swamps at night and ed the settlement, killing es, sheep, chickens, and hing they could lay their s upon. The settlers me very much alarmed did not dare go near swamp. The county r d offered substantial ıties upon the wildcats the state also gave a est bounty. In spite of inducement, people were id to go into the swamp r them.

ecause I was brought up ınter and trapper, I felt r bound to help clean the wildcats, as I had e a rather complete y of these animals. While y commonly were wn as catamounts, yet word "catamount" more erly applies to the pan- . In the fur trade these nals are known as the cat. While trailing deer through the snow, I n found that one of these catamounts had come n the fresh trail. After following the deer for a le, the cat would leave the track and make a le sufficiently far and cautiously enough so as not to attract the attention of the deer. After getting around in the direction in which the deer was feeding, he would go up a tree on the opposite side from the deer and get away up on some protruding limb.

When the deer got within fifty or seventy-five feet of the catamount he made a desperate spring upon the deer, nearly always striking just over the front shoulders. Immediately those great claws went into the underside of the deer's neck, and the long, sharp, lancelike teeth penetrated the top of the neck, practically paralyzing the deer. The shock of striking practically always carries the deer to the ground, and while I have observed dozens of instances of this kind I have never known the largest deer to get more than a few feet from where he was struck down.

The cat feeds upon the deer several days. Common wildcats, smelling the deer, also come to feed. When finding deer thus killed, it was my practice to set traps near the carcass.

I repeatedly told my father that in the head of the swamp I had discovered tracks twice as large as any I had ever seen before, and that these must be lynx cats. It was my first year teaching school in the home district, and I was planning for a favorable Saturday to have a day's hunt where I had discovered those enormous tracks, about six miles from home.

One Friday night I made arrangements for the trip. My hound was in excellent shape, not having hunted for several days, and I planned the trip cautiously. While my father seemed to dislike to see me go after these savage animals, yet he was aware that I handled a rifle perfectly and went properly prepared with knife and hatchet to protect myself in close quarters. I usually hunted the lynx cat with a .44 Ballard rifle, but something occurred which changed my plans.

The night was clear until about three o'clock when it began to snow heavily. By daylight there seemed to be at least six inches on the ground. I felt that I could not keep the sights of my rifle open going through the snow-laden cedars. Furthermore, I knew if I got a shot at all, it would be only a few feet away, as the wildcat does not like to tree when there is snow in the trees.

I had an excellent new double barrel shotgun, and I felt by loading it quite heavily with buckshot it would be just as deadly at close range as the rifle. So at the last minute I hung up my rifle and took the shotgun. I started early with my hound, and after I got about a mile or two, it began to clear off somewhat in the Northwest. It was quite cold, and before I reached the hunting grounds the stars were out, and everything was crisp with scarcely a breath of wind blowing.

I went into the swamp, just about sunrise, on an old logging trail which was grown up to brush but afforded me a fine opportunity to get through without being covered by snow from the cedars. The swamp was about a mile wide at this particular point, and I had not gone more than a quarter of a mile before I discovered that two large catamounts had come out from the cedars and followed the old logging road for a distance. I saw at once by the immense footprints that these were the animals I was after. Their tracks were perfectly fresh, as it had stopped snowing only about an hour before.

My hound immediately showed signs of nervousness and an earnest desire to have me take off the collar. However, in hunting cats it is desirable to get as close to the cat as possible before letting the hound loose. By doing this, usually the cats immediately run up a tree or make a few short circles to find out just what is following them. If the hunter is near at hand, he has an opportunity to get a shot while the animal is treed. If the hound starts barking too far away, the cat makes a circle and strikes out on a long trip.

I proceeded cautiously after the cats left the road, but soon found it an impossibility to keep my gun dry. We did not have breech loading shotguns at that time, and had to depend upon the ordinary cap lock muzzle loading gun. I tried to keep the locks of the gun under my hunting blouse, but found that in going through the dense cedar growth, the snow fell down upon me to such an extent that it moistened the tubes and locks of the gun.

However, after going into the swamp forty or fifty rods, my hound began to stop, always a sign that we were near the quarry. She uttered very low whines and would not move even though I pulled on the chain. When I patted her she would move along, only to stop again after going a few

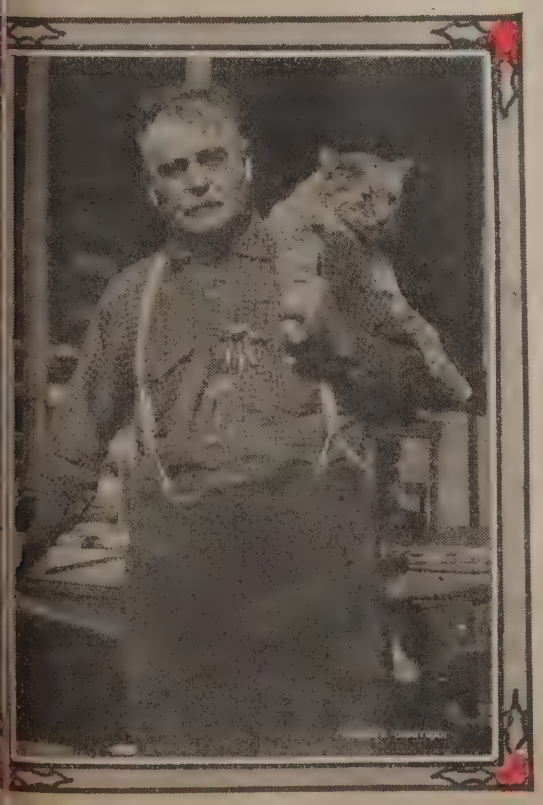
Author Kills Another Lynx With Hunting Knife

Lake Hilbert, Hunting Camp, Northern Wisconsin, Oct. 24, 1927.

HOARD'S DAIRYMAN:—It seems strange that after 42 years I should again get mixed up in a lynx cat encounter. Several farmers around here have had sheep and calves killed recently. They wanted me, a hunter, to try to solve the mystery. They thought that a bear was doing the killing, but upon looking things over carefully I felt it was the work of the deadly lynx cat. I set out traps and, strange to say, a small one, which I least expected to do the work, got him. I did not chain this trap solidly, for the cat would have smashed it in trying to escape. Instead, I cut a small sapling to which I attached the trap. I attended to the traps regularly for three days without success. On going to this particular trap this morning, I followed the accustomed trail. The cat had been caught by one toe of the hind foot during the night and had carried the trap along the trail on which I was approaching. The brute lay crouching beside the path. I was wholly unsuspicious of danger, not even having a gun with me. However, I always carry my hunting knife for quick action. The brute jumped, but I struck a blow with the heavy cane I was carrying, warding him off. I then closed in and as he sprang back and made the final leap, I drove the hunting knife into his neck. Thus ended the struggle. My clothing was somewhat torn and I had one cheek slashed. The lynx cat drew first blood, all right.

R. A. MOORE.

P. S.—A fourteen-year-old neighbor boy had been staying with me nights. He came almost a mile through the woods every evening after dark to bring me milk. He had been very courageous but when he saw the lynx cat that I had killed and the scratch on my cheek, he positively refused to come alone but had his brother drive him up to the cabin thereafter.



he hunter of Kewaunee and his kill; note the length of the and the scratch on Professor Moore's right cheek.



A close-up of Moore's "last wild cat" which he killed with his hunting knife October 24, 1927.

feet. I knew that the animals were near, so I unbuckled the collar and let her go.

She went off like a bullet. In a few moments I heard her barking sharply. I knew at once that she had started the animals because it was the sharp, quick bark of hot pursuit. I rushed forward to get as near to the hound as possible and came out of the dense cedars to a little black ash opening. I soon saw one of the largest catamounts that I had ever witnessed plunge out of the cedars.

If I had had my rifle, I would have killed the animal then and there, but it was entirely out of range of a shotgun, so I made no attempt to shoot. As the cat plunged into the swamp on the opposite side of the black ash swale, the dog came out into the open and started to run across. Just then the cat made a short swing in the heavy undergrowth and came out again. I saw at once that the cat was curious to know what was following her.

The dog, intent upon running down the cat, did not notice the animal that had come out of the swamp on the other end and was going back again two or three rods from the trail on which she went down. However, the cat was entirely out of range and again I could not shoot, but blamed myself for not taking my rifle.

The dog, not expecting this quick turnabout of the cat, overran the track and it took four or five minutes before she got straightened out, but then she came tearing out of the cedars down the opening and into the dense woods again. I was expecting that the cat would make another circle, but not so. The hound took a bee line toward the end of the swamp about two miles distant.

I followed along the trail and finally wandered off into a larger growth of cedars where I came upon an old deer trail. I had run across this trail a few years before, and knew that it continued to the head of the swamp, which ended at the Scarboro Creek. The deer had used this trail so much that it seemed almost like a path through a dense forest. I followed for a short distance and found a large cedar that leaned over the trail. The top limbs had caught the snow so that the large root protruding near the ground made a comfortable seat free from snow. The hound had already gone out of hearing, and there was nothing that I could do but wait.

I concluded that the catamounts would follow the swamp as far as possible, but wouldn't cross the creek because it had not yet frozen over. I felt that there was some possibility that when this animal turned to go back towards the center of the swamp it would get on this old deer trail where it was cleaner running and the snow would not drop into its fur.

I remember distinctly the exact situation. It was one of those quiet, cold mornings; the stillness of the air was almost intense, leaving such positive quietude that sounds could be heard at a great distance. I must have sat on my seat at least a half hour when all at once I seemed to hear my hound yelp away down at the head of the swamp. I listened intently because I was not positive.

Two or three minutes later I heard the yelp distinctly and knew that the hound was coming toward me. From the rapid yelping I knew that the catamount was being pursued by of the swiftest hounds that we ever owned. It was also evident my conjecture about the animal's ting on this trail was correct, as sound indicated they were coming rectly toward me. I hadn't long wait before, looking down the trai saw the big catamount coming a swift trot.

Being perfectly acquainted hunting bears and other ferocious imals, I did not seem to be exci but calm and decisive like one sho be under such conditions. My pl were to let the animal get within feet of me, then fire the first shot, if the animal was only wounded have the other barrel in reserve. plans would have worked out all ri had it not been for a mishap.

Before the animal came in sigh got off the root and stood in the ter of the trail with gun ready action. As the animal came wit the given distance, I fired. With great howl the animal bounded into the cedars from the center the trail but fell down from snow-covered branches. I noticed flashing eyes of the animal, and didn't seem to take it a quarter second to make up its mind what do. With one leap it cleared ab twenty feet of space toward me.

As the animal struck the groun pulled the trigger. But the cap wet and did not explode. The ani made another leap and would h come directly into my face except the fact that I had turned the grabbing the end of the gun near muzzle with both hands. I struck catamount when it was no more t three feet from me. The force of blow broke the direction of animal.

As the animal passed, one of huge paws went into my face, digg a claw into my upper lip. This not tear out readily, and swung b the animal and myself around. sharp claw cut through my lip lik knife, and the animal dropped two or three feet from where I st The locks, stock, and guards of gun went scattering off into the ce swamp, and I was left with noth but the two empty barrels.

As the animal crouched to make spring, I struck him a sledge-ham blow which caught him in the cer of the head just as he was coming The force of the blow was suffic to crush his skull, and the animal quivering at my feet.

The hound soon came up, too lat be in at the killing, but overjoyed t we had got this monstrous cat. On count of the smoothness and fr ness of the snow, I was quite succ ful in finding the locks and gua that had been dashed from my gun the first blow, and I was soon re for the home trip.

The dog, after a few seconds, w off after the other catamount, and or three times ran it within a few of me, but my gun being broke was unable to do any shooting. finally had to grab the dog to get away from the track. We started home and reached there some t during the night with a firm de mination never again to venture f after a catamount with a shotgun

(To be continued)

A HANDSOME Speed Truck, ideal for a great variety of farm loads. International Harvester makes eight distinct Speed Truck models. For 1¼, 1½, and 2-ton loads and with 4 or 6-cylinder engine. Express or stake body, stock rack, grain tank, or any other type of body provided for any size truck.



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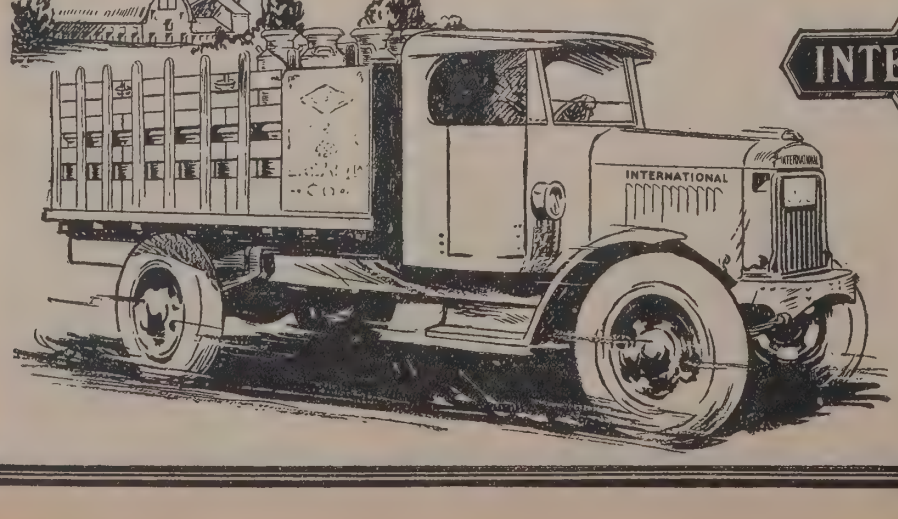
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The 116th Holstein cow to proc in excess of 1000 lbs. butterfat i year is Dutchland Creamelle M Girl, a 4-year-old owned by Dutchl Farm, Massachusetts. Her record, cently finished, is 26,842.2 lbs. m 1,015.37 lbs. fat (1,269.21 lbs. butt

Uncle Ab says it takes a headt plan ahead.



Dairy Herd Improvement Associations

The Cow That Makes the Money

HOARD'S DAIRYMAN:—The follow- table gives the results of one d in a year of testing in the Long airie Association of Minnesota:

of s	Lbs. fat	Value of product*	Feed cost	Value above feed cost
	356	$196	$58	$138
	340	187	46	141
	329	181	52	129
	326	179	45	134
	303	167	50	117
	288	158	42	116
	260	143	50	93
	235	129	39	90
	226	124	38	86
	221	122	40	82
	126	69	34	35
	274	$151	$45	$106

Fat valued at 55 cents a pound.

The high cow in this herd returned ir times as much profit as the low v. If we can judge the value of se cows by the profits returned, en the high cow is worth just that ny times more than the low pro- cer. After all, this is the only true y of valuing a cow because a dai- man is in the business for a profit d not for his health.

Placing a value of $50 upon the vest producer, which is consider- ly lower than prices paid for sim- r cows at sales, and judging their lue according to profits returned, 2 would be worth $221. In other rds, her profit above feed cost was ual to what her owner would have ceived in interest on a mortgage of 763 bearing 8% interest.

There is a profit in cows produc- g 300 lbs. fat or better a year. Every iryman should make this his goal d constantly practice the command- ent of the successful dairymen— ed, Weed, Breed, and Advertise.

B. J. ROSENQUIST, Tester.

Grooming Cows

HOARD'S DAIRYMAN:—We have not oved by association records in the enry County Association of Illi- is that grooming increases milk eld, but we have proved that it im- oves the quality of milk. Some men ink it foolish to groom cows and t they wouldn't let a horse leave e stable without being groomed. he cow produces human food and in any cases for consumption with- t any care other than straining, d straining is a poor means, at the st, to remove dirt from milk. It is r better to keep the dirt out of the ilk by careful care of the cows d utensils.

One member said, "I do not have me to groom my cows," but I no- ed he had time to groom his horses at were not working. Another ember said, "Grooming puts me d my cows on a friendly basis." nother member, "Any man who has itiative enough to own a herd of ws should have enough pride in s herd to groom his cows."

I find that milk producers who are tailers of their own product strive produce a clean milk. They have und it pays to groom cows.

To induce men to produce a clean- product, one distributor of milk as put up a chart that can be seen adily by all, with each man's mple of a filter showing amount of rt taken from his milk. These sam- ples are arranged according to clean- liness. I have heard some producers say they were going to be the first on the chart. It is a fine method as it involves the spirit of competition. Another creamery pays a two-cent premium per pound fat for the clean- er cream.

Grooming cows surely pays from the standpoint of quality alone.

JESSE L. BARNES, Tester.

An Ohio Record

Eight Holstein cows in the herd of Brainard A. Ryburn of Ohio made, at three years of age, an average pro- duction of 11,837 lbs. milk containing 426 lbs. fat. During this twelve months' period of the Clark County Cow Testing Association the cows av- eraged 10 months in milk and con- sumed in addition to 214 days of pas- ture, an average of 1510 lbs. hay, 6,790 lbs. silage, and 3,384 lbs. grain. The total feed cost was $98, and the value of the product at $2.12 a hun- dred for 4 per cent milk was $232, leaving a return above feed cost of $134 per cow.

Monthly Association Averages and High Herds

State	Association	Mo.	Ass'n. Report No. of cows	Ass'n. Report Ave. milk	Ass'n. Report Ave. fat	High Herd Average Breed	High Herd Average No. of cows	High Herd Average Ave. milk	High Herd Average Ave. fat	Owner
				Lbs.	Lbs.			Lbs.	Lbs.	
Colo.	Johnstown	Nov.	249	704	27.6	H.	12	1057	43.0	Nelson Bros.
Utah	Rich.-Lewiston	"	475	665	22.6	G. H.	8	1191	38.6	F. H. Traveller
Wash.	Cowlitz Co.	"	529	570	23.4	H.	26	1029	34.1	J. Bogart
Ill.	Moultrie*	"	210	509	27.5	P. J.	4	872	45.5	P. H. Wilson
"	Kane 3	"	721	608	21.6	P. H.	16	891	32.2	Melms Bros.
Tenn.	Hamilton Co.	"	656	457	22.1	J.	31	629	34.2	Bird Bros.
Minn.	Watonwan Co.*	"	391	518	21.6	H.	9	985	33.4	F. Rentz
Penn.	Allegheny Co.	"	453	579	24.0	R. G.	6	703	36.9	Fairacres Farm
Ind.	Randolph*	"	225	485	26.4	P. J.	8	818	42.2	Abel & Hartzell
"	Perry-Spencer*	"	288	534	20.9	G. J.	16	586	31.3	C. R. Lang
S. D.	Castlewood*	"	344	314	13.2	G. H.	11	626	22.9	D. Dickason
Ore.	Clackamas	Oct.	518	589	25.5	H.-J.	5	1307	47.6	W. L. Rhoads
"	Melowest 1*	"	600	637	27.4	G. J.	7	930	36.7	C. M. Conner
"	Melowest 2*	"	544	694	30.2	J.	5	1025	50.6	P. F. Crouch
"	Coquille Valley*	"	886	480	26.4	G. J.	20	792	38.9	H. K. Pleap
"	Tillamook	Nov.	1609	471	24.2	G. G.	29	781	39.7	G. W. Durrer
Mich.	Ogemaw*	Oct.	280	441	19.3	P. H.	9	830	28.7	O. A. Carroll
"	Otis.-Genesee*	"	293	544	22.1	H.	24	986	36.9	F. Green
"	N. Lenawee	"	194	647	22.4	P. H.	8	1205	39.5	O. A. Donovan
"	Livingston 1*	Nov.	365	753	26.1	M.	7	1255	43.4	R. W. Darlington
"	Missaukee 2*	"	254	356	15.3	G. J.	2	910	43.7	C. L. Gray
"	S. Wexford	"	205	408	17.5	G. H.	6	634	29.7	B. Denike
"	Van Buren*	"	280	545	25.0	G.	6	845	41.2	W. Garrod
"	Branch Co.*	"	277	506	20.7	H.-J.	9	966	35.2	M. L. Tyler
"	N. Newaygo*	"	169	414	20.4	R. J.	16	621	35.5	B. W. Pardee
"	Oceana, West*	"	218	487	23.9	P. J.	6	1195	57.8	H. Meyers
Wis.	Milton	"	580	494	18.2	G. G.	36	551	26.6	Taylor & Bell
"	Genesee-Eagle	"	491	500	21.6	H.	14	1164	39.3	F. Hess
"	Westby*	"	310	339	16.7	G. J.	10	581	29.2	B. Olson
"	Ced.-Grafton	"	291	560	21.2	H.	11	1020	36.3	H. Bielefeld
"	Merton-Lisbon	"	505	591	22.1	H.-A.	18	892	36.9	J. A. Dalton
"	Centerville	"	487	407	16.5	H.	11	1266	51.4	Woestman Bros.
"	Haugen	"	393	419	17.1	H.	16	887	32.0	A. Juza
"	Algoma*	"	467	394	17.3	G.	17	561	28.5	G. F. Blahnik
"	Cleghorn-Eleva	"	397	291	14.1	G. G.	11	1494	26.6	O. Foss
"	Spring Valley*	"	371	495	19.5	P. G.	13	718	33.4	Gunderson & Hammer
"	Oak.-Tomah-War.*	"	438	536	19.9	H.	9	1454	47.9	N. S. Wakefield
"	Fond du Lac-G. Lake	"	40	497	19.5	H.	14	1007	35.2	F. Marks
"	West Bend	Oct.	361	441	17.9	P. H.	28	916	30.6	Wash. Co. Asylum

*Retest rules followed.





Lost! $78.00 A Year By Poor Separators —De Laval Proved It!

IN ORDER to show exactly how much money is being lost by poor separators De Laval Agents in 17 states during the past year held hundreds of public tests, in which the skim-milk from some separator in each community was run through a new De Laval and separated again.

In all these tests De Laval Separators never failed to recover butter-fat from such skim-milk. The butter-fat recovered in this way was immediately weighed and tested at the local creamery or cream station, and varied in value from a few cents to over a dollar.

The average results from all the tests showed that the separators from which De Lavals skimmed the skim-milk were losing butter-fat at the rate of $78.00 a year.

50,000 People Saw These Tests

More than 50,000 people attended these demonstrations and many of them were amazed at the separating losses revealed and asked for tests to be made on their own separators.

In view of the fact that no effort was made to secure skim-milk from the poorest separator in each community, and that the tests were conducted under the observation of disinterested people entirely in the open and above board, they reveal a general condition.

It has been conservatively estimated that 25% of all separators in use today are wasting large amounts of butter-fat—enough to pay for a new De Laval in a short time. Is your separator in this class? To make sure it isn't, try a new De Laval.

Trade In Your Old Separator on A New De Laval

The new De Lavals are the best separators ever made—they skim cleaner, run easier, are more convenient to operate and last longer than any others. They have many new features you will appreciate. Liberal trade allowances on old separators of any age or make made on new De Lavals, which are also sold on easy terms or installments. See your De Laval Agent or send coupon for full information.

MAIL COUPON

THE DE LAVAL SEPARATOR CO., Dept. 3421
165 Broadway, New York
600 Jackson Blvd., Chicago
61 Beale St., San Francisco

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Name.....

Town.....

State .....R. F. D. ..... No. Cows.....

EDITORIAL COMMENT



We extend to our readers the season's greetings—a Merry Christmas and a Happy and Prosperous New Year.

Why do some dairymen succeed and others fail? There are many reasons, among which we offer one as being of basic importance. Success is the result of ability and desire to recognize and make use of helpful information; failure is the result of inability or lack of desire to discover and use the known facts of good dairy husbandry. A study of ourselves is, therefore, a very important part of getting the greatest return from a given amount of feed, labor, and other investments and expenditures.

SALT AND WATER

Salt and water are both essential to profitable milk production. Aside from air, they are the cheapest products consumed by the cow, and it is rather difficult to understand why so many cow owners do not provide their herds with all the salt and water that they require.

At one time it was thought salt was not essential, but an extended experiment demonstrated that a cow needs salt quite as much as she needs other kinds of feeds. The quantity that a cow requires daily depends upon her size and the quantity of milk she produces. One to two ounces per cow daily is considered adequate. It is the practice of some feeders to mix enough salt in the grain portion of the ration so that each animal gets one ounce daily, and then provision is made where they can eat as much more salt as they desire. This we consider a very satisfactory way of salting cows.

Many instances could be cited where cows have not been given an adequate supply of water, for when they were given an opportunity to drink all they desired, their milk production increased 15 per cent or more. The ideal way to provide both salt and water is to keep them before the cow all the time. That cows drink after they have finished eating their grain, is pretty good evidence that this is a good time to water cows. At any rate, whatever system is used for providing salt and water for cows, let it be adequate and at no time let the cow be in need of these simple feeds. It is a waste of other feeds if cows are not supplied with sufficient quantities of salt and water.

LOADING THE DICE

A prominent breeder of dairy cattle writes in part as follows: "I have read with a great deal of interest your editorial of November 10 on the question of the Holstein Association adopting the Herd Test Plan. The one great difficulty with the Herd Improvement Plan is to keep in everybody's mind clearly the fact that it is a test of a herd and not an individual test. There is likely to be a constant demand that credit be given to high producing animals on test but the herd record should be featured and, of course, the record of the bulls whose get have shown themselves to be especially high producers. The danger that I see for the herd test is that the large breeders can never, in my opinion, year in and year out, make records comparable with the farmers who have a few registered cows. This will make it very difficult for the big breeder who goes on herd test to compete with another breeder who doesn't go on test.

"In my experience, for a man to go and buy a few high producing cows and breed them to a bull that may be out of a high producing cow or may be a show winner is a good deal like throwing dice. The results may be all the way from 2 to 12. The man who breeds for years and in his breeding operations eliminates all those that fail to meet certain standards gradually gets a modified pair of dice—dice possibly with only 4's, 5's, and 6's—so that when he throws the results will only vary from 8 to 12 instead of from 2 to 12. If any breed can get a large percentage of its breeders to adopt the Herd Test Plan for 15 or 20 years, those breeders will automatically make for themselves a pair of dice that has no low numbers."

This is another way of saying that the breeder who directs himself to the improvement of his herd and eliminates the low producers will establish fixed traits or characteristics in animals that have no low producing characters in their veins. They will reproduce animals of high producing traits. The only way to establish high producing characters is to sell animals of low production to the butcher. The real purpose of the Herd Improvement Plan is to eliminate low producing animals and perpetuate those of high production and in this way establish a high producing herd rather than a medium herd with a few high producers.

By the systematic "spotting out of the low producers," as Professor Anthony puts it in his discussion on our title page this week, we can load our breeding dice so that low production will become unusual and high production prevail more generally. Breeders can make for themselves "a pair of dice that has no low numbers."

FARM CONVENIENCES

It is with considerable satisfaction that we read the recent survey made in Wisconsin as to the extent to which the farm is taking advantage of those things which make farm life more pleasant and attractive. One-fourth of the farm homes in Wisconsin are equipped with furnace heat and power washing machines. One-fifth of these homes have radios and nearly as many are equipped with electric lights.

The study was made by the Wisconsin Crop and Live Stock Reporting Service in co-operation with the rural and state graded schools. Reports were received from nearly six thousand school districts covering a total of 52,757 farms. These reports indicate that 17% of Wisconsin farms are equipped with electric lights; 13% use electric power; 9% receive their electricity from home light plants; and 20% have radio sets. Power washing machines are used in 25% of the farm homes; 24% have furnace heat; 14% have piped running water in the kitchen; 30% have piped running water in the barn; 11% have bath tubs; and 7% have hot running water in the kitchen.

We hope the time is not far distant when even larger use will be made of modern conveniences and labor saving devices on the farm and in the farm home. There is no place where they are more thoroughly appreciated and put to so good use. We are gratified, also, that the industry and opportunity of the Wisconsin dairy farmer are such that they permit of the investment in these things that make for better living and satisfaction on the farm. For the dairy farmer these conveniences lighten his labor and that of his wife to a greater extent than for any other class. They are necessities rather than luxuries.

PROOF WANTED

"The farmer buys in a protected market at a high American price and sells in an open market at a low world's price."

This statement, with variations, is constantly and consistently used by those who argue for so-called farm relief legislation. It appears to be the bone and sinew of their argument, yet we have seen no proof submitted. We hold no brief for the protectionist, nor do we care to enter into this as a political discussion. However, we are interested in the facts.

What does the farmer buy in a protected market that every other person does not buy? With very few exceptions the tools and equipment of farming as a business are all on the free list. The American farmer can buy his mower or other farm business equipment from a foreign manufacturer and he pays no duty. What he does buy in a protected market is what every other man is compelled to buy.

Certainly there is no discrimination against the farm buyer. If anything, there is discrimination against the city buyer. If the consumer pays the tariff duty, as some claim he does, then he pa extra for his butter to the tune of twelve cen a pound as well as extra for most other foo and household articles. He pays duty everything he buys to as large an extent as t farmer, in addition to which he pays a tariff du on the tools and machinery he uses. He is co pelled to a larger extent than the farmer to b in a "protected market."

We ask again: What does the farmer buy in protected market that every other American ci zen does not buy? We have put this same que tion many times to those who have used this a gument, and we have yet to find a man who h given any supporting evidence of his claim. they reply, they avoid the question and mere "holler down the rain barrel" other unsupport statements or generalizations, with the appare intention of distracting attention.

There is some truth in the statement that ce tain farm products, like cotton and wheat, sell the world price in our domestic market. Howeve this does not apply to all farm products, and time goes on the farmer will be more interest than the manufacturer in tariff rates on his pro ucts. Consumers of farm products in the Unit States are increasing very fast, and producers farm products are decreasing. In the not dista future we may see an insistent call from the ci for free trade in food products, and then the ba tle royal will be on.

"He must buy in a protected market" is an o bogey. The facts do not show any discriminati against the farmer. Men who use this kind of a gument should submit proof as well as make mere assertion.

NATIONAL DAIRY COUNCIL

The dairy industry will regret to learn that D C. W. Larson has resigned as chief of the Bure of Dairy Industry. This regret gives place to r joicing, however, when the announcement is a companied by the news that he has been chosen direct the manifold and valuable activities of t National Dairy Council. As chief of the Dai Bureau, Dr. Larson has shown unusual executi ability and has gained the good will and con dence of all phases of the dairy industry. His s lection for his new duties has met with univers approval and should tend to strengthen and a vance the work of the Council.

The small group of men who met a few yea ago and formed the National Dairy Council ha builded better than they knew. They were men vision, yet it is doubtful if they saw then the po sibilities of the organization and what a solid a substantial contribution it would make, not only the dairy industry but to the health of the nati as a whole. Through the wise leadership President Munn, it has functioned exceeding well for the dairy industry, not selfishly but presenting the merits of milk sanely and intel gently in connection with the whole problem health and proper nutrition. In this way it h secured the whole-hearted support and co-oper tion of the medical profession, the health autho ties, the schools, the women's clubs, and, in gen al, all welfare agencies. We do not know of a other case where such universal and genuine c operation has been given to an object which mig be construed as being selfish. However, by its a tions the Council has justified and strengthen this co-operation.

President Munn and his co-workers are to congratulated upon their accomplishments, b even such splendid progress as has already be made is only the forerunner and the promise future benefits to the dairy industry and to t health of the nation. It is therefore with gre pleasure that we learn that President Munn w successful in securing Dr. Larson, sound in jud ment and well trained, to join the Council as directing force. The good work already done is challenge to the future and should lead the dai industry to give the Council its whole-heart support, financially and in every other way.

Moving a Stave Silo

ow would you suggest to move a 10x24 foot d stave silo to a new location about a mile y and without taking it down?
oscow, Idaho. F. O. H.

'e hesitate to advise moving a stave silo with- taking it down. It is very doubtful whether could get it back on the foundation and in i shape without racking it to such an extent it would not stand well. Furthermore, the ense is quite likely to be greater than in tak- the silo down and re-erecting it.

owever, if it is desired to move the silo with- taking it down, very likely the nailing of one- inch strips around the inside of the silo as rior hoops will enable one to handle it without ollapsing. As a matter of safety, these inside den hoops or stays should be placed at the e point that the outside hoops are placed. Af- protecting the silo in this manner and tighten- up the outside hoops, the silo may be tipped on its side and moved on wagons or on a ially built set of runners.

few years ago in discussing this same subject 'isconsin subscriber sent us his experience as ows:

We first tightened the hoops, then raised the with a jack screw and loaded it on two eight- ights. These were fastened solidly by nailing planks inside and outside. The outside planks e notched out some to fit the circle of the and inside plank. The corners were chopped it against the silo. It was then loaded for ing. We placed plank on the ground to move and moved with rollers. Pulling was done a tackle block. When ready to place on wall silo was let down two inches at a time by us- a bar for a lever. The staves were not moved of line in moving."

Carbonaceous Feeds Needed

have sweet clover hay as dry roughage and k beets as succulent roughage. I also have soy s and cottonseed meal is available at low . Will you suggest other feeds needed and e a balanced ration for me?
hitakers, N. C. O. K. T.

he greatest need in this case is for carbona- s concentrates such as corn, hominy feed, bar- oats, grain sorghum, and feeding molasses.

'e suggest the sweet clover hay be fed to the t of appetite along with the stock beets at a of about 4 lbs. daily for each 100 lbs. of live ght. If the hay is somewhat coarse such as to e it more or less unpalatable, one could sprin- it lightly with thinned cane feeding molasses thereby tempt the cows to eat more of it.

his combination of roughage when fed as sug- ed requires a concentrates mixture yielding more than 10 per cent of digestible protein, n fed at a rate of 1 pound for each 3 pounds milk produced. In fact, such a mixture supplies e protein than is actually required according eeding standards. A mixture composed of 200 each of ground corn, hominy feed, ground , bran, 100 lbs. of cane feeding molasses, and lbs. each of cottonseed meal and ground soy s will yield a little over 10 per cent of di- ible protein.

he ration composed of 15 lbs. sweet clover hay, bs. beets, and 10 lbs. of the above mixture sup- s 3 lbs. of digestible protein and 18 lbs. of total stible nutrients. The requirements for a cow ghing 1,000 lbs. producing 30 lbs. of 4 per milk daily are 2.48 lbs. digestible protein and 8 lbs. total digestible nutrients.

Soy Bean Hay and Sheaf Oats

or roughage I have a hay composed of about e-fourths soy beans and one-fourth sudan ss. I also have sheaf or bundle oats, and I have shed oats available. I understand that soy ns are very high in feeding value when cut in bloom and that the U. S. Department of Agri- ure does not recommend the feeding of soy n hay alone on account of this high feeding e, stating that digestive trouble may result. If is true, how would it do to grind the sheaf s, straw, grain and all, and feed this with the bean hay? If I feed the soy bean-sudan hay he only roughage, what is a good grain mixture feed including oats? Give me a grain mixture able for feeding with soy bean hay and ground af oats.
rgyle, Mo. J. B. L.

oy bean hay would probably have a higher feed- value when cut after the pods are well formed, large percentage of the leaves could be saved at that time. Such hay would not be quite as palatable as earlier cut hay and there would be greater difficulty in curing it because the bean pods do not dry out rapidly. The general practice is to cut soy beans for hay when in full bloom or very shortly afterwards just as the pods are forming. When cut at this time, the hay has a feeding analysis very similar to alfalfa hay, and feeding trials indicate it is nearly equal to alfalfa for dairy cows. As a rule, a greater percentage of soy bean hay is refused by cows, owing to the coarse stems, than is true with alfalfa. Nowhere do we know of feeding trials indicating that soy bean hay fed alone causes digestive trouble. The soy bean seed, if fed in large quantities, would likely cause some trouble, and the butterfat from cows so fed would be too soft for good butter.

As a general rule, soy bean hay is combined with silage. Not often does one feed soy bean hay as the only roughage. We would not hesitate to feed it as the only roughage if no other roughages were available to feed with it. A grain mixture suitable for feeding with soy bean hay in which there is some sudan grass could be made of 300 lbs. of ground oats, 300 lbs. of ground corn or ground barley or hominy feed, 200 lbs. bran, 100 lbs. each of linseed meal and cottonseed meal.

There is no objection to grinding the sheaf oats which, together with the soy bean hay, would constitute a good roughage combination. We suggest moistening the roughage, both hay and ground sheaf oats, with thinned feeding molasses to make it more palatable. A suitable grain mixture could be made by adding 100 lbs. of gluten feed to the mixture given above.

Solids in Skimmilk

What is the comparative content of solids in skimmilk from the Jersey, Guernsey, Brown Swiss, Ayrshire, Holstein, and Milking Shorthorn breeds?
Morrill, Neb. C. M. K.

There are no analyses available as to the average composition of skimmilk from milk of the various breeds. Professor Eckles, however, gives in "Dairy Cattle and Milk Production" a table showing the average composition of the whole milk of the several breeds as computed from a large number of records published by experiment stations. We reproduce this table below, adding a column to show the probable composition of the skimmilk resulting from separation:

	Whole milk analyses			
	Fat	Solids not fat	Total solids	Solids in skimmilk*
	%	%	%	%
Holstein	3.45	8.84	12.29	9.2
Shorthorn	3.80	9.05	12.85	9.5
Ayrshire	3.85	9.13	12.98	9.6
Guernsey	4.98	9.72	14.70	10.2
Jersey	5.14	9.76	14.90	10.3

*Estimate based on the assumption that one pound of solids not fat is left in the cream and that 100 pounds of milk will yield 85 pounds of skimmilk.

To provide further data on the relation between the fat content of milk and its content of solids not fat, we have combined 754 analyses of milk reported by the Minnesota and Illinois agricultural experiment stations. We have classified these analyses on the basis of a variation of one-half of one per cent in fat test and then estimated, as previously, the approximate per cent of solids that would be retained in the skimmilk. The results are given in the following table:

Whole milk analyses			
Fat	Solids not fat	Total solids	Solids in skimmilk*
%	%	%	%
3.0	8.2	11.2	8.5
3.5	8.5	12.0	8.8
4.0	8.7	12.7	9.1
4.5	9.0	13.5	9.4
5.0	9.2	14.2	9.7
5.5	9.4	14.9	9.8
6.0	9.5	15.5	10.0

*Estimate based on the assumption that one pound of solids not fat is left in the cream and that 100 pounds of milk will produce 85 pounds of skimmilk.

The above table indicates that as the fat percentage of milk increases the percentage of solids not fat also increases, but not as rapidly or in the same proportion. While these averages indicate a definite relationship between fat and solids not fat, the individual tests show variations from the normal. For instance, 34 analyses of milk testing from 3.75 to 4.20 per cent fat, showed a variation of from 8.3 to 9.9 per cent in solids not fat; and 34 analyses of milk testing from 4.25 to 4.74 per cent fat, showed a range of from 8.9 to 10.1 per cent solids not fat. However, these are the extremes in variation and are not indicative of the general trend of the relationship between fat and solids not fat.

The weather, period of lactation, feed, and other conditions affect the per cent of solids not fat in milk without regard, in many cases, as to their effect on test. For instance, although the casein content of milk increases with advancing lactation as does the fat content, dry pastures and hot weather in late summer tend to decrease the casein content of milk much more than it does the fat content. This is one of the reasons why cheese made at such times leaks fat badly, does not press together well, and does not stand up although behaving perfectly when first made. There is also excessive loss of fat in the whey. "This behavior," say Van Slyke and Price in their new book on cheesemaking, "is due to the abnormal decrease of casein in relation to fat, so that the milk and cheese contain an excess of fat." However, this condition is liable to affect all milk alike, whether from high testing or low testing cows.

While Professor Eckles' report indicates a relatively higher percentage of solids not fat in milk than is given in the succeeding table, the ratio between solids not fat in milk of different tests is about the same. His report indicates that 100 pounds of Holstein skimmilk would contain about 9.2 pounds solids as compared with 10.2 pounds for Guernsey skimmilk, a difference of 1.1 pounds. The succeeding table would indicate that 100 pounds of 3.5 per cent milk would contain 8.8 pounds solids as compared with 9.7 pounds for 5 per cent milk, a difference of 0.9 pound.

While the above discussion has been based largely on the relationship between fat and solids not fat in whole milk, it applies in like measure as to skimmilk. We believe the estimates as to solids in skimmilk from milk of varying tests may be fairly well relied upon. It is possible that the smaller quantity of cream of a given test secured from low testing milk may vary the content of solids in the resulting skimmilk. It would be our opinion, however, that this would not have a material effect.

Getting Ready for Pasture

Anticipating a shortage of pasture next summer, I have limed 10 acres to be seeded to sweet clover in oats. How much pasture may I expect from the sweet clover after the oats are off. About when will it be ready to pasture? About what rate of seeding should I make the oats and sweet clover? If I cannot expect much from this sweet clover the first year, what suggestion have you for supplementing my native pasture and this sweet clover?
Boone, Iowa. C. R. A.

If everything is right, one could begin pasturing the sweet clover approximately the last week in August and continue until the latter part of October. First year sweet clover should not be pastured heavily late in the season unless the acreage and number of live stock are such as to supply considerably more feed than is required. The plants should be allowed some opportunity for growth as long as weather permits.

We have seen splendid pastures from first year seedings of sweet clover in oats, and we have seen no pasture at all. Three factors are largely responsible for success in a venture of this kind. The soil must be sweet, the inoculation must be thorough, and the rainfall after the oats are cut must be ample and timely to give the young, tender plants an opportunity to take full advantage of the remainder of the growing season. When all three are right, there is pasture, and when one or more is not right, there is little or no pasture.

We suggest seeding not more than two bushels of early oats and from 10 to 15 lbs. of scarified, white biennial sweet clover seed per acre. The sweet clover seed should be inoculated with the proper bacterial culture which may be secured from any reliable seed company. Directions for its use accompany the culture.

To supplement the native pasture, we suggest a seeding of sudan grass which will be ready to pasture about six weeks after it is seeded. The time of seeding should, therefore, be gauged according to the anticipated needs for the extra feed. One seeding of sudan could be made at a time when it will supplement the native pasture best, and a later seeding made when it will supplement the new seeding of sweet clover best. The rate of seeding sudan is from 15 to 20 lbs. per acre, seeded broadcast on a seed bed, the surface of which is prepared as for corn.

Hoard's Dairyman

Fort Atkinson, Wisconsin
Founded 1885 by W. D. HOARD

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All foreign countries in the Postal Union $1.00 a year; not in Postal Union $1.50 a year. These rates include postage.

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome, immoral, and quack medical advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers who farm with businesslike methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received thirteen days previous to the date of publication. Advertising to be classified or changes in advertising must reach us three weeks previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

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Larson Joins National Dairy Counci

IN the same sense that Judge Landis is termed the Czar of Baseball and Will Hays the Czar of Motion Pictures, the daily press has published the photograph of C. W. Larson and has designated him as "The Czar of the Four Billion Dollar Dairy Industry."

This is, of course, the kind of publicity the daily press delights in, and it all comes from the fact that on December 1 the National Dairy Council engaged Dr. Larson as director of the work in which it is engaged. Dr. Larson has been Chief of the Bureau of Dairy Industry of the U. S. Department of Agriculture and enjoys the confidence and respect of all departments of the industry. In announcing his selection, M. D. Munn, President of the National Dairy Council, said: "The development of the four billion dollar dairy industry and the growth of the Dairy Council movement made it necessary to increase the executive force of the Council. Dr. Larson will direct the activities of the Council and brings to this organization a unique background of experience and a wide acquaintance with the leaders of the industry."

Dr. Larson, a graduate of Iowa State College in 1906, has had a wide experience in practical management of creameries and cheese factories. He was with the dairy department of Pennsylvania State College for ten years, at the head of this department most of that time. After securing his doctor's degree at Columbia University in 1915, Dr. Larson was appointed to the Chair of Agricultural Economics at Columbia University. During the war he was requested by the U. S. Department of Agriculture to come to Washington for special war work, following which he was appointed assistant chief of the dairy division, receiving the appointment of chief of the division in 1921. A Bureau of Dairy Industry was established in 1924 and Dr. Larson has developed the policies and program of work under which this Bureau is expanding.



C. W. LARSON

Mr. Larson has resigned as chief of the U. S. Bureau of Dairy Industry to accept the position of director of the widespread activities of the National Dairy Council in promoting the wider and more general use of dairy products.

The Growth of the Dairy Industry

"With 7 per cent less dairy cows in 1926 than in 1920," said President Munn in his annual address, "we produced 34.7 per cent more milk than in 1920. Think of the influence that has had on the stabilization of agriculture.

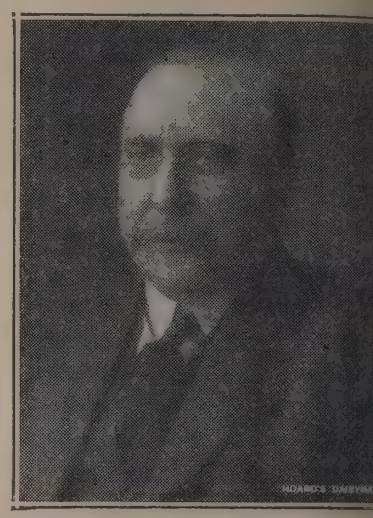
"I listened the other day to a discussion about getting relief to the extent of three or four hundred million dollars in one cereal and three or four hundred million dollars in another—a total of somewhat less than a billion dollars, which would completely relieve agricultural distress. Why, through this animal this relief can be secured, the human race much improved, soil fertility much improved, and prosperity on the farm much improved, and it can be done on an easier, more certain, more effective and and more permanent basis, in my judgment, than in any other way.

"We know today that the least important consideration in connection with food is the satisfaction of hunger. We know that the great important question is—What foods will best supply most economically the elements that are necessary to build and sustain the human frame and produce the most efficient form of human beings?

"Of the consumer's dollar, twenty cents went for milk and its products during 1920. Taking the 24.8 per cent increase in consumption of dairy products, we find that the per cent of the consumer's dollar has been raised by practically 4.75 and yet we have not reached anywhere near the amount these dietary scientists are telling us and telling the public should be used of these products to build the best frame and maintain the best mind. They say it should be at least 30 per cent in order to meet the requirements that are necessary. If we reached that point in the next eight years, our supply of dairy products would have to be increased over 45 per cent.

"Here we have not only our desire for increased business, but have the scientific support and statements and backing of dietary scientists as to what we ought to do the interest of the consuming pub We are able to go, not with a sel story to the consuming public, with a story built on a scientific fo dation and supported by the scien world of this country.

"Are we doing what we ought do ourselves in this regard? I hesitatingly say no, we are N Here are thousands upon thousa



M. D. MUNN

Mr. Munn was re-elected president the National Dairy Council and will co tinue active as head of the Council, w its fourteen regional units in strategi locations throughout the country.

of butter manufacturers, thousa upon thousands of milk distribut hundreds of thousands of farmers farmer organizations, and each really in itself a unit. They grouped together in sixteen or e teen national organizations, but th national organizations are not ganized to raise funds to carry this work. That is the business of National Dairy Council.

"How can we get this over to industry? How can we picture this industry the possibilities that ahead of it, the opportunities are coming to it? Why, if I were ing to say that there was any di request that could be made, it wo be: Give us the vision and the po to see and visualize the opportuni and possibilities that lie ahead of If we will only take advantage these opportunities, there is no l to what can be done in expanding industry."

Buttermakers' Short Course

The University of Nebraska announces a short course in buttermaking and creamery management to be held January 9—21st. This course is especially designed to meet the needs of the man engaged in creamery work. The creamery is modern in every way and completely equipped for the various branches of the dairy industry.

The course of instruction will cover testing milk and cream, principles of chemistry and bacteriology applied to creamery practice, grading, neutralizing, pasteurizing, churning, and packing. Lectures on creamery problems, principles of accounting, advertising, marketing, creamery organization, and management, as well as mechanical refrigeration, will be given.

For further information address Department of Dairy Husbandry, University of Nebraska, Lincoln.

Christmas Inspiration

You may be down but you're not out if you have the indomitable spirit of Theodore Notbohm.

Seven years ago this Southern Wisconsin Holstein breeder lost his entire herd of 26 head from tuberculosis, a herd he purchased with the farm in 1912 and in which there had been nothing but pure-breds for 40 years. Today the Maple Lawn Holstein herd numbers about 28 head, nearly all pure-bred and all but one raised on the farm. It has been on the federal accredited list for five years. Mr. Notbohm believes thoroughly in the tuberculin test and would not have an untested animal in his barn.

Four years ago Mr. Notbohm lost his eyesight and has suffered much since. But he does not complain. With the help of his cane and his canine friend, Bob, he gets around alone—milks, runs the separator, curries the horses, and does odd chores. This fall he husked and tied 7 acres of corn alone. In his spare time recently he braided a doormat from corn husks. His wife and his son, Wallace, help run the 95-acre farm and his daughter, Helen, a high school student, is a good "hired hand."

As you step into the milk house and from there into the barn, you note the fresh, clean appearance of the white walls and ceilings. You are informed that the whitewash for this, the poultry and hog houses comes from the carbide gas plant located in the basement of the home. The lime wash taken from this plant is used as a spray for the orchard trees and is occasionally applied as a fertilizer to the fields, helping to make alfalfa grow luxuriantly, a crop which has been a standby on M Lawn Farm for many years.

The home is modern through with running hot and cold wa and furnace heat. There are 29 lamps in the house, yard, and b Mrs. Notbohm cooks with acety gas and is enthusiastic over its There has been a carbide gas plan this place for eighteen years. Notbohm cleans and fills the p himself and thinks that acetylene is a good, economical source of and light.

Theodore Notbohm has serve secretary and manager of the co erative creamery near his home last winter was elected president. is optimistic about the future farming and in his comeback aga two such hard blows—his loss of h and eyesight—there is a real Ch mas inspiration.

Wayside Musings

"The Strength of the Humble and the Weak"

JOSEPH S. MORRIS, WISCONSIN

. . . Be not afraid; for behold, ring you good tidings of great joy ich shall be to all the people." nd this is the sign unto you: Ye all find a babe wrapped in swad- ng clothes, and lying in a man- r."—St. Luke 2:10, 12.

A Christmas Prayer

Ve thank Thee, O God, that the message new hope for the world came to humble n in the line of duty. We thank Thee t that hope and that promise was incar- e in a little child. We are filled with awe the presence of all childhood for we re- mber that in them is the future, and as rejoice and are glad for the birthday of Christ our minds turn naturally to chil- n and we are filled with desire to make m happy, and healthy, and good. We re- n thanks, O God, for the humble men of th, for the men who are eager to see some w good born, for the men who are not amed of hope and faith, even in the midst life's unending round of work. May this a happy Christmas for all and may we do our part toward making a happier rld.

e time draws near the birth of Christ;
The moon is hid, the night is still;
A single church below the hill
pealing, folded in the mist.—TENNYSON.

SO many Christmas days have come and gone that our minds are full of the traditions, the folklore, the customs of many lands and climes. In all that we have in sacred memory there ides a universal desire for peace id good will, and for the dissem- ation of happiness. We are chil- en, all. We long for that mystical mething that shall lift us above the tty, the sordid, the commonplace, id help us to share in the noble, the nerous, and the exceptional.

For a brief span at any rate we bandon ourselves to the spirit of hristmas. And what is the spirit of hristmas but the spirit of good ill, the spirit of good deeds, the irit of sacrificial love—love that oes out of its way to bring smiles id gladness to others. Of course, llowing the thought to its logical nclusion, we shall desire that more this spirit shall abound through- ut the year. Perhaps it is the very act of Christmas that gives us so uch of love and good will and gen- osity throughout the year.

Modern life, the making of a liv- ng, is a more or less stern business; he struggle calls for strength of anhood and womanhood. In the rocess our lives become somewhat alloused; we dare not give way to hat is called "softness" lest we fail the struggle. And yet, beneath he surface of the most mature, the ost matter-of-fact man or woman, here lives another being who is the oy, the girl of dreams and hopes and deals; the boy, the girl of warm eart and abounding faith. Christ- as brings to these the opportunity, or the moment, to live again in all he sweetness and good will of child- ood, and to get a new grip upon faith and confidence in each other. Who can say that we are not the better for Christmas even though it may be true that we do not carry enough of its spirit into all the year?

Man is a poet and a mystic and we do not know him until we know him in his deepest heart, until we know him as he would really be should opportunity be given for the expression of his best and noblest self.

And how the spirit of Christmas serves to drive out enmities, animosities, and lingering hates and wounds. It seems almost a sacrilege to carry these into the warm-hearted Christmastime. Is not the world purer, better, for Christmas that takes away some of the hate and ill will?

I have topped this story with the beautiful text from the gospel of St. Luke. Men were told not to be afraid. Heaven had moved with good tidings of great joy for all the people. It is remarkable how inclusive the message is—"all the people." Never can we have good tidings of great joy that are exclusive and that shut out some and admit others as a chosen few. And how beautiful is the story that there were shepherds abiding in the fields keeping watch over their flocks by night, and that to them, in the line of common, honorable work heaven was to make known its newer and better day. Is it not true that all good tidings of better things come from workers, from those who are busy doing the thing nearest at hand, however much they may project themselves into the future and dream of better things? How much betterment or blessing has ever come to mankind from its idlers, rich or poor?

And then this: "And this is a sign unto you: Ye shall find a babe wrapped in swaddling clothes, and lying in a manger." Here is weakness and humility of station, and yet out of these God is to bless the world.

Shall we be wandering far afield if we expand the thought at this time and turn our attention to the babies, the children of the land? Are they not a sign to us of tomorrow? Has it not been true again and again that out of the loins of the common people have sprung earth's great deliverers?

Christmas is essentially a children's holiday. Let it be so. Let us look into the face of happy, hopeful, expectant childhood and know that if there is to be any good in the world when we have grown old with the burden-carrying of the years it must be because we have been faithful to our children and helped them to see the good, the beautiful, and the true.

Let every window in every church everywhere be bright with glowing lights; let every home everywhere put a light in its windows; let every heart everywhere shine with new radiance that the spirit of the Christ Child may find its way throughout the whole world bringing cheer and gladness and better days.

Milkfed Collegians

Agitated statisticians have been onducting nation wide investigations, nostly by means of questionnaires, or the purpose of learning how boot- eg liquor is consumed by college stu- lents. Nothing extraordinary has been revealed—at least nothing un- suspected nor menacing to our na- ional morality. And now, like a bolt rom the blue, comes authentic in- formation to the effect that college oys and girls are milk drinkers.

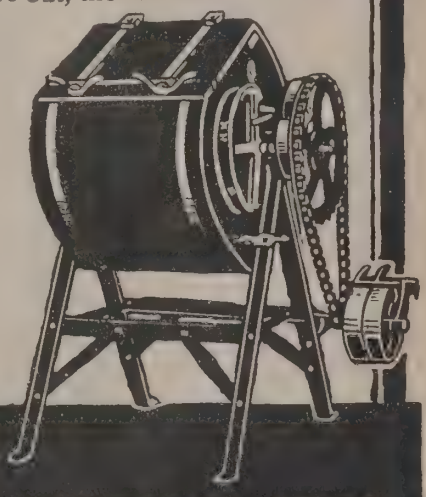
The California Dairy Council explodes this bomb filled with official statistics. It shows that more milk per capita is sold in Berkeley and Palo Alto than in any other cities in the state. A young woman in charge of the dining rooms at Stanford University strengthens the evidence by a statement that 750 students who eat there consume 200 gallons of milk daily.

Will somebody now conduct a lacteal questionnaire and oblige?—San Francisco Bulletin.

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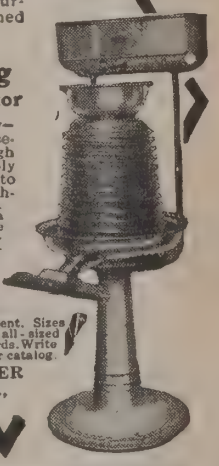
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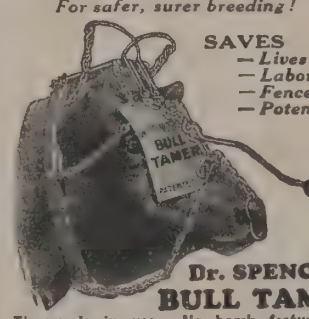
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GOOD RATIONS ARE NOT ENOUGH

Important Factors of Successful Dairy Husbandry

IN a previous article under the title of "Fitting the Feeds to the Cow" we discussed simple methods of approximating good rations for cows together with suggestions on feeding. In this article we discuss air, water, minerals, vitamins, herd management, and dairymen.

Air

When a dairyman builds a barn he provides for the storage of roughage and concentrates; he provides a place in front of each cow from which her feed is consumed; he provides a place for the daily collection of the manurial excrement and a carrier for removing it from the barn; he puts in a milking machine by which to remove the milk; and he puts in watering cups or provides a nearby place to drink.

When it comes to air, he too often takes for granted its supply and the removal of the by-products from its use in the cow's body. He cannot see air; he does not feed it in a basket or remove the by-products of its use with a fork or shovel. It is difficult for him to measure with his eye the effects of poor ventilation on the production or health of his herd. And yet a dairy cow inhales about twice as many pounds of air in 24 hours as she takes in feed and drink. She exhales several gallons of moisture daily into the atmosphere of the barn.

Let us not take too much for granted in the supply of air to cows and in the removal from the barn of the by-products of its use.

Water

It is easier to visualize the feeding of water to cows than the feeding of air, yet many do not fully realize the importance of supplying cows with water under conditions that will tempt them to drink all they need.

The quantity of water a cow needs daily depends largely on her size, production, the character of her feed, and on atmospheric conditions. The quantity she will actually consume depends to no little extent on the conditions under which the water is offered.

Cows will consume, as a rule, all the water they need if they are given the opportunity to drink two or more times a day, if the water is tempered to 50 to 70 degrees Fahrenheit, and the water is readily accessible under seasonable conditions.

Minerals

The mineral requirements of dairy cows and the factors which influence the converting of mineral elements into body uses are not fully understood.

How much of mineral substances, which ones to feed, how and when to feed them, are questions that cannot fully be answered. It is important, however, to safeguard the herd from the known effects of mineral deficiency.

The following feeding and management practice is recommended to safeguard cows from the effects of mineral deficiency:

(1) Include a legume hay with the roughage; (2) balance the ration with suitable concentrates; (3) feed roughage to the limit of appetite and concentrates according to the production and condition of the individual cows; (4) provide salt; (5) give cows from 6 to 8 weeks rest or dry period between lactations during which time feed them adequately so they will be in good condition when they freshen.

The foregoing recommendations apply to cows capable of producing upwards of 300 lbs. of butterfat a year. For higher producing cows the same practice applies, in addition to which their rations should be supplemented to the extent of 3 to 4 ounces per head daily of a simple mineral mixture supplying calcium (lime), phosphorus, and the elements of common salt. A commercial mixture, if supplying these elements, may be used or a mixture made of equal parts by weight of finely ground limestone, bone meal, and salt will suffice. The mixture is most effective when fed while cows are on summer pasture. Where goitre is prevalent, iodine should be made a part of the mineral mixture or fed separately.

There is no objection to feeding a mineral mixture to lower producing cows though the need for it is not so apparent as with the heavier producers.

Vitamins

Vitamins, like electricity, are known more because of their effect than from their composition. Their function seems to be to promote growth, health, reproduction of young, and the production of milk. Good rations coupled with proper herd management are thought to supply sufficient vitamins and in most cases give cows proper conditions for doing their work.

Herd Management

Good rations and proper feeding alone will not meet all the requirements of a well managed herd. Let us consider the low producing cow, but in doing so let us first be fair and give her a chance to show what she can do. Many a cow has fallen down in one herd and made a creditable record in another. Participation in standard dairy herd improvement association work will do no more to give cows opportunity to show their ability than any practice we know of. Furthermore, it will supply reliable information on which to base selection for breeding, as also selection for the butcher.

After having learned how to make rations and feed them intelligently, let us go a step further and learn that it is economic folly to feed good feed to poor cows.

No sooner does a dairyman learn to feed his cows properly than he realizes the economic relation between crop production, good rations, and profit. In other words, he begins to measure milk production in terms of what it brings per acre of crops grown for feeding.

Every dairyman should find out what succulent feed and what legume he can grow best and then set about producing these in quantities sufficient to meet the full needs of his herd.

We have asked a good many successful dairymen what they considered the most important single factor, aside from good rations and inheritance, that influences the yearly production of cows. The answer has invariably been to have cows in good condition when they freshen.

To bring this about it is necessary that good cows be given a reasonable rest or dry period of from 6 to 8 weeks during which time they should be adequately fed.

It is not enough to know how to feed cows when they are in milk; one must also know how to feed them when dry.

Since we are here dealing with factors that affect production aside from rations and rates of feeding, we must not forget regularity in feeding and milking. That irregularity in this respect lowers productio has been proven time and again not only experimentally but als by successful dairymen. Good dairymen feed and milk their cows regularly because it pays.

Efficient Labor Important

Aside from feed, labor is the nex largest cost of producing milk. If is important to remove scrub cows is also important to improve scru laborers; it is important to calculat milk production in terms of man la bor used as well as in terms of crop grown for feeding.

Milk production in terms of ma labor used is partly a matter of con venience in the arrangement o barns, feed storage, watering of cow and such like, and in the equipmen for housing cattle and taking care o them and their milk. Some men an the equipment they have will tak care of a great many more cows i a given time than oth er men. It is partly matter of saving th heels with the use o the head.

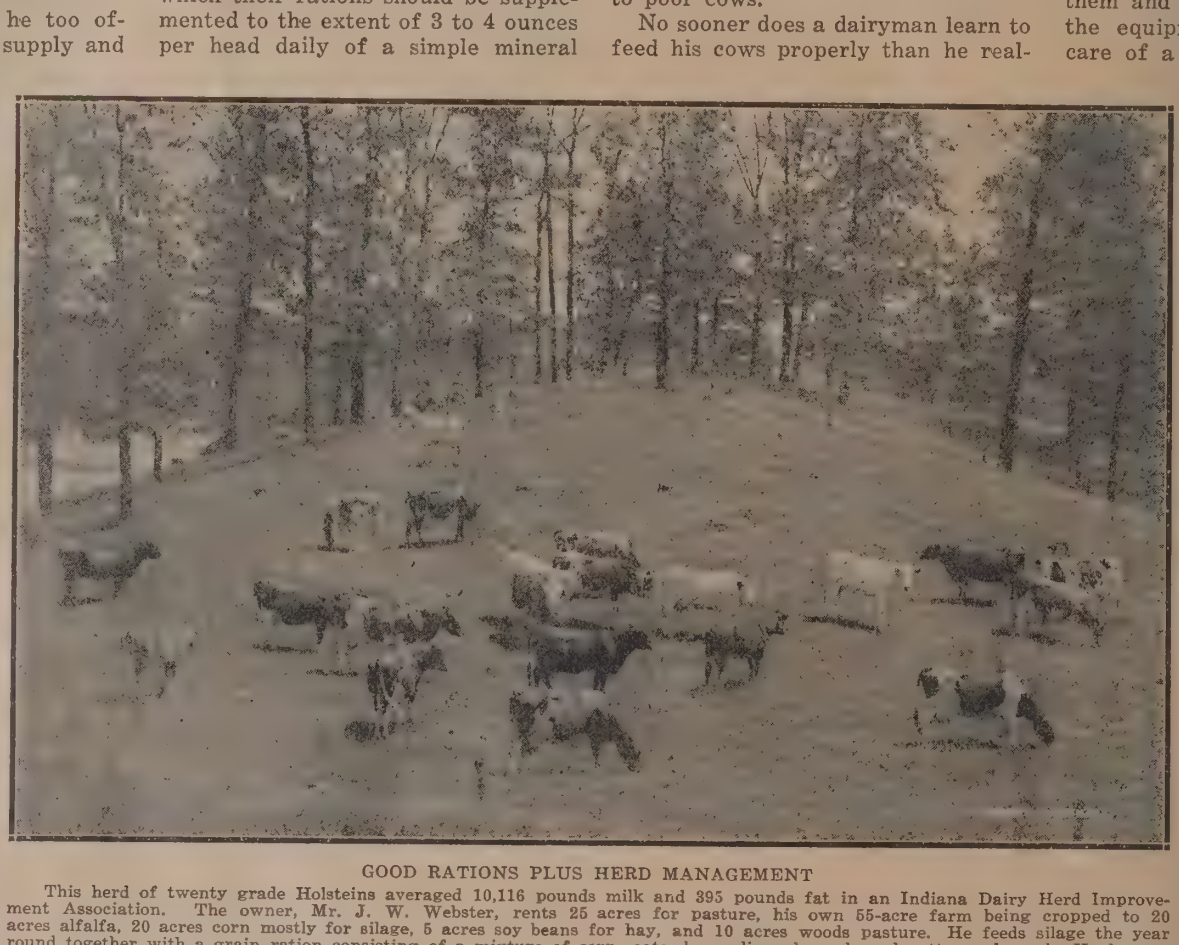
Disease Control

As a factor of man agement in getting th greatest value from th use of good rations w cannot emphasize to much that of disea control. The first ste in disease control shoul always be proper feed ing and managemen with respect to housin rest periods, and suc like. The second ste is to avoid bringing di ease into the herd fro outside sources. Whe disease appears in th herd it is the part o good management t employ the know practical methods o eradicating the menac

The two diseases o greatest economic im portance are tuberculo sis and contagious abo tion. Tuberculosis ca be easily detected an the cost of its elimina tion is largely in pro portion to how widely it is sprea in the herd. Indifference is costly i eliminating this controllable disease

We wish contagious abortion wer as easily detected and controlled as i tuberculosis. It is widespread and it evils are of great economic concer in dairy husbandry. As far as w know, no one can recommend a meth od of treatment with positive assu ance of success. Many investigation are in progress seeking to discove practical control measures. Som hopeful progress has been made wit the blood test in discovering infecte animals. How to cure or eliminat the disease after it has been disco ered is the elusive part of the prob lem.

It is believed that the majo source of the spread of abortio comes from cows eating feed tha may have become infected with th discharges from diseased cattle. Fo this reason isolate all cows afte service and after calving until a discharges from the vagina ceas Bury the afterbirth, aborted fetu and discharges from all births, an thoroughly clean and disinfect th calving pens. Feed the cows well ar as a factor of safety supplement with a good mineral mixture.



GOOD RATIONS PLUS HERD MANAGEMENT

This herd of twenty grade Holsteins averaged 10,116 pounds milk and 395 pounds fat in an Indiana Dairy Herd Improvement Association. The owner, Mr. J. W. Webster, rents 25 acres for pasture, his own 55-acre farm being cropped to 20 acres alfalfa, 20 acres corn mostly for silage, 5 acres soy beans for hay, and 10 acres woods pasture. He feeds silage the year round together with a grain ration consisting of a mixture of corn, oats, bran, linseed meal, and cottonseed meal. He has an accredited tuberculosis-free herd and retails 400 quarts milk and some cream in a nearby city.

asonable Live Stock Notes

INCE the memory of man runneth not to the contrary, live stock has played an important part in man's efts to convert the resources of na-e's benevolence into useful pur-se, thereby advancing civilization to farthermost parts of the earth. is significant that, where animal bandry is practiced extensively l with a high degree of skill, man oys a happier standard of living.

The season is upon us for the prac-e of good will towards men. Were not a good practice it would not ve lived for nearly 2,000 years.

At this time and in this place we nt to persuade keepers of live ck to improve their practice of od will towards farm animals. If ppiness is gained from a practice the Golden Rule among men we gue that it can be further added to farms by ministering to the com-t, feed, and shelter needs of flocks d herds.

Better Pens for Bulls

A very good friend of ours was re-ntly gored to death by an en-ged bull. The animal was known be unruly but our friend took a ance and went about in the enclo-e unprepared.

It is now a time of year when bulls e more closely housed, a time when se who care for bulls come more en and in close contact with them. r that reason we have introduced is subject with a fatality from care-s bull handling.

We are inclined to the opinion that e kind of place in which some bulls e kept has something to do with eir temperament. Too often they k facilities for working off surplus ergy. When the opportune time rives they work it off on the owner d the widow is appointed to admin-er the estate of the deceased. As rule, the butcher is called on to ad-nister the estate of the bull.

We are pleased to note the activity ong county agents in promoting monstrations for the construction of tter bull pens. While the county ent is doing this let the death of r friend be a timely warning to all ners of bulls to the extent that od men shall not die by the horns an enraged bull.

In keeping with our text let us ow good will towards bulls but al-ys behind the defense of adequate eparation.

Subscriber Sends Good Ration

Since this is the season of getting tions properly adjusted to meet e needs of the herd, we are going give you a good ration sent in by e of our subscribers. He has a rd of Jerseys and feeds 25 lbs. lage and 15 lbs. of alfalfa hay per ad daily. His grain mixture is com-sed of 400 lbs. corn and cob meal, 0 lbs. ground oats, 200 lbs. ground rley, 100 lbs. each of cottonseed eal, linseed meal, molasses feed, and ound soybeans, 10 lbs. each of salt d bone meal. It is a little high in otein for the requirements but oth-wise a very good mixture. The reals grains and soy beans are all roduced on the farm.

xpecting Too Much for Some Cows

Among the many inquiries we re-ive on the subject of feeding cows re some that indicate either one of wo things. The herd owner expects o much of his cows or he has cows ot capable of producing up to his xpectations.

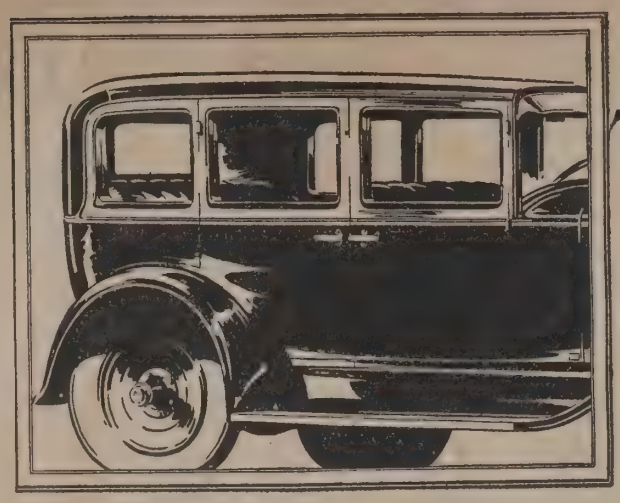
Here is one such inquiry from North Dakota in which the owner tates that he is not getting good re-ults from his cows. He is feeding ood alfalfa hay to the limit of appe-ite and a combination of 35 lbs of ground oats and 65 lbs. of ground barley at a rate of one pound for each three pounds of milk produced. Now this ration could be improved by adding succulence and a greater variety of feeds in the mixture and, no doubt, the production would be improved but it is by no means a bad ration in balance or supply of nutrients.

There are many things that will hold the production of cows down below what they are capable of producing but in this case we suspect that the owner has his expectations too high for the cows he has. And this brings up the very important timely question of giving cows a fair opportunity and then of disposing of them if they do not respond.

Alfalfa Did It

A Minnesota subscriber, after telling us his herd has just completed an average of 380 lbs. fat and 9,965 lbs. milk in the herd improvement association, concludes with, "Last winter we paid $21 a ton for alfalfa hay which helped to make the above mentioned herd average. Our feed cost for a pound of fat was 15 cents."

For those who must buy hay before the winter is over let us urge a first consideration of alfalfa. A good slogan is, "You can't go wrong on alfalfa hay in the dairy ration."



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Note the smooth, glossy, *solid* surface of every Fisher-built body. The chief reason for this is the remarkably fine steel-faced dies which Fisher uses for the production of steel panels.—Manufacturers and engineers from all parts of the world have visited Fisher plants to see these steel dies made—for Fisher is world-famous for its steel press work.—It is because Fisher dies are so precisely made and because they are faced with steel, that they draw the sheet metal out smoothly, evenly. This surface forms the basis for the finer finish which is so apparent on all Fisher bodies.

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CHRISTMAS IN THE FARM HOME





Lucy Thompson

Merry Christmas to All!

IF I could have my Christmas wish and go darting down the chimneys with Santa Claus into all the homes Hoard's Dairyman visits—what a treat it would be! Stockings in a row in the old fashioned way, picture books, sets of blocks, skates, sleds, all the things children put into their prayers, holly wreaths at the doors, candles in the windows, mistletoe for everyone from grandma to the baby to be kissed under, the kitchen bursting with good things to eat, and upstairs sound, healthy sleepers in all the beds. That is what I wish I might see on every visit, for Christmas is the one day in the year set aside for pure happiness.

To you whose homes are like this there is no need to say Merry Christmas, for you will have it anyway, but to you in homes where grief or misfortune has come I say it with all my heart for the meaning of Christmas—if only our human eyes could see it—outweighs any grief that can come to us. It's only the old, old greeting but it comes straight from the heart of one who somehow can never think of you as a group of "readers" because you always seem like such real friends.

Unto Us a Child is Born

A FRIEND whom I had not seen for several months rang the doorbell one afternoon lately. "Come in," I cried, delighted to see her again.

"No, indeed," she replied, "you come out and see what I've got." Her eyes were sparkling and her whole body seemed vibrant with happiness. I ran out and there in the bottom of the car in a basket lay the loveliest pink baby you ever saw, sound asleep, one little fist clutching a rattle.

"Where—where," I gasped, "did you get him?" You could just see that it was a boy.

"Don't you know I always longed for a baby and I told you I would have one by hook or crook?" she replied. "Well, last Christmas was just too awful and that's what did it. We had our little new house that I fixed up so spick and span, the kitchen was full of good things to eat, we had a tree; everything was all right on the surface but somehow it was a dead house. There was no child in it.

"Well, here was Christmas coming again so the other day I just packed a few things for Andrew and myself and we set off for the—Home. Andrew wasn't anxious but he was willing and that was enough. For my part I was a little shaky but I was never so thrilled in my life. I told the matron that we wanted a little fair-haired, blue-eyed boy. 'Just a minute,' she said and went off, as I thought, to get her notebook. In a little while she came back and laid 'this' in my arms. I just cried!

" 'Don't love him yet!' said Andy, cautiously, 'until we see if he is all right to keep.' But I did just love him anyway and he was all right to keep, too. His parents came of healthy stock on both sides and that is all I was interested in. Yes, he is a little illegitimate baby but then so were some of our greatest men and women.

"Life is so different now; the very commonest things seem changed; we have something to look forward to, something to work for. I can hardly get Andrew out of the house to go to work any more and you should see the Christmas we are going to have!"

Now you may think that I am just making up a story but within two weeks this same thing happened to three of our friends. When we talked to them about it they all said at one time or another during the conversation, "Of course this isn't the real reason we took the baby, but won't it be fun at Christmas!"

I don't believe it would be possible for real parents to love a child more than these adopted parents do. For years they have been longing for a child of their own and now all that longing finds escape in their love.

"Maybe we won't be very good parents even though we do our best," said the first mother, "but I know that Jimmie is going to be a lot better off than if we had left him in that home and we are going to be a lot better people for having him. And Christmas!" she beamed. "I just keep thinking all the time 'Unto us a child is born' and I know how the angels felt that first Christmas Eve."

Christmas Games

BY this time you will have made all your plans for the Christmas evening amusements but unless you are different from most of us another game or two will be a good thing to have up your sleeve. We all know the horrified feeling of the hostess when she sees her planned entertainment being knocked down like a bunch of nine-pins, one game clicked off after another and everything done before the evening is started—no more games ready, not time for refreshments, the guests can't talk, or won't! So I'm tossing you a couple of lifesavers if that unwelcome crisis comes to you this year.

Select a goal at the end of the longest room you have and line the contestants up at the opposite end. At the goal end place as many suitcases as you have contestants and pack the suitcases with such articles as shoes, rubbers, hat, gloves, umbrella, and scarf—all must have the same number of things in them. At a given signal let the contestants start and walk to the suitcases, each one unpack one of them, and dress himself (or herself) in the things found inside, close the suitcase, and return to the other end of the room. When he gets there he must take off the things and repack the suitcase. The one who finishes first gets a simple prize.

Another game that will remind you of the old Marching to Jerusalem is called Parcels Post. This is good because it takes in almost any number of people of all ages. Seat the guests in a circle if you can, or any other way will do, and ask each one to give himself the name of a city. The leader then goes to each one and is told the name that has been selected. He remembers as many as possible of these. He then stands before them and calls out, "A parcel is going from New York to Boston," or any other two cities he may remember, and the people represented by these names try to change places before the leader can scramble into one of their seats. The one minus a seat when the scramble is over is the leader for the next time.

Let's Compare Notes

CHRISTMAS is the jolliest time in the year. No one will dispute that. But where is the woman of any years' experience who can honestly say that she has never once way down in her heart thought it more trouble than it was worth? Oh, no, we never get such thoughts when the tree is all ready to light or when the turkey is emerging from the oven a picture fit to be painted. No, it's when the cranberry jelly runs, the turkey won't give up his pin feathers, or the children in their excitement have upset the pumpkin pies—times like that we say, "Oh, bother, why is Christmas anyway?"

Last year just before Christmas when I was "kinda gittin' sorry fer myself," as Mrs. Wiggs used to say, with all I had to do, I got a fine letter from one of our readers, Mrs. McLean of Nebraska. I'm sure I don't see how she had time to write it just then but I am glad she did for its good Christmas spirit made me forget that I had taken on more than I could do and sent me back to my work feeling that Christmas is really the best time of the year.

"This year meant heavy doctor bills for us and with our big family growing so rapidly with small nieces and nephews we decided that we would exchange gifts. But it's hard to squelch the Chr mas spirit and I've found that it takes more t mere illness and doctor bills. So I'm going to b my sister a gallon of our good winter apple c (we've just tapped the Christmas barrel) and my twin who has just moved into town I hav gorgeous bouquet of bittersweet and three bus of apples. I can just see the bittersweet in a black vase she has. A few worthless roosters had around brought in enough for a camera the kid brother and I couldn't resist a row of F cats so I got one for each of the little ones. much, but my laddie speaks a piece tomorrow expresses it so quaintly that I pass it on to with best wishes for a joyous, healthy Christm

" 'What can I give Him, small as I am?
If I were a shepherd I'd give him a lamb.
If I were a wise man I'd do my part
But what I have, I give—
I give my heart.' "

Her gifts of cider, bittersweet, and apples gest how happily many of the things that t seem ordinary may be used in Christmas gi where money is scarce. And best of all, the qu old verse shows what gift we can always give w we have no other.

Fortunately the feeling that "Christmas is too much work and next year we're not goin pay any attention to it" never lasts long and days following find us feeling rather flat; s that it is all over and wishing that we might kept it going just a little longer. On one of t days when you have a little extra time, won't just take any scrap of paper that's handy write me about your Christmas—what you did was the most fun of all, what droll remarks children made, what you had for dinner, how managed if you found yourself one of those simply had to have some celebration when t was no money—in short, write anything at about your Christmas, sad or gay? Let's com notes; it's always fun. "You go first," as the dren say.

Sisters of the Foolish Virgins

THERE always have been, and I don't d there always will be, people who a quite ready, no matter how much they have. For myself, I have alw had a good deal of sympathy for the ish virgins the Bible tells about fo have known in real life so many lov characters who were just like these virgins.

Christmas is sure to be a breathless day for as these trying to do something—I almost *anything*—at the last minute to give pleasur their families. If you should be one of them, d give up and say, "It's just awful. I've not g thing ready for Christmas and now it's too lat just didn't realize it was so near."

Of course you can't rush right off to town well and buy a lot of things at the last minute you can kill and stuff the old rooster—he prob needs killing anyway—and you can stir up s fudge and make a pie for dessert; or, if that is commonplace in your family, some ice cream. is easily made if you have some good, rich cre Whip it, sweeten and flavor it, and set it out mixture of snow and salt, or ice and salt, and it down from the sides a time or two as it free Get out some of your choicest vegetables, pi and jelly that you canned last summer, make s hot biscuit, and you will have a dinner fit fo king. No one will ever miss the cranberry and other "store" things.

After the dishes are washed the children w love nothing better than for you to join them game of fox and geese, and when you are tire that there are hide-and-seek, hunt the thimble, others of the sort. Or, you can dress clothe dolls, or make cats and dolls out of old stocki or pop corn, or hang up a sheet and make sha pictures behind it. No matter how behindhand are there is always something you can do to c the family stomach as well as the family mind

Neighborly Notes

MERRY Christmas, neighbors of mine! May this be the very merriest and the very happiest all Christmases yet! Through the nths of the past year I have been th you neighbors continually. I have ared many thoughts and many tasks th you. I have told you of the emer. ncy shelf, of the kitchen bulletin ard, we have cooked together in e furnace our Sunday dinners, we ve visited our mothers' clubs to- ther, attended parties, studied lletins of the United States Depart- ent of Agriculture, investigated alth week, picnicked together. I ve taken you with me on a trip to e city where we learned of the ad- nce styles for winter. We have dis- ssed the pleasure and profit of a dio in the home; we have also given rious consideration to electricity in e country home. And lastly we have ared our Thanksgiving together as community gathering of neighbors the little brick church in our midst. of course we must, as neighbors roughout this country and as mem- rs of Hoard's large family, share r Christmas together also. The year ould not be complete without this. I feel so well acquainted with you, d in fact have actually become so ith some of you. One lady from the iddle West greatly objected to my ea of furnace cookery upon the asis of the amount of energy that as lost running up and down stairs, ut another one informed me that she ad wondered for years if there were ot some way to utilize that heat in e furnace for cooking, but had not nown how until she had read that rticle. She assured me the saving in el would be worth considerable to er. Another neighbor, she lived in Milwaukee, objected to my viewpoint f city neighborliness. She thought e city neighbors as friendly as the ountry folk. Then there was an- ther lady who informed me that the tyle notes for fall had saved her the rice of a new pair of silk stockings or her daughter. The girl had for nonths despised a pair of gray stock- ngs she had, but after reading that ray was to be very popular for vinter, took out and cherished her despised gray ones. A man, would ou believe it, accused me of not even aving an emergency shelf. And I ven learned of a relative I did not now I possessed through these Neighborly Notes" of yours and nine. People clear off in New Jersey vere interested in my electric water eater, and so it has gone. And, oh, ow I cherish these new neighbors nd friends of mine and their letters!

And now Christmas is here, and we must find some way to celebrate it as neighbors, and forgetting ourselves serve others. We as neighbors must of necessity make Christmas a day of happiness to our other neighbors, especially those who are not as for- unate in friends as we. And I have a very special plea to make this year, that you hunt up some old person who s lonely and do a kindness to him or her upon this day of days. And I will tell you why.

Within the past month, a very dear old lady has come across the conti- nent to visit us. It is without doubt the last time she will ever make the journey. She had never before seen my children and she took such keen delight in them. She seemed to be letting everything they did sink deep into her mind, as a picture she would have to cherish when she went back to her home in the East. She spoke to me not of how lonesome she was at home, now that her husband had been taken to his final rest, but of how she appreciated any kindness that was shown her. Evidently any attention would give her much pleasure for days and even weeks. And it was the words and acts of the young people that she cherished the most. It was pathetic to hear her appreciation of a kindness. She told me that it made her so happy if someone just spoke to her upon the street. And yet she was a woman who, in her prime, cared not the least for attention from others.

Do we, as neighbors, stop to think of those older neighbors of ours who, having lost their dear ones, are wait- ing so patiently? How little pleasure they have and how much we could do for them without really putting our- selves out. And at Christmastime, of all times, how sad it is for them to be so lonely. There are many friends I had when I was a child, men and women who loved me and who now are very old, that I always send a card to at Christmas. I cannot get to see these folks but I can do this. One lady once told me how much those Christmas cards of mine meant to her, and surely that is very little to do in return for her past kindnesses. Then there are others that I write to and make it a cheery letter of our family. I enclose snapshots of us all, Margy and her kitties, Bobby and his dog, the children on their sleds, and my husband working in the tobacco field. To one dear old friend I once sent a little book for snapshots, with a num- ber in and now from year to year I send her more. In this way she can keep in close touch with us all, and especially with the growth of the chil- dren. As she lives in Seattle she will probably never see them, but still she knows just how they look. I know she spends days pouring over these little pictures.

There are so many ways we can serve these older neighbors of ours. A glass of jelly, a cake you have baked yourself, a loaf of home-made bread with raisins in, or a pretty plant will cheer them for many a week. Take a few minutes to visit with them and let them see that you enjoy it. Let us make this the Christmas of all Christ- mases for these older neighbors of ours. And by serving them, the bless- ing will some day be returned to us, perhaps when we too are old and in need of cheer.

Merry Christmas, dear neighbors of mine!—ETHEL MORRISON—MARSDEN.

Our Ungrateful Children

A FEW days before Christmas a friend and I were talking. She said, "The children don't seem to appreciate their 'Santa Claus' like we used to when we were children; they want so many things." I agreed with her, for the same spirit seemed to prevail in my household. I thought of the one or two little gifts that de- lighted us when we were little and compared them with the lavish gifts of my children that were cherished for but a moment and I thought chil- dren of today are certainly ungrate- ful.

Then like a flash came to my mind a sentence I had heard a couple of months before from the lips of one of our clergymen who had spent the summer in the Holy Land. In a talk before a federation of women's clubs he said, "You women of America are so ungrateful; you have everything: you have comfortable homes, good schools, libraries, hospitals, splendid churches and freedom of worship. You have all freedom and you are not sat- isfied. You are always wanting more, wanting something different. The poorest negro cabin in Virginia is far better than the majority of homes of the women of the Holy Land and you don't appreciate what you have."

He described conditions of squalor, filth, and disease so repugnant to be almost beyond comprehension. We could scarcely believe the horrors he told us for we had never experienced anything in comparison. We really were not so ungrateful for our bless- ings, only unknowing. We have nev- er known such conditions as he had described.

It seems to me that the same answer comes to us regarding our children's attitude. We have always had a superior standard of living compared with most other nations and as we have known no other we cannot compare and so express our gratitude. So with the children; they have always had the advantages they now enjoy. They have not had the experiences we have had. How can they realize their advantages and so be "grateful."

Our efforts in their behalf will be appreciated, silently perhaps, when our children become adults and go through the same experiences through which we are now passing. When my small son brought home the list of books last fall which he was required to have upon entering the higher grade, I footed up the amount. It came within a few cents of ten dol- lars. I said to my husband, "I realize now what it meant to father to keep five of us in school at once."

So it is with other things, our chil- dren are not ungrateful or unappre- ciative, only just human, so do not grieve if they seem so. We think now that we were grateful for what we re- ceived when we were young but I doubt it. Our parents very likely felt the same as we sometimes do. By doing our level best for our children (and that does not mean to always buy them everything we can get the money for) we will be repaying the debt we owe our parents and they in turn will so reward us.—GRACE GOR- DON.

"To My Old Friend"

LAST Christmas this poem was sent by one old lady to another who had been her friend for many years. It was written by her on a card and was, I am sure, copied from another source. It may be that some of you have a friend whom this will just suit as a Christmas greet- ing:

Sending the same old message
Quite in the same old way
Piling wishes on wishes
All for the same old day.

Pledging the same old friendship
Toasting the Long Ago
Knowing that nothing can equal
The times that we used to know.

Praying the years may bring you
All that I wish them to
Grasping your hand in friendship
Proud of a friend like you.

—LUCY THOMPSON.

Be Careful About Fire

ALMOST never a year goes by that someone's Christmas joy is not turned into a holiday trage- dy by fire from the candles or other decorations.

We'll not dwell on anything so un- happy at so joyful a time for often just a word is enough to avert a calamity. So be sure either to have no exposed fire or else to watch it very carefully.—LUCY THOMPSON.

Send for Our Fall and Win- ter Fashion Magazine

You simply must have a copy of our Fall and Winter Fashion Magazine, for it contains too many good things for you to miss. All the new fall and early winter styles of course, and then there are pages of novelties for the masquerade. Articles about health and beauty and reducing safely, and pages showing cor- rect hats, fancy needle work, special lingerie, etc.

While you have the matter in mind send 10c for your copy to our Fashion Department, Ft. Atkinson, Wis.

Miscellaneous Fashions



No. 3151—Looking Slender. Pattern in sizes 36, 38, 40, 42, 44, and 46 inches bust measure. The 36-inch size requires 4¼ yards of 36-inch material with ½ yard of 36-inch contrasting.

No. 2812—For the Smart Matron. Pattern in sizes 18 years, 36, 38, 40, 42, 44, 46, 48, and 50 inches bust measure. The 36-inch size requires 2⅞ yards of 40-inch material with ¾ yard of 40-inch contrasting.

No. 3198—Individual Chic. Pattern in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 3 yards of 40-inch material with 4¼ yards of 1-inch ribbon.

No. 3203—For Every Occasion. Pattern in sizes 16, 18 years, 36, 38, 40, and 42 inches bust measure. The 36-inch size requires 3 yards of 40-inch material with ½ yard of 36-inch contrasting.

No. 939—Outstandingly Smart. Pattern in sizes 8, 10, 12, 14, and 16 years. Size 8 re- quires 1¼ yards of 36-inch dark material with ⅞ yard of 36-inch light material.

No. 945—One-Piece School Dress. Pattern in sizes 6, 8, 10, 12, and 14 years. Size 8 requires 2 yards of 40-inch material with ½ yard of 36-inch contrasting.

No. 944—Entirely New. Pattern in sizes 34, 36, 38, 40, 42, and 44 inches bust meas- ure. The 36-inch size requires 3⅜ yards of 40-inch material with 2¾ yards of binding.

How to Order Patterns

Enclose 10c in stamps or coins (wrap coin carefully) for each pattern ordered. Send your order to Fashion Department, Hoard's Dairyman, Fort Atkinson, Wis. Every pat- tern is seam-allowing and guaranteed to fit perfectly. Do not fail to state size.

Our patterns are made especially for us by the leading fashion designers of New York City. No stock of patterns is carried in our office and, since all orders are forwarded to the factory, kindly allow a reasonable time for delivery of any pattern you order.

Young Mrs. Wilkins is so lazy she puts popcorn in her pancakes to make them turn themselves.

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Milk ..... 32,155.10 lbs.
WORLD'S CHAMPION 305-DAY PRODUCER OVER ALL AGES AND BREEDS FOR BOTH MILK AND BUTTER
With calf to Pride of Sir Piets.



MAY WALKER OLLIE HOMESTEAD
Butter 365 days at 6 years ..... 1,523.24 lbs.
Milk ..... 31,610.60 lbs.
THE U. S. CHAMPION BUTTER PRODUCER OVER ALL AGES AND BREEDS from Dec. 1922 to Aug. 1927. The only cow with three All-American offspring.
Due in Feb. to Sir Inka Superior Segis

FEMC HOLS

18 Femco Cows Have Records From 1000 to 1523 lbs. Butter

Name	Age	Milk	Butter
May Walker Ollie Homestead	6 y	31,610.6	1,523.24
Grahamholm Colantha Pauline Segis	4½y	34,291.8	1,426.75
Wisconsin Pride 2d	3½y	29,502.9	1,327.93
Grahamholm Colantha Segis Maid .	8 y	33,545.6	1,316.60
Miss Mutual Rose De Kol	6 y	26,551.8	1,260.50
Aurora Homestead Badger	8 y	32,321.8	1,208.76
Miss Pietertje Burke	7 y	27,471.5	1,194.98
Ouida Pontiac Trixie	7 y	25,646.9	1,119.60
Snowball Superba of Inavale	5 y	23,427.2	1,082.51
Canary Oak Ormsby Colantha	5 y	25,370.7	1,066.52
Lady Homestead Mercedes Alice ..	5 y	35,234.1	1,055.90
Adair Queen Korndyke	2½y	20,957.5	1,041.12
Johan Pontiac De Shot	6 y	22,394.2	1,024.71
Westmoreland Colantha 2d	6 y	22,722.0	1,024.50
Cornucopia Corona 2d	6 y	22,289.7	1,009.95
Lady Mercedes Byema	5 y	22,171.0	1,003.41
Susie Johanna Colantha Greene ...	4 y	21,845.4	1,003.18
Ormsby Parthenea Bess (340 days)	6 y	22,259.2	1,020.50

THE FEMCO HERD consists of approx cream of a number of the greatest herds many respects has never been equalled in bre producers and more 1,000-lb. fat producers th

FEMCO FARMS



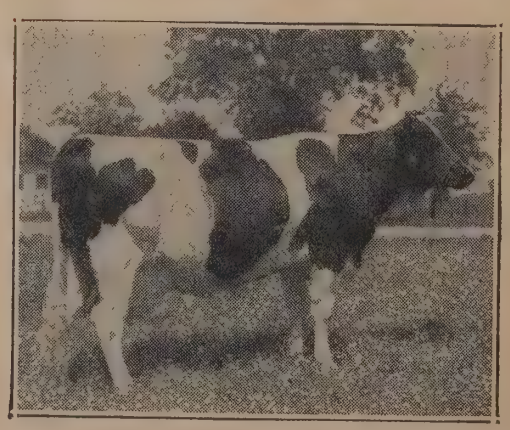
MANKATO FLOA ORMSBY KORNDYKE LAD
The only bull in service whose dam and sire's dam are 1000-lb. 2-year-olds. His sire is a son of Ormsby Korndyke Lad and his dam is a granddaughter of Sir P. O. M., combining the blood of the two greatest sires of 1000-lb. cows.



Son of Wisco daughter of " est record son 2-year-old daug His first daug 908 lbs. as a



MISS MUTUAL ROSE DE KOL
Butter 365 days ..... 1,260.50 lbs.
Milk ..... 26,551.80 lbs.
A 1260-LB. DAUGHTER OF THE ONLY 1200-LB. COW HAVING THREE 1200-LB. DAUGHTERS.
Just fresh with a bull by Pride of Sir Piets



MAY PIETERTJE HOMESTEAD ORMSBY
Butter 30 days at 4 years ..... 20.08 lbs.
Butter 365 days at 2 years ..... 859.80 lbs.
ALL AMERICAN 2-year-old 1924. By "37th" and from May Walker Ollie Homestead.



BUILDINGS ON FEMCO FARMS NO. 1.

We Are in the Busines

No Serviceable Bu Bred Youngsters.

FEMC

F. E. MURPHY COMPANY, Bo



WISCONSIN PRIDE 2D
Butter 365 days at 3½ years ..... 1,327.93 lbs.
Milk ..... 29,502.90 lbs.
THE U. S. CHAMPION 3-year-old FOR BOTH MILK AND BUTTER.
Due in Feb. to Decreamco Calamity Posch

FARMS
EINS

breds. Through the purchase of the very Femco Farms boasts of a foundation that in ncluded in the herd are more 30,000-lb. milk erd in the world.

HERD SIRES



. 3-year-old Burke, high- has eleven seven days. record made



DUTCHLAND CREAMELLE COLANTHA LAD
First Prize winner at the National Dairy Show as aged bull. Sire of seven 1000- to 1426-lb. daughters, including two with world's records. His dam and sire's dam are former world's record daughters of Colantha Johanna Lad.

Show Ring Type



GRAHAMHOLM COLANTHA PAULINE SEGIS
Butter 365 days at 4½ years ..... 1,426.75 lbs.
Milk ..... 34,291.80 lbs.
WORLD'S RECORDS WHEN MADE AND STILL THE HIGHEST FOR AGE FOR COMBINED MILK AND BUTTER.
Due in January

Summary of Femco's 1927 Show Winnings

SHOWN AT SIXTEEN FAIRS DURING THE PAST SEASON INCLUDING THE NATIONAL DAIRY SHOW, DAIRY CATTLE CONGRESS, AMERICAN ROYAL and many leading state fairs, the herd captured the following prizes:

GRAND CHAMPIONSHIPS	14
SENIOR CHAMPIONSHIPS	14
JUNIOR CHAMPIONSHIPS	17
FIRSTS	79
SECONDS	34
THIRDS	27

At the 1927 fairs the herd captured 60% of the possible firsts shown for.

FEMCO FARMS ALSO BREEDS QUALITY PERCHERONS

At the recent International Live Stock Exposition Femco Farms exhibited nine Percherons and won prizes on eight including the Grand Championship on the mare, Margot.

Now offering a few stallions and stallion colts that were prize winners at the International.



ve units totalling approximately 5000 acres.

ng Superior Holsteins

ve a Few Choicely
JS YOUR WANTS

ARMS

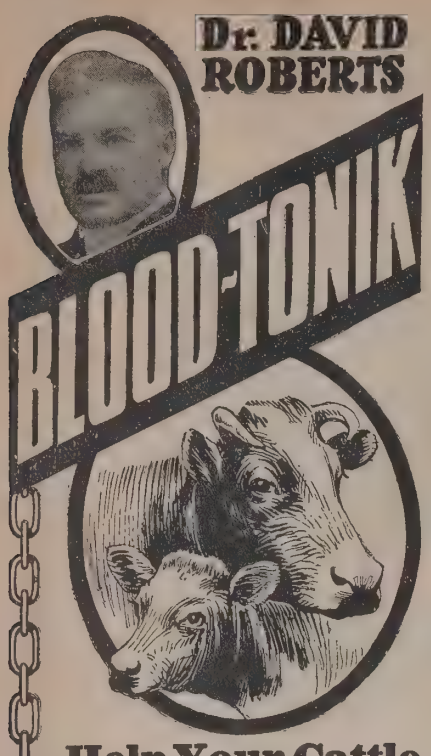
RECKENRIDGE, MINNESOTA



FEMCO PRIDE
Reserve All-American bull calf 1926. First Prize Senior Yearling at the National Dairy Show, Dairy Cattle Congress, American Royal and twelve other important fairs, 1927. Junior Champion at 9 fairs.



BLUE EARTH DUKE ORMSBY
First Prize 3-year-old bull at the National Dairy Show, Dairy Cattle Congress, American Royal, and several other fairs this fall. Grand Champion at the American Royal and other shows.



Help Your Cattle to Resist Disease

Agricultural colleges, experiment stations and veterinarians everywhere concede that common breeding ailments of cattle, such as slinking calves, barrenness, failure to clean, goitre, and scours in calves are incident to a germ disease.

Modern Methods

of breeding, feeding and forcing for milk and butter production are practiced at a sacrifice of breeding vitality. Cattle are more susceptible to infection and the germs of disease and such diseases as Tuberculosis and Contagious Abortion more easily develop.

Prevention Better Than a Cure

It is easier and cheaper

If your cattle are subject to any of these common breeding ailments and are not doing their best, it is because there is something lacking. It is now possible for you to overcome these ailments. You can build up the breeding vitality of your herd. You can make your cattle less liable to infection. Dr. David Roberts'

BLOOD-TONIK

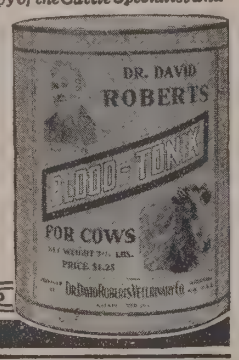
is especially prepared to restore the breeding vitality of cattle. Use it regularly and you will note the improved condition of your herd in the increasing number and quality of calves as well as in the quality and quantity of your milk supply.

If your dealer does not have it in stock, order direct. Price postpaid.

3¾ lb. pkg.	**$ 1.25**
15 lb. pail	**5.00**
50 lb. drum	**15.00**

Write for free copy of the Cattle Specialist and how to get the Practical Home Veterinarian, a live stock doctor book, without cost. Veterinary advice free.

DR. DAVID ROBERTS VETERINARY COMPANY, INC.
195 Grand Ave.
Waukesha, Wisconsin





"PELOUZE" New Dairy Scales

Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound

Guaranteed Accurate

Made to comply with Departments of Weights and Measures. Large 7-inch Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail. Order through any leading supply house, specify "Pelouze." If they haven't it order direct.

No. D. 40 $4.50
No. D. 60 $5.50
No. D. 120 $6.50
Prepaid

PELOUZE MANUFACTURING CO.
232-242 East Ohio Street, Chicago.

CLOVER $2.00 BU. SAVED

by buying from us. Act quickly. Biggest bargains now, markets advancing. Have wonderful value in high grade tested Iowa Clover. Also Sweet Clover, Alfalfa, Alsike, Timothy and all farm seeds. Our prices save you big money. Don't wait and pay more money. Write today for Free Samples, special prices and 132 page catalog, also offering everything in the garden and nursery line. Write now to seed headquarters.
BERRY SEED CO., Box 155. CLARINDA, IOWA

DAIRY MARKET NEWS

November Foreign Butter

The following table of foreign butter prices gives the average weekly quotations as published by the U. S. Department of Agriculture:

Market	Nov. 1927	Oct. 1927	Nov. 1926
	Cts.	Cts.	Cts.
New York	49.9	48.4	50.6
Chicago	48.3	46.2	48.9
Copenhagen	41.2	39.6	34.9
Berlin	41.6	41.3	36.9
London			
Danish	43.4	42.1	37.6
Dutch		42.3*	
New Zealand	37.5	38.6	32.3
Australian	37.2	38.1	31.4
Argentine	35.8*	36.3*	29.9
Siberian		34.0	28.3

*Unsalted.

Cheese Prices for November

The wholesale price of cheese on the Wisconsin boards averaged 25.8c in November, a decline of one cent from the previous month but an advance of over two cents above November in the two preceding years. There was a sudden drop of two cents in the middle of the month, but this was more than recovered by the close of the month. There was an advance to 27½ cents during the first week in December.

Cheese production for the first ten months of the year totaled 359,729,000 lbs., a decrease of 24 million pounds from last year. Net imports were 60,491,000 lbs., an increase of six million pounds over last year. With storage holdings at 12 million pounds less than last year, this brings the estimated trade output to 414,845,000. This represents a slight increase in the apparent consumption of cheese.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices for American cheese on the Wisconsin Primary Market during November:

	Nov. 1927	Oct. 1927	Nov. 1926
	Cts.	Cts.	Cts.
Twins	25.0	26.3	23.4
Single Daisies	25.8	26.8	23.9
Longhorns	25.6	27.0	24.3
Square Prints	25.8	27.7	25.5
*Receipts since Jan. 1	192,409	179,029	180,803
*Receipts for month	13,379	17,964	15,339
*Storage end of month	12,193	13,132	18,861

*In thousands of pounds at Chicago, New York, Boston, and Philadelphia (i. e.—000 omitted.)

Butter Prices for November

Butter averaged 49.9 cents in November on the New York market. This is approximately half a cent less than for the same month of the two previous years, but is 1½ cents above October of this year. The market advanced 3½ cents during the month and held steady at 51½ cents during the last week in November and the first week in December.

The record stocks in cold storage on September 1 have been largely reduced and this has been accomplished on a butter market with advancing prices. The spread between high and lower quality good has widened to 10½ cents between 92- and 87-score butter, as compared with seven cents in October and four cents last summer.

Creamery butter production for the first ten months of the year was 1,292,542,000 lbs., an increase of 20 million pounds over last year. Net imports were 3,944,000 lbs. and storage holdings were 18 million pounds in excess of last year. This brings the estimated trade output to 1,728,757,000 lbs., a decrease of one-half of one per cent in the apparent domestic consumption of butter as compared with the same ten months of last year.

Daily quotations from the U. S. Department of Agriculture show the following average wholesale prices on 92-score butter (extras) at four of the principal markets, together with receipts and storages:

	Nov. 1927	Oct. 1927	Nov. 1926
	Cts.	Cts.	Cts.
Chicago	48.3	46.2	48.9
New York	49.9	48.4	50.6
Boston	48.0	47.8	48.4
Philadelphia	50.8	49.4	51.6
*Receipts for month	32,820	37,244	33,420
*Receipts since Jan. 1	534,835	502,014	524,276
*Storage (end of mo.)	40,616	55,549	35,497

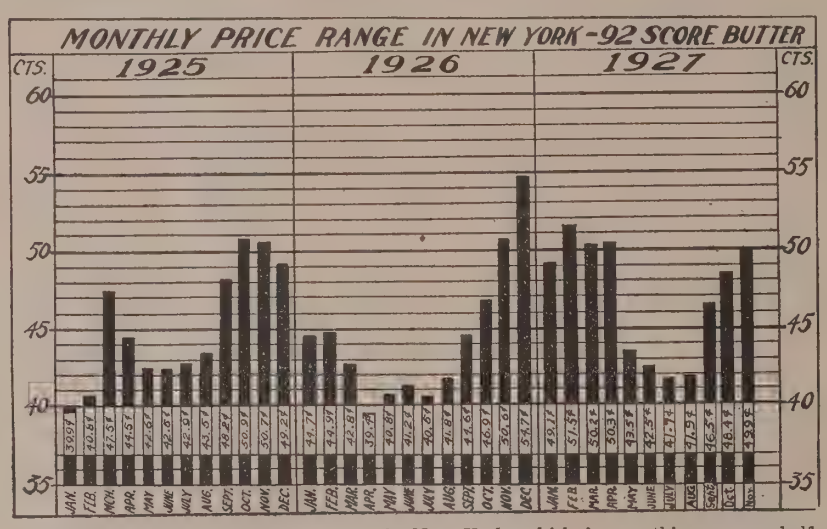
*In thousands of pounds at the four markets (i. e.—000 omitted.)

Ninety-score butter averaged 45.1 cents for November in Chicago, with centralized butter at this market selling for 45.9 cents. Jobbers' prices on extras sold to retailers averaged 50.7 cents in Chicago, a spread of 2.4 cents above wholesale.

Wisconsin October Butter

Wisconsin co-operative creameries paid producers a net price of 52.3 cents a pound for butterfat in October according to reports from 104 of these creameries to the Wisconsin Department of Markets. These creameries received an average of 46.5 cents a pound for butter, making spread of five cents between the price received for butter and the price paid for fat.

The range in prices paid for fat was from 45 to 56 cents, with the price received for butter ranging from 44 to 49.6 cents. Butter production averaged 24,161 lbs. per creamery.



November butter averaged 49.9 cents in New York, which is something over a half cent less than for the previous two years. The course of the market during the latter part of November and the fore part of December indicates that we may reasonably expect the December average to advance over November as it did last year but probably not to the same extent.

Philadelphia Milk Prices

The Inter-state Milk Producers' Association announces that the December basic price for milk will be $3.29 f. o. b. Philadelphia and $2.71 per hundred at receiving stations in 51—60-mile zone.

The November surplus price was $2.51 f. o. b. Philadelphia. The November surplus price at all receiving stations on railroad was $1.94.

These are based on milk testing 3 per cent butterfat with a differential of 2 cents for each half point of test up and down.

Feed Market Situation

(Grain, Hay and Feed Market News Service Bureau of Agricultural Economics, U. S. Department of Agriculture.)

Wheat feeds continued at slight advance in spite of increased production. Production during October was estimated at a little over 476,000 tons compared with 462,000 tons for October, 1926.

Prices of cottonseed to producers have worked sharply higher in recent months, largely as a result of the small supply remaining. Farm prices of cottonseed on November 15 averaged $37.51 per ton, or over twice as high as the comparable figure of $18.66 a year ago.

Linseed meal prices made a fractional advance in the face of liberal production of this feed. Shipments from Minneapolis from September 1 to December 3 totaled about 43,600 tons compared with about 39,500 tons a year ago. Demand for linseed oil is of good volume.

Gluten feed made a fractional advance in spite of heavy production. Over 8,000,000 bushels of corn were consumed by plants manufacturing this feed in November compared with less than 6,000,000 bushels a year ago and about 6,500,000 bushels two years back. The smaller mills were offering freely at Buffalo where demand was fair but the largest manufacturer was out of the market for December and was offering only for January shipment at 50c a ton premium over December quotations. Demand was good at Chicago and offerings at that point were readily absorbed.

Hominy feed was scarce and higher. The recent advance in corn prices has favored higher quotations for this feed but offerings have also been limited, particularly of white feed.

Alfalfa meal ruled about steady. Top grades showed an advance while medium grades were quotable unchanged and the lower grades were draggy. The demand continues to be chiefly for the best grades of meal which are in limited supply because of the small quantity of the green alfalfa hay suitable for top grades of meal.

Quoted December 10

Standard spring wheat bran: $32.50 Buffalo, $38.75 Philadelphia, $32.50 Chicago, $3 Minneapolis. Hard winter wheat bran: $3 Cincinnati, $29.25 Omaha, $29.50 Kansas City. Soft winter wheat bran: $35.50 Cincinnati, $31.50 St. Louis.

Standard spring middlings: $33.50 Buffalo, $38 Philadelphia, $30 Minneapolis. Soft wheat middlings: $40 Cincinnati, $37 St Louis. Gray shorts: $36.25 St. Louis, $34.5 Omaha, $34 Kansas City.

Cottonseed meal (43%): $48 Chicago, $4 Omaha, $46.40 Kansas City, $41 Ft. Worth.

Linseed meal (34%): $46 Buffalo, $50 Cincinnati, $48 Chicago, $47.50 Minneapolis, $5 Omaha.

Gluten feed: $39.60 Buffalo, $36.20 Chicago

White hominy feed: $44 Philadelphia, $4 Cincinnati, $38 Chicago, $34 Omaha.

No. 1 alfalfa meal: $25.25 St. Louis, $2 Chicago, $23 Omaha, $23 Kansas City.

Wisconsin November Condensery Prices

Forty-seven condenseries reported to the Wisconsin Department of Markets the price paid in November per hundred pounds milk delivered at their factories. Reduced to common 3.5 per cent test basis, these prices ranged from $2.14 to $2.50, the average being $2.28.

Sixteen factories sent delayed reports for October, the average being $2.37. This is 1 cents above the previously reported average of $2.24 for 47 factories.

October Dry Milk

(From Report by U. S. Dept. of Agriculture)

The wholesale prices given below are based on reports from manufacturers governing actual sales f. o. b. factory during October:

Dry Skimmilk: Prices ranged from 7 cents to 11 cents for dry skimmilk in bulk, averaging 9.3 cents a pound for sales, totaling 7,086,312 lbs.

Dry Whole Milk: Prices ranged from 21 cents to 27.5 cents for dry whole milk, averaging 26.1 cents for sales totaling 578,098 lbs. When packed in one-pound cans the price reported was 47.1 cents a pound.

Dry Buttermilk: Prices ranged from 6 cents to 9.5 cents for dry buttermilk in bulk averaging 7.9 cents a pound for sales totaling 1,984,465 lbs. When packed in one-pound cans the price reported was 10.5 cents a pound.

Wisconsin October Milk

Both milk and feed prices in Wisconsin are higher this fall than they were a year ago. The following table shows a comparison of August, September, and October farm milk prices for the past three years:

	Prices per 100 lbs. milk		
	1925	1926	19
August	$1.88	$1.82	$2.
Septemb	1.91	1.89	2.
October	2.06	2.04	2.

For each of the past six months the average farm milk price has been higher than for the same month in any year since 1920.

Sheffield Milk Prices

The net cash price to be paid members of the Sheffield Producers' Co-operative Association, Inc., for 3 per cent, Grade B milk in the 201—210-mile zone for the month of November, 1927, is $2.98 per hundred pounds. This is equivalent to $3.18 for 3.5 milk and is an increase of 31 cents per hundred pounds over the price paid in November, 1926, and is 17 cents per hundred pounds more than the price paid in October, 1927. It is the highest price ever paid for November milk in the history of the association.

Milwaukee November Milk

The Milwaukee Co-operative Milk Producers announce the following prices for the month of November:

For the portion sold as fluid milk, $3.00 per cwt.; and for the portion manufactured, $2. per cwt. These prices apply to 3.5 per cent milk delivered f. o. b. city, four cents being added or subtracted for each one-tenth of one per cent variation in test. Eighty-four per cent of the total receipts were sold as fluid.

American Farm Bureau Federation

THE ninth annual convention of the American Farm Bureau Federation held in Chicago, Illinois, December 5, , and 7, brought out about 3,000 peo-le, the largest attendance since the 'ederation began its fight to accom-lish what its leadership believes to e necessary in order that American griculture may have equal opportu-ity with industry, finance, transpor-ation, and labor.

The finance report indicated that a ound policy of budget estimates and xpenditures has been practiced dur-ng the past year. Thirty-four states aid dues to the amount of $136,023 /hich indicates a dues-paying mem-ership of 272,046. The balance heet shows total assets of $51,336 /ith a surplus of $22,689.

In the opening address of the con-ention President S. H. Thompson ivided his time between a narrative f agricultural conditions in the Eu-opean countries visited by Farm Bu-eau leaders last summer and that of etting before the delegates the eco-omic and sociological aspects of merican agriculture in relation to ther important groups.

After indicating that industry, ransportation, finance, and labor are enefited because of certain govern-mental policies, President Thompson followed with, "The farmers' griev-ance is that the structure (wall of protection) has not been made com-plete" and he "insists the agricultural industry shall be brought within the American policy of high standard of living and included within the Amer-ican system of protection."

As last year, the program efforts of the convention were centered on the continuance of effort to bring about national legislation that is pre-sumed to take care of surplus pro-duction above the domestic require-ments and thereby stabilize produc-tion and price fluctuations.

President Thompson summed up the desires of the Federation in the above respect as follows:

"We want no government price-fixing; we want no government sub-sidy, either direct or indirect; we want to avoid putting the govern-ment into business and, therefore, we insist upon a law that will require each marketed unit of the commodity to pay its share in the costs of its own stabilization and protection."

Space does not permit even a brief summary of the several addresses given. Suffice it to say that there was a very close correlation between the subjects discussed and the report of the resolutions committee.

The delegates approved the princi-ples and policies set forth in the reso-lutions of former annual meetings.

Under the title of "A National Ag-ricultural Policy" a resolution in-sisted that legislation which shall contain the principles of surplus con-trol as embodied in the McNary—Haugen bill shall again be passed by Congress.

The principles now contained in the Madden Bill with respect to Muscle Shoals were reaffirmed.

In order that the United States Tariff Commission can be in position to more effectively serve agriculture in the cases before it, a resolution asked that the flexible provision be changed in order that import duties may be increased on various agricul-tural products the cost of production of which can be shown to exceed for-eign costs.

The Federation's position on fed-eral taxation was set forth as fol-lows: "Debt reduction should pre-cede tax reduction. Exemptions and repeated modifications of the nation-al tax structure are undesirable. The basis of federal taxation should be ability to pay. We recommend reci-procity between the states in matters of estate and inheritance taxation. Estate taxes should be retained per-manently. It is unnecessary to reduce corporation taxes in this period of national industrial prosperity. Fed-eral taxes on automobiles should be eliminated." The same position on state taxation as taken last year was reaffirmed.

The resolution on flood control merely set forth what are presumed to be the desirable features of a na-tional flood control program without indicating a determination to sup-port the program.

The resolution on transportation sought to relieve agriculture of pay-ing excessive transportation costs through the following methods: (a) An American Merchant Marine of permanent character, under the au-thority of the United States Ship-ping Board. (b) Readjustment of freight rates on the basis of the Hoch-Smith Resolution. (c) The development of the Great Lakes—St. Lawrence tidewater channel. (d) The rapid completion of the Mississippi-Missouri-Ohio-Illinois river system. (e) Surveys and transportation de-velopments on other main streams.

Sufficient federal appropriations for the continuance of the following projects were asked for: (a) Exten-sion work in agriculture, home eco-nomics, and boys' and girls' club work. (b) For continuation of bovine tuberculosis eradication. (c) For quar-antine and control of corn borer and other insect and plant pests and dis-eases. (d) For fundamental research by the United States Department of Agriculture particularly to include the finding of industrial uses for farm products. (e) Continuation of the usual aid for construction of fed-eral highways and bridges and spe-cial aid in recently flooded areas. (f) For United States Tariff Commission in carrying out the flexible pro-visions of the Tariff Act. (g) For support of the milk inspection bill passed by the sixty-ninth congress.

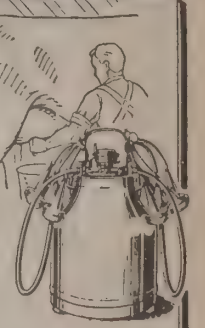
In spite of the fact that nearly 58 per cent of the membership dues in-come of the federation came from the four states, Iowa, Illinois, Indiana, and Ohio, a splendid spirit of co-op-eration prevailed among the dele-gates from all sections of the coun-try. The next largest dues paying states are New York and California and these six states contributed 74 per cent of the total income from members during the year 1927. This co-ordination of thought and action from the various sections of the country on problems of national im-portance is a very definite accom-plishment of the organization. Driv-ing the energies of such an organiza-tion effectively into the solution of the major problems of American ag-riculture and co-ordinating the action with that of other farm organiza-tions is a task that calls for outstand-ing leadership.

At the dispersion of the Jersey herd owned by David Miller & Sons at Eaton Rapids, Mich., 31 head sold to buyers from Michigan, Ohio, and Pennsylvania for $4,785, an average of $227. Seven head sold for over $250 with the top priced animal go-ing for $410. This last was a good 4-year-old heifer sired by a double grandson of Double Interest. She was purchased by Paul H. George of Pennsylvania.

The sale was managed by Chester Folck with J. E. Rappert doing the selling.

It Milks the Cows CLEAN

Say Good-bye to the Drudgery of Hand Milking

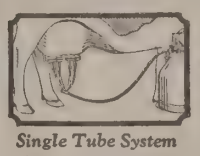


EVER since you can remember, there have been cows to be milked.

Always, twice a day, week days and Sundays, a never-ending grind.

There are some things that have to be tolerated, but the drudgery of hand milking is not one of them. You can say good-bye to it forever. And, the time you save will pay big dividends on the investment. You just can't afford to milk by hand.

The Burrell Milker has enabled thousands and thousands of farmers to take the drudgery out of dairying and increased their profits at the same time. It will do the same for you.

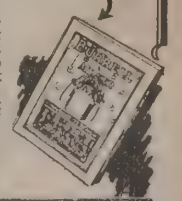


Single Tube System

It will milk your herd easier, quicker, better and more safely than hand milking—and *It Milks the Cows Clean.* And that is why you'll finally come to a Burrell.

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You Need This Book



Every cow owner needs it—whether he is now milking by hand or machine. It's not a mere catalog, but a 32-page profusely illustrated book which is a guide in both selecting and using a milking machine—backed by 67 years' experience and experience. You owe this book to yourself. It's free. Send for it now.

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FOR ALL PURPOSES
ANY SIZE, STYLE OR FINISH
NORTHEY MFG. CO.
WATERLOO, IOWA
AGENCIES IN MOST LARGE CITIES
"WATERLOO DIRECT TO YOU"

New Finger Pull milk bottle cap

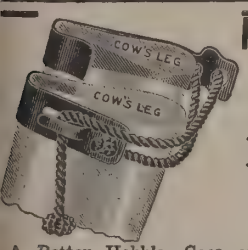


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Enclosed, find $..... for which send me..... sets Reichert's No Kick Cow Hobble.

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Christmas in Other Lands

How Juniors Across the Sea Observe This Season of Good Will

In the Philippines

HOARD'S DAIRYMAN JUNIORS:—How would you like to spend your Christmas vacation wading in mud up to your knees planting rice, or climbing tall palm trees gathering cocoanuts, or stripping hemp, or cultivating tobacco under a scorching tropical sun, or riding carabaos or water buffaloes all day while watching the herd, or hunting wild hogs and deer in the mountains among still wilder men? And when your work or play is done loll about in the shade of cocoanut palms and banana trees eating their fruit and perhaps bathing in the warm waters of the south seas or in some inland stream?



IGOROTE OR PAGAN SCHOOL GIRLS

The boys and girls in the Philippines spend their vacations this way. One million boys and girls enrolled in the schools which America established all over the 3,000 islands await eagerly the coming of the Christmas vacation. And they are just as eager for Christmas vacation as you are, and perhaps more so, for their school starts in June so by Christmas they are well weary of it.

Eight thousand schools have been built in various provinces of the Philippines and in every one of these schools a Christmas program is given just before school is out. The programs consist of Christmas carols and



AT CHRISTMAS TIME THE BOYS AND GIRLS HERD THE CARABAOS OVER THE HARVESTED RICE FIELDS

pieces telling of the real meaning of Christmas—the birth of Christ.

The Filipinos have been observing Christmas for nearly 500 years—ever since the great explorer, Magellan, discovered them and baptized thousands in the name of Christianity. Every boy and girl except the pagans and Moros know the meaning of Christmas. Ninety-five per cent of all the people are Christian. The other five per cent are pagans and Mohammedans. Today the Philippine nation is the only Christian nation in the Far East. Christian churches are found in almost every village and city in the Philippines except Moro land and among the pagans. And at Christmas time especially, the churches are actually crowded with the simple folk from city and country.

However, Christmas does not bring to our little brown brothers and sisters Christmas trees and Santa Claus with reindeer and loads of presents. Perhaps it is because there isn't any snow for Santa's sled and no chimneys for him to go down. (No chimneys so the smoke filters out as best it can through the holes in the grass and palm leaf houses.) But even though the presents are few—for the people are quite poor—they all enjoy themselves and probably have the real Christmas spirit as much as do the children of America.

There are a few thousand pagans in the fastnesses of the mountains who never have heard of Christmas—who hunt with bows and spears and pitfalls as they did ten thousand years ago. They know nothing of Christmas, civilization, and Christianity. Their homes are crude houses of bamboo and grass and their food is derived from what can be raised on the steep mountain sides and from what can be obtained in the hunt. Their clothes consist of nothing but a strip of home woven cloth about the loins called a gee-string. They receive no education and marvel at the white man whenever they see one.

It was the writer's pleasure to spend, in company with another American, one Christmas vacation among these people studying their customs and habits, hunting wild hogs and deer, and sitting about the evening camp fires surrounded by a group of curious pantless pagans who never have heard the story of Christmas but whose religion and God are the sun, moon, stars, and the delectable mountains in which they exist.

Wisconsin. MANLY SHARP.

In South Africa

HOARD'S DAIRYMAN JUNIORS:—During Christmas in South Africa we don't have snow to play in nor ice to skate on.

About a week before Christmas Eve many people flock into the towns, especially folk from the country, because they like to do their Christmas shopping early, as they usually have to send presents to their friends by post.

The towns are always crowded during Christmas and the shops do a big business. On Christmas Eve the shops are always open because many people usually find they have to buy more presents, which they formerly have forgotten about. The windows of the shops are usually decorated most artistically.

When Christmas Day comes, everyone usually rises late; but the children usually get up early to see what nice presents they have got. Houses are decorated in the morning; sometimes Christmas trees are had if there are children intending to have a party.

Usually everyone attends church on Christmas morning and when they go home they sit down with open eyes to a nice delicious dinner. Nuts and fruit and sweets are put on the table and everyone really enjoys the dinner.

The farmer has to buy presents for his workers, the natives, as they usually look forward to some gift whether it's a bag of tobacco or a pipe. The natives are very happy on Christmas Day; they do kafir dances practically all day.

The farmer has to rise the same time as usual in the morning to see to his animal feeding and so on. After dinner is over he has to see to his animals again; he does not get much of a holiday unless he goes away and leaves someone in charge of the work. Anyway, everyone is always happy on Christmas Day. Christmas comes but once a year so everyone may as well enjoy themselves on that day.

I would love to spend a Christmas overseas. Perhaps I will be lucky enough some day.

South Africa. PEARL SHEGOG.

In Cornwall

HOARD'S DAIRYMAN JUNIORS:—Christmas is the best time of the whole year; we go to dances and parties, and have a "top hole" time.



MARY ROACH

My friends who are at college training for teachers come home and I have all the news of the year's work.

After a strenuous Christmas Eve, the producing of the family gifts on Christmas morning, and 'ere you have finished examining them, the thud, thud of the postman's feet, who literally peeps between masses of parcels. His Merry Christmas greeting ringing in your ears, you rush indoors with several parcels from friends all over the world, and you know Christmas has begun.

Then on Christmas Day the wheat that has hung over the mantlepiece since the harvest must be taken out and given to the best cow or ox in the stall. This is the remains of an ancient custom called "Crying the heck" in Cornwall.

For the first fortnight in the New Year dressing up in disguise and going around to friends' houses is permitted. The worse you are dressed, the greater the fun. We have been geese dancing (as it is called) twice.

If any of the other Juniors would care to write me, my address is Trewidden Farm, Penzance, Cornwall, England.

Cornwall. MARY ROACH.



"Wishing You a Merry Christmas"



Greetings to You Boys and Girls from Club Leaders in Many States

CHRISTMAS is the season when we are summing up the blessings that have accrued to us and to others in the work of the past year. The extension work has had a most successful year and one of the pleasing results has been recorded in the work with farm boys and girls.

More than 600,000 boys and girls have worked shoulder to shoulder with the colleges of agriculture and the United States Department of Agriculture in spreading improved practices in agriculture and home economics through demonstrations on the farm and in the home. The achievement in live stock and crops produced, in clothing made, and in food preserved is in itself worthy of commendation. The most valuable and lasting results are to be found in the boys and girls themselves. An enlarged vision, a greater determination and a fuller appreciation of responsibility and opportunity are the precious qualities that the 4-H boys and girls have developed out of their club efforts.

The National 4-H Club Camp, held June 16—23, 1927, brought to Washington one hundred and forty outstanding club members. This camp, on the grounds of the Department, gave us an opportunity to know personally a number of these young people. It was an inspiration to all of us to associate with them for a week. It confirmed our faith in the farm youth of America and the future of agriculture.

I wish to take this opportunity to extend the season's greetings of the Extension Service of the United States Department of Agriculture to the farm youth of the United States and to express our special appreciation to the members of the 4-H clubs for the service they rendered during the last year.

C. W. WARBURTON,
Director of Extension Work.

At this Christmas season, the time when peoples the world over celebrate the birthday of the Founder of Christianity, who has a right to be happier than 4-H Club boys and girls who hold daily communion with the living things—plants and animals, and who have ample opportunity to study the mysteries of creation at first hand? For each member and leader we sincerely wish great joy now and in your labors for a constantly increasing 4-H Club family throughout the year.

G. L. NOBLE, Secretary,
Nat'l. Com. on Boys' and Girls' Club Work.

In behalf of the boys and girls of Indiana who are enrolled in dairy calf clubs I want to extend Christmas greetings and best wishes for the New Year to all other boys and girls enrolled in this great work. We have approximately 1,200 members in Indiana who on Christmas morning will probably give their calves a little more feed than usual to remind them that this is a day of good cheer. Possibly in a few of the homes happiness will reign supreme when the youngster goes to the barn and finds that during the night Santa Claus has left a fine young calf with the dairy heifer that is so anxious to show her young owner that she also is blessed with the spirit of giving. May she live for many such occasions.

HARRY F. AINSWORTH,
Ass't. State Club Leader.

Michigan's 4-H family, 20,000 strong, wishes to every 4-H club member and leader a jolly good Christmas for 1927 and a very successful and happy 4-H New Year for 1928. This same wish is extended to all the other folks, especially to the 250,000 boys and girls living on Michigan farms who are not in 4-H Club work. Be with us in 1928 and enjoy a very happy 4-H New Year.

A. G. KETTUNEN, State Club Leader.

The club boys and girls of America have contributed their full share toward the upbuilding of a happy, prosperous agriculture. The success of club work has been due largely to the fidelity and zeal of the boys and girls. To you, the future farm men and women of America, I send Christmas greetings from Idaho. May the New Year bring you joy and happiness with renewed faith and determination to make the best better.

J. H. REARDEN, State Club Leader.

To 4-H club folks everywhere: One of the big inspirations to 4-H club members is to know that they are fellow members in a national 4-H club composed of boys and girls from all states in the Union. The continual achievements of our fellow club members challenge the rest of us to set our standards high and to work with a will to achieve that standard. All the New Hampshire club members join with me in wishing you a Merry Christmas and a Happy and Successful New Year.

C. B. WADLEIGH, State Club Leader.

In spite of the great flood, Louisiana 4-H clubs made progress in 1927. The membership increased from 16,000 to 20,000 and the quality of work improved at about the same rate. Christmas is a time of great happiness. Louisiana 4-H boys and girls are happy and they want all 4-H members in the other states to know that they are happier because of the help and heartfelt sympathy extended our state during the past summer.

W. C. ABBOTT, State Club Leader.

The 28,000 4-H club members in Minnesota have done much to bring contentment, prosperity, and happiness into the farm homes of our state during 1927. May this Christmas time help every 4-H club boy and girl realize the wonderful opportunity of service by doing his or her work so well that someone else may learn from it.

T. A. ERICKSON, State Club Leader.

Happy over the work of 22,000 Tennessee 4-H club members in 1927, it is a beautiful privilege now to join with them in extending heartiest Christmas greetings and wishes for a Happy New Year to 4-H club members everywhere.

G. L. HERRINGTON, State Club Leader.

It is the wish of the 4-H Club leaders in Missouri that all 4-H Club members and all boys and girls in America will enjoy the thrills of this Christmas season with its true friendships and delightful associations, its good will and merriment, so that as the years come and go the recurrence of the Christmas time will always bring back pleasant memories to add to the joys of a true Christmas spirit.

T. T. MARTIN, State Club Agent.

The members of the state club leader's staff in Pennsylvania extend to the junior readers of Hoard's Dairyman, and to club members everywhere, their most sincere wishes for a Merry Christmas and a Happy New Year. Nineteen twenty-seven was a most successful year for Keystone Club work. We trust that our members derived both pleasure and profit from their year's work and that 1928 may be even more satisfactory.

ALLEN L. BAKER, State Club Leader.

To the 4-H Club boys and girls 1927 has been frought with great possibilities and many achievements and at this Christmas time we are all thinking of the many good things that have been ours to enjoy. All 4-H club members will agree with the poet who says:

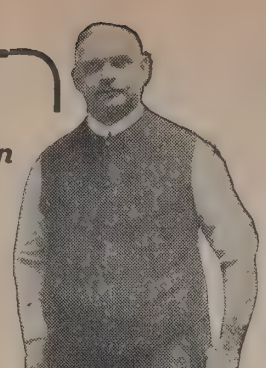
"Life is a gift to be used every day.
Not to be smothered and hidden away;
It isn't a thing to be stored in the chest
Where you gather your keepsakes and treasure your best;
It isn't a joy to be sipped now and then
And promptly put back in a dark place again.

"Life is a gift that the humblest may boast of
And one that the humblest may well make the most of.
Get out and live it each hour of the day,
Wear it and use it as much as you may;
Don't keep it in niches and corners and grooves,
You'll find that in service its beauty improves."

So I am wishing you at this time, the happiest time of the year, that as you are living today you are "thinking great thoughts and dreaming great dreams for from great thoughts and great dreams come great deeds and from great deeds come great men and women. The world has need of these and to you it looks for its future.

W. H. PALMER, Ohio State Club Leader.

(Continued on next page)



For Protection on the Coldest Days Wear

The Old Reliable

Reg. U. S. Pat. Off.

Brown's Beach Jacket

Keeps you warm and comfortable. Made of strong knit cloth with knit-in wool-fleece lining and cut to fit snugly without binding. The most satisfactory garment for working on the farm. Ask your dealer to show you the three styles—coat with or without collar, and vest.

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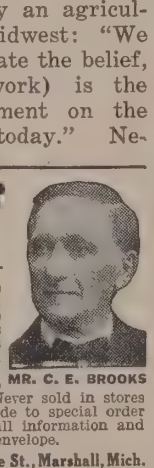
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BE COMFORTABLE—Wear the Brooks Appliance, the modern scientific invention which gives rupture sufferers immediate relief. It has no obnoxious springs or pads. Automatic Air Cushions bind and draw together the broken parts. No salves or plasters. Durable. Cheap. Sent on trial to prove its worth. Beware of imitations. Never sold in stores nor by agents. Every appliance made to special order and sent direct from Marshall. Full information and booklet sent free in plain, sealed envelope.



MR. C. E. BROOKS

BROOKS APPLIANCE CO., 219A State St., Marshall, Mich.

My wish from Alabama for each 4-H club boy and girl in the United States is health, happiness, and a generous Santa Claus for Christmas and prosperity for the New Year.

T. A. SIMS, District Club Agent.

Rhode Island 4-H club boys and girls with "clean, quick minds in clean, strong bodies" as their first goal send their Christmas greetings and best wishes for a year of greater health to all 4-H club members who read this message.

LORENZO F. KINNEY, JR.,
State Club Leader.

Greetings! 4-H club work—its past record and progress—that's a worthy thought for our Christmas season. From Iowa 18,000 4-H boys and girls greet the other thousands in club work in the United States. May we all look into 1928 with cheer and hopefulness is our wish.

P. C. TAFF,
Ass't. Director Extension.

The Christmas season is a season of "passing on" of good cheer, and I do not believe that there is anything that would pass on more cheer to the agricultural industry than the boys' and girls' club work. Quoting from a recent article by an agricultural editor of the Midwest: "We have said, and we reiterate the belief, that this (4-H club work) is the most promising movement on the horizon of agriculture today." Nebraska 4-H club folks are doing their best to make it a real Christmas.

L. I. FRISBIE, State Club Leader.

Boys' and girls' clubs are increasing in their extent and usefulness. Farm leaders of today are emerging from the ranks of the 4-H club members of yesterday. May this and each succeeding Christmas season find more and more of the youth of the country imbued with the 4-H spirit is the message from South Dakota.

H. M. JONES, State Club Leader.

Washington has 7,000 club members. More than 500 men and women are working generously as leaders with these boys and girls. We wish to congratulate this fine group of people, and other similar groups in the United States, upon the splendid contribution they are making to the social and economic welfare of our state and nation. May a full measure of Christmas cheer be theirs.

ELMINA WHITE,
R. M. TURNER,
W. W. UNDERWOOD,
W. D. BUCHANAN.

With definite results as proof of progress, North Dakota Club members and workers feel very grateful and hopeful during the Christmas season. Our message can best be portrayed by the statement of a successful member after nine years' experience: "Club work has taught me to be broader minded, to co-operate with others, to know that only by honest, diligent labor can we ever hope to attain greater ends."

H. E. RILLING, State Club Leader.

Christmas greetings from Maryland to the many hundreds of 4-H folks whom I have met at national and interstate affairs, and to all of you, who, by keeping our wonderful 4-H pledge, are striving to live the four-fold life. May we, like Him whose birth we celebrate, "increase in wisdom (the head H) and stature (the health H) and in favor with God (the heart H) and man (the hand H.)"

E. G. JENKINS, ("Daddy Jenks"),
State Club Leader.

If you would be a true 4-H club member carry the Christmas spirit in your heart throughout the year. My season's greetings to you from West Virginia are that through your 4-H club work may you be able to find out what the secret thing is that holds the 4-H's together. Why don't we have five or why don't we drop one? See if you can tell.

W. H. KENDRICK,
In charge 4-H clubs.

Christmas is here! All boys and girls are happy; good cheer prevails. A backward look over the old year and a forward look into the new gives one a fine opportunity to study his accomplishments in 4-H Club work. May Christmas be to all club members the turning point to greater endeavor and achievement is our wish from South Carolina.

B. O. WILLIAMS,
State Boys' Club Agent.

North Carolina club members are happy this Christmas because their family has increased 3,000 since last Christmas; 47 counties held encampments; 600 attended the State Short Course at State College; and becau club work has enabled them to ha more money and because 4-H cl work is building up a greater co munity spirit throughout the state.

A bit o' Christmas cheer
Is good everywhere,
So let's stop long enough today
To do something in the good old 4-H way
To make someone else happy on Christmas D

L. R. HARRILL, State Club Leader.

At the close of another wonderf year in 4-H Club work in which W consin has had more achievement cl members than ever before, I am mo than happy at this Christmas time be associated with this great 4-H Cl organization. To live with you people—work with them—play wi them—and council with them, is i deed a happy lot. Edgar Guest mu have felt just as I do when he wro these lines:

"I'm wishing at this Christmas time tha could but repay,
A portion of the gladness that you've stre along my way.
And could I have one wish this year, t only would it be,
I'd like to be the sort of help that you h been to me."

T. L. BEWICK, State Club Leader.

A spirit of good will and fellowsh is one of the outstanding prevaili characteristics of all 4-H club peop thus the Yuletide is a season of sp cial significance to all engaged such work. No season of the ye carries with it so many possibilit for happiness and fullness of joy a service to one another as does t Christmas time. The Christmas wi from Kansas is that all 4-H club pe ple may realize the special signi cance that this season carries t them and may seize the golden oppo tunities awaiting them, for in th way this Christmas will prove to a great blessing and joy to all.

M. H. COE, State Club Leader.

That Runt Pig Again

You will remember that in the D cember 10th issue there was an a count of Lee Griffitts, Tennessee cl member, and his "runt" pig that fa rowed 78 pigs in 3 years which sold f $1,929. Since publishing that sto we have received the following inte esting news from County Agent C. Baker: "Lee's sow farrowed 14 pi the night of December first. S looks fine and good for several yea yet."

Our Review Column

[A regular feature of the junior departme reviewing the contents of Hoard's Dairym for the previous issue. Let's talk it over.]

There are some pointers worth r membering about feeding the dai cow in that article "Fitting the Fe to the Cow" published in the Dece ber 10th issue.

What are the two most comm errors in feeding grain to cows? underfeeding of quantity; 2, u derfeeding protein.

What should a good grain mixtu include? Two carbonaceous fee such as corn, grain sorghums, barle oats, and hominy feed; two high pr tein feeds such as linseed meal, cotto seed meal, gluten meal, soy bean me gluten feed, and ground soy bean and one bulky medium protein fe such as bran.

At what rate should the grain mi ture be fed? For Holsteins, Ay shires, and Brown Swiss one pou for each 3½ to 4 lbs. of milk pr duced, and to Jerseys and Guernse 1 lb. for each 2¾ to 3¼ lbs. of mi produced.

Merry Christmas

BOYS and GIRLS!

Do you belong to the Hoard's Dairyman Juniors' Club?

Every Junior reader of HOARD'S DAIRYMAN should be a member of this great club. *IF* you believe in the dairy cow—and you do—*IF* you want the emblems—*and you do—IF* you are not yet 21 years old and some member of your family is a regular subscriber to HOARD'S DAIRYMAN, *THEN* all you have to do is sign the membership application and send it in. Simple isn't it? Costs nothing to join and no dues. Thousands of REAL, LIVE, RED-BLOODED BOYS and GIRLS are now members of the club. YOU ARE NEXT!

MEMBERSHIP APPLICATION

HOARD'S DAIRYMAN
Junior Editor
Fort Atkinson, Wisconsin, U. S. A.

Dear Sir:—

I hereby apply for membership in the Hoard's Dairyman Juniors' Club. I agree to read the Junior Department of Hoard's Dairyman regularly and do all I can to make the Juniors' Club a success. Will you please send me the watch fob [ ] or necklace [ ] (mark x after your choice), the pin, and the Hoard's Dairyman Junior's Creed. Name .....
(Write distinctly, or print)

Address ..... I am
(R. F. D.) (City) (State)

..... years old. Hoard's Dairyman comes to my home addressed to .....

..... My favorite breed of dairy cattle is .....

..... My father's name is .....

Do you belong to a Boys' and Girls' 4-H Club? ..... If so, what kind? .....



Swine

Two Good Supplemental Mixtures

SWINE producers who are anxious to push their spring pigs to a handy market weight of 225 lbs. as rapidly as possible could well consider two supplemental mixtures that gave good results this past season at the Iowa Experiment Station.

The pigs were self-fed shelled corn on pasture. One lot was fed a supplemental mixture of three parts tankage and two parts linseed meal at a rate of from one-third to one-half pound per head daily. They reached 225 lbs. on October 5 at a feed cost of $6.23 a hundred pounds gain. Another lot was fed a mixture of three parts tankage, one part linseed meal, and one part cottonseed meal with shelled corn and pasture. They reached 225 pounds on October 4.

It would be interesting to know what the results would have been had two or three pounds of skimmilk been fed daily to each pig. A little skimmilk goes a long way even when fed with a good ration.

Feeding Oats to Pigs

The place of oats in the swine ration has never been entirely satisfactorily determined. An experiment reported by the Iowa Experiment Station this year gives oats a better standing than it has heretofore had.

From weaning time until about the middle of August pigs were given all the ground oats they wanted from self-feeder in addition to which they had one pound of corn per head daily and a supplemental mixture of three parts tankage and two parts linseed meal. After that date, the corn, instead of being restricted, was fed in a self-feeder. They reached 225 lbs. on October 17 on a requirement of 230 lbs. shelled corn, 117 lbs. ground oats, 14 lbs. tankage, and 9 lbs. linseed meal for 100 lbs. gain.

The ground oats was charged at 17 cents a bushel and the corn at 84 cents. It would seem from this that when oats are worth less than half the price of corn, and feeding restricted mainly to the early part of the growth period, and corn used to finish the pigs, ground oats have a very good place in the swine ration.

We should add that this lot of pigs received a simple mineral mixture composed of 40 lbs. bone-black, 37 lbs. finely ground limestone, 20 lbs. salt, 3 lbs. iron oxide, and one-third ounce potassium iodide.

Cross-bred Pigs Made Most Rapid Gains

As we have often stated that other factors besides feeds promote production from cows, so it is found true with the gains made by swine.

This year at the Iowa Station a group of cross-bred Duroc-Poland pigs beat a group of pure-bred Polands to the handy market weight of 225 lbs. by 12 days' time and they did it on 6 lbs. less feed per 100 lbs. gain, the cross-breds requiring 380 lbs. and the Polands 386 lbs. for 100 lbs. gain.

Some work last year and this, however, proves that it is poor policy to use cross-bred pigs for breeding. Some pigs of a Duroc-Poland cross were bred back to a Poland boar and others to a Duroc boar. The three-fourths Poland pigs weighed only 194 lbs. and the three-fourths Duroc pigs 207 lbs. as compared with 232 lbs. for pure-bred Polands and 250 lbs. for pigs of the first generation Duroc-Poland cross.

Cereal Grains are Good, But—

Again we call attention to the dangers of feeding fall pigs during the winter on a restricted cereal grain ration. These grains—oats, barley, and corn—are low in mineral matter in addition to which the quality of the protein they supply is not entirely satisfactory; furthermore, essential vitamins are lacking. The results of a prolonged cereal grain diet are rickets and general unthriftiness. Alfalfa hay corrects the faults of cereal grains. Skimmilk corrects the deficiency in protein quality as also supplying some calcium.

Sanitation, Exercise, and Feeding

Three things of importance with the swine breeding herd during winter are sanitation, exercise, and feeding.

The sleeping quarters are of chief concern from a sanitary standpoint. No hog can thrive properly if its bed is damp or dusty, more especially a pregnant sow. The condition of the range has something to do with keeping the bedding dry but ventilation also may affect this. The floor construction also may affect the condition of bedding.

Neglect of exercise of pregnant sows is often responsible for disappointing results when their litters are born. That exercise has a relationship with the strength and activity of pigs has been proven a number of times by carefully controlled experiments. Furthermore, as a rule, sows that have a reasonable amount of exercise during pregnancy bear their pigs with greater ease.

As a rule, pregnant sows will take enough exercise if given reasonable opportunity which means adequate range. During severe weather when there is a tendency for sows to stay close to their sleeping quarters, one may frequently induce the proper exercise by requiring them to go a considerable distance for their feed.

If the ground becomes coated with ice or sleet, pregnant sows should not be forced to travel about on it. Neither should they be induced to wallow unduly in deep snow. A good way to make a safe passage over ice or sleet is to scatter straw in the evening, wetting it down with water. Freezing during the night fastens the straw to the coat of ice and makes a roughened surface over which sows may safely travel.

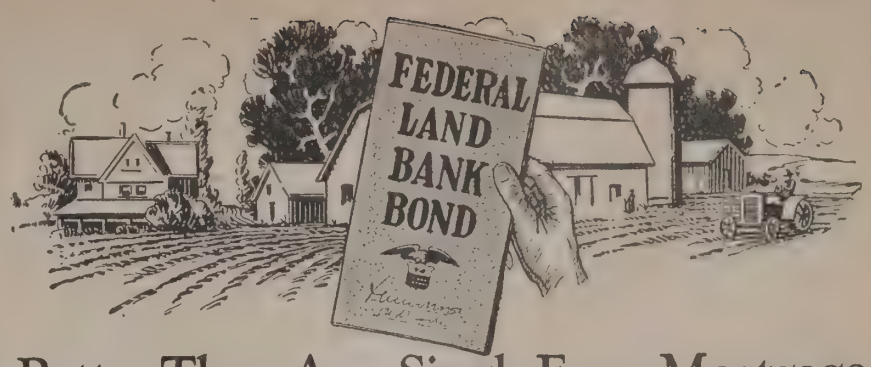
It is worth while for swine producers to keep in mind the physiological requirements of pregnant sows in preparing their rations.

The mature sow needs feed for maintenance and for the fetal growth of her unborn litter of pigs. The gilt or yearling sow in addition to the above requirements must also have enough feed to support growth towards normal mature weight. Any sow—be it gilt, yearling, or mature one—if underweight for age at breeding time, should be made to gain enough throughout pregnancy to be in normal condition at farrowing time.

A ration that is good for maintaining the weight and condition of mature sows is not necessarily a good one to supply the needs of fetal growth.

For example, a mature sow could maintain her normal weight on corn alone but she could not develop a strong litter of pigs from such a diet.

The cereal grains, a little skimmilk, some alfalfa or clover hay, and a simple mineral mixture supplying calcium and phosphorus make a very good combination for pregnant sows. In the absence of skimmilk one could either use powdered skimmilk or tankage. All feeds except the hay should be somewhat limited to the condition of the sows.



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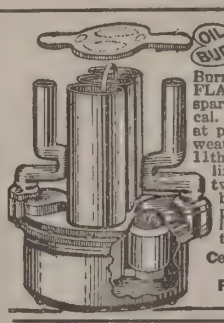
WE no longer plant by the light of the moon. . . . Agriculture has become a sound business, depending on the volume of its income, the same as any other business. . . . . Fortunately, during 1927 conditions have been more favorable for the farmer. His income will probably be greater this season than last. He is looking into a brighter future.

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Four-year-old Homestead bred herd sire, old fashioned breeding type. This, a proven sire, he and his get will have to be seen to be appreciated. We are selling to avoid inbreeding. For particulars write or better come and see GLEN RAMSEY, Fort Atkinson, Wisconsin. 23-*

High class grade Holsteins—Springing or fresh cows from an area tested county. Can also supply Guernseys of top quality. Clean cattle, priced right. 30 years experience in breeding dairy cattle. Write me, JOHN ERICKSON, Waupaca, Wis. 18-*

25 Head of heavy springing high grade Holstein cows and heifers. Also six head of registered bulls. H. F. McNUTT & SON, Oxford, Wisconsin. 23-4

Registered Holstein Bulls. Yearlings. Heifers 8 to 18 months. All sired by 1000 lb. Pabst bull. WALTER SORGE, Reedsburg, Wisconsin. 23-2

Holstein Bull. Three of his dams averaged 108 lbs. milk 1 day, 40.48 lbs. butter 7 days, $125. ROY HARRIMAN, Appleton, Wisconsin. 26-*

For Sale—High grade Holstein cows and heifers in carload lots or less. FRICK, KUNDERT & HOESLY, New Glarus, Wis. 24-4

Two five month Holstein heifers $35 each. Also 45 ton choice baled hay. $14.00 ton, F. O. B. Prentice. MRS. M. VALLAND, Prentice, Wisconsin.

If you want real choice Holsteins, any age or number, write H. E. ANDERSON, Whitewater, Wis. 2-24

Holsteins or Guernseys—Purebreds or grades, any number. Can fill carload orders that will please. Visit us or write your needs. WARNER HEITZ CO., Route one, Fort Atkinson, Wisconsin. 24-*

For Sale—200 head of choice Holstein and Guernsey cows and heifers, consisting of five entire farm herds, at a reasonable price. WHITEWATER STOCK FARMS, Whitewater, Wis. 2-*

60 Choice Holstein and Guernsey springers. Also registered heifers, bred and open. Tested. F. B. GREEN, Evansville, Wisconsin. 20-6

For Sale—50 top Holstein and Guernsey grade and purebred springers from accredited area tested county. BERG BROS., Iola, Waupaca County, Wis. 23-7

Always on hand, load of good dairy type Holsteins and Guernseys T. B. tested. Calumet County where the official tests in 1926 showed less than one per cent. T. L. DeLANTY, Hilbert, Wis., located on 57, 85 miles north of Milwaukee, Wis. 13-*

High grade Guernsey and Holstein cows, springers and fresh. Car lots or less, T. B. tested. Registered bulls. H. R. LOBDELL, Mukwonago, Wisconsin, Waukesha County. Highway 61. 11-*

I have usually 100 head of high grade Holstein and Guernsey cattle on hand for sale. RALPH HUDSON, Milton Jct., Wisconsin. 7-*

Registered Guernsey Sire. Get Pedigree, write quick. Price low, quality considered. LOCUST LAWN FARM, Elverson, Pa. 23-3

A good herd of Guernseys—20 cows, 1 bull, some calves. T. B. tested. Free from disease. Priced reasonable. C. J. FRIES, Ogdensburg, Wis. 22-3

Guernsey Herd for sale. Strictly high class cows; some fresh; mostly to freshen soon; T. B. tested; will sell one or all. In village limits. JUSTAMERE GUERNSEY FARM, Mukwonago, Wis. Tel. 741. 8-*

Registered Guernseys—Granddaughters of Langwater Demonstrator and Cherub's Prince. Herd Accredited. FAR VIEW FARMS, Brodhead, Wis. 21-*

Grade Guernsey springing cows and heifers are plentiful in La Crosse County. For prices write H. W. GRISWOLD, West Salem, Wis. 15-*

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LIVE STOCK WANTED

Wanted—One or two carloads of grade Guernsey heifers from six to eight months old. W. JONES, Wayside Farm, Assumption, Ill. 23-3

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Stallions for sale—Two Percherons, one Belgium. A. P. ANDERSON, Route 5, Litchfield, Minn.

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Duroc Boars ready for service. Registered. Guaranteed to satisfy. Price, $25.00 cash with order. WISCONSIN LAND & LUMBER COMPANY, Hermansville, Michigan. 24-2

GOATS

Toggenburg milk goats—bred. Address MILK GOAT FARM, Cushman, Arkansas. 23-2

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Why blame the bull when your cow does not breed? Use Cow Catch 1 hour before service. Results or your money back; 85 cents for one cow, $2.90 for five cows, postpaid. WOODSTOCK FARM, Renton, Route 2, Box 49E, Washington. 17-*

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Blue Ribbon, Giant, Mammoth Bronze Turkeys. Utility and show birds. None better, None cheaper, quality considered. TURKEY FARM, Cumberland, Wisconsin. 22-3

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Bigger Poultry Profits—Stronger chicks, more eggs for those who buy Helm's Money Makers, purebred chicks—America's heaviest laying strains. Flocks established and improved for years with blood direct from world's best breeders. Free "Poultry Secrets." Lowest prices, old established Smith equipped. ILLINOIS HATCHERY, Metropolis, Illinois.

Virginia Certified Baby Chicks make healthy early broilers. SALEM HATCHERY, Box 136D, Salem, Virginia. 23-2

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Collies—White and colors. Pedigreed, intelligent workers, loyal companions, reliable guards. Prices reasonable, and satisfaction guaranteed. BOX 117, Shomont Kennels, Monticello, Iowa. 1-24

Hunting Hounds all kinds. Catalogue free. KASKASKENNELS, WD 22, Herrick, Illinois. 23-2

Free Dog Book. Polk Miller's famous dog book on diseases of dogs. Instructions on feeding, care and breeding with symptom chart. 48 pages. Illustrated. Write for free copy. POLK MILLER PRODUCTS CORP., 1030 W. Broad St., Richmond, Va. 2-spl

PRINTING

Letter Heads—We specialize in printing Farm Letter Heads. Give us a trial. HOARD'S DAIRYMAN ART DEPT., Fort Atkinson, Wis. 19-*

AGENTS WANTED

Agents—We start you in business and help you succeed. No capital or experience needed. Spare or full time. You can earn $50-$100 weekly. Write MADISON CORPORATION, 564 Broadway, New York. 18-11

MACHINERY

New 8 bottle facile cream tester, pipette, $15.00; 60 gallon vat, porcelained gate, conductor head and trough, $22.50; Minnetona Home Creamery churn, belt drive, like new, $30.00; 4 H. P. vertical O & S boiler, Davis 12 valve bottle filler. ROANOKE DAIRY PRODUCTS CO., Roanoke, Ill.

For Sale—Dairymen always buy Shippert Milking Machines wherever Shippert Milkers are well known. Send for free new circular. It tells a lot. SHIPPERT MILKER MANUFACTURING COMPANY, Desk H., Dixon, Illinois.

Milkers for sale cheap. Second hand DeLaval, Empire, Surge, Universal, Burrell, Fords, Sharples, and Perfection. Also new Hinman. J. C. MARLOW, Mankato, Minn. 4-*

For Sale—Three Unit De Laval milker, forty cow outfit, complete; nearly new; first check for $300.00 takes it. FRANK SCHMIDT, Salem, Wisconsin.

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Almost new De Laval milker complete for sale. If interested, write BOX 599, care Hoard's Dairyman.

Flueless Boilers for dairies. All sizes. Buyers prices. CASEY BOILER WORKS, Springfield, O. 23-4

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Guaranteed Milk Filtering Pads, $1.75 for carton of 300—6 inch, if remittance accompanies order. Postage extra if C. O. D. HEYSER MILK FILTER CO., Dept. "A" 36 Frelinghuysen Ave., Battle Creek Michigan. 24-*

Buy caps direct from manufacturer, $13.50 per barrel of 50,000, printed in one or two colors. Write for samples. DEPOY BOTTLE CAP COMPANY, Muncie, Ind. 21-*

Rubber Tubing for all makes of milking machines. Very highest quality only. Attractive prices. ANDERSON MILKER COMPANY, Jamestown, N. Y. 24-*

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We print milk tickets, checks, shipping tags, etc., for farmers all over the country. Our work will please you. Write us now so you will have your supply on hand. HOARD'S DAIRYMAN ART DEPT., Ft. Atkinson, Wis. 26-*

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Alfalfa, Clover Hay, Dairy Feeds, for sale. Write or wire for prices. Weights and grades guaranteed. J. A. BENSON CO., 332 So. La Salle, Chicago. 25-*

Alfalfa Hay for sale. Write for delivered prices. Grades and weights guaranteed. JOHN DEVLIN HAY CO., INC., 192 N. Clark St., Chicago, Ill. 24-*

We Specialize in government inspected and graded timothy, clover and alfalfa hay. For prices write E. R. KLINNER, Stetsonville, Wisconsin. 23-4

Alfalfa and Clover Hay for Sale—Ask for delivered prices. HARRY GATES COMPANY, Jackson, Michigan. 17-*

Shippers inspected graded hay; dairy alfalfa, clover, timothy, prairie and straw. CALLIARI BROTHERS, Green Bay, Wis. 19-6

Alfalfa for dairy use. Federal inspected shipments. Guaranteed weights. Wire or write. C. H. GUNN, Lexington, Nebraska. 23-6

For Sale—Alfalfa, clover, timothy hay; alfalfa meal; 20% dairy feeds. Write us. OSBORN HAY & MILLING CO., Oshkosh, Wisconsin. 23-4

Alfalfa—Clover—Mixed Hay for Sale. The A. B. CAPLE CO., Perrysburg, O. 15-*

Alfalfa and Prairie, delivered prices. SUTTIE-PECKHAM CO., Omaha, Nebr. 19-6

Alfalfa hay—car lots for sale. CHAS. B. WING, Box 21, Mechanicsburg, Ohio. 22-*

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Grow sweet clover, the premier soil enriching and pasture crop. One acre equals 20 tons manure in amount of nitrogen replaced. As pasture, furnishes twice as much feed as any other. For highest quality clean seed order from us. Special prices on club orders. Send for free samples, circular, latest price list. NORTH DAKOTA GRIMM ALFALFA ASSOCIATION, State College Station, Fargo, N. D. Co-operative organization of over 500 growers. 24-3

Alfalfa Seed $7.00 per bushel; Sweet Clover $4.50; both tests 95% pure. Return seed if not satisfactory. GEORGE BOWMAN, Concordia, Kansas. 24-*

Seed Corn at wholesale price, carload lots. MEEKER COUNTY SEED GROWERS ASSOCIATION, Dassel, Minnesota. 24-2

FEED BAGS

For Seventeen years we have paid the highest prices to dairymen for their empty feed bags. Get our quotations before selling. THE DAYTON BAG & BURLAP CO., Dayton, Ohio. 4-*

STATIONERY

Your stationery represents you. Good quality paper with an illustration of your farm or members of your herd arranged nicely. Cost very little more than the cheap variety. If you haven't any pictures to reproduce on your letterheads and envelopes ask us for illustrations of what we carry in stock. Every breed of dairy cattle, and horses, swine and poultry are also included. Book of 5,000 farm ranch and cottage names, 25 cents. HOARD'S DAIRYMAN ART DEPARTMENT, Fort Atkinson, Wis. 26-*

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Homespun Tobacco—Guaranteed, good flavor, Chewing, 5 pounds, $1; 10, $1.75. Smoking, 5 pounds, 75c; 10, $1.25. Pay when received. FARMERS UNION, Mayfield, Kentucky. 21-4

Special Offer—Chewing or smoking, five lbs. $1.00; ten $1.75; 50 cigars $1.95; pay when received. Money back if not satisfied. FARMERS ASSOCIATION, West Paducah, Kentucky. 23-2

Tobacco: Kentucky Sweetleaf. Mellow; aged. Smoking 15 pounds $1.65; chewing $2.25. Pay when received. ERNEST CHOATE, Wingo, Ky. 22-4

Homespun Tobacco. Chewing 10 lbs. $1.50. Smoking 10 lbs. $1.00. UNITED FARMERS, Paducah, Kentucky. 24-2

DAIRIES

Fifty Cow Dairy South Florida. Also ten thousand acre cattle ranch. J. M. WILLSON, Kissimmee, Florida. 22-4

Want 150 acre dairy. Prefer near city of 5000. Good buildings. Address BOX 592, care Hoard's Dairyman.

ROCK PHOSPHATES

Our finely ground raw rock phosphate greatly increases yields of small grain and hay crops. Cheaper than acid phosphate. Write for literature and prices. ROBIN JONES PHOSPHATE COMPANY, 572 Bennie Dillon Building, Nashville, Tennessee. 20-*

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For Sale—756 acre river plantation, 400 acres of which are in cultivation. Nice 9 room residence, piped with artesian water and natural gas, 17 tenant houses, large mule barn, dairy barn, milk room, two 100 ton silos, commissary, 70 head Jersey cattle, 40 head beef cattle, 13 head mules and horses, 30 head hogs. All kinds of farm equipment. Will sell as a walk-out proposition or will sell land separately in tracts of 250 acres. W. W. McDONALD & SON, Motor Route A South, Monroe, La. 23-2

For Sale—64 irrigable farms on the Orland reclamation project, California, on which the Federal Bureau of Reclamation holds options for sale to qualified settlers at prices determined by independent appraisal. 10% down and balance in 30 years. For information address R. C. E. WEBER, Project Superintendent, Orland Project, Orland, California. 24-4

Dairy Farm, 40 acres two miles from center of city of 14,000, good road, one of the best equipped places in state. All modern, city water, electric light, 24 stanchions, four box stalls, all necessary buildings. Sell Jersey milk 15c quart. Owner retiring. Bargain for quick sale. Address BOX 304, Greeley, Colo.

409 Acres, 27 cows, crops, equipment, at $20 an acre. Almost next to village, usually cuts 100 tons hay, pastures 75 cows; good 8-room house, large barn, other buildings. Only $8500, part cash. Details page 54 big illustrated catalog, Free. STROUT AGENCY, 255-DL, 4th Ave., New York City.

California Dairy Farm. Fully improved. Six cement highway miles thriving town. 100 acres good alfalfa. 357 acres. $55,000.00. Quarter cash. Balance 10 years. GEO. ROWELL, 730 Miner Ave., Stockton, California.

For Sale—160 acre farm at Casa Grande, Arizona. Comes under the Coolidge Dam Project. A Wonderful opportunity and a bargain. Must sell account of age. Address BOX 595, care Hoard's Dairyman.

240 Acre Alabama farm. Mild climate, year round grazing. Ideal location. Good markets. Write for particulars. Easy terms. W. A. KIRKSEY, Lincoln, Alabama. 23-2

160 Acre Farm—Well improved. 3½ miles east of Harvard. $110.00 per acre. MRS. JULIA GLEASON, Harvard, Illinois.

Wanted—500 dairymen in black belt of Alabama. Soil is fertile and land cheap. Unsurpassed dairy opportunities. S. E. PORTER, Uniontown, Ala.

Will sell 240 acre dairy farm on which I reside. CHAS. SIMON, Republic, Mich.

FARMS WANTED

Need several fully equipped farms, immediately. WALT MILLER, Carpenter Bldg

FOR RENT

Renters Wanted—Write for free books and list of improved farms for rent in North Dakota and Minnesota, productive for small grains, clover, alfalfa, dairying, cattle, sheep and hogs. Good schools, markets, churches in fast developing communities where land can be purchased on easy terms. Low homeseekers' rates every Tuesday. E. C. LEEDY, Dept. 682, Great Northern Railway, St. Paul, Minn. 17-*

For Rent—600 acres, well known Talbott Stock and Dairy Farm. Complete set farm buildings, practically new. Large acreage fine river bottom land on Little Miami River, Greene County, Ohio, 12 miles southwest of Dayton. Unusual opportunity for progressive farming. Owner will cooperate substantially in stocking farm. References required. Address E. L. SHUEY ESTATE, 204 Central Avenue, Dayton, Ohio.

Lease—Thousand acres with modern barns and equipment. Party will have to buy herd and crop now on hand. Located in Alabama with market near. Address BOX 597, care Hoard's Dairyman.

Good Farm—160 or 240 acres. 5 miles east of Harvard. M. P. SULLIVAN, Harvard, Illinois.

TESTERS WANTED

Iowa needs cow testers. Training course offered. Give age, experience, reference. BURT ODERKIRK, Iowa State College, Ames, Iowa. 24-*

MATTRESSES

Mattresses at low factory prices. Any size. Catalog free. PEORIA BEDDING COMPANY, Peoria, Illinois. 24-*

MISCELLANEOUS

Buy one of our leather bound loose leaf pocket herd books and be able to give accurate information regarding the animals you have for sale. Will accommodate 100 animals, (sketches, sire, dam, date of birth, records, service date, etc.). Also service record, gestation table. Price $2.00, postpaid. HOARD'S DAIRYMAN, Fort Atkinson, Wis. 24-*



Advertising in this department is 8c per word. Remit in advance.

POSITIONS WANTED

Widower who has lost about all but pep and hope wishes steady job with a future; any kind of a farm proposition. Certified experience, neat farmer and gardener, good manager. High school and business education, good appearance, a great lover of children; good home conditions much desired. Do not use tobacco, booze, or profanity. Unencumbered. A. No. 1 references. Age 49; height, 6 feet; weight, 200. Full particulars. R. M. W., 2694 W. Grand Blvd., Detroit, Michigan. 23-2

Farm Manager (German) desires position. Proven ability and lifetime experience, both Holsteins and beef cattle. Results, A. R. O. work, show ring, production high grade milk; know how to farm and feed for profit. References past and present employers. Age 34, married. Address BOX 598, care Hoard's Dairyman.

Herdsman—36, married, no children. Lifetime experience feeding breeding for high production, experienced showman just off big circuit; thoroughly familiar with feeds, pedigrees and high grade milk production; best of references. Give proposition in first letter. Address BOX 593, care Hoard's Dairyman.

Position Wanted as Farm Manager on large stock and grain farm. Lifetime experience in breeding and raising of livestock, handling labor, farm units, power, or otherwise. Best reference, West preferred. Address BOX 594, care Hoard's Dairyman.

Wanted—Position as herdsman, superintendent or farm manager. Graduate Wisconsin College of Agriculture. Farm reared. Six years experience with pure-bred Holsteins. Qualified to handle test cows and breeding operations. G. HEAL, Marshfield, Wis.

As supervising herdsman or farm manager. Six years A. R. work; lifetime farm experience. Agricultural college graduate. Total abstainer. Reference furnished. E. A. NELSON, Livingston, Grant County, Wisconsin. 23-2

Wanted—Position together, two dry hand milkers. Handle 30 cows. Start January 1st. Good reference. State wages and conditions. SYLVAN & W. D. CORWIN, Morrow, Ohio.

Wanted—Position on dairy farm. Dry hand milker. Age 24, single. A. HOLM, Western Springs, Ill. 24-*

Position Wanted—As herdsman or assistant on modern dairy farm by young man, single, no bad habits. State breed of cattle and wages. HAROLD LUTZ, Malta, Illinois.

Wanted—Work in dairy barn. Good dry hand milker. NELSON GUY, R. 2, No. 12, Sparta, Wis.

Practical dairyman and farmer wants position modern dairy or operate where everything furnished. Married, age 38, clean, energetic. W. S. CAMPBELL, Blooming Prairie, Minn.

Experienced cow-tester desires southern position. Address N. F. R., BOX 325, Route 6, Marion, Ind. 24-2

POSITIONS WANTED

Dairy Farm Manager. Guernseys preferred. Experienced in feeding for production, fitting and showing. I am married, have two children, will board some help. Can furnish references. Available March 1st. A. D. ALLDREDGE, Edwardsburg, Mich.

Position Wanted by young man on clean dairy. Milk house or barn work. W. H. MANOR, Towanda, Kan.

Wanted Position dairy barn work. Good milker. GEORGE CRAMER, Box 379, Sidney, N. Y.

HELP WANTED

Help Wanted—Herdsman, single man, to take complete charge of Guernsey herd 50 head. Thoroughly experienced, understanding all angles of dairying for milk production, and care of herd. Man must be sober, reliable and industrious. An excellent position and good home. State in full experience, reference, age, and salary. Farm located 40 miles N. W. Chicago. Address BOX 582, care Hoard's Dairyman. 23-

Wanted—Two single men for work in dairy barn. Producing Grade A milk. Twice day milking. Must be good milkers, good habits, and familiar with milking machines. Wages $55.00 per month and board. SAUCONA FARMS, R. D. 4, Bethlehem, Pa.

Wanted—By Jan. 1, experienced married man on Guernsey dairy farm. Wife milk part time. Requirements: Honest, good milkers, no cigarettes. $60 per month and extras. HOMER RUNDELL, Livingston, Wisconsin.

Dairyman who knows how to make balanced ration and handle herd to get maximum production. Salary and per cent on increase. Address BOX 596, care Hoard's Dairyman.

Wanted Herdsman—Single man experienced with Surge milker. Beginning January first. EDWARD HOGREFE, R 2, Lemont, Illinois.

Wanted Immediately—Experienced test cow milker Jerseys. HUGH W. BONNELL, R. R. 4, Youngstown, Ohio. 23

Which Shall It Be

(Continued from page 1185)

or bull situation in the United States with our occasionally tested cow and see who has a rational breed improvement plan.

What can be said of Denmark in this regard can be said also of Holland and Scotland. In Scotland more than 50 per cent cent of the Ayrshire herds are in test associations.

With their present attitude toward testing and the purpose and use of records, the Scotch, Danish, and Holland breeders can follow very closely all blood lines and quickly spot out those lines that are bringing about improvement and use these to the best of advantage and also to eliminate those which are showing a detrimental influence on the breed. In random selection of the records fifty living average Danish bulls most of them in use in bull associations, we found that their 826 daughters exceeded the production of their 826 dams by 31 pounds butterfat.

It must be borne in mind that the information was available to the breeders using these bulls. The cattle breeding societies each year compile information on countless numbers of bulls and the breeders are making the greatest use of this information. Every new bull is carefully watched and his daughter's production quickly tabulated against the dams' records to see whether he is desirable to use.

The whole attention of the breeders, breed associations, and workers is centered on using every agency which will help to improve the average rather than to produce the phenomenal. They have found out, as we must find out, that after all it is not the occasional phenomenal cow but successful breeder who makes the dairy business profitable and successful, but rather the development of the average by the constant and consistent elimination of the undesirable and unprofitable to where it brings success and benefit to all.

Our breed associations could well consider spending a large portion of their yearly income in compiling information about the bulls being used within their breed, and publishing this material while it is fresh and worth something to the breeders, owners, and prospective bull purchasers.

The newly developed herd test plan already in operation by the Ayrshire Breed Association and to be put in operation by the Holstein Association while still probably imperfect, is the first real forward step outside of the cow testing association work which has been taken by American breeders. When the principle of testing *the herd all the time* under normal daily conditions becomes a breed wide and national-wide practice, the herd and breed improvement will truly begin. May that day not be far o

Action by the National Grange

hen a national farm organization command the attendance of 10,- of its followers at its annual ting, it is a sign of capable lead- ip and sound policies. That is number that participated in the y-first annual session of the Na- al Grange which was concluded leveland, Ohio, on November 25. he seventh degree was conferred 5,950 Grange members at that , among whom was Senator Ar- Capper, of Kansas. Voting dele- s represented twenty-eight states.

ouis J. Taber was overwhelmingly ected National Master. That the nge is truly of national scope is vn by the fact that the sixteen ibers of its national board, elect- represent fifteen different states.

he principal declarations on which on was affirmed at this session as follows:

he National Grange reaffirms its ocacy of the export debenture for practical farm relief, as ef- ive, workable, and without the ssity for setting up costly admin- itive machinery; the plan being able of independent application or combination with other sound edies; and the Grange declares its liness to cooperate with any other ip or organization in bringing it immediate relief.

he National Grange declares that time has come when tax relief for overburdened people must be id, especially for the farm and ie owners of the United States; es a refund to the states of a por- of income and inheritance taxes e distributed for educational and rovement purposes; opposes re- tion in income taxes at the pres- time; and advocates curtailment state, county, and local expendi- s until such taxes are materially ered.

he National Grange demands the ervation of the cooperative fea- s of the Federal Farm Loan Act insists upon provision for long- e amortized loans for permanent elopment projects by farm co-op- ives.

he National Grange demands a rous enforcement of the Eigh- th Amendment and the Volstead ; pledges its entire energies in be- of such enforcement measures as present situation demands; and rs stern punishment for all ven- s in narcotics.

he National Grange declares its tinued support of the direct pri- y and will vigorously resist the rts now being made in various ions of the country to overthrow

he National Grange declares its ualified opposition to further ex- diture of federal funds for irriga- and reclamation projects so long he present surplus of agricultural ducts continues to depress the sell- price of farm crops.

he National Grange pledges its tinued efforts for the establish- t of a National Agricultural Day congressional enactment.

mong the projects which the nge voted to favor the following of significant importance:

doption of the budget system by es and local taxing units, with itive debt control.

long-range reforestation pro- m with adequate measures to pre- e the nation's remaining natural ources.

etaining control of the Federal m Loan system in sympathetic ds and making it function for n benefit to the full extent of its tors.

ariff revision by competent ex- perts instead of by congressional action on political basis.

Employment of agricultural research work more in the lines of marketing and distribution and less towards production.

Camel

The cigarette preferred by experienced smokers

In the remarkable growing popularity of the cigarette many brands have bid for favor, but Camel continues to lead by billions. Quality put it there; quality keeps it there.



If all cigarettes were as good as Camel you wouldn't hear anything about special treatments to make cigarettes good for the throat. Nothing takes the place of choice tobaccos.

© 1927, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

C. T. A. Cows Bring Good Prices

Eleven grade Holstein cows with cow testing association records sold at auction for an average of $158.75 (not including one three-teater producing 208 lbs. fat). This was $78.75 higher than the average price paid for five ordinary cows (averaging $80 each) sold at the same sale without records. The above report was made by Guy S. Hales, county agent of Ozaukee County who attended this recent sale of George Weideman, a member of the Cedarburg—Grafton Cow Testing Association. Among the fifteen cows sold with records, three of them were registered Holsteins and 12 were grade cows.

Production records ranged from 208 to 475 lbs. fat for the year. The reported average production was 380 lbs. fat. The high cow of the sale was a 9-year-old pure-bred. In three months she produced 170.4 lbs. fat averaging 56.8 lbs. per month. The fifteen-cow herd sold at an average price of $161.16. The three registered cows brought $201 each, including the nine-year-old cow. Why was there a difference in the price of $78.75 paid for known production? It pays to know your cows better.

Wisconsin. A. J. CRAMER.



Healthy Cows and Highest Possible Production

are assured by letting them regulate their salt and water supply themselves.

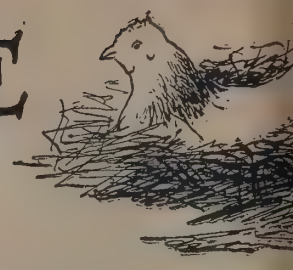
We have perfected a salt and mineral feeder of special glazed stoneware, with metal clamp, that has stood the severest tests in bull pens. They are practical and permanent. Fully guaranteed. 30 days' approval. Price: Salt Feeder, $2.25; Waterbowl with frost and leak proof valve, $3.50 Give diameter of wood or steel post. Pamphlet free. Salesmen wanted.

IDEAL SALT FEEDER COMPANY Morristown, Minnesota

Children sweeten labors, but they make misfortunes more bitter; they increase the cares of life, but they mitigate the remembrance of death. —LORD BACON.



A DIFFERENT TALE



J. B. Hayes

"THERE ain't no money in chickens."

"What makes you believe that, Sam?"

"Believe it? I have had them for the last thirty years; they are always in where they don't belong; they never lay when they should, and besides I don't believe in keeping hens."

"What kind have you kept?"

"Well, I don't take much to these full bloods. They are always kind of sickly-like and don't live as long as the kind we keep. Ours are always kind of mixed up because we got roosters from the neighbors and they live for a long time."

"Do you get many eggs?"

"Well, yes, in the spring."

"Did you ever try baby chicks?"

"No, we don't believe in that kind of stuff. Hens are supposed to hatch their own chickens. When you start fooling around with them fellows that sell baby chicks, it don't seem like they sell you what is right. They cost too much, too."

"Did you ever keep any records?"

"Records? You mean how much the feed cost and that kind of thing costs? Us farmers ain't got time for that. We are too busy for monkey work with a pencil. Besides, nights a fellow is supposed to sleep."

"Would you believe the records that some other farmer might give you for his own flock? There must be some hens that make a profit because their income, even in Wisconsin, which is not one of the biggest poultry states, is equal to or exceeds the farm taxes. That should mean something or, possibly, your taxes don't bother you."

"Yes, the taxes is plenty any place."

Oscar Westberg's Flock

"Suppose you hop in here and we will take a shot around Douglas County and show you some flocks that are doing only what any other flock owner can do if he observes the necessary fundamentals."

"All right, but listen, don't drive too fast."

Oscar Westberg has always had a small flock of poultry on his farm. The conditions were not ideal because the flock was too small for real profitable management. He usually had about fifty hens. The house was makeshift and often water would stand on the floor. The difference between Mr. Westberg and the average poultry keeper was the difference in the individual. In spite of poor conditions, but because of care, he was able to get eggs.

In branching out into a farm flock that was part of the farm operation, it was not necessary to convince Mr. Westberg that poultry was profitable. He needed to build a satisfactory house and produce a flock of sufficient size to warrant the economical expenditure of time and investment.

The first step in the program was the building of a Wisconsin straw loft house. This was advisable under his conditions since this house was designed for his climatic conditions and had proven satisfactory in use in that territory. During the past year the house has been dry, Leghorns have not frosted their combs, and a high average production was obtained. A 20'x40' house was constructed for about 250—300 pullets.

His second problem entailed the purchase of chicks. Since egg production was desired he bought from a hatchery that produced quality,



SANITATION FOR TURKEYS
Hatched May 10, 1927; photo taken Sept. 25; weight 16 lbs.

bred for production chicks. Usually one should purchase three chicks for each pullet housed in the fall.

In this instance brooding was considered as a definite system requiring definite steps and care rather than a question of luck, the same as "shooting crap" or playing poker. Too many people are apt to place the blame for poor brooding results on "luck" rather than accepting part of the blame themselves.

Due to proper brooding a count of the chicks at eight weeks showed a total of 606 out of 600 purchased. All of the extras given to assure 100% live delivery by the hatchery had not been lost. This is an extreme instance but a fact.

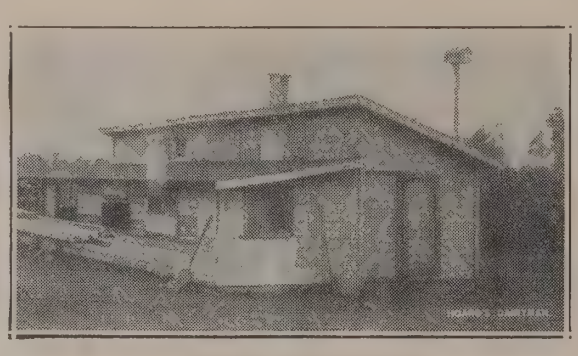
The chicks were brooded under two coal burning brooders and raised on clean ground. They were also fed a complete ration. In fact they were carried for the first six weeks in the house to assure proper sanitation and attempt to prevent intestinal parasites. The broilers paid for the pullets.

Only pullets were placed in the laying house. They were housed by the first of October and were then kept in confinement. Some production was obtained during October but the record which Mr. Westberg has starts with November.

During the winter a scratch ration consisting of 2 parts corn, 2 parts wheat, and 1 part oats was used. This season heavy plump barley replaces the oats.

A mash mixture of 100 pounds each of ground yellow corn, ground oats, wheat bran, standard middlings, meat scrap, and 1% or 5 pounds of fine salt is used. Last year no cod liver oil was added, but this year 2% will be combined with the mash.

Second cutting of well cured alfalfa hay is available so that the flocks have access to the leafy portion as a source of green feed.



BEFORE REMODELING



AFTER REMODELING



QUALITY CHICKS PLUS CLEAN RANGE PLUS RIGHT FEED EQUAL PROFITABLE PULLETS

Electric light is supplied from dusk to 7:30 night. This permits the flock to have about a hour day.

There isn't anything particularly secret a that program of good house, good stock, good and good management. The result of that bination is given in the following record from vember to September 15. At that time the were moved to allow the house to be cleaned prepared for the pullets that moved in about ber 1st. Housing before production starts ten prevent a false molt.

Mo.	Ave. eggs per hen	Feed cost per doz.	Mo.	Ave. eggs per hen	Fee pe
		Cts.			
Nov.	17.39	9.0	May	21.60	
Dec.	17.89	10.4	June	19.20	
Jan.	19.14	9.3	July	19.51	
Feb.	19.41	9.4	Aug.	20.17	
Mar.	20.29	8.9	Sept.	4.80	
April	20.45	8.4			

Total 199.85 eggs; ave. 12c per dozen.

How Mr. Pleski Handles Poultry

Moving down the road to Leonard Plesk find a different poultry layout. This offers a ch to see what is required in building up a high duction strain.

All of the flock is trapnested all of the time they are on the place. The active co-operati the other half of the family is required. This required in record keeping, pedigree hatching wing banding is more than the average farm poultry keeper can devote, but is a job that s one must do in order to supply the class of b ing stock that will produce profitable flocks.

The highest hen is a Tancred bred pullet produced 307 eggs in her first laying year. ing a record of that sort results in one of thrills that comes but once in a lifetime.

Back-tracking to B. H. Doughty draws a tion to the effect of of hatching on p Everything from a bed to a race horse be prepared before sults can be expe That should incl poultry.

Pullets were chased at two diff times. They were b ed under the same ditions, fed the sam tion, and cared fo the same way. The start resulted in maturity and conse inability to come through with a heavy produ

Month	April hatched pullets Av. eggs per hen	Cost per doz.	May hatched Av. eggs per hen	p
		Cts.		
November	17.39	9.0	5.04	
December	17.89	10.4	12.40	
January	19.14	9.3	16.39	
February	19.41	9.4	15.20	
March	20.29	8.9	19.92	
	94.12	8.1	68.95	

Av. profit per April hatched pullets for five months,
Av. profit per May hatched pullets for five months,

for the high price market during October, No ber, and part of December. The ration was



BUILDING REMODELED FOR A POULTRY HOU

e same as that used by Mr. Westrg except that cod liver oil was ed. It was also interesting to find at when the oil feeding was distinued because of the supply be exhausted, trouble was noted in ver production, poor shell texture, d egg eating.

The preceding table shows the difence between April and May tched pullets. The number in each ck was not the same but the ine over feed cost per pullet is ren.

Sid Van Buskirk's Method

A stop at Sid Van Buskirk's also ows the effect of constructive eeding on records. The stock in s instance comes from the Unirsity with a later top cross of Tan-ed. About 125 birds are carried in 20x20 straw loft but the quality is gh.

A breeding flock is a different oposition from a commercial flock. ie hen that made a cord of 267 eggs is ll kept although she seven years old. iat practice in a layg flock would be a rious mistake. This st year he has deloped one pullet that oduced 306 eggs. December 1 this llet was still proicing heavily.

How Mr. Lasch Manages

A little longer drive fers a contrast beveen the profit from ns and pullets in e flock of R. C. asch. The contrast is even greater an usual because the hens were tter than the average since they d been closely culled:

Month	Average production Hens	Pullets
November	.777	5.13
December	.38	11.94
January	1.98	1.98
February	9.76	9.76
March	18.62	18.62
April	22.00	22.00
May	23.53	23.53
June	21.03	21.03
July	20.09	20.09
August	16.30	16.30
September	10.33	7.28
October	2.36	9.94

The hens averaged 147.15 eggs per year, hile the pullet average was 182.17 eggs per ar.

During the month of November, this year, flock of 232 pullets returned a gross income about $200.

Another problem enters into this en vs. pullet argument, since some ock owners have a special market at demands large eggs. Pullets will roduce small eggs for a limited pe-od when production starts. To overme this handicap some people hold ver a few hens as a part of the ock. The same results can be obined by moving the hens from the ying house to the colony house. The ying house can then be filled with ood pullets. As the hens stop layg they may be sold on the market.

A breeding establishment presents different problem. The income om a hen is dependent upon her ecord, her ability to transmit that haracter to her progeny, and the ngth of time that she can be used s a breeder. The longer she is kept he better. This is the principal difference in what one might advise for breeding flock or a laying flock.

"Do they all follow the same program?"

"Well, the foundation is the same respect to their use of a Wisconn type house either new or rebuilt. hey grow their chicks on clean round, hatch early, use a complete ation and feed cod liver oil. Some variation in the ration is made. They may drop the oats in the mash and add another hundred pounds of ground corn. The mixture would then be 200 lbs. ground corn, 100 lbs. wheat bran, 100 lbs. standard middlings, and 100 lbs. meat scrap, plus 1% of fine table salt and 2% of cod liver oil.

The fact that the use of cod liver oil is a practice that the average poultry keeper adopts is best evidenced by the fact that one feed concern is using two barrels a week in the mash mixed and sold locally, while another party in the same section of the state has placed about 1,500 gallons this year. This all went to farm, and not commercial, flocks.

The entire poultry income is not limited to chickens and eggs. Several farms are raising from 200—500 turkeys each year. Their success is due to following a definite system of sanitation which permits them to rear the young stock on clean range in confinement each season.



PULLETS READY FOR HOUSING

It is true that chickens are creatures of habit. When their methodical habits are disrupted or changed, trouble usually results. A change in housing or feed may throw pullets into a molt. However, when a practical method is outlined and followed, proper results can be obtained.

It isn't necessary to agree with the wild-eyed speculator, or the fireside farmer that states that he knows that there is money in chickens because he put it into them and never got it out.

There are two classes that are doomed to failure. The first tries to make his place look fancy. An architect designs the house from the viewpoint of symmetry and beauty. The overhead is usually so high and the flock is usually so poor due to poor stock, poor management, poor feed, and poor sanitation that the hens cannot scratch their way out.

The second class starts with the highest degree of poor stock due to a grand mixing of varieties, breeds, and near breeds. Nature takes its course in respect to time of hatching; the house is some structure that is too poor for any other animal; the feed is a futile attempt given irregularly and results are in proportion.

Record keeping in respect to poultry is of value since the results at the end of a year will cause the owner of the flock to either improve the flock and the system to make it profitable or will cause him to drop out and make room for someone that is capable. This statement is also applicable to every other branch of farming in general practice.

A constant complaint and bewailing never improved any condition.

An average chick is not acceptable at the present time. We require machines that can develop more speed than what was capable in a 1914 model. The hatchery must make the same progress.

The cost of a house must be reasonable. It is necessary to have a house that will carry a rather uniform temperature, is dry, and is large enough to properly accommodate the flock. The lower cost at which these essentials can be obtained, the better.

A feed must be complete. It should contain the correct amount of animal protein and should be fortified both in respect to minerals and vitamins.

Management should be reasonable and regular. Variation in what is and is not done may react seriously.

A combination of a good house, a good flock, good feed, and good management will result in a profit from a flock.

Wisconsin Accredited Hatchery Meeting

At the annual meeting of the Wisconsin Accredited Hatcheries' Association at Milwaukee, Nov. 25—26, the first day was given over entirely to an instructive program. It included talks by Drs. Larson and Healy on tuberculosis eradication in poultry flocks, one on sign advertising by A. W. Hopkins, and one on national advertising by a representative of the Geyer Agency of Ohio.

The matter of forming a Wisconsin Poultry Improvement Association which would have affiliated with it all of the organizations representing the various branches of the poultry industry in the state was endorsed by the association.

Seven new hatcheries were admitted to membership, which gives the association a membership that includes practically 90 per cent of the hatching capacity in the state. Officers elected for the coming year are John Mueller, president; C. H. Mueller, vice-president, and A. G. Cory, secretary.

Wisconsin. W. F. DAMLER.

Poultry Short Course

The Eighth Annual Poultry Short Course will be held at the Wisconsin College of Agriculture at Madison from January 30 to February 3 during the regular Farm and Home Week. The course will provide instruction of value not only to farm poultry keepers but also provide for the specialist in poultry and the hatchery operators and hatchery flock owner. Programs can be secured by writing Professor J. B. Hayes, College of Agriculture, Madison, Wisconsin.

Changes in Feeding

All mash, no mash, or 50—50, it depends upon where you come from as to what system you are told to follow. There is undoubtedly merit in all or any of them.

In feeding hard grain there is some merit in the suggestion that the cleaner the feed, the better will be the health of the hen. It is probably not necessary that a hen kick a straw stack apart in order to produce eggs.

The feeling has become so accepted in respect to exercise not being requisite to heavy production, that grain feed is now hopper fed. Some feed the grain directly in the dry mash hopper. They are equipped with proper open type mash hoppers that hold an amount necessary for just one day. The grain is fed on top of the mash that remains in the evening. In fact the moist mash, the germinated oats, the cod liver oil in mash or grain or the semi-solid milk, and germinated oats are fed in this same hopper or trough.

In other instances where larger hoppers are still used, additional long, rather narrow troughs may be used for grain feeding. The grain is fed in the hoppers at night. This method permits feeding clean feed not from dirty litter and will also permit the flock its fill of grain at night in a shorter time.

Sufficient exercise will also be obtained by the natural activity of a heavy producing bird. It is no more necessary to keep a hen scratching to get eggs than it is to keep a cow running to get milk.—J. B. HAYES.



To break a cold harmlessly *and in a hurry* try a Bayer Aspirin tablet. And for headache. The action of Aspirin is very efficient, too, in cases of neuralgia, neuritis, even rheumatism and lumbago! And there's no after effect; doctors give Aspirin to children—often infants. Whenever there's pain, think of Aspirin. The genuine Bayer Aspirin has Bayer on the box and on every tablet. All druggists, with proven directions.

Physicians prescribe Bayer Aspirin; it does NOT affect the heart

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BABY CHICK
Write for BIG NEW CA AND PRICE
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big discount if ordered now for spring shipment 200 to 293 egg males. Egg bred 28 years. Win contests. Shipped c. o. d. Catalog, special pri free. Thousands of pullets, hens, cockerels at low prices.
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HA! HA! LOOK! 9 varieties Record of Performance male matings up to 316 egg record. Also 15 varieties, 10c up, of purebred chicks from selected flocks, including direct Morgan-Tancred 2-1-313 egg record, blood tested, trapnested White Leghorns. FREE catalog gives big discounts on chicks, brooders and hatching eggs.
Beckmann Hatchery, Box 57, Grand Rapids, Michigan.

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Buy your early hatched chicks in Michigan. hatch January 15. Also booking orders now for s delivery at special discount. Send for catalog an
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AVOID SLOUGHING BY CONDITIONING!



Often there's no reason for abortion but weakened condition. And there's no excuse for that. Pratts Cow Tonic acts directly on the vital organs and general health. Keeps them toned up and fit for the strain of modern milk production.

When three cows can have this tonic-laden conditioner every day for *only a cent* small excuse for any herd running down. You can notice the difference in milk flow, too. There's nothing like Cow Tonic to keep digestion, blood and nerves in prime order. See your dealer about our money back trial offer. Don't delay.

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Bag Balm is sanitary, pleasant to use, and cannot taint the milk. Big 10-ounce can of this wonderful penetrating ointment, only 60c at feed dealers, general stores, druggists. Mailed postpaid if hard to obtain locally.

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Heaves



prevent a horse from doing good work

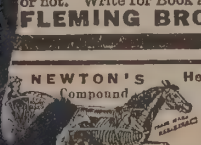
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$1.00 per package, postpaid. Successfully used for over 30 years. Not only are results wonderful treating heaves, but Tonic Heave Powders tone up" a horse and keep him in tip-top condition all the time. **Your money back if it fails.** Book on "Home Treatment Livestock Diseases" free. Our veterinarians prescribe free for ALL cases whether Fleming Remedies are indicated or not. Write for Book and FREE advice.

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Heaves, Coughs, Condition er, Worms. Most for cost. Two cans satisfactory for Heaves or money back. $1.25 per can. Dealers or by mail.

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VETERINARY

Advice is given free in this department. Inquiries must be signed by the writer, and should pertain to veterinary matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Are Soy Beans Ever Poisonous?

Now and then we notice an accusation of poisonousness made against almost every common and uncommon feed of animals, and some of these allegations so scare owners of farm animals that they are afraid to use the feed accused. That is true of sweet clover. The papers have over and over again contained articles relative to the poisonous properties of this leguminous plant and we sometimes wonder if there is not a propaganda against it on the part of some interested parties who have red clover, crimson clover, and alfalfa seed for sale. The statements made against sweet clover, for example, are founded on fact, but the fact is not always explained. It is old, moldy, or otherwise damaged sweet clover *hay* that is dangerous. Prolonged, excessive feeding of such hay may so affect the blood of the animal that it fails to coagulate after an operation such as dehorning or castration; or extensive bleedings may occur, under the skin or internally, without an operation and prove fatal. Green sweet clover, used as pasture, and sound sweet clover hay is not poisonous, although it may be wise not to make the hay the exclusive roughage ration for some time prior to an operation. All damaged or moldy sweet clover hay should be discarded or made but a very small part of the roughage ration.

Now comes an accusation against the soy bean and it, too, requires explanation else a misconception of the facts may occur. A veterinarian was called to treat some cows that were mysteriously sick and found that they had been pasturing in a corn field where soy beans had been grown with the corn and put in the silage along with the corn. Some of the plants, however, ripened and the veterinarian found the woolly pods quite moldy. He wondered whether these pods might not be the cause of the sickness mentioned, for he had seen several cases of mold or cryptogamic poisoning evidenced by sore mouth (stomatitis) and sore feet, and they made him suspicious as regards the mysterious disease of the cattle that had grazed where moldy soy bean pods might be eaten. In the columns of veterinary medicine he was wisely advised by that eminent authority, Professor L. H. Pammel, of Iowa State College, that the fact that soy beans were moldy would make them unfit for feed. That, we think, is true of any feed. Moldiness would be likely to make it dangerous and all such feed should be discarded, especially for pregnant animals. Professor Pammel then added that "soy beans are more or less injurious *under certain conditions.*" He did not refer to sound soy beans, such as are cut and put into the silo along with corn, but to some soy bean meal and soy bean cake which is fed in considerable quantities abroad. He quoted a British journal as stating that Dr. Stockman's research work indicated that the whole soy bean is not poisonous and that only one special form of treatment renders the products dangerous. Professor Pammel adds: "I do not know whether any experimental study has been made of the soy plant itself in the different stages of its growth, but such a study would certainly have much interest."

In our opinion there is no cause to become afraid of soy beans or soy hay that is perfectly sound, for we have never heard of any injury resulting from its use; but there may be reason to fear some imported meal and cake.

SAVE the Teat

Use Moore Bros. PURPUL medicated Wax Dilators to heal the injured teat without closing. After operating, when sore or congested, for reducing spiders or obstructions insert this wonderful healing dilator. Avoid expensive troubles, lost quarters, unproductive cows.

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COW CLEANING PRESCRIPTION

Is Guaranteed to cause the cow to clean within 48 hrs. when used as directed or money refunded. It releaves GARGET and is a preventative of MILK FEVER. It has the effect of restoring the vigor and strength of the cow. Sent post paid, $1 a pkg 6 for $5

Mfg. by Lowell Blaisdell & Co. 5904 N. Harlem Ave. CHICAGO, ILL.

Calf Dysentery

Last year we lost one calf at birth. This year, so far, we have lost two calves at birth. The calves are born in the usual manner and practically on time but after scouring along about three days they die. The calves seem normal but inasmuch as we have lost two out of three this year I am wondering what we had better do in the matter, fearing it might be abortion.

Could cows be tested for abortion? Can abortion be cured?

Wilmette, Ill. E. H. W.

To determine whether the cows are affected with the contagious abortion disease have a sample of each of them tested by the agglutination method at the state experiment station at Urbana. Your veterinarian can have that done. It is more likely, however, that the calves die of infectious calf dysentery, popularly called white scours or "calf cholera." The infection is born in the calf, or contracted after birth by way of the navel or mouth. There is no certain medicinal remedy, but the disease may fairly well be prevented by the following procedure: Provide a new, sanitary calving pen and similar calf pen. At birth saturate the calf's navel with tincture of iodine and then apply powdered starch or finely sifted slaked lime. Repeat the applications daily until the navel is perfectly dry. Cleanse and disinfect the cow's vagina, rear parts, udder and teats before the calf is allowed to suck for the first time. As soon as possible after birth have your veterinarian immunize each calf with anti-calf scour serum and bacterin. When the disease is prevalent we think it best to feed the new born calf the milk of a cow that has been giving milk for some time. Cleanse, disinfect, and whitewash the stable.

Mastitis

I have read the articles in your veterinary department on garget, a disease I never knew anything about. With the big demand for dairy cows in this section that has been created recently some of us have acquired some experience with that and contagious abortion. I have had an autogenous vaccine made and have a veterinarian giving the treatment. He advises me that it would not be safe to bring in any new blood on the farm but that the heifers that are to freshen next spring are not in any danger. I want to know, also, if I should sell these affected cows or will their lost quarters give milk when they freshen again? We are keeping the barn clean and well limed but the cows have access to pond water.

Clinton, Miss. W. E. P.

Chronic mastitis is incurable and the infection may be carried from cow

Calf Scours



Abortion

Retained After Birth

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For removing **Retained Afterbirth** B-K in warm water loosens adhesions, stops inflammation, prevents fever and odors. The afterbirth comes away naturally; the parts are restored to health.

Abortion is caused by germs of several kinds. What they are and what can be done in prevention and control is told in our book.

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Only ½ to 2c a Gallon

The germ destroying power of B-K is 10 times greater than that of undiluted carbolic acid. B-K destroys germs by chemically dissolving them, yet B-K contains no poison, or acid, and leaves no odor.

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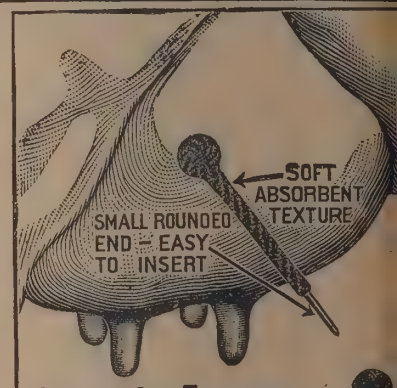
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Extensive experiments the past two years have demonstrated that sterility in cows may be overcome simply by feeding a ration of SPROUTED OATS such as produced in Grain Sprouters for poultry. Sterility often caused by functional disorders and a correct dietary overcomes this barrenness. Vitamin E has been found to have a powerful effect on the reproductive organs of animals and this fifth Vitamin is found in bountiful quantities in properly sprouted oats. For further information on this subject as well as the MAMMOUTH GRAIN SPROUTERS address

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to cow by the milker's hands. Three-teated cows are a menace on account of the possibility of infection. They should be fitted for the butcher on that account and also for the reason that the function of the lost quarter will not be restored at a subsequent calving. The herd autogenous bacterin may protect unaffected heifers and cows from the disease, but it will also be necessary to cleanse, disinfect, and whitewash the stable including floors and gutters. Also cleanse and disinfect the teats of all cows before and after milking and milk with clean hands. If any valuable pedigreed three-teated cow must be retained for breeding keep her isolated and let her nurse her calves. Keep the cows out of ponds.

Abortion Infection

We have bought ten Holstein heifers and understand that out of ten cows in the herd this spring five of them lost their calves from two to seven months. There had been no sign before except two years before two cows lost premature calves. We have good, clean quarters and want to know what precaution we can take to insure good, healthy calves.

Stratford, Tex. C. F. M.

Quarantine the bought heifers and have a sample of blood from each of them tested for abortion disease infection. Your veterinarian probably can have the testing done by the experts of the veterinary department of the state experiment station at College Station. If the heifers react it would be best to maintain them as a separate herd. Although they react they may not abort, but there is nothing certain as to that, nor is there any certain way of preventing abortion from occurring. Study a bulletin on abortion which you can obtain from the U. S. Department of Agriculture, Washington, D. C.

Control of Sex

I would appreciate a little advice. I have a herd of registered and pure-bred Jerseys and I seldom have a heifer calf. I have been advised to buy an old bull so that I would have heifer calves. Do you think there is any way to breed for heifer calves?

Crossville, Ill. E. B.

No certain way has been discovered of controlling sex. Nature balances her books in her own mysterious way. In time your cows will be likely to give birth to heifer calves if they are now delivering males, but there is no certain way of making them do so.

Frosted Forage

Is frosted or frozen sweet clover or alfalfa poisonous when eaten by cows? We have a field of biennial sweet clover which is about 8 inches high and of course it has been frozen and we wish to pasture our cows on it.

Ft. Madison, Ia. A. E. W.

Such frosted feed is at least dangerous for pregnant cows as it possibly may induce abortion, especially when cows are affected with abortion diseases. It may also cause any farm animal to bloat or scour. Moldy sweet clover is most dangerous as it affects the blood so that it does not coagulate normally or may cause extensive bleedings into the tissues. Cattle that have been living on moldy or otherwise damaged sweet clover hay are likely to bleed to death following castration or dehorning. We cannot, therefore, advise you to let your cattle graze frozen sweet clover.

Supernumerary Teat

Would like your opinion in regard to a heifer that has an extra teat between the two teats on the right side. If the teat is removed is it likely that the quarter will develop and secrete milk?

Springfield, Mo. J. T. M.

Have the supernumerary or rudimentary teat amputated by a veterinarian who will, at the same time, obliterate the milk duct by cauterization, so that the small mammary gland at the base of the extra teat will not function when the heifer calves.

BROWN SWISS

Brown Swiss Bulls Mark Imprint on Grade Herds

Extra large production in a herd of grade cows may be gained by breeding with a Brown Swiss bull. They sire strong calves of a uniform type, well adapted for the general dairy farm. Mature bulls weigh between 1,800 and 2,500 lbs.

We will be glad to help you secure a Brown Swiss bull and, if you desire, a heifer or a cow.

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BROWN SWISS
(The Former Kinnelon Herd)

Bull calves for sale from the famous Kinnelon dams, with R. O. P. records, sired by Nellie's Stasis, 6721. A breeding combination of show type and production second to none in this country. Let us know your wants. Herd fully accredited.

When writing an advertiser tell him you saw his ad in Hoard's Dairyman. He will appreciate knowing it.

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FAIRVIEW JERSEY FARM OFFERS
2 SIX MONTH OLD BULLS

One from a gold medal cow, the other from her sister whose 3 year old record is 530 lbs. fat. Both are sired by the son of a silver medal cow.

FAIRVIEW JERSEY FARM, Geo. S. Taylor, Owner
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PRAIRIE VIEW ILLINOIS
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Young bulls and bull calves very reasonably priced Blue Belle, Golden Rosebay, Eminent, Flying Fox, Gamboge and Hood Farm breeding. Herd established 1899. Free circular.

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Dropped March 27, 1927, solid light fawn, well grown, good type. Sired by University Pogis Kenna, whose dam is a gold medal cow. Price $100. Send for pedigree. U. S. accredited herd. No abortion.

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It is a Modified Accredited Area

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Dealers and breeders come here and buy.
Four different car-loads to one County in N. Y.
Four car-loads to one breeder in Canada.
They come again, again and again.
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Bulls, Fresh Cows, Springers and Open Heifers.
An experienced breeder and buyer will drive you.
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We see that you get a squire deal.—Address,

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No. 1—SYBIL'S COMET—A real Star. A Jan., 1927, solid colored bull calf. Sire—Grandson Sybils Gamboge & Oxford You'll Do. Dam—Granddaughter (double)—Sybils Gamboge.
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born October 12, 1926; broken color. Sired by Sophie's St. Mawes Victor, a well bred bull. His dam is by the Silver Medal bull, Sophie's Emblem, and has a R. of M. record of 646 lbs. fat. He is a very typy animal and is well backed by good records. Price $150.00 crated f. o. b. Cleveland.

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The Jersey cow gives the highest yield PER POUND OF FEED CONSUMED. This means greater NET profits which is what you are interested in.

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Christmas Greeting == The Oaklands Jerseys

NO JERSEY HERD IN ALL HISTORY has ever submitted to so extensive and fastidious a show-yard test as that just completed by The Oaklands Jerseys for the 1927 season. The Mississippi Valley and Great Lakes territory practically covered in a four-months' tour of exhibits at fourteen important fairs and exhibitions in ten different States and Canada. Including such classic competitions as the National Dairy Show, the Dairy Cattle Congress, the Canadian Royal, and nine State fairs. Assembling the tops of America's crack show herds. Our Jerseys fared well, with more than three hundred prizes taken, nearly forty per cent. Championships and First Prizes. The primary object, however, was to show to the public the improved type of economic producers maintained in The Oaklands breeding herd of more than Two Hundred Island-Blood Jerseys.

Selections of Jersey seed-stock from this high-producing successful breeding establishment will raise the average quality of most herds and reduce the standard of none in the world.

ARNOLD H. GOSS, Pres.
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THE OAKLANDS
P. O BOX 396
Ann Arbor, Mich.

Jersey Bull Calves

We are offering at reasonable prices a few bull calves sired by Vive La France's Darling Son and out of cows of rich Sophie's Tormentor breeding. Vive La France's Darling Son is out of Vive La France, the first cow to make over 1000 lbs. fat and the cow whose average of 890 lbs. butterfat for first 6 lactation periods exceeds that of any other dairy cow. He is sired by Darling's Gallant Boy, the silver medal sire and full brother to Darling Jolly Lassie, 1141 lbs. fat as Jr. four-year-old. Two of these bull calves are out of granddaughters of Sophie's Agnes, the first Jersey cow to make 1000 lbs. butterfat.

THE GOLDEN GLOW JERSEY FARM KENSINGTON, M



Great Bulls

"Not since the days of Sitting Bull have I seen his equal"

said Chief Little Bear to Manager E. S. Estel as they looked over Cavalier's Ping Pong, champion of the Dairy Cattle Congress.

As a matter of fact, since long before the days of the famous fighting Sioux great Ayrshire bulls have been improving the herds of thousands of farmers by siring deep-bodied, square-uddered cows that fill the pails with 4% milk.

AN AYRSHIRE BULL WILL IMPROVE YOUR HERD

Write for booklets or help in locating a start with Ayrshires

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Exceptional Ayrshire Opportunity

Bull born, June 3, 1927. Color: White with a few small red spots. Sire: Penshurst Rising Star, 20922, A. R. 260, with 38 daughters having 52 records averaging 10,900 lbs. milk, 440 lbs. fat, 4.04%, winners of 3 French Cups, 1 Gold Medal, 1 Association Cup and 6 Silver Medals. Dam Reba Ayr, 54053, a large typy cow with a big udder and long well placed teats. She has a Junior three-year-old record of 9,405 lbs. milk, 381 lbs. fat; Mature, 11,115 lbs. milk, 429 lbs. fat.

Six World's Champions in six years

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Nicely marked, deep bodied, straight bull calves from dams with 10,000 lbs. milk or better. By such sires as Edgerstoune Wide Awake, Imp. Howie's Wait and See, Imp. Howie's Ringmaster and Imp. Favorite Beauty Champion, sires that have over 15,000 lbs. milk back of them for 5 generations. Bulls are priced low because we need the room. $35.00 and up. Herd under State and Federal supervision. Write.

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300 Head in the Herd

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Purebred Ayrshire Cattle For Sale

Herd headed by a full brother to our two-year-old State Champion heifer, 13,280 lbs. milk, 475 lbs. fat in a year. Dam has 8 A. R. daughters.

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is worth money to you. Have the story of your herd with you at sales and meetings. Price $2.00.

HOARD'S DAIRYMAN
Fort Atkinson Wisconsin

How Testing Built a Good Herd

(Continued from page 1186)

cows as their condition and production indicate its need. He has native pastures and he has about come to the conclusion that the use of the tester and scale is going to make it necessary to get better pasture. About the only weak place we can see in his whole management is pasture.

With nearly 10,000 bushels of grain to dispose of each year, Mr. Anderson finds it profitable to use some of it to grow 100 hogs each year, marketing them at 225 to 250 lbs. weight. The hogs get the advantage of alfalfa pasture. They are finished out on corn, oats, and skimmilk. Thus if the value of the skimmilk marketed in this way were credited to the cow, their income above feed cost would look like $175 to $200 per cow, charging each cow from $100 to $125 for feed.

With three men to feed and a house to look after, it seems that Mrs. Anderson would have plenty to keep her busy but besides growing flowers in her garden, she is the boss of the poultry. We asked her if she thought she could persuade some of her chickens to leave their shade a minute or so until we snapped a picture. She thought she could. Armed with an old tin pail containing some scratch grain, she beat a tattoo on the pail with a stick at the same time calling in that well known but variable chicken language easily recognized by a bunch of well trained and hungry chickens. Out they came from everywhere—dozens of them—all sizes and several varieties. They were not disappointed though they may have wondered, "why feed us at this time of day?" When we were there the flock numbered about 600.

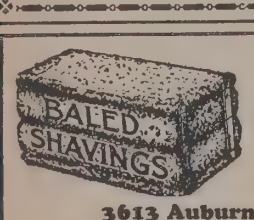
Some farmers spend a part of their earnings to buy more land than they need,—others buy oil stock. The Andersons have bought only one farm. They have spent part of their earnings, of course, for the farm but they have not denied themselves labor saving equipment that makes farm life in many respects on a par with if not superior to city life.

They installed the first electric lighting and power plant that came into their community. They have used a milking machine for fifteen years. With power from this plant they light their home and other buildings, run the milking machine, separator, washing machine, flatiron, fanning mill, and grindstone. They pump water with a windmill. They have a furnace, telephone, automobile, light truck, and tractor with complete field equipment for it.

Some farmers say that the only way to get ahead in dairying is to have a large family and work the children without pay. The Andersons disprove this theory because they have only one boy, Lewis, 18 years old and they are not denying him an education.

Mr. Anderson is a director of the Lily Creamery Company, a co-operative, a member of the Land O' Lakes Creameries Incorporated. He served as its president for two years. At the Lake Crystal Fourth of July celebration in 1925 a float representing this creamery won first place. Mrs. Anderson was one of a committee of six women who decorated the float and took part as a passenger of the float in the parade.

The Andersons could never have accomplished as much as they have if they had not sent boarder cows to the butcher.



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Feb. 16—Holsteins. Dispersion of John Minix & Son's Registered Holstein herd at Barneveld, Wis.
May 17, 1928—National Guernsey Sale, Hinsdale, Ill.
May 18, 1928—Illinois State Guernsey Sale, Hinsdale, Ill.
May 23, 1928—Guernseys. Third Annual Sale of Coventry, Dunwalke, Holliston, Florham Guernseys at Trenton, N. J. Herrick—Merryman Sales Co., Mgrs.
May 24-25, 1928—Guernseys. Louis Merryman's Semi-annual Sale at Timonium, Md. Herrick—Merryman Sales Co., Mgrs.
May 26—Guernseys. Emmadine Farms second Annual Sale of Foremost Guernseys, Hopewell Junction, New York.
...ne 7—National Holstein Sale, Milwaukee, Wis. S. H. Bird, South Byron, Wis., Mgr.

The Place to Buy Breed Improving Guernsey Sires

is where that kind is bred. Visit our herd of Foremost Guernseys, or write for facts which prove we are breeding the kind of bulls that will increase production, improve type, vigor and reproducing ability.

The dams of our six herd bulls average 13,797 lbs. milk, 729 lbs. fat. Twenty-eight calves dropped since August 1st. Twenty-one cows due to calve before December 1st.

We need room. Your opportunity to buy bulls or bull calves below value.

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Hopewell Junction (Dutchess Co.) N. Y.
J. C. PENNEY, Prop. JIMMY DODGE, Mgr.

Merry Christmas

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and his large family of
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The very best breeding. Accredited Herd. Write for information.

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Leading blood lines. Outstanding records. Before you buy your next herd bull write us. Our herd is accredited and blood tested.

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ITCHEN KING 49803 AR is the Sire of King's A... vocator, 126310, 1st prize and Junior Champion B... at the N. Y. State Fair. Itchen King has two ... lb. and one 700 lb. daughters. His Dam made o... 800 lbs. fat and she has one daughter with a rec... of over 900 lbs. fat. We offer for sale Sons of Itch... King out of AR Dams. Priced at $250. and up.

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Lancastrian—A son of Ne Plus Ultra.
Sunnybrook Ultra Noble—A grandson of ... Plus Ultra out of a 920-lb. cow.
Fairmaid's May Royal—A son of Mixter M... Royal out of a 920-lb. daughter of Langw... ter Demonstrator.
Penncrest's Starlight's Royal Master—Gra... son of Langwater Royal Master out of 630... Class G daughter of Langwater Master Fr...
Stock sired by these bulls for sale. Address ... quiries to Media, Pennsylvania.

WM. P. SMEDLEY, Manager

RADISSON FARM GUERNSEYS

We are offering at attractive prices a few young bulls sired by RADISSON'S GOLDEN ROYALIST 91632, whose get was awarded first prize at Dairy Cattle Congress in 1926. He is a son of GOLDEN CORONET OF JEAN DU LUTH 81283, world's champion Guernsey in Class AA, 968.80 lbs. fat.

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Lines—May Rose through King of the M... Golden Secret, Langwater Cavalier; B... founder, France, Glenwoods. Greatest gr... of herd sires in any herd. A. R. records ... to 800 lbs. fat.

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To avoid inbreeding we offer for sale RAINBOW'S FISHERMAN OF WOODEND 81150—Age 5 years. Sire: Langwater Fisherman 21873 A. R. Dam: Yeoman's Mixter Rainbow 73217 A. R. Record 11,352.9 milk—623.58 fat (Class C) and out of a daughter of Langwater Demonstrator. Guaranteed a breeder. For particulars write. Bull calves of this breeding for sale, out of A. R. dams.

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CLASS LEADERS

BROOKMEAD'S WHITE FACE sired
ALICE LEMAN OF THE RANCHO
Milk 13,625.8; Fat 618.7; Farmer's Class AA

White Face was sold sight unseen as a youngster

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LEADER'S First Daughter Finishes With About 812 Lbs. Fat Class F (third place)

Offering one or two sons combining
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Health, vigor, production and reproduction control the profit of the producing dairy herd.

A son of Langwater Ultimas, the proven production sire, sired by a proven production sire, will improve your herd.

Write for price list of our offerings.

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You'll Think We Are Related to Santa Claus

If You Get In On Our Special December Offerings Of Guernsey Bulls. Write For Bull Sales List.

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OFFERS CARLOAD, OR LESS, CHOICE HIGH GRADE GUERNSEY COWS, SPRINGING OR FRESH. Heifers all ages. Registered bulls. Large T. B. tested herd to select from. Also five choice high grade heifer calves express paid to your station for $150.

OAKLAND GUERNSEY FARMS (In Area Tested Waukesha Co. on Highway 14) MUKWONAGO, WIS.

Guernsey Bulls at Farmers' Prices

Serviceable show type, sired by the best son of the Famous World's Record Cow, Lone Pine Mollie Cowan A. R. No. 11278, who sold for $15,100 at Stout Dispersal Auction. Dams have A. R. records.

HAPPY HOLLOW FARM, A. M. Kailing, Prop., THIENSVILLE, WIS.

BOURNEDALE GUERNSEYS

We Offer For Sale

An excellent son of Maxim of Linda Vista, the only Guernsey sire to have 2 class leader daughters. Dam of calf is Foremost Lassie, 506 lbs. fat in F., a daughter of Langwater Foremost. Bull dropped Sept. 1926.

OTHER GOOD BULLS FOR SALE
3 to 12 months old from A. R. dams—$250 to $750
A clean herd under federal supervision. Write for sale list.

BOURNEDALE FARM, H. F. Andrus, Owner, MILLERTON, N. Y.

BUTTERGOLD GUERNSEYS

SERVICEABLE YOUNG SHOW BULLS from tested dams, sired by National Grand Champion whose first four daughters now finishing tests will average over 600 lbs. fat, two with first calves, one with second. Clean stock.

TARR BROS., NEW AUBURN, WISCONSIN

FOR SALE—3 Bulls

ages from eight to eighteen months, two from A. R. cows, fine individuals. Just right for shipment. Write for prices and particulars.

INGERSOLL-TILDEN FARMS, Delavan, Wis.
EDWIN EVANS, Manager

FOUNDATION GUERNSEYS

FROM THE HOME OF
LANGWATER JUVIS
Outstanding son of Langwater Warrior

A NUMBER OF GOOD BULLS
FROM A. R. DAMS TO 719 LBS. FAT. REASONABLE!
MAY ROSE—GLENWOOD BREEDING



LANGWATER JUVIS 100894

ELM FARM Deerfield, Illinois
28 miles north of Chicago, 1 mile east of Everett on 42A

GUERNSEY BULLS

of MAY ROSE GOLDEN SECRET and NE PLUS ULTRA breeding. Write for descriptions and prices. Dams are official tested. Accredited herd.

MAHER & MAHER, Devils Lake, No. Dak.

FOR SALE

Fifteen registered Guernsey heifers seven to twenty months old, a number bred, others open. $1900 for the lot F. O. B. cars, all papers furnished. Several registered bulls, all ages. Above stock is especially well bred, good size, good type, in good condition, well marked, and T. B. tested. Priced for quick sale.

H. R. LOBDELL, Mukwonago, Waukesha Co., Wis.
On State Highway 14

MARSH FARM GUERNSEYS

Founded upon CHERUB blood, combining modern show type with production. At the last 13 National Dairy Expositions 46 out of 78 championships have been awarded to cattle from this herd. There are now in the herd 40 cows with yearly records of 500 pounds of fat in Class G. 900 pounds of fat in Class A. In your efforts to improve the type of your cattle, the show ng records indicate Cherub blood the really sure way. Let us ad- e you about your next sire.

MARSH FARM, WATERLOO, IOWA

FOND DU LAC GUERNSEYS

Get our prices on PUREBRED CALVES suitable for clubs. Also GRADE COWS and HEIFERS at all times. Write to

FOND DU LAC GUERNSEY BREEDERS' ASS'N
Geo. O. Hill, Sec. ROSENDALE, WIS.

GUERNSEYS FOR SALE

High Grade and Pure-bred Springers, both cows and heifers in carload lots. Also a number of yearling females and pure-bred bulls of serviceable age. Inquiries answered promptly. Visitors always welcome.

JEFFERSON CO. GUERNSEY BREEDERS' ASS'N.
J. C. Ralston, Sec'y., Box 266A, Fort Atkinson, Wis.

GUERNSEYS! GUERNSEYS!

Car loads of pure breds or grades. Area tested county. Over 300 herds to select from. Prices are right. Come or write.

LA CROSSE COUNTY ASSOCIATION
Vilas E. Young, Sec. West Salem, Wis.

GORDONDALE FARM

WE OFFER YOUNG BULLS. Two ready for service, from A. R. dams. Good individuals. May Rose and Cherub breeding. Send for sale list.

Federal Accredited Herd 4289
L. E. GORDON. NELSONVILLE, WIS.

Herd Sire Prospects FOR SALE

Write us if you want to buy a bull calf with persistent producers back of him. We have some fine individuals to offer you; some of serviceable age if you want to talk business.

Farmers' Prices!

LOMA FARMS
W. W. BLAKE ARKCOLL, MGR.
MARQUETTE MICHIGAN

LINWOOD FARM GUERNSEY SIRES

COMBINE TYPE and PRODUCTION



Sold for $25,000. One time world's record 804.44 butterfat at 2 years. 1927 Grand Champion National Dairy Show.

HER SON—Prince Charming of Shuttlewick heads the herd and is assisted by Resolute of Mound City 110879 He by Lone Pine Absolute whose three nearest dams average 890 lbs. butter fat.

Our last seven advanced Registry record averaged 681 lbs. fat. Herd Federal Accredited

SEVERAL HIGH CLASS BULLS FOR SALE

LINWOOD GUERNSEY FARM
HOMER RUNDELL, LIVINGSTON, WIS.

BULLS 6 to 10 Mos. Old From A. R. Cows

rices to Suit the Present Times

hey are sons of Anton's King Cecil nd King B. from dams with records p to 600 lbs. Some from good pro- ucing dams not yet tested, at sacri- ce prices. Write me today.

. R. HOARD, Fort Atkinson, Wis.
A Federal Accredited Herd

GUERNSEYS

Registered and High Grades of Any Age For Sale

In Waukesha County you have an opportunity to select what you want from 250 tuberculin tested herds owned by members of the oldest county breeders' association in America. Our cattle, service, and prices will suit you. Write or come.

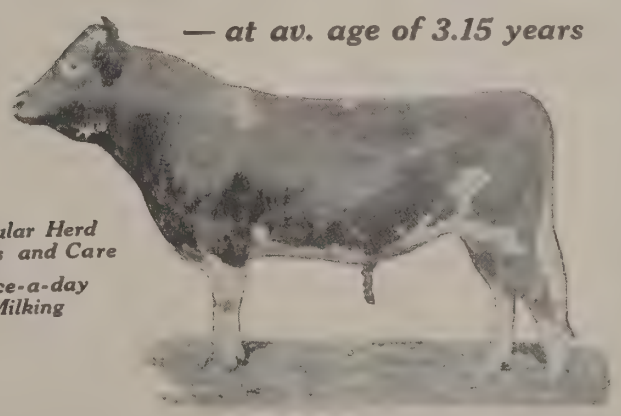
WAUKESHA CO. GUERNSEY BREEDERS' ASS'N
F. E. FOX, Sec'y WAUKESHA, WISCONSIN

His First 20 A. R. Daughters average—434.7 lbs. fat 8989.11 lbs. milk

— at av. age of 3.15 years

— Regular Herd Rations and Care

— Twice-a-day Milking



ANTON'S KING CONFIDENCE—43517 A. R.
Photo taken when two years of age.

SIRE—Anton's May King, sold for $7000.00. DAM—Ma Chere Confidence who has a two year old record of 511.82 lbs. butterfat and a junior four year old record of 764 lbs. butterfat. Ma Chere Confidence is one of the outstanding daughters of the famous Jardinier's Masher. A. K. C. sires excellent udders, long deep bodies, straight top lines, and real production.

You can buy bull calves out of his daughters and sired by outstanding bulls, from us very reasonably. Do not write us if you want a serviceable bull. Our males are always sold before they are old enough for service. Buy a young calf, raise it yourself, and save money. We have several nice ones on hand now — and they are priced to sell.

HERD ACCREDITED

Hoard's Dairyman Farm, Fort Atkinson, Wis.

HIGH QUALITY DAIRY COWS

Springing and Fresh — ALL BREEDS

REID MURRAY, Oshkosh, Wis.

BULLS

A son and grandson of Ivy Queen 41970, her record 16,- 186.70 lbs. milk, 933.80 lbs. butterfat. Also others.

GEO. E. LARSON,
Amherst Jct., Wisconsin.

F. SHERIDAN "Luxerin" Fond du Lac, Wis.

old out on bulls over three months of age. Ve can select some very promising young nes from fifteen. May Rose sires. Glenwood ows with good production records.

. F. SHERIDAN, Fond du Lac, Wis.

Serviceable Show Bull

FROM CLASS LEADER DAM

Am offering DAIRYDETTE'S CHERUB OF CHIPPEWA for sale. Born Feb. 20, 1926. A good show prospect. Dam has 697 lbs. fat in E. E., eighth in her class, first in Wisconsin. Sire, a prize winning son of Cherub's Prince. Write today for detailed information.

L. P. MARTINY, Chippewa Falls, Wis.

HOMESTEAD FARM GUERNSEYS

Vill sell bull calves of various ages. Also eifers and cows with A. R. breeding. Ac- redited herd. Write to

AMISON BROS., APPLETON, WIS.

As the World Shrinks Does Our Vision Widen

(Continued from page 1187)

agree to supply one-half of the total consuming needs of the home population.

Why Sugar is High in Australia

The bonus plan is carried to the limit in the matter of sugar cane culture. In the more tropical sections, as Eastern and Northern Queensland, sugar cane can be readily grown. Originally, this crop was produced mainly by "Kanaka" labor imported from the South Sea Islands, but since the federation of the Commonwealth, colored labor of any type has been rigidly excluded. At the present time Australia is the only country in the world that is trying to grow sugar from cane exclusively by white labor. Cane field labor gets from $2.70 to $3.10 a day for eight hours' work and extra pay for overtime. Cane cutters in the more northerly hot sections are awarded a government wage scale that amounts to $3.70 to $4.00 a day. Under these conditions it is not at all surprising that the labor costs alone represent 70% of the entire cost of sugar production.

For the last three years there has been an embargo against the importation of any foreign sugar, so that domestic consumption would first utilize the home grown product, but in spite of this restriction, under the stimulus of an export bounty of $30 a long ton (1.4 cents per pound), exports have now risen to 40% of the entire crop. Great Caesar grows by that on which he feeds.

Last year the entire Australian population had to bear a tax of nearly $3,000,000 in subsidies and bounties for export of products, an increase of threefold over the previous year to pay for the privilege of shipping its surplus products into the world's markets.

Java Utilizes Science to Lower Its Costs

Compare this artificially stimulated economic situation with what is found in Java, the neighboring island of the Dutch East Indian empire on the North and West. In that tropical isle the white man supervises but the brown native does the work. But in no country in the world is there a closer application of science. With favorable soil and climatic conditions, a teeming population on an exceedingly low wage scale of 15 to 25 cents a day, and the widest possible application of modern science, the Dutch have been able to lead the world in the average yield of sugar grown per acre. Compare the average of Java sugar yields for 1924 at 10,360 pounds per acre with 4,550 pounds which is Australia's average yield, and it is obvious why it is necessary for Australia to grant an export bounty that is nearly three-fourths of the cost of growing sugar in the Indian Isle.

Without such artificial aid her growers would be hopelessly outclassed in the open markets of the world. But who pays for all this? What doth it advantage a nation to produce a product in excess of its own needs when every pound is made at such a tremendous cost? Simply because this burden is spread over the entire population in the form of taxes its weight is no less.

In these days no man (or country) can live wholly unto himself alone. The world has grown too small. But as the world shrinks, does our vision widen?

No man's a model husband when hungry.

Car-lots Only



Order Now

For bedding, most convenient, serviceable and sanitary. Write for special, delivered prices.
Jagerson Fuel Company, Neenah, Wis.

20 years may be a long time, but—

74.4% of Hoard's Dairyman's live stock advertisers have been advertising regularly for from 2 to 20 years

HOLSTEINS

Holstein Milk



Vitality!

The Production of Holsteins

The average butterfat production of the 27,798 Holsteins which have been credited with long-time tests is 533.72 lbs. for the average 331 producing days. For the 9,774 aged cows — average producing days 332 — the average butterfat production is 600.60.

Write for Holstein Literature

The Extension Service
HOLSTEIN-FRIESIAN ASSOCIATION of AMERICA
230 E. Ohio St. CHICAGO

HOLSTEIN BULLS FOR SALE

SPRING BROOK BESS BURKE 2ND—ORMSBY breeding. All sold out of bulls over six months of age. Herd under Federal Supervision for tuberculosis, also blood tested for abortion.
WINTERTHUR FARMS, Winterthur, Del.

75 to 150 High Grade Holsteins and Guernseys

We have for sale at all times from 75 to 150 high grade Guernseys and Holstein springers of all ages. T. B. tested. Sound and heavy producers. We buy and ship on order. Visit us or write. Prices reasonable. Satisfaction guaranteed.
LA CROSSE COUNTY DAIRY CATTLE CO.,
Raymond Knutson, Mgr., West Salem, Wis.

We could never understand—

why dairymen want to raise grade calves when purebreds can be had so reasonably. We are offering some of the finest we have ever had the pleasure of breeding because we have had more than we can take care of. Let us tell you about them. The home of Matador Pietertje Prospect and Sir Segis Letta who is by Matador Segis Ormsby out of a thousand pound two year old.
BRACH HOLSTEIN FARM,
R. F. D. No. 2, Franksville, Wis.

Jefferson County Holsteins

Grade and Pure-bred Springers. Cows and heifers in car-load lots. One small pure-bred herd priced to sell. Full time field man at your service.
JEFFERSON CO. HOLSTEIN BREEDERS' ASS'N.
C. W. Clingan, Field Sec., Box 225H, Ft. Atkinson, Wis.

Could You Use A Mature Bull That We Guarantee?

A bull that would have cost you from $750 to $1500 as a calf can be purchased today for $250 to $350.

Furthermore, we can tell you that this bull has had nice calves, the sort that are desirable.

As a matter of fact we have two such bulls. These bulls are of the very best of breeding and

WE GUARANTEE THEY ARE BREEDERS AND FREE FROM DISEASE.

One is sired by Matador Segis Walker.

One is sired by Burton Hartog De Kol Ormsby.

One is from a 30 pound daughter of a 1000 pound cow, and the dam's sire is from a 1400 pound butter producer.

The other is from a 1000 pound daughter of Avon Pontiac Echo, who in turn is from a 1000 pound daughter of King Segis 10th.

The Burton bull is 4 years old. The Matador bull is 6 years old. We've bought them back from the small herds in which they were used. Both are in rough condition and we will sell them for just what we paid for them, namely $250 and $350, so someone can get the use of them.

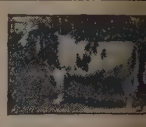
You can't lose for we guarantee them breeders, and if they prove otherwise we will replace them immediately with bulls of equal value without expense to the buyer. They are easy to handle and really worth much more than the price we are asking for them. You'd be safe to order by telephone.

CARNATION MILK FARMS
1211-B Carnation Bldg., OCONOMOWOC, WIS.

HOME OF SIR INKA MAY, NORTH STAR JOE HOMESTEAD, SIR ROMEO MILDRED COLANTHA, MATADOR 6TH and PROSPECTOR



Clover Lawn Ormsby Fobes



Eight dams back of him average 1120 lbs. of butter a year. Average test for his six nearest yearly record dams 3.92% fat. Young bulls sired by him and cows bred to him for sale. 150 head in herd. Forty cows with yearly records. Federally Accredited.
CLOVER LAWN FARM, Arthur Puls, ALLENTON, WISCONSIN

NORRIS FARM

Is Offering SEVERAL DESIRABLE BULLS, ready for service this fall. Also YOUNGER CALVES. Write for particulars.
MUKWONAGO (Fully Accredited) WISCONSIN

AN AREA TESTED COUNTY

WAUKESHA COUNTY HOLSTEINS

The breeding of pure-bred Holsteins has been in progress for over fifty years. The breeders are now in a position to sell some of their best animals at reasonable prices. Waukesha County has more Dollars invested in better bred cattle than any other county in the world. Buyers are given every consideration in helping to locate and assemble their purchases, whether it be one or a carload. Can furnish you with 40 pure-bred cows and heifers bred to freshen this fall and early winter. A carload of bred, richly bred, grade heifers. 4 carload of springing and fresh highly bred grade cows. October and November freshening. Also a number of good pure-bred bulls 3 months to 1½ years old.

Send for bull list or write your wants for serviceable bulls. Sample—Bonair King Pontiac, born October 1, 1926, well marked, a good individual; Sire—Pabst Woodrest Pontiac 288286. Dam has 1178 lbs. butter in a year. Dam—Bonair Beauty Ormsby 4th 454150. Butter 7 days @ 3 years 20.50 lbs. Price $175.
W. L. Baird, Art Bennett at your service. Write or wire.
WAUKESHA HOLSTEIN ASS'N, Box 177, Waukesha, Wis.

1927 WISCONSIN STATE FAIR
WINNING HOLSTEIN BULLS
1st, 2nd and 7th Yearlings
NOW READY FOR SERVICE AND FOR SALE

3 Nearest dams of one average 1000 lbs. butter. These animals are out of real producers and will sire what you are looking for. A fair price asked, quality considered.
WARNER HEITZ, Fort Atkinson, Wisconsin

Come to St. Croix County and Buy Your Dairy Cattle

DIRECT FROM THE FARMER. Pure-breds and grades of all breeds. One or a carload. Area tested.
ST. CROIX INTERCOUNTY DAIRY EXCHANGE,
F. T. WILFORD, MGR., Hammond, Wis.

Purebred and Grade Holsteins

The best place to get them is at Randolph, Wis. Pure-breds a specialty. Get in touch with
RANDOLPH HOLSTEIN ASSOCIATION,
S. W. Pierce, Sec'y., Randolph, Wisconsin.

Jefferson County Holstein Sales Association

can assist you in purchasing good, clean dairy cattle. Grade or pure-bred in any number you wish. Direct all correspondence to A. F. GAFKE, secretary, JEFFERSON, WIS.

ABORTION FREE HOMESTEADS

We usually have some well bred bull calves from fine blood lines for sale. Place your orders early.
T. B. under Federal Supervision.
MILWAUKEE COUNTY INSTITUTIONS FARM
WAUWATOSA - WISCONSIN
E. C. Thompson, Farm Manager.

TWO GOOD BULLS FOR SALE
Ollie-S, P. O. M, 37th Breeding

We have two typy young bulls for sale now. One is from a 26-lb. granddaughter of 37th and by a 968-lb. son of Iowana Sir Ollie. The other is from a 28-lb. granddaughter of 37th and by Sir Ollie Mooie Watson 7th. Shown calves priced right. Write today or come to the farm.
DICMERE FARM
H. E. DICKINSON, Oconomowoc, Wis.

MILFORD MEADOWS

KING BESS BURKE ORMSBY—MARATHON AAGGIE—SIR TRIUNE PANSY

A combination of bulls whose individuality and production will improve your herd. Bull calves carrying the blood of all of these for sale.
"A Record on Every Dam."
W. W. KINYON, MGR., Lake Mills, Wis.

ORMSBYS and OLLIES

One of the greatest herds in Wisconsin—two of the best herd sires in the Middle West. Just drop us a line and your bull troubles will look easy; we have a surprise for you. Holstein bulls of type and production at prices that will please.
F. H. BOYLE, OWNER, PEEBLES, WIS
L. F. Murphy, Manager.

YOUNG BULLS

sired by Governor Fobes and from good 7 day and year record dams for sale. Breeding, production type. The herd is accredited. Write
SUMMIT FARM, John Zoberlin, PLYMOUTH, WIS

Come to Sheboygan County for Holstein

We have choice grades and purebreds to select from. Write your wants to:
SHEBOYGAN COUNTY HOLSTEIN ASS'N
Frank Ubbelohde, Secy., Plymouth, Wis.

lealthy Holsteins

are in the market for grade or registered Hol- from tested herds write us today.

ILLINOIS HOLSTEIN-FRIESIAN ASSN.
Dearborn, St., CHICAGO, ILL.

rmsby Bull For Sale

EIGH ORMSBY CORNUCOPIA POSCH is onths' old calf with good type and the right ig. His dam is a 25-lb., 3-year-old daughter P. O. M. 41st, 638 lbs. butter in 305 days. His by Colony Posch Newman, 1123-lb. bull, and of the 41-lb. 4-year-old granddaughter of 37th. rd is clean. Write today.

THE W. T. RAWLEIGH CO.
, Rawleigh's Ideal Farm, Freeport, Ill.

om An Iowana Sir Ollie

ter with 760 lbs. in 305 days—Class B. by our proven son of Johanna Bonheur pion. This calf, B 343, born April 19th, is five-sixths white, and typy. Price A real bargain.

ock River Farms, Byron, Ill.

falo Creek Farm Holsteins

are offering BULL CALVES rich in by breeding from tested dams. These from six to eleven months old. Some d as low as $100.00. Write for pedigrees further information. Herd under federal vision.

GHAM BROS., Arlington Heights, Ill.

— We Can Offer —

Few Choice Bulls of Ormsby Breeding

will be ready for fall service. They are individuals from good record dams. Also younger calves at bargain prices.

ELLWOOD & NELSON
ALB, ILLINOIS

MATADOR BULL

t ready for service from an outstanding son of

MATADOR SEGIS WALKER

our great cow Duchess, leader in both r and fat. Send for photos and pedigrees.

Price $500. T. B. tested

E PARK FARM, Palos Park, Ill.
A. Carroll, Owner William Edgar, Herdsman

ORMSBY BULLS BY

ean of the Ormsbys 2d

sire is a son of 37th and Colantha Pieter- Lass, a 1265-lb. daughter of Old Sir Piet. dam is a 1017-lb. daughter of Ormsby nna Hengerveld De Kol. We have a few ready for service from cows on S. O. Also a few young bulls from daughters of 00-lb. son of Sir Walker Segis Homestead.

LAKE PARK ORPHANS HOME
edited Herd) Lake Park, Minnesota

K. P. O. P. Bulls

you will need a new sire dur- g the next year get in touch th us. We can offer you just hat you want.

ARGROVE & ARNOLD, Norwalk, Iowa

VICEABLE 30-LB. BULL and BULL CALVES

. O. P. breeding. Sons of Rival King Ormsby edes, his dam world's champion in Class C. r Federal Supervision. If you want show type, and production write

E. FERGUSON, LAURENS, IOWA.

High Grade Holstein Springers

If in the market for big production these cows will please you. Tuberculin tested. Address

RIVER MEADOW FARMS, Portlandville, N. Y.
P. S. Come and make selections.

OHIO HOLSTEINS

egistered COWS, HEIFERS and BULLS. ry choice Calf Club CALVES. We have two les agents in the field all the time who can e care of all orders in fine shape. All in- iries are referred to our entire membership.

OHIO HOLSTEIN-FRIESIAN ASS'N
29 E. 102nd St. Cleveland, Ohio.

GH CLASS YOUNG BULLS

A. R. O. Dams — Accredited Herd

ave some very good young bulls up to 10 months or sale. They are from good record dams of Co- a breeding. Most of them are by Lauderdale n Star Champion, a 1033 lb. grandson of Johan- Sonheur Champion. A few are by K. P. O. P. 54. d to sell. Accredited herd.

BORNDALE FARM, DERBY, CONN.
WALDO S. KELLOGG, Owner

IN NO OTHER HERD

Can There Be Found Five Cows With Records Equal to These Five Femco Cows

May Walker Ollie Homestead	1,523.24	
Milk		31,610.60
Grahamholm Co. Paul. Segis	1,426.75	
Milk		34,291.80
Grahamholm Col. Segis Maid	1,316.60	
Milk		33,545.60
Miss Mutual Rose De Kol	1,260.50	
Milk		26,551.80
Aurora Homestead Badger	1,208.76	
Milk		32,321.20

Eight other cows in the herd have records from 1,000 to 1,194 lbs. Femco Holsteins are producers.

A Few Choice Bulls For Sale

FEMCO FARMS
BOX 336-B
BRECKENRIDGE, - MINN.

BULLS For Sale

We have young bulls of serviceable age and some yearling heifers of the famous

COUNT-PIEBE breeding

Some outstanding individuals from

High Record Cows

These animals are priced to sell quickly. Write us for pedigrees. You cannot beat our price or quality.

ARDEN DAIRIES, Inc.
ST. PAUL MINNESOTA

Last Calf Advertised Was Sold to Nevada, But We Have Another Good One

by St. Olaf Ormsby Sensation and from a 2-year-old that has 12,560 lbs. milk, 551.5 lbs. butter in 305 days. Write for pedigree and price.

ST. OLAF COLLEGE FARMS, Northfield, Minn.

2 Bull Calves

WE HAVE FOR SALE 2 GOOD ONES BORN JAN. 18. NICELY MARKED, TYPY.

One by a grandson of S. P. O. M. His dam made 19 lbs. in 7 days, 550 lbs. in 305 days at 25 months. The other is by our proven son of "Piebe." His dam made 20 lbs. in 7 days, 764 lbs. in a year with first calf. These are good herd sire prospects. Your choice at $150.

CARLETON COLLEGE FARM, Northfield, Minn.

P. Frost Spaulding Farm Co.

offers choice Bred Bulls from good record dams and sired by KING PEITERTJE MERCEDES ORMSBY, one of whose daughters has just broken the World's Record in the senior two-year-old class with 1,119 lbs. butter in a year. This sire is a son of Sir Pietertje Ormsby Mercedes from an 1,100 lb. daughter of a 1,000 lb. cow and is one of the few sons of Sir P. O. M. backed by two generations of 1,000 lb. dams. Get our prices.

C. L. SPAULDING, MGR., Warren, Minn.

Northfield Holsteins

Production and type—Prices right. Registered cows, heifers and bulls, calf club calves, best of breeding, choice grade cows and heifers.

NORTHFIELD HOLSTEIN CLUB
NELS PARSON, SALES SEC.,
NORTHFIELD, MINNESOTA

FOR QUICK SALE

SERVICEABLE SON OF MAN O' WAR "That Son of 37th"

Dam—Royally bred—753 lbs. 305 days at 4½ yrs. Calf, well grow and marked about half white. Send for pictures and pedigree. Price $150.

EMPIRE STOCK FARMS
Wm. Schmidt's Sons, St. Peter, Minnesota

16 Ormsby Heifers — 3 Serviceable Bulls

We have for sale 16 good registered heifers 1 to 4 years old sired by a son of Duke Pietertje Korndyke Ormsby. 6 are fresh, 3 are due in the spring and 4 now milking are rebred to freshen early next summer. The 3 bulls, ready for light service are by the same sire and one is from a daughter of "38th." They are offered at $75 each. Write

E. C. BURGESS CEDAR, MINNESOTA

ALL SET!

MICHIGAN PUREBRED HOLSTEINS are now "barned" You don't have to chase all over the back forty to see 'em. Our County Sales Managers will take you around, Free.

WRITE ME WHAT YOU WANT!

J. G. HAYS, Sec., MICHIGAN HOLSTEIN-FRIESIAN ASS'N, EAST LANSING, MICH.



SONS OF PABST PERSISTENCY

FROM PROFIT MAKING DAMS — FARMERS' PRICES

PABST PERSISTENCY is a son of King Segis Alcartra Prilly from a 30-lb. 2-year-old daughter of Creator. He is an excellent individual and every one of his 20 sons and daughters born to date are good ones. We offer bull calves 6 weeks to 6 months old by him, from good producing dams at prices which make them real bargains. Write us today.

RED ROSE FARMS DAIRY, F. B. Ainger, Jr., NORTHVILLE, MICHIGAN

A Ten-Months-Old Bull For Sale

Good Type — 7-day and year records

We are offering for sale an unusually good 10 months' old son of Sir Dutchland Colantha Denver, 36-lb., 1300-lb. grandson of Colantha Johanna Lad. His dam made 26.61 lbs. butter in 7 days as a 3-year-old and 700 lbs. in a year as a jr. 2-year-old. The calf is straight topped and a bargain at $225. Write today for pedigree of bull calf ear tag No. 306.

SERRADELLA FARM, (Federal Accredited Herd) Oscoda, Mich.

HOLSTEINS FOR PROFIT

HEAVY PRODUCTION IS PROFITABLE PRODUCTION

The U. S. Department of Agriculture found from the study of 100,000 individual cow records, that the cost of feed for cows producing 9,000 lbs. of milk in a year was only 40% more than for cows producing but 4,500 lbs. of milk in a year.

During the past year 897 cows and heifers in Michigan State Herds averaged 10,906 lbs. each. They are bred for heavy production.

Increase the production of your herd by using a sire bred by Michigan State Herds. Bull calves and service bulls at reasonable prices.

SEND FOR OUR NEW PRICE LIST

MICHIGAN STATE HERDS — BRED FOR PRODUCTION

BUREAU OF ANIMAL INDUSTRY, Dept. B, LANSING, MICHIGAN

Use a Bull Sired by Ambassador Fobes



"Ambassador" is by S. P. O. M. 37th and out of that great foundation cow, Wisconsin Fobes. His sons and daughters have good type. His daughters' records prove him a sire of production.

We have for sale a few young sons of Ambassador Fobes. They are from good record dams that have both individuality and breeding.

Write or, better still, come to the farm

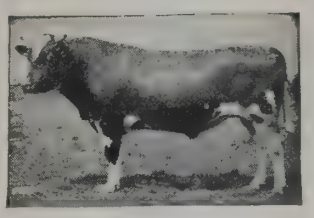
THE DETROIT CREAMERY CO. FARMS, MT. CLEMENS, MICH.

Bulls of World's Champion Breeding

Sired by May Echo Plus Dixie, a son of Avon Pontiac Echo and De Kol Plus Segis Dixie, the Dairy Queen of the World.

Butter, 365 days, 1,686.68 lbs.
Milk, 33,464.70 lbs.

From Granddaughters of Colantha Johanna Lad



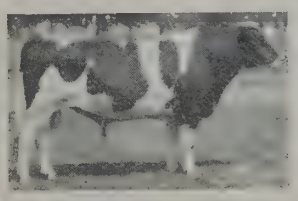
SEND FOR LIST

MARYLAND FARMS, Dudley E. Waters, Owner, GRAND RAPIDS, MICH.

"The Herd With Straight Top Lines and Perfect Udders"

FLINT ONA HENGERVELD SEGIS

TYPE — PRODUCTION — BREEDING



Our Junior herd sire is by King Ona and from Clover Farm Mercena Segis, a granddaughter of King Segis, with 4 records over 30 lbs. and with 950 lbs. butter in a year.

We have young sons of this sire from daughters of Maplecrest Korndyke Hengerveld for sale.

LAKEWOOD DAIRY FARM - BATTLE CREEK, MICHIGAN

Eleven Nearest Dams Will Average Over 1000 Lbs. Butter in 365 Days

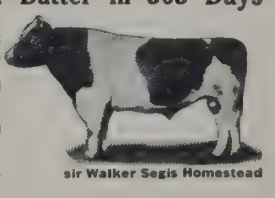
WE OFFER A ROYALLY BRED BULL CALF BORN SEPT. 23, 1926

Sire, SIR WALKER SEGIS HOMESTEAD, a proven show bull, sire of 45 A. R. O. daughters. He is a "PIEBE" son from a 1230-lb. former world's record "COUNT" daughter.

Dam, LASHBROOK JUNE WALKER ORMSBY, an extra good two-year-old heifer now on yearly test and producing from 750 to 800 lbs. butter this year. Her dam a 1040-lb. cow and sire's dam a 1265-lb. daughter of Sir P. O. M. This bull will put type and production in your herd and is high class in every respect.

Send for Pedigree and Photo

A. J. LASHBROOK, NORTHFIELD, MINN.



sir Walker Segis Homestead

STEELE COUNTY HOLSTEINS

are noted for their size, type and production. Pure-breds or grades. One or a carload.

GEO. S. KAUFMAN, Sec. NELS P. GRASS, Pres.
OWATONNA, MINNESOTA

AKONA HOLSTEIN FARM

BULL CALF born Aug. 20, 1927, sire from a high record daughter of "37th" and a 1100 lb. son of Sir P. O. M. Dam on test this year, a granddaughter of "37". Satisfaction or money back. Price $125.

B. A. NORRIS, Anoka, Minn.

Make this Christmas last for thousands of miles



Body by Fisher

A BUICK *for* Christmas

VALVE-IN-HEAD Buick MOTOR CARS

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